UBC Social Ecological Economic Development Studies (SEEDS) Student Report

AMS Lighter Footprint Strategy at 'The Perch'

Kevin Kubeck, Dara Peat, Lisa Warner, Maggie Yang, Rossini Yeung

University of British Columbia

LFS 450

April 4, 2013

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Scenario & Group 8

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Abstract

The focus of our group's project was to create a resource tool for those involved with the planning and coordinating of the upcoming fine dining restaurant 'The Perch', to be located in the new SUB at UBC. Building on the AMS Lighter Footprint Strategy, our methods for compiling resources and developing a handbook consisted of many steps, all which tied back to the vision of sustainability. These included the initial phases of reviewing literature and past AMS projects as well as conducting interviews with local restaurants holding a similar sustainable-fine-dining vision to gain insight on their motives and success factors. From this information our group compiled a list of criteria important for sustainable menu success, which included nutritional, organic, local/seasonal, fair trade, animal welfare, vegetarian, and vegan elements. We then conducted a simple survey to determine the importance of each criterion to a convenience sample, enabling us to gain insight as to how the categories ranked among the public and proceed to make recommendations that best matched the criteria demand. Upon analyzing the gathered data, we found a common theme of using and promoting local/seasonal foods from the restaurant interviews, and through the survey established a list of sustainable criteria ranked from most important to least important being; nutrition, local/seasonal, animal welfare, fair trade, organic, vegetarian, vegan. Further, our group was able to provide recommendations on narrowing 'The Perch's menu theme to ingredients that incorporate the popular criteria as indicated by restaurant interviewees and survey participants.

Through developing this handbook, we hope to have addressed the needs of the project by targeting the vision of 'The Perch" restaurant and compiling a list of resources

that are easily accessible and useful.

1. Introduction

In preparation for the opening of UBC's fine-dining restaurant 'The Perch' in the fall of 2014, the Alma Mater Society (AMS) aims to create a menu and environment that supports the 'AMS Lighter Footprint Strategy'. To reflect and promote the AMS values of sustainable food systems and goals of developing a self-sustaining, high end restaurant to the UBC community, our group has developed a guidebook to be used as a resource for those involved with 'The Perch' planning. Through this guidebook, problems relevant to the Vancouver food system such as availability, affordability, popularity among public, as well as the attitudes of those responsible for the preparation and ordering of menu items are addressed. Together with community partners, local restaurants, and past projects, we hope to present insight to those developing 'The Perch' and contribute to further community building through the common goal of strengthening sustainable food systems in Vancouver.

Approach to Project

Multiple values have acted as a foundation for the views and decisions our group makes in contributing to the development of a sustainable food system. First a definition of sustainability—we believe that this term encompasses a balance of economic development, social development, and environmental protection (UN, 2013). The following food item criteria have been highlighted as important for our group members as well as the AMS community partners in building a sustainable menu: supporting local farmers, promoting seasonal produce, increasing animal welfare, focusing on fair trade, encouraging the use of organic produce and low impact foods.

Supporting Local Farmers

Local economic and social conditions often determine the extent to which a population will exploit their local agricultural environment. Therefore, ensuring that local farmers have adequate incomes aids in local sustainability issues (Trobe, 2001, Hunt, 2007, Martinez et al., 2010). The farmers do not have to make large quantities of product to compete in international markets, keeping their price low, but can be supported adequately through local economies (Martinez et al., 2010). In addition, the use of local produce reduces the distance a particular food item has to travel, thus reducing pollution, green house gas emissions, and fossil fuel energy use (Martinez et al., 2010). Finally, the production and distribution of local foods can increase the food security of an area (Martinez et al., 2010).

Seasonality

Animal Welfare

By promoting a respect for the local environment, the land is not being forced to produce something that is not in season, which is considered more eco-friendly. This also reduces the use of technology use in food production, keeping it as natural as possible (Brooks, 2011). Some consumers define seasonal products as foods that are produced naturally and within season in a specific part of the world, then transported to them (Wilkins et al., 2000; Wilkins, 2010; Brooks, 2011). Other consumers define seasonal foods as foods that are produced within their season and locality, and are thus simultaneously local and seasonal (Wilkins et al., 2000; Wilkins, 2010; Brooks, 2011).

Consumers have expressed concern for the welfare of animals in the food system since World War Two; however, it is only recently that the animal welfare movement has

gained worldwide support in the food system (Agri-food Canada, 2011). The animal welfare movement focuses on the achievement of an acceptable quality of life for the animals in the food system (Jacob, 2011). Recent reports suggest that Canadians are quite concerned with animal welfare in terms of their food choices (Agri-food Canada, 2011). *Fairness of trade*

Ensuring that food production provides an adequate source of income for producers is an importance of both in the local environments and on the global scale. The focus of Fair Trade is to develop opportunities for marginalized peoples, combating systemic poverty and allowing for sustainable livelihoods in the poorest countries of the world, where conventional trade fails to do so (WFO, 2013). A meta-analysis of Fair Trade literature concluded that Fair Trade positively affects producers' lifestyles, especially in developing nations, by improving their material conditions, thus allowing them to achieve higher levels of education and create more extended and robust social networks (Elder, 2010).

Organic

Organic crops are grown without synthetic fertilizers or pesticides, and encourage natural soil amendments (Smith-Spangler, 2012). Decreasing the use of chemical fertilization and pesticides in our food results in more eco-friendly and healthier food. Genetically modified organisms and organisms that have undergone irradiation are not organic (Smith-Spangler, 2012). Animals that obtain organic certification receive no chemicals, growth hormones, antibiotic feeds or injections (Smith-Spangler et al.,, 2012). In addition, these animals are provided access to the outdoors, direct sunlight, fresh air, and freedom of movement (Smith-Spangler et al. 2012). Because this outdoor access does

not necessarily take environmental conditions into account, animal welfare activists contest the benefits of this system.

Low Impact Food Choices

At the base of consumers' demand for local/seasonal, animal welfare friendly, Fair Trade and organic products is the demand for food items that have a lower environmental impact. The 'AMS Lighter Footprint Strategy' uses an Ecological Footprint analysis to measure their environmental impact (AMS, 2008). Using this type of analysis in sustainable food systems, practices that are considered high impact (air freight transportation, excessive chemical fertilization, etc.) and high impact food products (meat products, processed foods, etc.) should be avoided (Foster et al., 2006; ESTO, 2006). Therefore, one of 'The Perch's goals is to lessen the use of such items.

UBCFSP "Visions for a Utopian Food System"

Our group's vision for a utopian food system includes accessibility to healthy and ethical foods anywhere we go. We also believe in a sustainable food system that has a goal of meeting the needs of the present generation without compromising the abilities of future generations to meet their needs (UN, 2013; UBCFSP, 2011). In a group of socially conscious consumers, we believe in utilizing the above criteria for evaluating our food choices. However, in our project is based at UBC, we believe that our project can have a widespread impact in our food system, especially if we are able to successfully integrate the above criteria. As our group is composed of two fourth year Food, Nutrition and Health majors, one Dietetics major, one forth-year applied animal biology major and one full-time plant propagator for the UBC Botanical Garden, we have considerable interests in the creation of sustainable food systems, particularly in our place of study and

employment. Our group believes that UBC's sustainable food system should be shared with people, thus making the world a better place. We believe in valuing the environment, social, and economic aspects of the food system equally (UN, 2013), and ensuring that the economic aspects of this system do not outweigh the other aspects, as they can tend to do in our market-driven society.

2. Methodology:

Step 1: Literature Review

The literature pieces reviewed by our group investigated sustainability as well as restaurant food items based on AMS priorities. Utilization of prior knowledge would then allow us to achieve our project goals most efficiently. The resources we used were:

- UBC Food System Project Vision Statement for a Sustainable UBC Food System (2011) (UBCFSP, 2011)
- UBC Sustainable Campus Food Guide (2013) (Baker-French, 2013)
- AMS Lighter Footprint Strategy (2008) (AMS, 2008)
- AMS Lighter Footprint Strategy Action Plans & Indicator (2008) (AMS, 2008b)
- UBC Sustainability Report Vancouver Campus (Fiscal Year 2011-1012) (Baker-French, 2012)
- Previous papers relating to sustainable food items published in SEEDS (Chu et al., 2008; Hatud et al., 2012)
- Sustainable Restaurant Association website (UK based) (SRA, 2013)

Step 2: Compile a List of Restaurants and Conduct Interviews

Names and menus of restaurants with a focus on sustainability (including vegetarian, organic, local, etc.) in neighborhoods relatively close to UBC were tracked

After narrowing our search, requests for interviews with these restaurants were sent out via the email contact information listed online. The restaurant contacts were given the choice between email, phone, or face-to-face interview to best suit their convenience, and therefore increase the probability of receiving responses. These interviews aimed to gain insight to various aspects of sustainability being practiced in fine-dining restaurants. The questions also addressed each restaurant's understanding of sustainability, motives behind any initiatives in place, and overall popularity of menu items among customers.

down using the Google Internet search terms "restaurant + sustainable + Vancouver".

The information gathered from these interviews were used to better identify criteria for

sustainability among menu themes, which further contributed to the development of a

survey the UBC campus for public opinion in prioritizing these criteria.

of restaurant contacted: 17

of restaurant interviewed: 3

Response rate: 3/17 = 17.6%

***See *Appendix A* for restaurant list and interview questions.

Appendix A Table.1: Restaurant List Compiled

Appendix A Table 2: Restaurant Interview Questions

Step 3: Apply Information gathered from interviews- Menu analysis

All of the chefs prioritized what we would define as seasonal/local produce. For this reason we analysed the menus at a sampling of Vancouver restaurants to determine the extent to which restaurants were able to meet their seasonal and local criteria. A menu 'deconstruction' was produced to attempt to capture a "snap-shot" of local and seasonal produce being used in local Vancouver establishments (February/March 2013). Dinner menus from five different restaurants were downloaded at the beginning of March. Menu items mentioned in a food items description were categorized and a list of ingredients was compiled. These ingredients were categorised by ascribing a yes or no answer to the following questions:

- 1. Can it be produced locally (local)? An item was considered local if it appeared in the BC Ministry of Agriculture's 2011 Agriculture, Seafood and Agrifood Faststats (Faststats, 2012). The exception to this rule was the Grain, Seeds and Pulses category, which was considered local if it was 'able to be produced in Canada.' We used stats Canada for this category (StatsCan, 2012).
- Is it in season locally (seasonal)? The item was considered to be in-season if it was indicated as such on the FarmFolk Cityfolk's seasonal food chart (Baker-French, 2013).
- 3. Can the item be kept in storage/refrigeration (storage)? The ability of the local item to be stored for 'off-season' periods was also noted using the seasonal chart (Baker-French, 2013).

A list of food items was then compiled and the data was graphed (*Appendix D*).

Step 4: Update Stakeholders

Providing an update on the project's progress gave us the opportunity to acquire further approval and advice from the stakeholders for continuation of the resource tool. A face-to-face meeting with our community partners and stakeholders, Nancy Toogood and Collyn Chan, of AMS was the main point of communication between the group and stakeholders. Our stakeholders' main question revolved around the philosophical idea of a "Lighter Footprint Menu" and evaluating what this would mean to the customers at

'The Perch'. Taking into consideration stakeholders' feedback, we developed a survey to acquire the public's opinion in prioritizing elements of the AMS lighter foot print strategy.

Step 5: Compile List of Criteria for Assessing Sustainability

Using the information gathered from the literature reviews and restaurant interviews, our group compiled a list of criteria for assessing sustainability. The main points emphasized in the interviews were local and seasonal. However, as we recognized that it would not always be possible to only source food items in terms of local and seasonal, we considered other criteria. This included the criteria mention to be prioritized by the AMS and the UBCFSP in the introduction. Using inputs from a survey done in 2008 at a farmer's market that evaluated consumers priority in their food choices (Conell et al., 2008), as well as inputs from the "Sustainable Restaurant Association" of the UK (SRA, 2013) and the "UBC Food System Project Vision Statement for a Sustainable UBC Food System" (UBCFSP, 2011), we came up with the following criteria that may be considered by consumers: nutrition, organic, local/seasonal, vegetarian, vegan, fair trade, and animal welfare. Further literature reviews were conducted on each criterion to provide a basic definition and its role in sustainability from consumer's point of view. These were added to our final booklet product.

Step 6: Develop survey

Participants of the survey were asked to rank the seven criteria on a scale of 1 to 8 (an additional choice of "other" were provided for participants to add any important aspects of sustainable food selection that we may have missed) in terms of a meal choice. Participants were given a price point of \$8-\$18 for a lunch meal and \$15-\$28 for a dinner

meal (information provided by our stakeholders) in a decent size portion. Due to the wide price range, we also considered the possibility of choices between age group. Therefore, participants were to circle their age range (18-25yrs, 26-35ys, 36-50yrs or 50+yrs) on the survey.

***A sample of the survey administered can be found in *Appendix A* Figure. 1

Step 7: Conduct Survey

This step occurred in the later stage of the project, leaving limited time for data collection and analysis. Due to this time restriction, the samples were chosen by convenience, which was approved by our stakeholders. The time period given for data collection was 4 days, and therefore most respondents are people known to group members (i.e. classmates, friends, professors, and family members). The survey was either given to the participants by email or face-to-face to best suit their convenience. Sample size: N=61, Response rate: 61/61=100%

Step 8: Analysis and Evaluation of Survey

Each ranking for each criterion was summed up using a spreadsheet, which then allowed us to observe the level of priority through numerical values (highest numbers are highlighted in yellow of all tables on *Appendix B*). We put the categories in order, 1 as being the most important and 8 being the least, according to the numbers calculated on the spreadsheet.

Step 9: Develop Final Booklet

The final product for the stakeholders was a handbook, called 'Sustainable Dining – The Perch', because we wanted to provide an easy access to useful information to the stakeholders in an easy to understand format. The booklet also contains a brief

introduction summarizing the project and mini-biography of each group member (Appendix E).

Since the primary content is about the criteria of sustainability, one full page was dedicated for each of the seven criteria in the booklet. Each page included contents of: the basic definition of the criterion, the role in sustainable food selection by customers, an example of application of this criterion on menu items from other sustainability focused restaurants in metro Vancouver, public opinions on the criterion (survey results), useful resources such as the "foods of the season." The booklet also provided recommendations from the research group (*Appendix E*).

3. Findings and Outcomes

Interviews

From the three restaurant interviews, we found that the definition of sustainability varied across restaurants. One restaurant defined their sustainability in terms whether their food was seasonal and local, one defined their sustainability in terms of reduced processing, emphasizing seasonal and local products, and the last defined the sustainability of their foods by a set of guidelines- some of which prioritized seasonal and local produce. Therefore, despite the differences in their definitions of sustainability, all of the chefs were in agreement that seasonal/local products were considered sustainable.

Menu analysis

A menu survey of 5 local 'sustainable' restaurants revealed that while most restaurant menus had a high percentage of ingredients that could be sourced locally, a number of these were currently out-of-season and would have had to be imported, demonstrating a possible inflexibility in the menu towards seasonality. The results

highlighted the need for frequent menu audits and seasonal changes. They also demonstrated that even during the winter it was possible for a restaurant to maintain from 70% to 90% of their ingredients as local and seasonal. The analysis also demonstrated that the most often used seasonal menu vegetables from February to March were arugula, broccoli, bull kelp, chanterelle, cress, cucumber, fennel (root), greens, kale, leek, lemon sage, onion, oyster mushroom, parsley, parsnip, Portobello, red pepper, scallion, shitake, tomato.

***Table 7 and Figure 10 in *Appendix D* shows the result of percentage of local ingredients on menu from different restaurants in lower mainland.

Survey

We received 61 responses to our survey. 72.1% of our respondents were between 18 and 25, 6.6% were between 25 and 26, 9.8% were between 36 and 50 and 6.6% were 50+. To calculate criterion specific trends we examined our results in terms of frequency. The results of this analysis are found in each criterion's section in our booklet (*Appendix B & C*).

In this analysis we found that overall, Nutrition was the most prioritized criteria on our list. 67.8% of the respondents ranked nutrition as being their top priority when evaluating their meal choice. This high priority was suggested to be across all age groups. Their second priority was the seasonality and locality of their menu items. 37.7% of the respondents ranked seasonal/local foods as their second consideration when making their food choice. They then prioritized animal welfare, fair trade and organic menu items equally. Finally they placed less priority on vegetarian options and placed the least priority on vegan menu options. 38.1% of the respondents placed vegetarian food choices

as their sixth meal priority and 20.6% placed it as their seventh priority; while 70.0% of our respondents ranked vegan options as being their last (seventh or eight) priority in their meal choice.

***Please refer to *Appendix B and C* for data details.

4. Discussion

Interviews

In order to successfully determine the values that 'The Perch' should hold in priority we went to experts in the field- chefs at restaurants that prioritized sustainability in Vancouver. We were able to perform three interviews at sustainable restaurants in Vancouver. We greatly appreciated the input from our interviewees- as the information gleaned was invaluable and it narrowed our vision for 'The Perch' and in the next steps of our project. However, the limitation in the interviews was that there were not a significant number of restaurants that replied to our interview request and therefore a lack of willing participants. This was somewhat discouraging to our group members.

Menu analysis

The data from the menu analysis was intended to explore the possible ingredients available during this period and to demonstrate the variability in local, seasonal offerings-not to prove one restaurant's sustainability over another. The list of food items that we compiled did not take into account the number of times an ingredient was used, and could not score ingredients that were not mentioned in the menu item description. We recognized that 'Snapshot' surveys taken during different periods of the year would likely yield very different results, which serves to highlight the need for frequent menu audits and seasonal changes. We found that restaurants that marketed themselves as highly

sustainable and marketed the use of seasonal and local produce showed some inflexibility towards seasonality. This could be partially due to the cost of local/seasonal items. Lack of seasonality was often due to the use of "specialty" items such as pineapples and avocados.

Survey analysis

Since our survey was conducted by convenient sampling, the cohort groups of age 26 to 35, 36 to 49 and 50+ have a very small sample size. Therefore, we did not include the age distribution in 'Sustainable dining – The Perch' booklet. In general, nutrition and local/seasonal were the most popular criteria to Vancouver Lower Mainland population. Similar to our project, a study done by interviewing 446 participants also show that socially conscious consumers place priority on nutritional content and seasonality of their food choices (Connell et al., 2008). We will further discuss the findings for each theme category in details below.

Nutritional

In our analysis, we found that the overall population prioritized nutrition when making their meal choice. These results were in conjunction with results from "The Tracking Nutrition Trends" series, from the Canadian Council of Food and Nutrition, which showed that nutrition has been consistently very important for Canadians since 1989; and by 2008, 87% of Canadians reported their most influential factor in food choices being the maintenance of good health. For this reason, we believe that restaurants, such as 'The Perch', should place a focus on nutritional aspects of their menu (Canadian Council of Food and Nutrition, 2008).

Local/Seasonal

Locality/seasonality produce was the second most important criteria for the respondents in our survey. The importance of seasonal local produce to consumers has been evidenced in the survey by Connell et al, 2008, (mentioned above – in which consumers placed priority on local food items) the growth of Vancouver's Farmer's Markets, which grew 30%-35% per year in the period between 2005 and 2009 (Hild, 2009), and in the UBC AMS 2008 survey, in which 81% of the respondents felt that food for the new SUB should be purchased locally (AMS, 2008).

In spite of this importance, there seems to be some confusion on what the terms local and seasonal actually mean. According to consumers local foods are produced in close proximity to the areas where they are purchased (Wilkins et al., 2000; Martinez et al., 2010, Wilkins, 2010). How close in proximity and whether this proximity traverses provincial and country borders is contested by consumers (Martinez et al., 2010). Seasonal definitions are equally confusing. Some consumers define seasonal foods as foods that are produced naturally, within season in a specific part of the world and then transported to them (Wilkins et al., 2000; Wilkins, 2010; Brooks, 2011). Other consumers define seasonal foods as foods that are produced within their season and locality and are thus simultaneously local and seasonal (Wilkins et al., 2000; Wilkins, 2010; Brooks, 2011). For this reason, it would be prudent for a restaurant, such as 'The Perch, to establish their definition of local or seasonal or simply stick to an established version, such as the season food items chart found in the UBC Food Systems Guide (Baker-French, 2013).

Animal Welfare

Animal welfare was tied in third place for respondent consideration in our survey.

Citizens in the Europe, the birthplace of the new animal welfare movement, consider animal welfare to be a medium level concern when making their grocery purchases and this concern is increasing (Hughes, 1995; Agri-food Canada, 2011). Recent studies in Canada have demonstrated that Canadians are similarly concerned about animal welfare (Agri-food Canada, 2011). However, there is a lack of transparency when it comes to animal welfare, so consumers are only willing to pay premium prices if they have information in regards to the production methods used (Huges, 1995; Napolitano et al., 2010).

Fair Trade

Fair Trade was also tied in third place in our survey. This is understandable as Fair Trade products are gaining popularity among consumers, particularly in Vancouver. In 2010, 60,000 pounds of Fair Trade green coffee beans were shipped to Vancouver, which was an enormous increase compared to the 340 pounds of Fair Trade beans that were shipped in 1999 (Bedlford, 2010). This dramatic increase is due to consumer demand. The confusion in terms of the priority of Fair Trade in the meal choice could be due to the pricing. Consumers are willing to pay a 5% to 10% premium for Fairly Traded products (De Pelsmaker et al., 2006, Bedlford, 2010). However, the meal price point was above what this premium would cover in our survey. Therefore, the consumers were perhaps not willing to pay the premium price we suggested purely for a fairly traded product. Therefore, we would consider melding the price point at 'The Perch' with the premium price consumers are willing to pay.

Organic

Organic food was tied in third place as well. Organic was often ranked in second,

third, fifth, and sixth place. Therefore, there did not seem to be an agreement among our respondents in terms of the priority of organic foods. However, in the general public, the popularity of organic food product has had increased for the past decade. The organic sector has grown 20% to 35% per year in the past 10 years (Shore, 2013). The market for organic food in Canada topped \$2.6 billion in 2010, according to the Canada Organic Trade Association (Shore, 2013). Consumer's education level and household income are the most consistent variables that impact the decision of purchasing organic products (Dettmann & Dimitri, 2007). The confusion in terms of the prioritization of organic produce could also be due to the income level of the respondents, most were students, and misinformation, as consumers are confused as to the definition of organic as the term has been overused (Shore, 2013). In fact, on several occasions, survey respondents specifically asked group members for the definition of organic foods before they made their decision.

Vegetarian/Vegan

Vegetarian and Vegan were ranked last: vegetarian being sixth meal priority and vegan being their last (seventh or eight) priority in their meal choice. This response is rather surprising as the results from the AMS 2008 survey suggested that 43%-44% of students wanted to increase vegan menu options in the SUB (AMS, 2008). Our results suggest that in terms of premium pricing the students are not willing to pay for the increase. While there is no data reflecting the statistics of vegetarians in British Columbia, it has been noted that 4% of Canadians (as a whole population) consumed a vegetarian diet in 2003 (Oliveira, 2003). With limited data to vegan statistics in Canada, numbers were pulled from American statistics, assuming populations are relatively

similar, and it shows that 3% of people in the U.S. consumed a vegan diet in the year 1997 (McDonald, 2007). While our survey results revealed low interest in eating at a vegetarian restaurant, those who ranked vegetarian/vegan-friendly menu items as high importance may reflect values beyond animal welfare, fair trade, nutrition, seasonal/local, and organic.

5. Group Reflection

Overall, we hope that we have achieved some of the desires of our stakeholders with the completion of our project. The main desire expressed by the stakeholders was for knowledge about what the UBC population desired in a sustainable "lighter footprint' restaurant. Through the survey, the menu analyses, as well as our miniature literature reviews on the subject, we hope to have at least answered part of that question for our stakeholders. Individually, we have learned a lot about sustainability in a restaurant setting; we have learned about the importance of consumer opinions and perceptions in a designing a restaurant. We enjoyed also exploring the criteria that consumers consider while surveying a menu.

Of course, this being said, there were a few elements that could have been improved upon in this project, and the prime example being the meeting with the stakeholder. Our team designed an original project based on past research results, the AMS vision and 'The Perch' scenario description. This project would have consisted of the design of an alternate booklet. This booklet would have contained 1) interview results from local restaurants that would have given direction for the establishment of 'The Perch' 2) criteria for the establishment of 'The Perch's sustainable menu 3) a list of sustainable menu items and their local suppliers 4) some sustainable dish suggestions.

We verified the directionality of our project in our meeting with our stakeholders, which unfortunately did not occur until the beginning of March. At this point we discovered that the latter two portions of our booklet would not be of use to the AMS as they already had a list of local suppliers and they planned to continue to do central purchasing for the food venues in the new SUB. Central purchasing was seen as superior as this enabled a large delivery to be made once a week, while purchasing from local suppliers would mean numerous small deliveries would be made several times during the week. We then switched directions at this point.

This may have actually been beneficial for us as another issue that we were having was with the individual restaurant interviews. The restaurants that we contacted seemed reluctant to communicate with us, perhaps because the opening of 'The Perch' at UBC would bring new competition. However, three of the restaurants had responded and there were some similarities in their responses. This was particularly true in terms of the importance of seasonality and locality and their view of sustainability. In essence all three chefs agreed that if a menu item was sustainable, it was seasonal and local. For this reason, we were able to re-establish our project's direction. One of our group members was already doing a menu analysis of restaurants that were focused on seasonal and local food items to determine the feasibility of 'The Perch' doing the same, so we continued on that route. The rest of the group members conducted a survey to determine the importance of seasonality and locality in light of 'The Perch's menu price points. We also explored numerous other criteria so that 'The Perch' could gain a better understanding of what the general population would desire at the price point they suggested. Essentially, our final booklet consisted of an expanded exploration of point 1) and 2) in our first booklet.

However, the expansion of the two points in the booklet was more rushed than we desired because of our late meeting with the stakeholders. This led to us doing a survey of convenience rather than of a target population. Ideally, we would have liked to survey the higher age cohorts in our survey (26-35ys, 36-50yrs or 50+yrs), as they would be more likely to dine frequently at a high-end restaurant. As it was 72.1% of our respondents were between 18 and 25 and were students, this may have biased our results. Nevertheless, we attempted to mitigate this bias by compiling miniature literature reviews on consumer trends for each of our criteria. We used these literature reviews to support the importance of each of our established criteria in the general and scientific literature. In this way we attempted to give the stakeholders of 'The Perch' an insight into the philosophical idea behind a "lighter footprint" restaurant.

6. Stakeholder recommendation

Prior to opening of 'The Perch' in the Fall of 2014, our group has created a list of suggestions for the stakeholders, which are intended to increase the sustainability of the restaurant and ensure that things run smoothly.

1. Focus on Local and Seasonal

Further supporting the AMS "Lighter Footprint Strategy" survey results stating that 81% of respondents felt that food in the new SUB should be purchased locally, our survey ranked local/seasonal as the second (nutrition being first) most important criteria in selecting menu items (AMS, 2008). In order to create dishes with such criteria, it may be helpful to approach the menu with a 'three season method' by categorizing growing periods in conjunction with school terms (fall, winter, and summer) making it easier for

students to identify changes. This method has been successful for UBC's 'The Point' restaurant, where head chef Josh states that modifying the menu three times a year (Term 1, Term 2, and summer) reflects seasonality (personal communication, 2013). With reference to the seasonal food guide, those involved with menu planning can identify which crops are being harvested and include these foods in current dishes, as well as plan for upcoming menus items. It may also be beneficial to review seasonal food items on a monthly basis, and adjust (due to availability and popularity) if need be.

2. Examine Price Point

The following premium prices for the observed criteria (excluding vegetarian/vegan due to unavailable data) reflect what consumers are willing to pay for sustainable menu items:

- 3/4 of Canadians are willing to pay a 25% premium price for local produce if they know that the premium price benefits the farmers (Hild, 2009).
- Depending on product and relative improvements to animal welfare, consumers are willing to pay 5-20% extra for animal-welfare friendly products Napolitano et al, 2010; Tonsor et al, 2010).
- For fair trade products, consumers are willing to pay a premium price of 5%-10% (Bedlford, 2010).
- Premium prices for organic foods vary from as high as 88% (e.g. strawberries) to as low as 13% for bananas (Smith & Lin, 2008).

Correlating the premium prices for each factor (organic, local, Fair Trade, animal-welfare) with the set price point of \$8-\$18 for a lunch meal, and \$15-\$28 for a dinner meal is beneficial as both a marketing strategy and tool for helping consumers rationalize

the costs that go into each dish.

We also would recommend re-examining price point in terms of the position 'The Perch' inside the SUB. Some of our respondents indicated that they might hesitate to when \$8-\$18 for a lunch meal, and \$15-\$28 for a dinner meal SUB. However, most of our respondents were students and we recognize that this is not the target audience of 'The Perch'. Our literature reviews indicated that those with higher incomes were willing to pay higher premiums for their food. Nevertheless, the price point of 'The Perch' bears exploration by either another UBCFSP project or by the AMS.

3. Have Definitions Available

Definitions for terms such as "fair trade" or "organic" should be provided alongside clarity for words like "seasonal" and "local" as these labels often carry different meanings between consumers and even producers. In doing so, individuals will better understand and appreciate the value behind menu items. Whether printed directly on the menus, or by means of other visible signage, it is important to present this information in a transparent manner.

4. Hire Knowledgeable Staff

Building a team of knowledgeable cooks, waiters, marketers, food buyers, and especially a head chef, is crucial for implementing and maintaining an atmosphere that reflects enthusiasm towards sustainability. As emphasized in the interview with Josh from 'The Point' restaurant, "the serving staff is the front line to educating customers" (personal communication, 2013). Ensuring that all staff members understand, support, and strive towards the AMS reduced carbon footprint plan will be helpful in carrying out 'The Perch's' vision for sustainability.

5. Provide Nutritional Values

As indicated in our survey, nutrition was listed as the most influential factor in terms of how individuals would select a meal (67.8%). Further reports show that 87% of Canadians base their food choices on the maintenance of good health, which include criteria such as nutrient content, freshness, balance, and variety (Canadian Council of Food and Nutrition, 2008). These high statistics indicate that diverse, healthy ingredients are highly valued and as a result should be reflected in menu items. In order to meet demands of the nutrition-seeking population, it would be advantageous to create dishes that are well balanced in food groups. As demonstrated in the nutrition portion of this book, a balanced plate consists of ½ vegetables, ¼ lean protein, ¼ grains or starches. The addition of a milk or milk alternative product as well as a small serving of fruit ($\frac{1}{2}$ c.) would further increase balance within the diet, which ultimately leads to optimal health maintenance and reduced risks of chronic disease (WHO, 2003). Another recommendation that aims to increase menu popularity would be to provide 'healthy lifestyle' dishes that offer consumers food choices that draw on popular health demands such as low fat, sugar, or salt, as well as incorporating whole grains and omega-3 fatty acids (Canadian Council of Food and Nutrition, 2008).

7. Scenario Evaluation

Our community partners and stakeholders, Nancy Toogood and Collyn Chan, will determine the success of this project. The presented booklet will be evaluated based on its usefulness of further developing the 'The Perch' restaurant, and its ability to incorporate the vision of a more sustainable food system on UBC campus.

We also compared AMS stakeholders' expectations and our final product. We did

this through the form of a checklist, and ticked off what their expectation when it was met through our project. Approval and evaluation from our course instructor and teaching assistants (TA) is another way to evaluate our project. These individuals are great resources for evaluation because they are professionals in the field of land and food systems, and have a strong sense of what is valid and applicable.

8. Media Release

Media Release

UBC Food System Project

April 2013

Project Title: AMS Lighter Footprint Strategy at 'The Perch'.



Description:

The AMS is looking to create a fine-dinning experience with the creation of its newest food outlet, 'The Perch'. Located at the heart of the Point-Grey campus atop the new Student Union Building (SUB) 'The Perch' looks to create a high-quality yet affordable dinning within the principles of the AMS Lighter Footprint Strategy. Through interviews, surveys and analysis LFS 450 Group 8, in conjunction with the UBC Food System Project (UBCFSP) have created a resource for the AMS team to help guide the creation of sustainable menu choices and decisions.

"AMS 'The Perch' is about to take flight" **Works Cited**

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Appendix A – Compiled restaurant List and Interview questions (Methods)

Table 1. Restaurant and Resource list 1

Legend:

V+ Vegan L Local
V Vegetarian S Seasonal
O Organic FT Fair-trade

Name	Description	Contact information	Address
3G Vegetarian Restaurant http://www.3g-veg- restaurant.com/ V+	day dim sum menu, you'll find "exquisite" vegan versions of popular Dim Sum items		3424 Cambie Street, Vancouver, BC V5Z 2W8
Dharma Kitchen www.dharmakitchen .ca V+	Vietnamese vegan restaurant: Dharma Kitchen is a fully vegan restaurant which emphasizes healthy products and service. Offering nourishing diets for the physical body and providing a meditative dining atmosphere for the spiritual mind, Dharma Kitchen servesthe food of mindfulness.	(604)-738-3899 info@dharmaki tchen.ca	3667 West Broadway (at Alma) V6R 2B8
Eternal abundance http://eternalabund ance.ca V+, O, L	Eternal Abundance is proud to be an allorganic grocer and vegan cafe, prioritizing local and fair trade whenever possible, and seeking out direct purchasing relationships with local farmers and artisan producers.	604-707-0088 info@eternalabu ndance.ca	1025 Commercial Drive (Between Napier & Parker) Vancouver, BC V5L 3X1
Fairy cakes http://www.fairycak escupcakes.ca/index. php V+, O, L, FT	Fairy Cakes is Metro Vancouver's only cupcakery dedicated to providing delectable alternatives for food restricted diets. Fairy Cakes Cupcakes are freshly-baked with as many organic, local, and/or fair-trade ingredients as possible.	604-442-9866	3586 Fraser St Vancouver, BC V5V 4C6
Panz veggie http://www.panzveg gie.com/ V+, "L"	Ethically cooked Chinese cuisine with fresh, local produce	604-266-3637 info@panzveggi e.com	1355 Hornby Street, Vancouver B.C. V6Z 1W7
The Acorn http://www.theacor nrestaurant.ca/ V, L, S	The Acorn is a casual fine-dining modern vegetarian restaurant and bar. Serving gourmet west coast cuisine off seasonal menus with fresh produce from local urban farms. Menu items are clearly marked.	604-566-9001 eat@theacornre staurant.ca	3995 Main Street Vancouver, BC, V5V 3P3
Cafe Deux soliels http://www.cafedeu	Cafe Deux Soleils, a vegetarian eatery, has been feeding hordes of Drive residents for	604-254-1195 No general	2096 Commercial Dr

xsoleils.com/ V	the past decade and a half. Famous for its brunches, Poetry Slams, and live music events, the big box room plays host to a variety of events and proves itself quite flexible in hosting the Drive's eclectic groups.	contact Art: jeff@cafedeuxso leils.com Event: booking@cafede uxsoleils.com	Vancouver, BC V5N4B2
Hierloom Vegetarian http://heirloomresta urant.ca/ V, O, FT, L	Modern vegetarian restaurant with vegan options. Heirloom Restaurant reflects a dedication to using thoughtfully chosen organic, fairly traded ingredients with a local and world conscious initiative.	604-733-2231 info@heirloomr estaurant.ca	1509 west 12th avenue Vancouver, BC, V6J 2E2
The Naam http://www.thenaa m.com/ V, ~L	The Naam is a very busy vegetarian full- service restaurant located in the heart of Vancouver's Kitsilano district. It is the city's oldest natural foods restaurant, with over 30 years of cooking tradition.	604-738-7151	2724 West Fourth Ave., Vancouver, BC
The Parker http://www.thepark ervancouver.com/ V, O, L, S	A modern restaurant that uses traditional French methods. The Parker features an ever-changing menu based on the seasons and local farms. We produce almost zero waste. The utmost care is taken in selecting products and we take pride in building relationships with the farmers, wine makers & community around us.	604-779-3804 theparkervancou ver@gmail.com	237 Union St just off Main
Aphrodite Cafe and Pie Shop http://www.organicc afe.ca/ L, O, S	Aphrodite's takes pride in serving the finest local organic food available in Vancouver. We aim to work directly with local organic farms to ensure that our menu has the smallest ecological footprint possible.	604-733-8308 info@organiccaf e.ca	3598 West 4th Avenue Vancouver, BC V6R 1N8
The Foundation V, V+	One of Vancouver's best vegetarian and vegan restaurants, the Foundation is a little bit hippie, a little bit skater, and always crowded.	(604) 708-0881	2301 Main St Vancouver, BC V5T 3C9
The Fray http://fray.me/ L, AW	Fray is a community eatery focusing on local, fresh ingredients, reasonable prices, creative comfort food, ice cold microbrew beer, delicious mixed drinks, and desserts that will make you swear internally. Our signature dish is the Fray Portobello Fries, or as we call it, the 'death of the french fry'. Tender strips of portobello battered in panko and lightly fried with a truffle aioli, the P-Fry is a taste sensation you'll not have tried before.	(604) 558-FRAY	3980 Fraser St, Vancouver BC Corner of 24th and Fraser

This is UBC's fine dining restaurant.

· A wide selection of Ocean Wise options
– look for the menu icons

Famous for:

Sage Bistro http://sage.ubc.ca

O, L, S, AW

University Centre 6331 Crescent Road

(604) 822-0968

	Smoked local, organic tofu Free-range chicken Local lamb Vegan options Seasonal and organic salads		
The Point Grill pointgrill.food.ubc.ca/ S, L, AW, V, V+	This is UBC's trendy up-scale restaurant. Famous for: Seasonally-inspired cuisine with a commitment to using local and sustainable foods Free-range chicken wings Salt Spring Island Mussels Non-medicated and hormone-free chicken and beef BC seafood Vegetarian, vegan, dairy-free and gluten-free options	(604) 822-9503	Marine Drive Residence- Building 4
The Gallery Restaurant & Lounge S, L, ~AW	This funky AMS deli-style licensed restaurant provides both take-out and eat-in options. Famous for: Homemade salads with seasonal and UBC Farm ingredients All items made in-house Free-range egg breakfasts Several varieties of local beer on tap	(604) 822-3411	Student Union Building
Place Vanier Residence Dining S, L, O	Vanier is more than a dining hall. It has been a leader at UBC in adopting sustainable menu items. Famous for: UBC Farm seasonal soups- there are always two kinds available Whole grain stews and pilafs Healthy shakes using Fair Trade and local produce Smoked organic tofu from Victoria for wraps, salads and more Local and organic apples Homemade sauces and gravies Gluten free bakery, pizza and sandwich options Eco-to-go program 100% Ocean Wise fresh seafood menu options Homemade lemonade with fresh herbs	(604) 822-6828	Residence Dining, Gordon Shrum Commons Block

Table 2. Interview Questions

1.)	What are your two most popular food items?
2.)	Is sustainability part of your marketing?
3.)	What's your criterion for evaluating if a food item is sustainable?

4.)	What are your popular sustainable food items?					
5.)	How do you balance sustainability and price?					
6.)	Who is pushing for sustainability at your restaurant? (head chef, food ordering/stock manager)					
7.)	Are local and seasonal items part of your marketing?					
8.)	How popular are your seasonal items?					
9.)	What are your popular seasonal items?					
10.)	Who are your local and seasonal producers - are they organic?					
11.)	How do you deal with your food waste?					
12.)	Do you assess food waste? If so, how?					
13.)	Do you have anything to add? Is there anything you think it's helpful for us to know?					

Appendix B – Tables for survey questions sample and result

Figure 1. Survey administered

Survey Question
Please circle your age:
18-25yrs 26-35yrs 36-50yrs 50+yrs
Given a price point of \$8-\$18 for a lunch meal and \$15-\$28 for a dinner meal (portion sizes are decent) please rank the following criteria in order of importance (1 being top priority, 8 being least important):
Nutrition Organic Local/Seasonal Vegetarian Vegan Fair Trade
Animal Welfare Other:

Table 3. All age groups combined. Food priorities are ranked 1 being most important and

8 being the least important. The Highlighted numbers represent the largest vote in the ranking.

Ranking		Theme Categories						
			Local/Seasona					
	Nutrition	Organic	1	Vegetarian	Vegan	Fair Trade	Animal Welfare	
1	<mark>40</mark>	1	7	3	2	3	1	
2	8	9	23	4	1	9	7	
3	6	15	9	4	-	7	<mark>19</mark>	
4	4	9	10	6	1	<mark>20</mark>	10	
5	1	<mark>15</mark>	9	8	2	11	16	
6	-	8	3	<mark>24</mark>	12	5	4	
7	-	2	-	13	37	6	3	
8	-	-	-	1	3	-	1	

N = 61

Table 4. Age group of 18-25 years old. Food priorities are ranked 1 being most important and 8 being the least important. The Highlighted numbers represent the largest vote in the ranking.

Ranking		Theme Categories					
	Nutrition	Organic	Local/Seasonal	Vegetarian	Vegan	Fair Trade	Animal Welfare
1	<mark>29</mark>	1	5	2	2	3	-
2	7	5	<mark>20</mark>	2	-	8	2
3	4	12	5	2	-	4	16
4	3	5	9	5	1	<mark>16</mark>	9
5	1	<mark>12</mark>	4	7	2	7	12
6	-	7	2	<mark>17</mark>	10	3	3
7	-	2	-	11	<mark>25</mark>	6	2
8	-	-	-	-	3	-	1

N = 44

Table 5. Age group of 26-35 years old. Food priorities are ranked 1 being most important and 8 being the least important. The Highlighted numbers represent the largest vote in the ranking.

Ranking		Theme Categories					
	Nutrition	Organic	Local/Seasonal	Vegetarian	Vegan	Fair Trade	Animal Welfare
1	<mark>4</mark>	-	-	-	-	-	-
2	-	1	1	-	-	2	-
3	-	-	1	1	-	1	1
4	-	1	1	-	-	1	3

^{*}Other is not included in the table

^{*}Other is not included in the table

	5	-	1	-	1	-	-	-
	6	-	1	1	2	ı	1	1
	7	-	-	-	-	<mark>4</mark>	-	-
Ī	8	-	-	-	-	-	-	-

N = 4

Table 6. Age group of 36-49 years old. Food priorities are ranked 1 being most important and 8 being the least important. The Highlighted numbers represent the largest vote in the ranking.

Ranking		Theme Categories					
	Nutrition	Organic	Local/Seasonal	Vegetarian	Vegan	Fair Trade	Animal Welfare
1	<mark>4</mark>	-	2	-	-	-	1
2	1	1	1	1	-	1	3
3	1	1	2	1	-	1	2
4	1	<mark>3</mark>	-	ı	-	3	-
5	-	2	2	1	-	2	-
6	-	-	-	3	1	2	-
7	-	-	-	1	5	-	1
8	-	-	-	1	-	-	-

N = 7

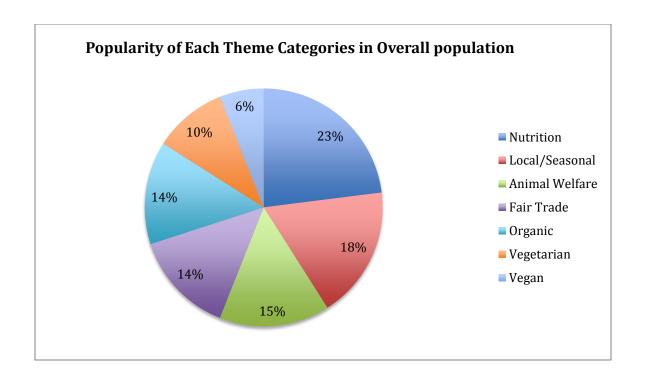
Appendix C – Graph for survey results (referring to tables in Appendix B)

Overall

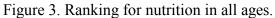
Figure 2. The popularity of each category in a sample population.

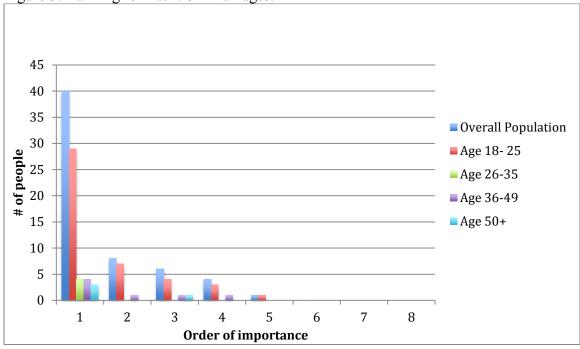
^{*}Other is not included in the table

^{*}Other is not included in the table



Nutrition





Nutrition was voted as the most important factor for all age categories.

Organic

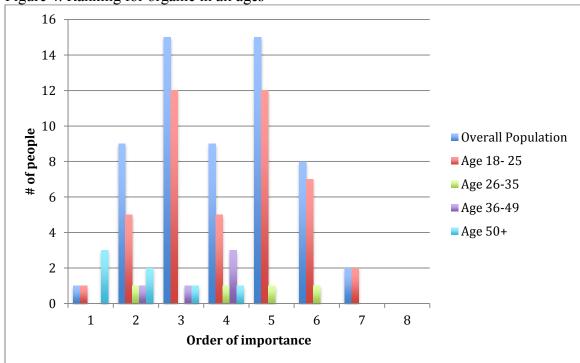
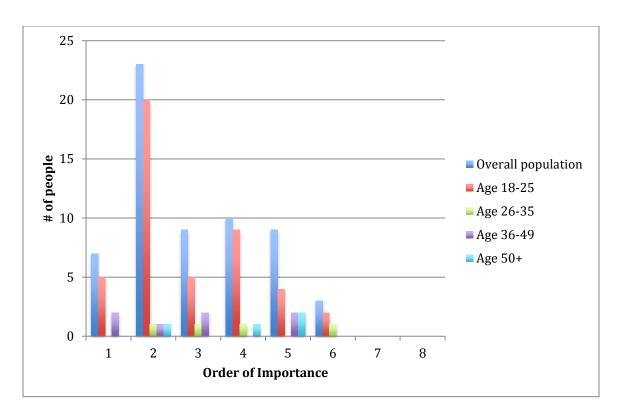


Figure 4. Ranking for organic in all ages

Sample population voted organic as being third or fifth most important. This is similar to the cohort who are age of 18 to 25, while people in the age of 36-50 believe organic is the forth most important and age of 50+ believe it is the most important (ranked number 1). People in age 26 to 35 do not think organic is the most important, nor the least.

Local/seasonal

Figure 5. Ranking for local and seasonal for all ages



Sample population prioritizes local/season as second most important. This is similar to data from the 18 to 25 year cohort. People who are 26 to 35 years old also voted local/seasonal as second. The cohort aged 36 to 49 believe this to be the most important factor, while those aged 50 and up, considered this is the least important compared to other age group.

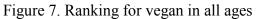
Vegetarian

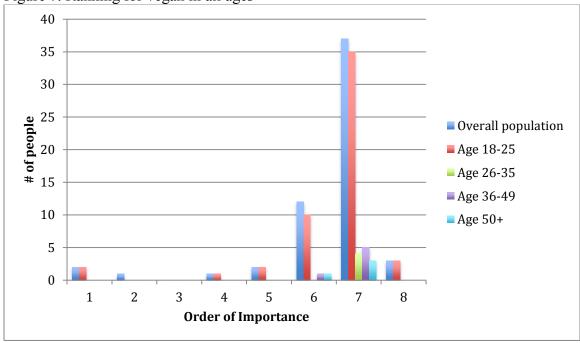
Figure 6. Ranking for vegetarian for all ages



The general trend, in all ages, was to put the category of vegetarian in 6^{th} place of importance.

Vegan





The general trend, in all ages, was to put the category of vegan in 7^{th} place of importance.

Fair Trade

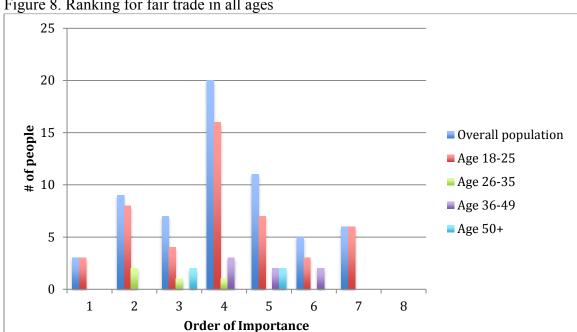
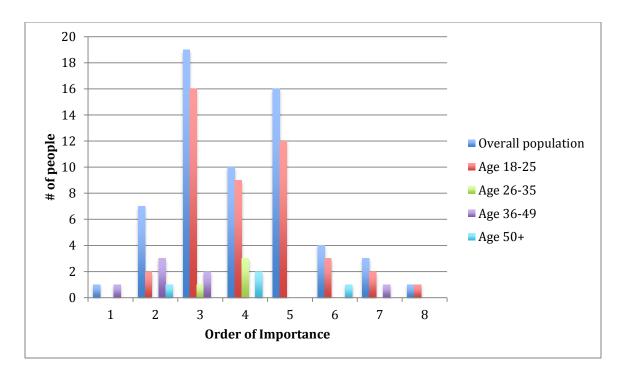


Figure 8. Ranking for fair trade in all ages

Overall population prioritize fair trade in forth place. This is similar to people in the age of 18 to 25 and ages of 36 to 49. People in age between 26 and 35 prioritize more on fair trade in comparison to other age group; they ranked it third place. Age 50 and over either put it as third or fifth most important.

Animal Welfare

Figure 9. Ranking for animal welfare in all ages



Animal welfare is placed as the third most important in the overall population. This is similar to people in age of 18 to 25. Most people in age 26 to 35 and 50+ feel that it is less important, and place this in forth place. However, most people in age of 36 60 49 prioritize animal welfare much more compare to other ages; they feel that it is the second most important.

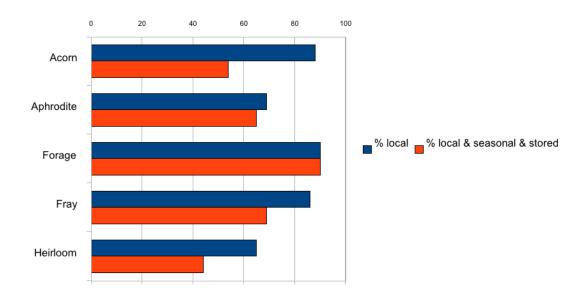
Appendix D – Menu Item

Table 7: Percentage of ingredients on the menu that could be produced locally vs. percentage of ingredients on the menu that is local in-season and/or local stored.

	% possible local	% actual local seasonal & local stored
Acorn	88	54
Aphrodite	69	65
Forage	90	90
Fray	86	69
Heirloom	65	44

Figure 10. Visualized data from table 5. The difference between blue and orange bar may indicate inflexibility in the use of seasonal menu items.

Percentage of local ingredients on menu



The blue bar denoted the % of noted ingredients that could be used at the restaurant; the orange bar indicated the % of noted local ingredients that were used at the restaurant. Equality of the blue and orange bar demonstrated an active use of local, seasonal products, while inequality of the bars might indicate that the menus were inflexible towards seasonality. Snapshot surveys during different periods of the year would likely yield different results.

Appendix E - Final Product: 'Sustainable Dining - The Perch' Booklet

See Attachments for Word Doc. and PDF version.