

University of British Columbia

Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

UBC Food Vision and Values: Phase 5

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Prepared for: UBC Food Services

Course Code: LFS 450

University of British Columbia

Date: 26 April 2021

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



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Social Ecological Economic Development Studies (SEEDS) Sustainability Program
Student Research Report**

2020 LFS 450 Final Report

UBC Food Vision and Values: Phase 5

Sean Soice, Gabriel Macalalag, Serene Lam, Shadow Feng, Katie Little

University of British Columbia

**Course: LFS 450 001 Land, Food, and Community III: Leadership in Campus Food System
Sustainability**

Themes: Plant-based, Seasonal, Local

Date: April 26, 2021

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EXECUTIVE SUMMARY

The University of British Columbia Vancouver campus is similar to a city in that it is responsible for the facilities that house, feed, and maintain the health and wellbeing of thousands of faculty, staff, and students. Just like cities around the world, UBC is contending with the sustainability crises, such as the health, social and environmental degradation that threatens our food supplies and is perpetuated from our daily food choices. UBC is expecting an increase in population and housing capacity needs, with over 33,000 full-time students and plans to house over 17,000 by 2030 (UBC Vancouver Campus Plan, 2010). A concern for any population of this size is the maintenance of a food system that supplies enough food. Additionally, contemporary food systems have negative environmental and social externalities that threaten the current global food supply. To address the challenges of providing not only enough food but sustainably sourced food, UBC Food Services (UBCFS) aspires to develop a sustainable food system on campus. To help initiate and guide actions, UBCFS created their Food Visions & Values (FV&V) in 2017- a list of guiding principles that ensures food provision is locally grown, plant-based, seasonal. Projects from previous years focused on auditing the performance of UBCFS and its adherence to the FV&V, including the availability of water fountains, reducing meat consumption and selecting culturally appropriate food choices. However, the definition of “plant-based”, “local”, & “seasonal” foods, in the context of the UBC food system, could be advanced.

The purpose of our research is to review and update the current practices and guidelines on UBC Vancouver campus that are aimed at advancing the UBCFS’s FV&V, specifically pertaining to seasonal, local, and plant-based food options. Previous projects have done auditing on plant based options, availability of free drinking water stations and culturally appropriate foods. We aim to further build upon this work, and also expand our research on other related values including seasonal and local food sources.

To succeed in achieving this purpose, the research will focus on three goals, including: 1) To gauge where UBCFS stands on food sustainability practices in comparison to other institutions, specifically looking at food policies and guidelines related to seasonal, local, and plant-based foods, 2) To advance the FV&V list and update definitions for local, seasonal and plant-based foods as they are used in the values and 3) To develop a database that can be used to assess progress and adherence to the UBCFS FV&V. Specific objectives to realise these goals include: 1) Revise and advance UBCFS definitions of local, seasonal, and plant-based foods. Use these definitions alongside our research to provide recommendations that accurately measure and assess the UBCFS FV&V, 2. Review how other institutions are adopting and implementing sustainable food policies and guidelines related to plant-based, seasonal and local foods. Use our findings to assist in informing the evolution of our UBCFS’s FV&V commitments, 3) To gauge the UBC Vancouver student body’s understanding of current UBCFS FV&V and develop strategies to update and better fit their needs while developing a sustainable food system, and 4) Conduct an audit of existing practices related to plant-based foods to further align with UBCFS’s FV&V goals.

The methodology of this research will be centered on the principles of Community-Based Action Research (CBAR) (Nasrollahi, 2015) where we will collaborate with key stakeholders from UBCFS. The proposed methods of this project is a mix between primary and secondary research, including open-ended interviews with food vendors on campus, closed-question survey of the student body as well as a textual audit on plant-based foods offered at UBCFS and a landscape scan combined with literature review. The key deliverables of this project include an audit of plant-based food options and report of plant-based, seasonal and local components of UBCFS FV&V. The desired outcome of our project would include an increased understanding and advancement of plant-based, seasonal, and local concepts in the evolution of UBCFS’s FV&V on campus and beyond.

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1. INTRODUCTION

1.1 Research Topic

University dining programs are one of the largest contributors to food and beverage purchases around the world, where purchasing decisions have a significant impact on sustainability and purchasing budgets. Moreover, universities are also a place of education and research, where dining programs play a key role in producer and consumer behaviours. University dining programs are essential in creating a gateway towards more sustainable food systems on university campuses, where UBC is committed to being the leader of this movement. In 2019, UBC Food Services established a list of Food Vision and Values that aimed to support nutritional needs of the UBC community while creating memorable experiences in a socially and ecologically conscious manner. As the fifth group auditing UBCFS, we continue to audit the plant-based menu options in dining halls to ensure UBCFS are acting in accordance with their FV&V. As UBC strives to be at the forefront of change, it is essential for a more just and resilient campus food system to be developed. This project aspires to address social and ecological sustainability through knowledge gaps within the definitions of “plant-based”, “seasonal” and “local”. This project will provide an exploration of opportunities for UBCFS to work towards a more just and sustainable campus food system through improving UBCFS FV&V in the aspects of “plant-based”, “seasonal” and “local” offerings. This project aims to ensure that practices shaping the current practices of the food system on campus aligns with the UBCFS FV & V. This project also focuses on measuring progress and recommending adjustments to practices or food values to better achieve a sustainable food system for all who rely on the Vancouver campus for food in the pursuit of adaptability. On a societal scale, this project aims to encourage a shift towards increasing seasonally and locally sourced plant based food options on university campuses and within other institutions globally.

1.2 Research Relevance

Agriculture and transportation are two of the major causes of greenhouse gas emissions (GHG) from human activities. Globally, transportation is responsible for 28% of GHG in 2018 and agriculture responsible for 24% (IPCC, 2014). In Canada, 30% of GHG in 2018 is from transportation and 8% from agriculture (Government of Canada, 2018). Moreover, as food systems become globalized through which the conventional Western diets that are predominately meat based and highly processed foods are being promoted, there has been increased awareness on the health, social and environmental consequences of our food choices. For example, eating a meat based diet has “dire consequences” for human health and our planet (Gibbens, 2019). Livestock and their byproducts account for at least 32,000 million tons of carbon dioxide per year, or 51% of all worldwide greenhouse gas emissions (Goodland, 2013). Growing feed crops for livestock consumes 56% of water in the US and occupies 1/3 of the earth’s ice-free land (Jacobson, 2006). In addition, animal agriculture is the leading cause of species extinction, ocean dead zones, water pollution, and habitat destruction (FAO, 2006; Machovina, 2015). Consumption of meat is also associated with an increased risk of death from heart disease, diabetes, and other illnesses according to the World Health Organization (WHO, 2015). However, adopting a plant-based diet is not enough as the carbon footprints or environmental costs of our foods have increasingly become a concern. Common food transportation includes cargo ships, trucks, trains and airplanes. Cargo ships have the lowest CO₂ impact, with emission of 15-30 grams of CO₂ per ton of food per kilometer (Government of the United Kingdom, 2005). Airplane transportation has the highest CO₂ impact which emits 570 to 1580 grams of CO₂ per ton of food per kilometer (Government of the United Kingdom, 2005). This does not include the carbon emission from food processing and storage. Therefore, demands for off-season produce or imported foods have environmental impacts that we might not be aware of. To help mitigate the environmental and health issues related to conventional Western diets, it is important to incorporate seasonal, local, and plant-based foods as part of the development of a more sustainable food system.

In response to the overwhelming sustainability crisis, UBC Food Services have taken leadership to transform the campus food system in alignment with sustainability goals. With UBC Food Vision and Values (UBC FV&V) as guidelines, UBCFS aims to provide seasonal, local, plant-based food options while creating nutritional and culturally diverse dining

experiences that are both ecologically and economically sustainable. In previous years' projects, basic audits that assessed UBCFS's performance with regards to UBC FV&V were conducted and assessment criteria/metric was constructed for the availability of water fountains, reducing meat consumption and selecting culturally appropriate food choices. Building off this work, a key opportunity exists to develop a refined framework for key FV&V such as plant-based and local. By defining these FV&V, it will enable a more accurate and robust measurement of progress and further the advancement of these FV&V and become better implemented as a result. For our project, we intend to develop clear, quantifiable, measurable standards for the terms plant-based, local and seasonal foods. We aim to inform UBCFS on their progress in meeting the food vision and values and provide actionable recommendations on improving their operations to further the achievement in a sustainable campus food system.

1.3 Project Context

The UBC Food Services (UBCFS) is an 'essential campus ingredient', feeding thousands of students, visitors, staff and faculty throughout the year (UBCFS, n.d.). UBCFS currently oversees 3 dining halls, more than 30 retail operations including cafes, restaurants, markets, and franchises, as well as 2 catering services that offer a diverse menu. UBCFS is committed to their leadership in food sustainability; providing its community with nutritional and culturally diverse dining experiences that are both ecologically and economically sustainable. To ensure these standards are met, UBCFS has created their UBC Food Vision & Values (UBC FV&V).

The UBC FV&V is an ongoing initiative that actively promotes a sustainable food system through increasing plant-based, local and seasonal food options to students, staff, and faculty on campus. Currently, more than 60% of the ingredients used by the UBCFS are sourced from local suppliers, and 50% of entrees in dining halls are aimed to be plant based (David Speight, personal communications, 27th January 2021). UBC declared a climate emergency in 2019, but food sustainability was not mentioned in UBC's Climate Action Plan (CAP) 2020. However, UBC's newly proposed Climate Action Plan for 2030 (CAP 2030) aims to eliminate virtually all conventional fossil fuel use from campus operations, which will address indirect emissions from the UBC community, including those related to commuting, air travel, food, and materials and waste (UBC, n.d.). Through our research, we hope to increase awareness of the climate impact that our food systems have from a

landscape level down to individual food choices, in hope to better align UBCFS with the CAP 2030 goals. This project aims to build on the work of previous LFS 450 project phases related to plant-based foods offered at UBC such as encouraging reduced meat consumption through increasing plant based offerings and compare UBCFS to other institutions to gauge how well UBCFS is prioritizing sustainable food systems, specifically related to plant-based, seasonal, and local foods. In partnership with the UBCFS and the UBC Social Ecological Economic Development Studies (SEEDS) Sustainability Program. Our research team has decided to establish the definitions of ‘plant-based’, ‘seasonal’, ‘local’, and in the context of Canada’s university campuses with the intention to show the progress of UBCFS in aligning with their FV&V.

1.4 Project purpose, goals and objectives

Project Purpose

The primary purpose of our project has been to review and update UBCFS’s current practices and guidelines by advancing the FV&V list. Our research focused specifically on the FV&V pertaining to plant-based, seasonal, and local food options - specifically Values 4, 10, 11 from the FV&V list (Appendix A). Our primary research was conducted on UBC’s Vancouver Campus.

Project Goals

The three primary goals that we initially laid out for our research were as follows:

1. To gauge where UBCFS stands on food sustainability practices in comparison to other institutions, specifically looking at food policies and guidelines related to seasonal, local, and plant-based foods.
2. To advance the FV&V list and update definitions for local, seasonal and plant-based foods as they are used in the values.
3. To develop a database that can be used to assess progress and adherence to the UBCFS FV&V.

Project Objectives

We compiled this list of project objectives at the proposal stage. These initially structured our project and have since guided our data collection. These objectives have helped us to refine and attain our research goals.

1. Revise and advance UBCFS definitions of local, seasonal, and plant-based foods. Use these definitions alongside our research to provide recommendations that accurately measure and assess the UBCFS FV&V.
2. Review how other institutions are adopting and implementing sustainable food policies and guidelines related to plant-based, seasonal and local foods. Use our findings to assist in informing the evolution of our UBCFS's FV&V commitments.
3. To gauge the UBC Vancouver student body's understanding of current UBCFS FV&V and develop strategies to update and better fit their needs while developing a sustainable food system.
4. Conduct an audit of existing practices related to plant-based foods to further align with UBCFS's FV&V goals.

2. METHODOLOGY AND METHODS

2.1 Research methodology

This project utilized the Community-Based Action Research (CBAR) approach to assess UBCFS's compliance with the UBC FV&V and to explore further steps that can be taken to increase the accessibility of plant-based, seasonal, and local food options on campus. CBAR is a collaborative methodological framework that involves participation from researchers, stakeholders, and its community members in which the research affects. CBAR is a cyclical process, constantly assessing and refining the methods, data, and interpretation throughout the course of the project. Through collaboration, the CBAR framework aims to address any perspectives, concerns, and needs of the participants to build a collective consensus on the issue (Nasrollahi, 2015). Throughout this project, we have collaborated with UBCFS representatives to improve campus food system sustainability. We have applied the CBAR framework through constant revision of research methodologies, after approval from our clients and teaching team. Apart from our clients, it is also important to acknowledge the opinions and recommendations of the student body. The communities identified in the initial stages of this project include, but are not limited to: UBCFS, UBC Farm, residence dining halls, and the UBC faculty, staff, and student population who dine at any UBCFS location on UBC's Vancouver Point Grey Campus. Together and within our community, our research team hoped to build relations with all involved parties to ensure a sustainable and just campus food system.

2.1 Research methods

Prior to participating in this project, all group members have obtained a Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS) certification. Throughout our data collection process, proper informed consent was acquired from the participants of our online survey. Data collected was strictly confidential to researchers for research purposes and will not be externally distributed. Participants were also given the choice to withdraw at any time during the research and data collection process. To ensure this, a questionnaire cover letter and consent form was provided to participants (refer to Appendix D).

The plans of analyzing the data included: a comparison to the previous LFS 450's findings (2019 & 2020); a compilation of sustainable food policies and guidelines envisioned by other post-secondary institutions; and an assessment of numerical data that demonstrated the trends of UBCFS and its adherence to its FV&V (e.g. % of plant-based food options offered in menus within the UBC campus). These data management guidelines served as a foundation to clarify and enhance the FV&V metric spreadsheet. After proposing changes to the metric spreadsheet, we have compiled the data to produce an infographic and a Canva presentation, available to both UBCFS and the public student domain (refer to Appendix F for infographic)

2.2.1 Secondary Data Collection Research Methods

Secondary data was collected using a textual data audit and landscape scan. Sources such as the 'Meal Exchange', a university collaborative, was used to identify how other post-secondary institutions are actively complying and implementing new sustainable food guidelines. We also audited the online menu of a UBCFS dining hall, Open Kitchen, with regards to the number of plant-based food options. Other sources that contributed to our research include the various websites and reports of other post-secondary institutions such as McGill, University of Toronto, and the University of Victoria. These sources were used as a landscape scan to identify 'best practices' taken at other universities, drawing inspiration for our recommendations. Results of this research portion contributed to the expansion and implementation of working definitions (plant-based, seasonal, and local) used by UBCFS's FV&V.

2.2.2 Primary Data Collection Research Methods

Primary data was collected using ‘Standardized Open-Ended Interviews’, where participants were asked open-ended, identical questions to gather thorough information on the current and the possible challenges, opportunities, and goals of the UBCFS FV&Vs. By conducting these interviews, we hoped that selected participants would express their experiences and perspectives on the UBCFS FV&Vs (Turner, 2010). To conceptualize and gain a better understanding of UBCFS FV&Vs, we interviewed key stakeholders who hold a high position within UBCFS, such as the Director of Food Services, Associate Director of Residence Dining, Associate Director of Retail Operations, and the Executive Chef of Residence Dining.

Interviews with UBCFS stakeholders were held remotely through Zoom due to the unprecedented COVID-19 pandemic and student surveys were administered through Qualtrics, an online survey software. The sample size of our survey was 137, surpassing our goal of 30 participants. This survey was broadcasted to both faculty and students through Nutrislice (UBC dining hall’s menu and website) with help from UBCFS, and was posted on social media platforms such as Facebook and Instagram. The survey was open to participants for exactly 2 weeks, from March 19th to April 2nd. The objective of these surveys were to gauge the student population’s engagement and understanding of the current UBCFS FV&V. Survey results were then tabulated into an Excel spreadsheet to further assess how the terms, ‘plant-based’, ‘seasonal’, and ‘local’ are defined and measured within the UBC Campus.

3. RESULTS

3.1 Primary Data

3.1.1 Survey

Through our survey, we gathered information on students’ awareness on UBC FV&V, their dietary profiles, their definition of “plant-based” foods as well as their satisfaction level on UBCFS’s current plant based offerings. (refer to Appendix B for raw data)

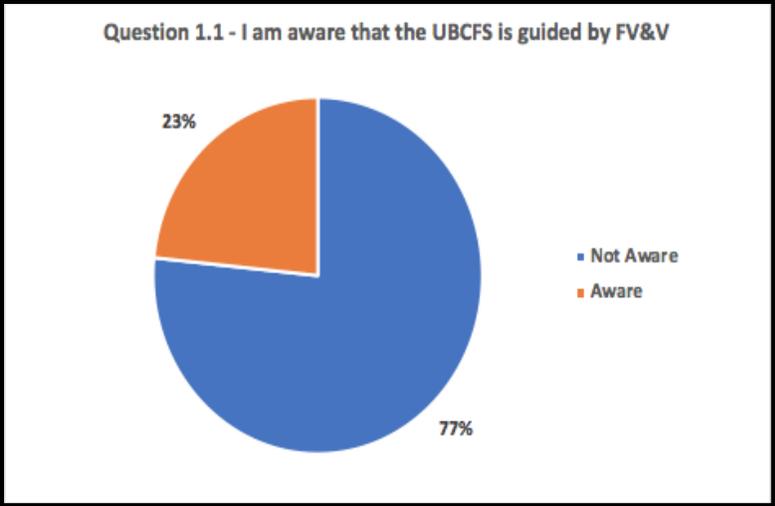


Figure 1: Students' awareness of UBCFS FV&V

As illustrated in the graph above, 76.6% (108) of students we surveyed were not aware of UBCFS FV&V and only 23.4% (33) were aware. Amongst the students who are aware, 40% of them found out about UBCFS FV&V through their website. 28.6% found out through visual materials such as posters. 22.9% found out through word of mouth, and 8.6% found out through social media.

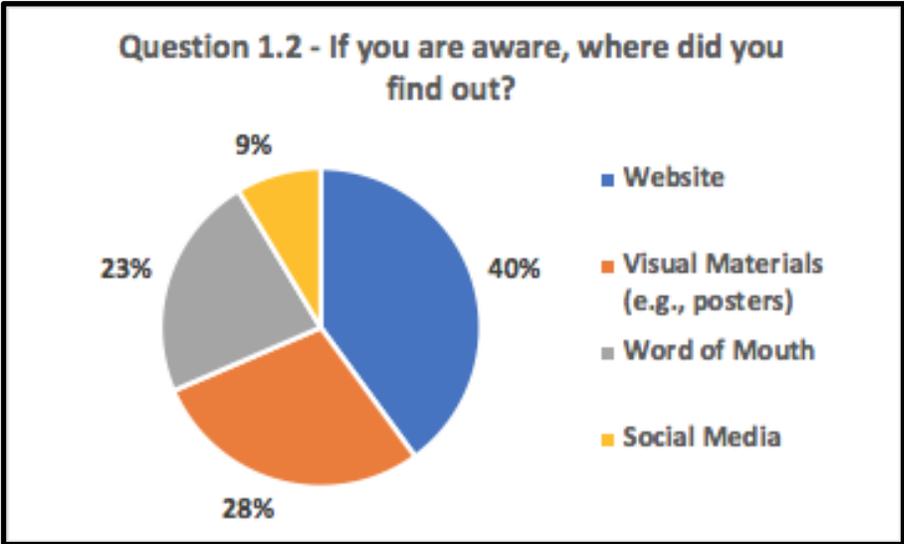


Figure 2: Method of delivery of UBCFS FV&V for students who were aware

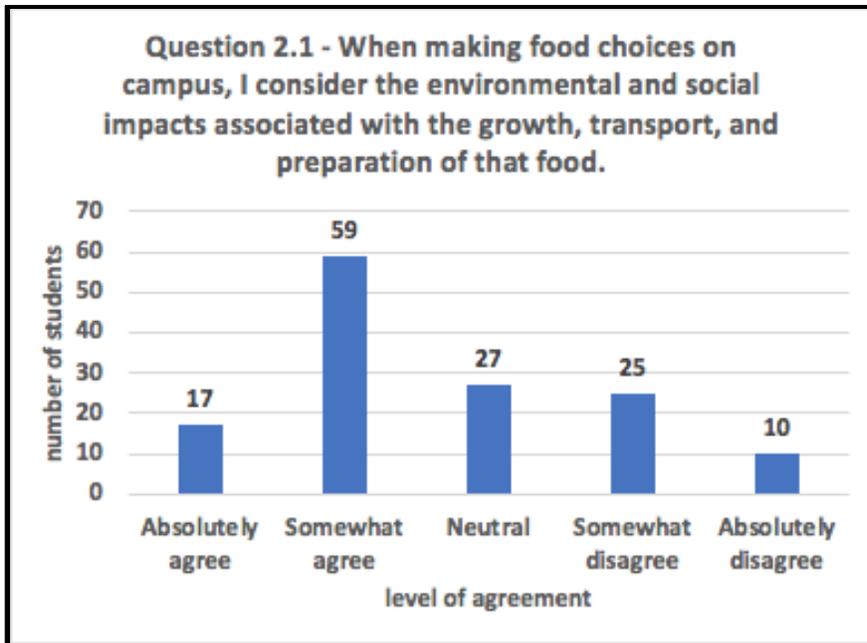


Figure 3: Students' priority on environmental and social impacts of their food choices

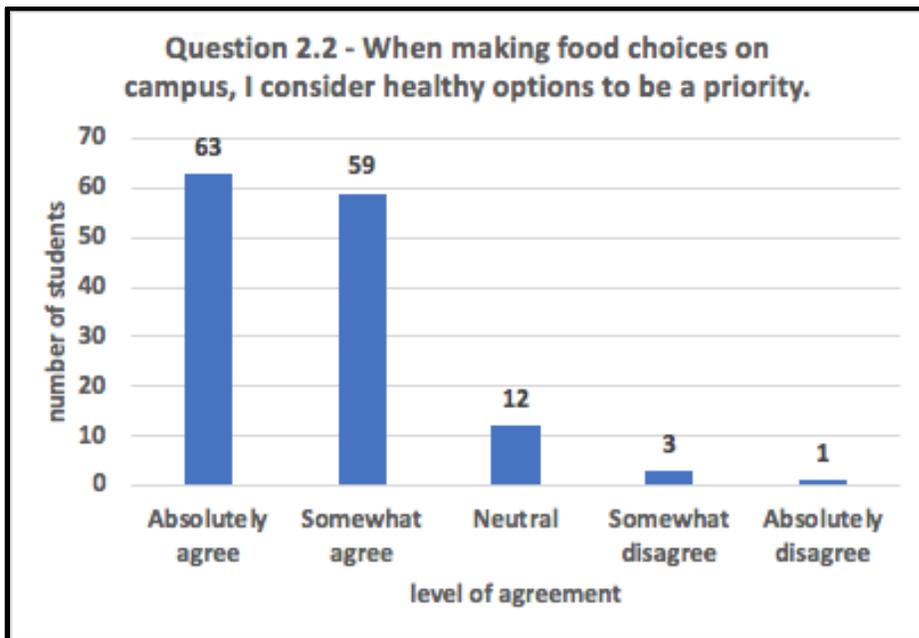


Figure 4: Students' priority on health aspects of food choices

As shown on the graphs above, most students we surveyed prioritize health when choosing foods on campus, and majority of them also consider the environmental and social aspects associated with the growth, transport and preparation of that food.

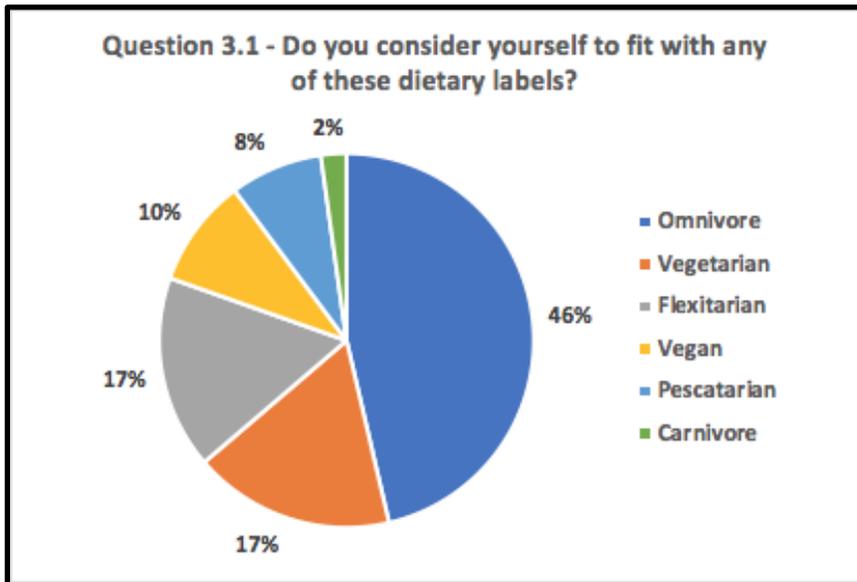


Figure 5: Dietary profiles of student body

Most students we surveyed, (46.4%) are omnivore. 7.4% are vegetarian, 16.7% are flexitarian, 9.4% are vegan. 8% are pescatarian and 2.2% are carnivore.

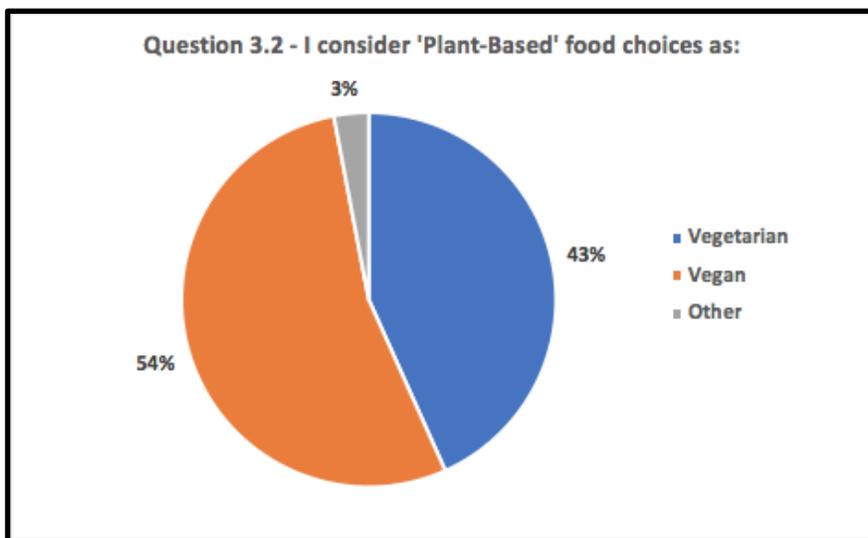


Figure 6: Students' definition of "plant based" food choices

The majority of the students we surveyed (53.7%) consider "plant based" foods as vegan, and the rest of them consider "plant based" as vegetarian.

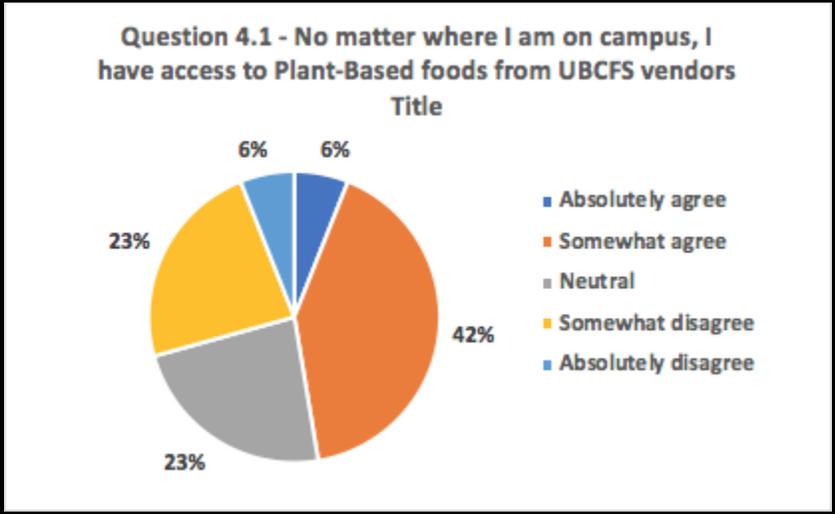


Figure 7: Students' evaluation of access to plant based foods on campus

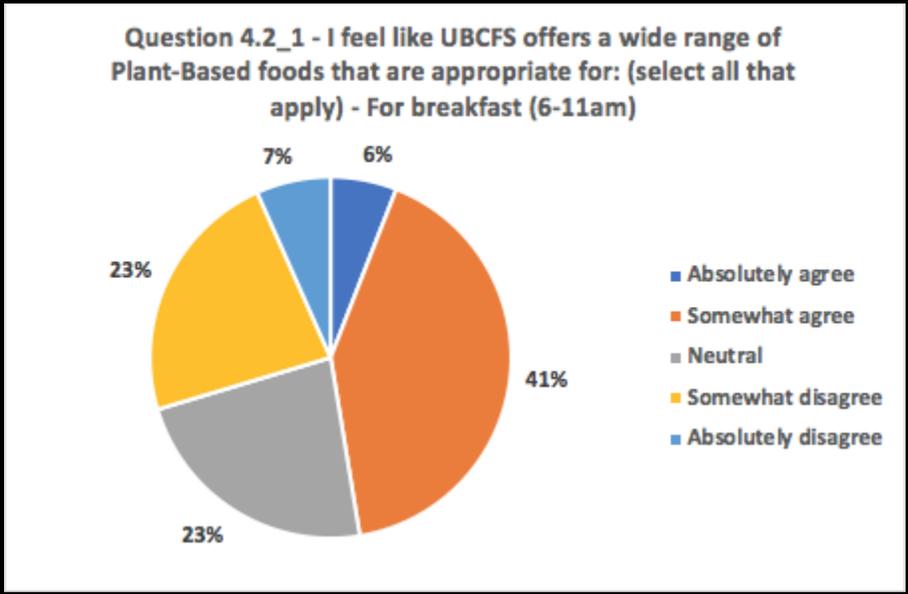


Figure 8: Students' evaluations on the diversity of plant based foods during breakfast time

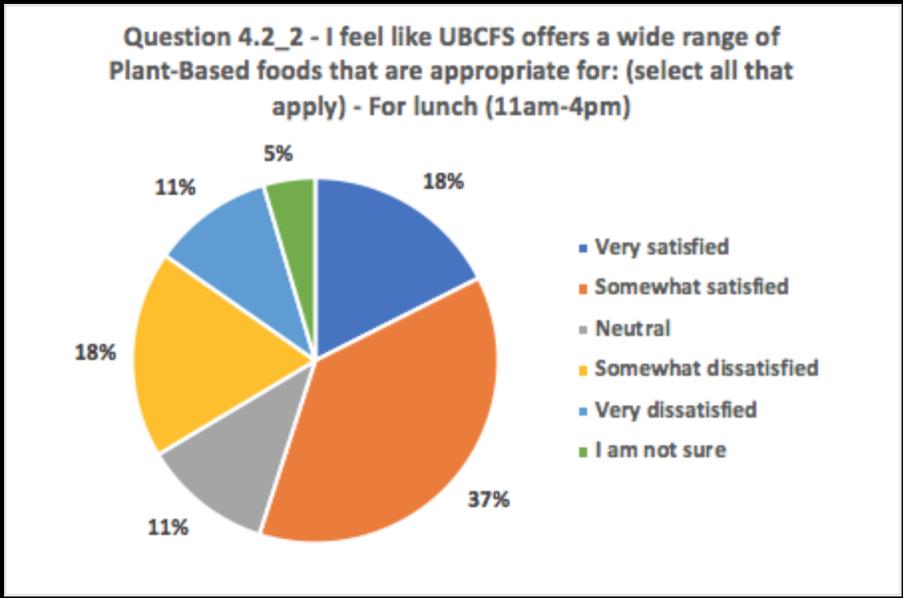


Figure 9: Students' evaluations on the diversity of plant based foods during lunch time

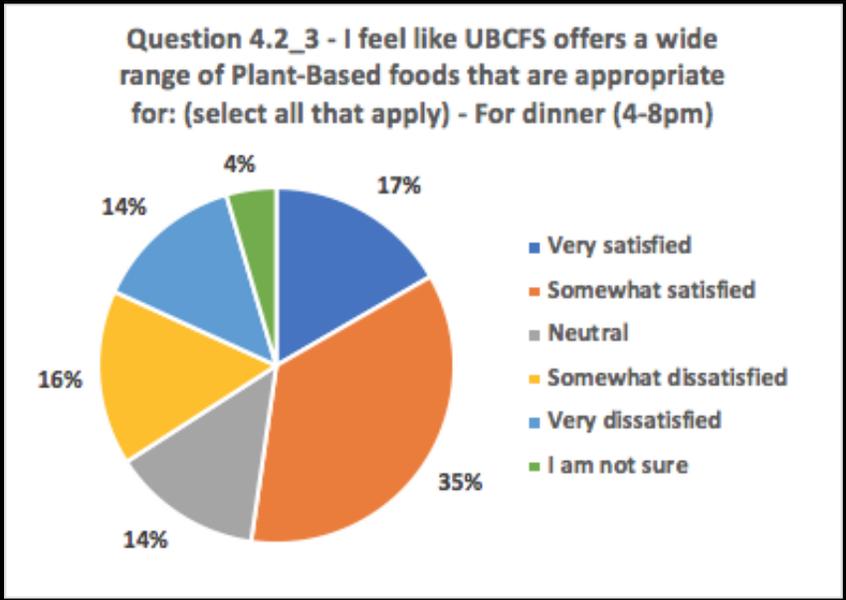


Figure 10: Students' evaluations on the diversity of plant based foods during dinner time

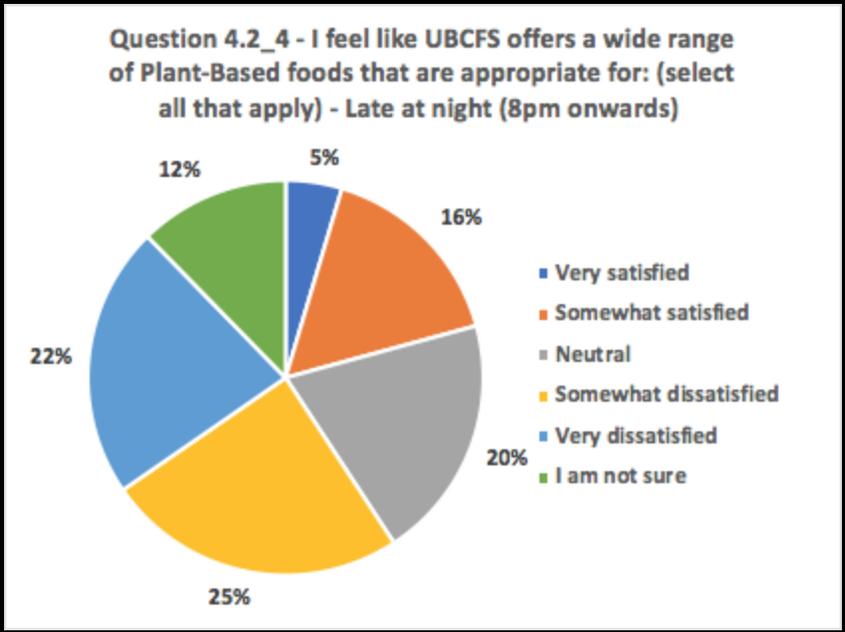


Figure 11: Students’ evaluations on the diversity of plant based foods at late night

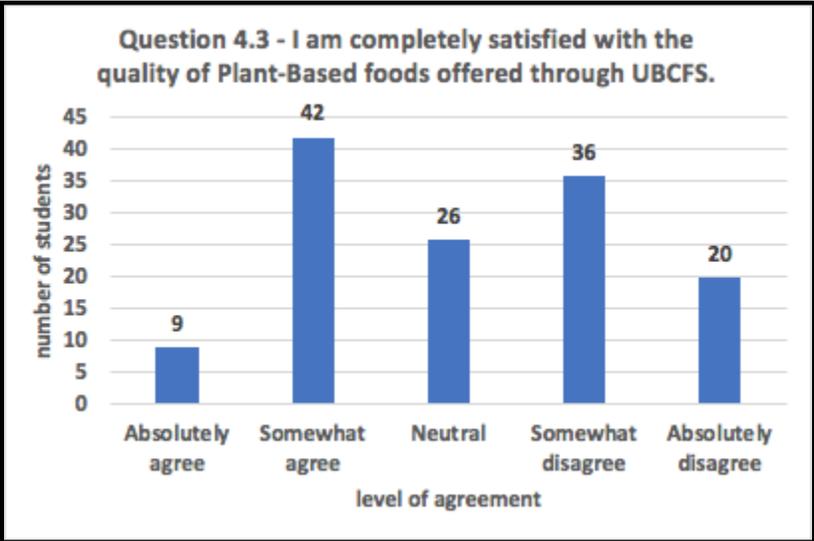


Figure 12: Students’ satisfactions with the quality of plant based foods offered by UBCFS

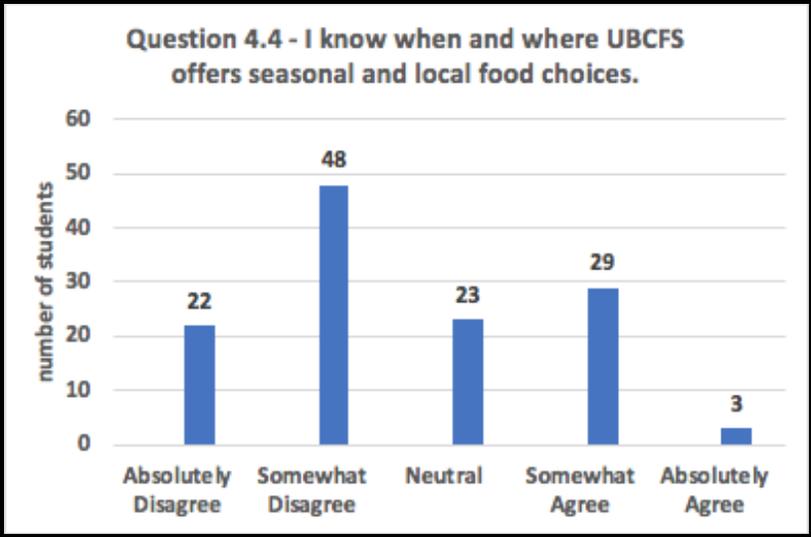


Figure 13: Students’ awareness on seasonal and local food choices offered by UBCFS

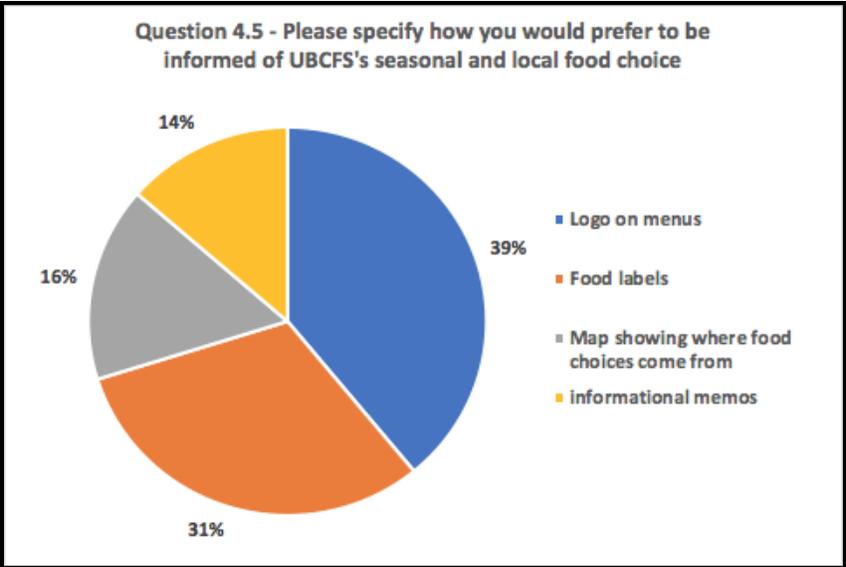


Figure 14: Students’ preference on UBCFS’s advertising methods on seasonal and local foods

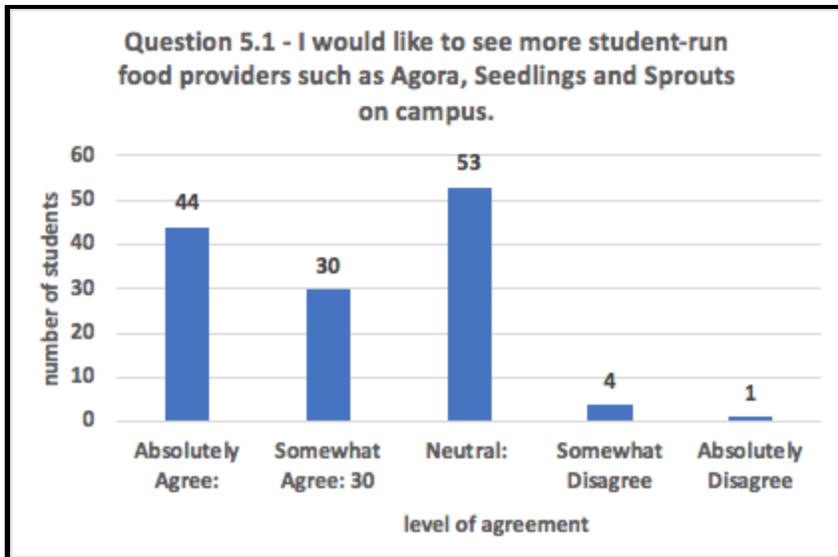


Figure 15: Students opinions on student-run food providers

The last two questions of our survey which were open ended asked for students' additional comments on why they prefer student-run food providers and plant based, seasonal, local food choices offered by UBCFS (refer to Appendix B).

The three main rationales students gave for their preference to student-run food providers such as Agora and Sprouts are affordability, community and accessibility. Most students reported that they can find more options suitable for their dietary needs and financial situations at student-run food providers. Most students expressed their support in opportunities for student involvement in the campus food system. In addition, most students considered student-run providers as spaces of community gathering.

The three main suggestions students provided for UBCFS in terms of their plant based, seasonal, local food options are to increase 1) vegan options and variety, 2) accuracy of food/nutritional food labeling as well as 3) the health and quality of foods. Most students reported that vegan food options at residential dining halls and Open Kitchen were limited. The most overwhelming response from students is to increase the quantity and variety of vegan options on the UBC campus. Many students expressed their concerns towards minimal vegan options at dining areas within UBC, where having to eat the same meals every day was not enjoyable. The second most common response is to increase accuracy of food/nutritional labeling on Nutrislice. Many students expressed frustration that information on Nutrislice was sometimes inaccurate. Students specifically wanted to see accurate labeling of vegan options as they reported incidences where the options labeled as vegan on Nutrislice were actually vegetarian. Students wanted to see more accurate information on

meal calories. Thirdly, students expressed their desire for healthier options and better food quality. Suggestions include meals with less oil and seasoning, by replacing canola oil with healthier alternatives such as olive oil or avocado oil.

3.1.2 Open-ended Interviews

Throughout the course of the project we interviewed 5 stakeholders from the UBC Food Service with an open ended semi-structured interview. For the list of questions, notes, and transcripts please refer to Appendix C. Table 1 is a summary of the responses to our three main questions as well as comments made regarding future plans to advance the FV&V.

Table 1: Summary of responses from interviews with the UBCFS stakeholders

Question	Responses from UBCFS Stakeholders
<p>What are some of the best practices currently utilized at UBC that focus on increasing the proportion of plant-based, seasonal, and local food items served through UBCFS?</p>	<ul style="list-style-type: none"> - “Every decision we make in our business, we look at our vision and value statement, and how we can relate this to the vision of values as a department.” - UBCFS does as much in-house preparations as possible, develop the menus themselves with seasonality in mind - At Mercante – “Best Vegan Pizza” internal contest for chefs to develop new ideas. - “Station Take-Overs” - chefs have the freedom to create a menu item based on fresh, local items – allows for more flexibility - All salads offered at Harvest right now are plant-based. - UBCFS only serves whole-wheat pasta. - UBCFS is dedicated to reducing food waste, compost is collected from every station. - There is a strong connection with the UBC Farm (UBCFS does volume-based purchasing)
<p>Are there any drawbacks or barriers to increasing the volume of plant-based, seasonal, and local food items?</p>	<ul style="list-style-type: none"> - Availability of local foods, especially during off-season – UBC Farm can only produce so much (and it’s not enough to feed everyone at UBC) - Consistent supply of high-quality foods - Cost – high quality fresh food isn’t cheap & affordability (food insecurity is also an issue) - Customer Demands – people expect things like fresh fruit all year long (there has been some pushback from students and staff in the past regarding Meatless Mondays, and 100% plant-based soups) - Franchises have a large marketing team at their disposal than UBCFS - Trying to accommodate for so many diets at the same time - There are frozen plant-based alternatives, however, only second year students have access to their own kitchen for cooking (1st years can’t use the frozen plant-

	based alternatives).
Are there any opportunities that UBCFS should pursue in order to better achieve their FV&V specifically related to plant-based, seasonal, and local food items?	<ul style="list-style-type: none"> - Advertise the locally produced food items (Harvest) - Educational cues at the food stations (e.g., Did You Know?) & educating customers on why plant-based is good for them. - Education needs to focus on the positive aspect and how to relate it back to the individual to encourage students to eat more plant-based - Need to find more ways to increase local food access during winter months. - Increasing food indigeneity
Additional Comments regarding Future Plans	<ul style="list-style-type: none"> - New food vendor in the life building will be plant-based (no meat) - Increased in-house food processing to increase the amount of local food and reducing waste - More processing equipment for the UBC Farm

3.2 Secondary Data

Our secondary data is comprised of a landscape scan of the policies and practices of other Canadian post-secondary institutions, an audit of the food offerings at Open Kitchen, as well as a literature review on policies and practices that can help advance the UBCFS FV&V. Table 2 is a summary of the practices and policies in other Canadian post-secondary institutions that are related to the advancement of plant-based, seasonal, and local food values.

Table 2: Summary of practices & policies in other post-secondary institutions related to plant based, seasonal and local food values.

University	Relevant Practices & Policies
University of Manitoba	<p>Participates in the Good Food Challenge (GFC) from Meal Exchange (University of Manitoba, n.d.)</p> <ul style="list-style-type: none"> - “Dining Services sources food from many local farmers, growers and distributors” - “Dining Services partners with campus to recycle at all dining locations across campus.” - Dining Services is trayless - Reusable mug program to reduce waste and receive a 25% discount on hot beverages at ALL Dining Services locations - 100% of dining services used fryer oil is recycled - “All dining locations are committed to using daily green cleaning products in our operations”
University of Victoria	<p>Participates in the Good Food Challenge (GFC) from Meal Exchange (Schellenberg, 2018)</p> <ul style="list-style-type: none"> - Food Services are self-operated by the University (like UBC)

	<ul style="list-style-type: none"> - Also has a student chapter (similar to SEEDS and LFS) that runs or helps run Sustainability Audits - Manages a community garden for students, faculty, and staff
Carleton University	<ul style="list-style-type: none"> - Have a “<u>Local</u>” Logo & a Food Map showing where campus food comes from - <u>Local Food Week</u> to showcase local foods - Food Services Webpage has a <u>link to local farmers</u> websites which provides information on the farmers - “Our chefs take into account seasonal produce availability when developing recipes, ensuring local offerings are part of our menus year-round.” (Carleton Dining Services, n.d.)
University of Guelph	<ul style="list-style-type: none"> - Won 2012 Local Food Award - with almost half of food served sourced from local -Defines ‘Local’ as within 200 km (University of Guelph, n.d.)
McGill University	<p>Participates in the Good Food Challenge (GFC) from Meal Exchange (McGill Food and Dining Services, n.d.)</p> <ul style="list-style-type: none"> - 50% of all food on campus is grown, raised, or processed locally – ‘local’ defined as within 500 km - Health resolution guide that aligns with Canada’s food guide & <u>sample meal plans</u> to better follow the food guide - ‘<u>Meatless Mondays</u>’ & <u>Local Food Days</u> (reduced price of vegetarian meals as incentives) - Have a Logo and Label for Local as well as specific <u>logo for McGill Farm</u> - Fair Trade Certified - <u>All students who register for meal plan receive an eco-kit</u>
University of Toronto	<p>Has campus wide sustainability initiatives focusing on reducing waste (e.g., ‘Bottle Free Campus’ & ‘Composting’)</p> <ul style="list-style-type: none"> - Local Food Program with Local Food Standards: Foods that meet local food standards are labeled with a ‘<u>Local Food Badge</u>’ - Focuses on educating the student population on the benefits of eating local - Has a food label for <u>vegan, vegetarian, halal, and kosher</u> as well as <u>gluten-free</u> - Has a ‘Veggie Monday’ (similar to Meatless Mondays at other institutions), <u>students receive a 10% discount for vegetarian & vegan options</u> (University of Toronto Food Services, n.d.)

3.2.1 Textual Data Audit

We conducted an online textual Audit of the Open Kitchen menu on April 4th (refer to Appendix E for raw audit data). We retrieved our data from the Nutrislice online platform. To conduct the audit, we checked the ingredients listed provided for each dish to ensure the label was appropriate, then evaluated the number of plant-based options that were either vegetarian or vegan. We proceeded to compare the number of vegetarian, vegan and meat containing options at each station. This allowed us to observe areas that had the most room for improvement, or which stations were offering mainly plant-based options and were clearly implementing the plant-based focused FV&V.

This year, Open Kitchen has been the only functioning first year residence dining hall as Gather and Feast are closed due to the COVID-19 restrictions. This means we had an even more limited dataset in comparison to previous year's projects, which compared and contrasted the different first-year residence dining halls. However, conducting an online audit did have benefits, as we had access to exact ingredient lists for each dish. Being able to see each ingredient meant we could be confident that our evaluation of whether the meal was vegan, vegetarian, or contained meat would be accurate. As poor ingredient labelling had been a concern in previous project's audits, we were pleased to find thorough lists of all ingredients shown on the Nutrislice website (Figure 17).

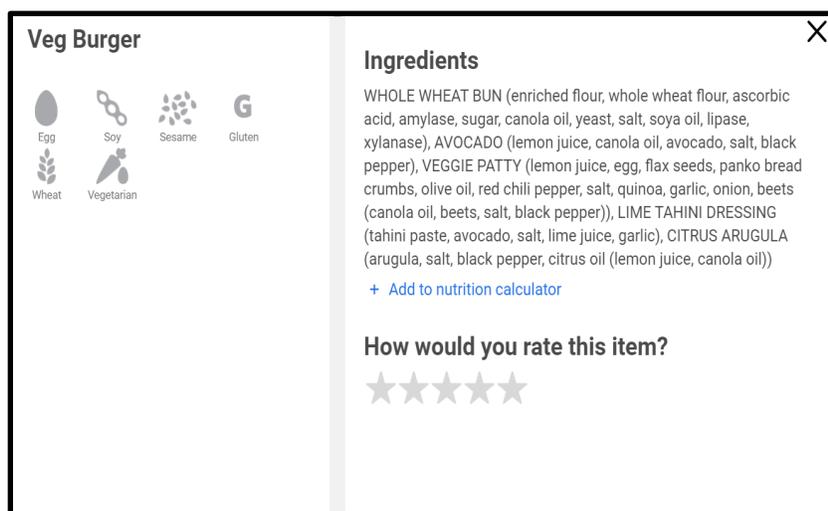


Figure 17: Ingredients list shown on Open Kitchen online menu

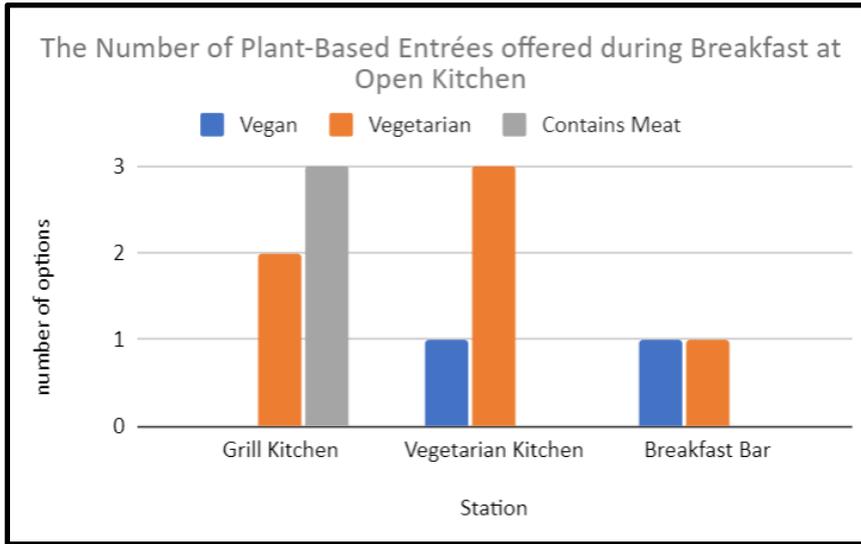


Figure 18: Number of Plant-Based Entrées offered at breakfast in Open Kitchen

We noticed from our survey responses that many students asked for more plant-based options for breakfast. Therefore, we decided to audit the number of plant-based options for both breakfast and the lunch/dinner options (lunch and dinner are grouped on the menu), to see if there are significantly fewer plant-based options at breakfast

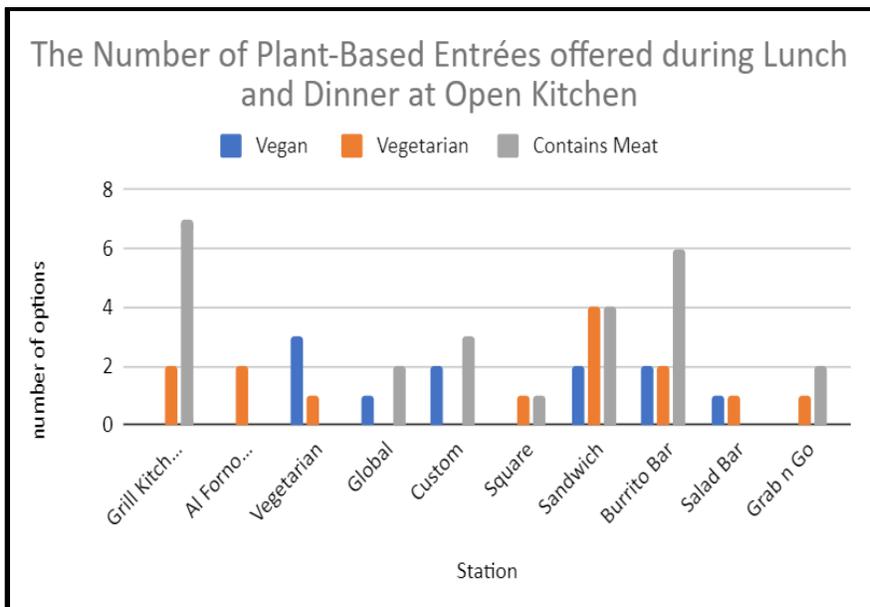


Figure 19: Number of Plant-Based Entrées offered at lunch and dinner in Open Kitchen

As shown in the graphs, Grill Kitchen is the station that has the most room for improvement for plant-based offerings as it offers no vegan entrees at any meal. As we learned from our survey results, students want more plant based options that are specifically vegan, especially at breakfast time. We therefore recommend that in order to have each station reflecting the plant-based FV&V and satisfy student’s desire for more vegan options, Grill Kitchen could be a location where these could be offered.

3.2.2 Literature Review

Our project utilized a number of primary and secondary sources to help shape our understanding of the context surrounding the advancement of plant-based, seasonal, and local food values. Table 3 below presents the general inquiries that guided our literature review.

Table 3: Summary of questions that guided our research, the relevant answers and the sources.

Research Inquiry	Relevant Answer	Source
What is the Good Food Challenge?	The Good Food Challenge is an initiative started by Meal Exchange, a non-profit organization. The challenge is aimed at increasing the amount of ‘good foods’ offered through university food services. Refer to Appendix A for additional resources on what constitutes ‘good food’.	Meal Exchange Canada 2018
What portion of Canadians are vegetarian?	Around 7% of Canadians consider themselves as a vegetarian, however, 8.5% of residents living in BC identify as vegetarian. Those with a university degree are 3 times more likely to be vegetarian than those with a high school diploma.	Redmer 2020
What convinces people to reduce their meat consumption?	The most common reasons to reduce meat consumption was <u>cost & health</u> .	Neff et al. 2018
What are barriers for reducing meat consumption?	The most common barriers for reduced meat consumption are 1) the cognitive dissonance of meat consumption and therefore skepticism on scientific findings on the health and environmental impact of meat consumption 2) the <u>lack of awareness</u> of the health and environmental impact of meat consumption 3) the unwillingness to reduce meat consumption due to social and cultural reasons	Dowsett et al. 2018 Macdiarmid, Douglas, & Campbel, 2015
What are the most effective policies for	The <u>amount of nutritional information</u> university students received (in hours/week) had a significant and positive effect on the self-reported	Egg et al. 2020

<p>increased adoption of plant-based foods?</p>	<p>levels of food literacy, as well as a marked decrease in the amount of ultra-processed and meat products consumed.</p> <p>These results are in line with other studies that found that <u>informational approaches</u> are effective especially for those that already value the health and environmental aspects of food choices.</p> <p>That same study also showed maximum levels of adoption when informational approaches (such as comprehensive food labeling and a focus on the nutritional benefits of plant-based) were <u>combined with ‘nudging’ approaches</u> such as making plant-based dishes the default option and increasing accessibility to plant-based products. Even more intriguing are the findings that show that even when ‘nudging’ policies are unpopular at first, they are eventually accepted as normal and the health benefits are accrued.</p>	<p>Van Loo et al. 2017</p> <p>McKenna et al. 2019</p>
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4. DISCUSSION

4.1 Survey Discussion

The survey provided us with a wealth of valuable information on the perspective of students, and what their opinions are on the areas of opportunity for UBCFS to advance their food values. Table 4 below presents the results of the survey and translates those results to suggestions for UBCFS.

Table 4: Suggestions based on survey results

Survey Result	Importance	Suggestions
<p>Most students were unaware of UBCFS FV&V (refer to figure 1)</p>	<p>This indicates the effectiveness of communication of UBCFS with student body</p>	<p>Increase students’ awareness through marketing campaigns.</p> <p>Examples include social media posts, educational resources on UBCFS’s website and posters at dining hall locations.</p>
<p>Most students are omnivore (refer to figure 5)</p>	<p>Dietary profile of survey population, which is a representation of UBC student body</p>	<p>Develop strategies to encourage plant based food consumptions</p> <p>Examples include 1) price incentives “more plant Mondays” 2) increase awareness of the associating health and environmental benefits of meat reduction 3) develop more appealing plant based menu</p>

<p>Most students prioritize the health aspects of foods when making food choices whereas only around half of the students we surveyed consider environmental and social aspects of foods when making decisions (refer to figure 3 and 4)</p>	<p>Information on students' demand</p>	<p>Increase awareness of social and environmental impacts of food choices such as carbon emission of meat and dairy consumption</p> <p>Examples include social media posts, educational resources on UBCFS's website and hosting webinars/events on the topic</p>
<p>Most students consider plant based options as vegan (refer to figure 6)</p>	<p>This is useful to revise the definition of plant based foods</p>	<p>Make vegan options as default for plant based options and have add-ons (eg. eggs, cheese, honey) for vegetarians</p>
<p>Most students are not aware of when or where they can find local, seasonal offerings (refer to figure 13)</p>	<p>This implies UBCFS's accountability to FV&V specifically on providing seasonal, local foods</p>	<p>Create clear labels (eg. logos on menu, food labels, food maps, informational memos) for these options</p> <p>Create marketing campaigns for local and seasonal offerings</p>
<p>About half of the students we surveyed are satisfied with plant based options on campus, however, there is most dissatisfaction during breakfast time (refer to figure 7-11)</p>	<p>This implies UBCFS's accountability to FV&V specifically on making vegan and vegetarian options readily available</p>	<p>Increase vegan breakfast options</p> <p>Examples include vegan bakery items, tofu scramble, vegan creamery products</p>
<p>About half of the students we surveyed are satisfied with the quality of plant-based foods on campus. (refer to figure 12)</p>	<p>This implies UBCFS's accountability to FV&V specifically on providing fresh, high quality foods</p>	<p>Increase well rounded plant based options (eg. more protein options) and healthier options (eg. less calorie dense, less oil/additives).</p>
<p>Majority of students reported preference to student-run food providers such as Agora, sprouts and Seedings due to affordability, sense of community and access to foods suitable for dietary needs (vegan/vegetarian) (refer to figure 15)</p>	<p>This implies UBCFS's accountability to FV&V specifically on supporting the wellbeing of students</p>	<p>Build partnerships or collaboration with student-run food providers</p> <p>Examples include including student-run food providers as meal plan locations so students can use flex dollars at these locations</p>

4.2 Interview Discussion

The interviews with UBCFS stakeholders provided us with insight on the current best practices, challenges, and opportunities with advancing plant-based, seasonal, and local food values. One of the practices mentioned was the widespread use of in-house processing of fresh, local foods as a means to reduce food waste (packaging) as well as increase the amount of local food stored and used on campus. Another best practice mentioned was the strong connection between the UBCFS and UBC Farm, in which the UBCFS purchases large amounts of fresh product from the farm and there are plans to strengthen collaboration in the future.

There were two main challenges with the advancement of locally produced plant-based food values on campus. The first concern was related to the issue of seasonality and availability of locally produced, high quality foods in high volumes that will support the demand from UBC. The second challenge that was mentioned by all stakeholders is customer demand - the globalized food system has spoiled consumers for generations and now they expect to have fresh fruit all year round.

The main opportunity brought up by UBCFS stakeholders was the lack of customer educational initiatives or informational cues offered to the customer base. The gap in customer awareness of current UBCFS practices can be exemplified by the fact that no project members knew that all burger patties offered through UBCFS are already made with at least 25% mushrooms. Whether or not this practice was intentionally kept from the student body, it represents the lack of communication between the UBCFS and the students. However, educational initiatives could go further than keeping the student population up to date with university practices. They can also serve as a source of information on the benefits of eating more plant-based food choices and as a cue for items that are produced on the UBC Farm.

4.3. Audit Discussion

When conducting the textual audit from the Nutrislice menu, we collected data in the following categories: Vegan, Vegetarian and “Contains Meat”. We did this instead of following the UBCFS definition of plant-based, as we saw in our survey responses that students were wanting more entree options that fit a specifically vegan diet (see suggestions in Table 1). However not all plant-based options (according to the UBCFS definition) are suitable for a vegan diet, so to get

more information about the concerns students had expressed in our survey, we decided to distinguish between vegan and vegetarian options in our audit.

During the auditing process, we recognized a discrepancy in UBCFS definition of Plant-Based foods. On the label key for the dietary information labels, it says under *Vegan* that the items are “made from plant-based foods only” (see Appendix A). This use of the term Plant-Based does not correspond with UBCFS’s adoption of the phrase to mean vegetarian (including dairy, eggs and honey). This ambiguous use of the term plant-based adds to confusion over the meaning of the phrase that we encountered in meetings during our project.

4.4 Landscape Scan and Literature Review Discussion

It is worth mentioning that UBCFS is considered a leader amongst Canadian post-secondary food services when it comes to advancing food values and policies that are aimed at developing a sustainable food system. Like many institutions, UBC has committed to the Good Food Challenge (GFC) - an initiative started by Meal Exchange and aims at increasing the amount of ‘good foods’ served on university campuses. Many Canadian post-secondary institutions have committed to the GFC, however, there are a number of practices from other institutions that can help UBC advance plant-based, seasonal, and local food values. For instance, McGill is another post-secondary institution that has a university farm that produces food for the student population. They have developed a logo to use on food choices that are made using ingredients that were predominantly grown on the McGill Farm, acting as an informational cue to students that strengthens the connection between consumer and local producers. Another common practice found at other institutions was the use of a ‘Meatless Monday’ or ‘Veggie Monday’ to increase the awareness of plant-based foods and provide a financial incentive for their consumption.

The literature review provided us with contextual information as well as information on what factors influence meat consumption. Nearly 17% of the survey respondents identified as vegetarian (with an additional 10% identifying as vegan). This is higher than both the national (7%) and provincial (8.5%) percentages (Redmer 2020). A study conducted by the University of Waterloo suggests that the young and more educated a population is, the higher the likelihood of identifying as vegetarian. It is worth noting that this survey response could be skewed by a larger input from LFS students - who are more likely to be vegetarian. However, even if the data is slightly skewed, the literature review still emphasizes

that UBC is home to the most progressive demographic in North America (educated youths, living in British Columbia) when considering dietary choices.

With factors that influence meat consumption, the literature suggests that most people respond best to messages that describe the health benefits of plant-based food choices - this is in line with the survey results where the majority of students consider healthy food choices to be a priority. The literature review found studies that looked at the barriers to increasing consumption of more plant-based foods. The studies suggest that the top barrier is related to the cognitive dissonance between what consumers think is healthy and what surveys are saying is healthy. This dissonance has been groomed into general society over generations of marketing campaigns aimed at selling more processed and animal-product food options. The second and third largest barriers are lack of awareness of the benefits to eat a plant-based diet and the social or cultural pressure to eat animal-products. Studies have shown that the best way to overcome these barriers is through a combination of informational strategies aimed at increasing customer awareness about the benefits of eating plant-based foods with 'nudging' strategies (Egg et al., 2020; McKenna et al., 2019; Van Loo et al. 2017). 'Nudging' includes practices such as making plant-based dishes the default option and increasing accessibility to plant-based products, UBC can already be considered to be adopting nudging strategies but is lacking informational strategies - as is evident from the survey results. An intriguing finding from the literature review is that even if such nudging practices are considered to be unpopular at first (with high complaints), people will adjust and will accrue health benefits over time.

4.5 Overall Discussion-Combining Primary and Secondary

This project has had the opportunity to work with many different forms of data collection, where this section will synthesize the results from the sources. The first conclusion drawn from both the survey and interviews with the UBCFS stakeholders is that both parties are pleased with the progress that UBC has made with the food policies - the majority of students are satisfied with the quality of plant-based food options and all stakeholders were proud to see the progress that UBCFS has made over the years. The audit also confirmed this progress, showing that over the years, UBCFS has increased its plant-based options: up 32% from 2019. However, within this consensus there is a gap in the communication methods between the food providers and the student consumers. The survey shows that the vast majority of students are unaware of what the UBCFS FV&V are. However, the interviews with the stakeholders revealed that they constantly use

the FV&V to guide their decisions. The fact that students aren't aware of the FV&V shows that a list of visions and values isn't an effective means of communication and that there is a need for a communication strategy that focuses on informing students on what practices UBCFS is currently utilizing and what the future goals are. The survey also suggests that the UBCFS website has been an effective tool for informing students about the FV&V; 10% of all respondents (40% of those who were aware of the FV&V before the survey) found out about the FV&V from the UBCFS webpage. This information indicates that future information strategies should focus on digital platforms.

It is interesting to note that all sources of data converge on the importance of an effective informational strategy. The survey results show that the majority of students consider healthy foods to be a priority and consider the environmental and social consequences of their food. This shows that students are actively seeking information on these metrics. The students responded that they are looking specifically for logos and food labels on the menus, something UBC already does for other metrics such as gluten-free, vegan, and vegetarian. The survey also shows that the majority of students don't know where to find locally produced foods on campus, despite the abundance of local food on campus (as is evident from the interviews and audit). Findings from several studies all point to the importance of informational strategies that focus on raising the customer awareness on the health benefits of eating more plant-based foods as an effective means to reduce meat consumption. This point has also been echoed by the UBCFS stakeholders during the open-ended interviews, most recognizing the opportunity present in educating the student population and advertising locally produced food choices. At this point it is important to mention how the gap in communication between UBCFS and the student population is more than just the lack of informational strategies - it's a disconnect in definitions.

According to the survey, the majority of students defined 'plant-based' as being equal to vegan options only, whereas according to the UBCFS stakeholders, it is equal to both vegetarian and vegan options. This disconnect is important because it has represented the majority of negative feedback about the UBCFS received on our survey. Veganism is an apparent point of contention between the UBCFS and the student consumers, as is evident by the fact that every phase of this project has recommended an increase in vegan food options. Despite these recommendations year after year, and the increase in vegetarian options offered, the amount of vegan food choices offered by UBCFS has remained steady (around 15-17%) for the past 4 years - the vegan breakfast item (chia and/or oats) has not changed in at least 2 years. This could be due to social or cultural pressures felt by UBCFS stakeholders, which are acting as barriers to UBCFS committing to more

vegan options. During the interviews with the UBCFS stakeholders it was mentioned that UBCFS tried to implement a ‘Meatless Monday’ in 2017, and it was quickly removed due to pushback from students and staff. However, this initiative was originally pursued years ago and the stakeholders could not answer what kind of marketing/ informational strategies—if any—were utilized. The UBCFS stakeholders recognize the polarizing times we live in and respect the freedom of choice, yet they also recognize how this can be seen as a challenge when the demands of consumers aren't in line with the values of the future.

The literature review provided a possible answer to this challenge. The best way to change people’s eating habits and eat more plant-based foods is by increasing the amount of informational strategies focusing on increasing the awareness of benefits. Providing information on the policy changes while enacting those changes is a good way to increase the adoption of those practices—even with complaints at first. Finally, the literature review provides us with a firm reminder of the current state of our world and uncertainty of our future. In the present, food systems feeding North America are unsustainable as they continue to rely on ultra-processed and animal-based foods that destroy our natural habitats and put our citizens in hospital beds. Despite these polarizing and unprecedented times, there will not be a better time or place than now at UBC to advance sustainable food policies. The situation will not improve unless our institutions have the courage to continue to act in progressive ways and enact on what is possible.

4.6 Limitations

The majority of the limitations for our project stem from the COVID-19 pandemic, such as restrictions with physical distancing which limited our modes of data collection in the following three aspects and as a result may have increased the sampling error of our data. Firstly, survey data collection was primarily online, potentially skewing data by under-representing students who don't use the UBCFS webpage or social media platforms. Secondly, audit data was exclusively from Open Kitchen, whereas previous years included all dining halls. Thirdly, interviews could have been conducted in person, opening the range of people we could have talked to, such as other students, chefs/ members of the culinary team.

Aside from COVID-19, there is a limitation on our projects progress on developing metrics for measuring ‘seasonal’, these limitations arise from the fact that supply companies do not track this metric. There are also issues related to the vagueness of the concept. For example, tomatoes can be grown locally and out of season. Does the fact that

it was grown out of season reduce the benefits of local production or the health benefits of the tomato itself? The answer depends on the individual’s perspective.

5. RECOMMENDATIONS

5.1 Recommendations for action and implementation

Table 4: Short term, intermediate, long term recommendations for UBCFS FV&V

Overall Recommendations
Short Term
<ol style="list-style-type: none"> 1. Redefine ‘Plant-Based’ to mean vegan <ul style="list-style-type: none"> ○ <u>Reasoning</u>: to advance and update the definitions of the UBCFS FV&V to better align with the UBC context and reduce the consistent negative feedback from the student population regarding the lack of vegan options. 2. Roll out more vegan options <ul style="list-style-type: none"> ○ <u>Reasoning</u>: to advance the UBCFS FV&V related to increasing the consumption of more plant-based foods. ○ <u>Examples</u>: make pancakes using a vegan recipe, add a vegan breakfast & lunchtime burrito using local ingredients; increase vegan protein alternatives such as sofritas, tempeh, jackfruit, etc; partner with local vegan producers such as The Very Good Butchers; offer more than just frozen plant-based options (offer a plant-based “chicken” strip along side the conventional one). 3. Develop a label for the UBC Farm and Local options (sourced from within 500 km) <ul style="list-style-type: none"> ○ <u>Reasoning</u>: to advance the UBCFS FV&V relating to increasing the amount of local food consumed on campus & to act as a part of a larger informational strategy aimed at increase awareness of local food choices.
Intermediate Term

- 1. Develop a comprehensive informational strategy and increase the resources devoted to marketing**
 - Reasoning: to address the gap in communication between the UBCFS and the student body at large as well as increase the awareness of benefits accrued from eating plant-based, locally grown foods.
- 2. Increase local food production/ strengthen connections with local food producers**
 - Reasoning: to advance the UBCFS FV&V related to increasing the consumption of locally produced foods.
- 3. Continue to develop new recipes & include input from students**
 - Reasoning: to advance the social and community building aspects of food as well as increasing food literacy on campus and increase the cultural diversity of food options.

Long Term

- 1. Continue to critically analyze UBCFS FV&V and the practices aimed at advancing them**
 - Reasoning: to continue to be progressive and advance values in adaptive ways.
- 2. Develop pilot programs that aim to increase local food production and increase plant-based food consumption**
 - Examples: a sample program for students to be able to try new foods thereby increasing their familiarity with plant-based foods.

5.2 Recommendations for future research

Throughout our project, we have identified four areas of further research to be explored. Firstly, sustainable sourcing of local plant based ingredients and seasonal foods could be explored. Plant-based ingredients might not always be seasonal or local, especially in the context of Canada. Including a wide range of plant-based foods such as avocado, broccoli and a variety of fruits for a well rounded plant based diet would mean sourcing from a foreign land. Therefore, it is important to understand the production behind plant based proteins as well as nutrition that plant based diets provide in order to source plant-based food from local and foreign growers in a sustainable and efficient manner. Secondly, consumer behaviour and opportunities to shift towards ecologically sustainable plant based diets could be explored. As evident from our literature review and survey results(refer to Table 3 and 4), consumers are shifting towards plant based diets mainly because of personal health reasons and are less aware of the environmental benefits of a plant based diets. It would be useful to research into how better communications of such environmental

benefits affect consumers' willingness to include plant based food choices. Thirdly, socio-cultural aspects of meat consumption could be further researched. As mentioned in the literature review section (refer to Table 3), social and cultural factors affect dietary patterns especially with regards to meat consumption. As a result, health and environmental impacts of meat consumption might not be convincing enough for many to make dietary transitions. Therefore, it is important to research and develop a set of dietary guidelines that address the social and cultural aspects of foods. Finally, integrating indigenous food values into further research should be considered. Indigenous foodways have existed for thousands of years and carry immense wisdom with regards to sustainable food systems. To include indigenous knowledge into the project signifies an opportunity for reconciliation and the advancement of food sustainability.

6. CONCLUSION

In conclusion, our team's research methods of conducting a survey, interviews, textual audit, landscape scan and literature review allowed us to compile a list of recommendations for how UBCFS can operate in alignment with an advanced list of FV&V. We organized our findings into short, intermediate and long term recommendations. Our short term goals focus on the direct interaction between UBCFS and their customers: We suggest that UBCFS should immediately work on redefining plant-based align with a vegan diet and develop a label for food that is grown locally to inform students with clarity about the sustainable impacts of their food. Our intermediate and long term recommendations revolve around the operations of UBCFS as a whole and how they can continue to advance their adoption of their FV&V as well as strengthen their connections with the community through educating students about the benefits of plant-based eating, as well as cooperating with more local food producers.

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Appendix A: Additional Resources

UBC Food Visions and Values List

Food Vision & Values

SHHS | FOOD SERVICES | 2017

VISION

We nourish and support the students, faculty, staff, and visitors of UBC by providing a diverse selection of fresh, delicious, and memorable food experiences in a socially and ecologically conscious manner. We do this by creating marketplaces and environments where wholesome, healthful food is a priority because our guests, our food, and our wellbeing matter.

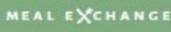
Our decisions are guided by the following values:

- » We purchase high-quality, nutritious, sustainable foods and prioritize fresh, minimally processed ingredients.
- » We are committed to offering and actively promoting an abundance of affordable healthy choices for all meals, in recognition of the contribution eating well makes to academic and professional success.
- » We share food and nutrition knowledge and skills to improve the health and wellbeing of our community.
- » We encourage reduced meat consumption by making vegan and vegetarian options readily available, abundant, and affordable, to reduce our impact on our air, land, water, and climate.
- » Our commitment to transparency, including labelling with nutrition information, ingredients, and allergens, means our customers can make informed decisions about what they are eating.
- » We are proud to be a designated Fair Trade campus. We strive to offer more Fair Trade and ethically sourced products every year. Humanely raised animals and animal products are purchased when feasible.
- » We are proud to be an Ocean Wise™ partner and prioritize purchasing sustainable seafood.
- » We are a Zero Waste partner at UBC and strive to compost all food scraps, use recyclable or compostable single-use containers, and offer discount container programs.
- » We provide free drinking water at all of our food service locations as a sustainable and economic alternative to bottled beverage purchases and to encourage reduced consumption of sugar sweetened beverages.
- » We purchase seasonal foods from local food producers, as close to UBC as possible, to reduce our environmental impact, provide fresh ingredients, and to strengthen British Columbia's and Canada's economies.
- » Our culinary focus utilizes local and seasonal Pacific Northwest cuisine, while simultaneously striving to offer globally inspired and culturally appropriate menu choices.
- » We strive to prepare as many menu items as possible in-house, based on our menu engineering guidelines developed with our registered dietitian.
- » Our Supplier Code of Conduct sets performance expectations and strongly encourages our suppliers to support our Food Vision & Values.
- » We support our team with ongoing professional development to drive culinary excellence and meet or exceed our customer's expectations.
- » Our rigorous food safety plan consists of procedures, training, and auditing that ensures a safe environment our guests can trust.
- » We strongly support the UBC Action Framework for a Nutritionally Sound Campus, one of the UBC Wellbeing priority areas, by helping to lead the Food and Nutrition Working Group and working towards achieving its goals.

Training

We support our culinary team with ongoing professional development to drive culinary excellence and to optimize guest experience. Our training programs include food safety training, allergen training, plant based protein menu development training, and sustainability workshops to help educate and engage our culinarians.

Table of Good Food Choices as per the Good Food Challenge

 THE GOOD FOOD GUIDE 			
COMMUNITY-BASED	SOCIALLY-JUST	ECOLOGICALLY-SOUND	HUMANE
<p>Foods that can be traced to nearby land, farms, ranches, boats, and businesses that are locally owned and operated. Supporting small and medium-sized food businesses challenges trends toward consolidation in the food industry and supports local relationships and economies.</p>	<p>Individuals involved in food production, distribution, preparation (and other parts of the food system) work in safe and fair conditions; receive a living wage; are ensured the right to organize and the right to a grievance process; and have equal opportunity for employment. Socially-just foods strengthen the capacity of affected groups and promote socially-just practices throughout the food chain.</p>	<p>Farms, ranches, boats, and other operations involved with food production practice environmental stewardship that: conserves biodiversity; promotes ecosystem resilience; and preserves natural resources, including energy, wildlife, water, air, and soil. Production practices should minimize: materials that cannot be recycled, returned to the soil or put in the compost; direct and indirect greenhouse gas emissions; natural resource depletion; and environmental degradation.</p>	<p>Animals should be healthy, free from ongoing and unmitigated pain and stress, able to express natural behavior, and raised with no unnecessary medication.</p>
<p>GREEN LIGHT: Purchase whenever possible. Products meeting these criteria or certifications qualify as Good Food and best represent the standard</p>			
<p>Single-Ingredient Products (or Multi-Ingredient and Single-Ingredient Aggregated Products if 100% of the ingredients* meet the standard), not including seafood: Products must meet all of the following criteria:</p> <p>A. Transparency: Food must be traceable to origin (origin defined as location of growth, harvest, or catch before any other step in the supply chain)</p> <p>B. Distance: Food must be grown, raised, foraged, caught, or hunted within province (plus 50 km outside of provincial border)</p> <p>C. Size: Farmer/producer/grower must be small-to-medium sized according to the following thresholds:</p> <ul style="list-style-type: none"> • Produce (including fruit, vegetables, tree nuts, melons): \$1.5 million/yr or less in total operating revenues per farm • Farmed Meat, Animal Products, and Grocery (including beef cattle and ranching, dairy, hog and pig, poultry and egg, oilseeds, and grain): \$2.5 million/yr or less in total operating revenues per farm <p>Single-Ingredient SEAFOOD Products (or Multi-Ingredient and Single-Ingredient Aggregated SEAFOOD Products if 100% of the ingredients* meet the standard): Products must meet all of the following criteria:</p> <p>A. Traceability: Seafood must be traceable to origin (origin defined as boat, harvest/aquaculture site, before any other step in the supply chain)</p> <p>B. Ownership: Evidence of small-scale and/or community-based style fisheries, as demonstrated by ONE of the following principles:</p> <ul style="list-style-type: none"> • The operation adheres to a Community Supported Fishery (CSF) model - Ex: a member of the Local Catch CSF community of practice or an Indigenous Community Fisheries Enterprise • The boat is owner-operated OR license owner-operated 	<p>Single-Ingredient Products (or Multi-Ingredient and Single-Ingredient Aggregated Products if 100% of the ingredients* meet the standard): Products with any of the following certifications:</p> <ul style="list-style-type: none"> • Fairtrade International • Small Producers Symbol <p>OR</p> <p>Products from organizations that belong to any of the following entities:</p> <ul style="list-style-type: none"> • World Fairtrade Organization** • Fairtrade Federation** <p>OR</p> <p>Products from any of the following Worker Driven Social Responsibility Programs:</p> <ul style="list-style-type: none"> • Fair Food Program by the Coalition of Immokalee Workers** • Milk with Dignity by Migrant Justice 	<p>Single-Ingredient Products (or Multi-Ingredient and Single-Ingredient Aggregated Products if 100% of the ingredients* meet the standard), not including seafood: Products with any of the following certifications:</p> <ul style="list-style-type: none"> • Canadian Organic Regime (and all certifications that use the COR standards**) and all certifications that use the USDA standards** • Rainforest Alliance / Sustainable Agriculture Network • Demeter Certified Biodynamic • Food Alliance Certified • Certified Wildlife Friendly / Certified Predator Friendly • Regenerative Organic Certification • Hand in Hand (Organic Rapunzel Fair Trade) • Certified Sustainably Grown • Filière Biologique du Québec • Naturland Fair • Salmon Safe • Verified Beef Production Plus • Bird Friendly by Smithsonian Migratory Bird Center - coffee only <p>Single-Ingredient SEAFOOD Products (or Multi-Ingredient and Single-Ingredient Aggregated SEAFOOD Products if 100% of the ingredients* meet the standard) - wild caught only: Products with any of the following certifications:</p> <ul style="list-style-type: none"> • FAO-Based "Responsible Fisheries Management" System (RFM) • Friends of the Sea Canada 	<p>Single-Ingredient Products (or Multi-Ingredient and Single-Ingredient Aggregated Products if 100% of the ingredients* meet the standard): Products with any of the following certifications:</p> <ul style="list-style-type: none"> • SPCA (Society for the Prevention of Cruelty to Animals) - all animals • Animal Welfare Approved - all animals • Certified Humane Raised and Handled - beef cattle, veal calves, dairy cattle, swine and laying birds only • Demeter Certified Biodynamic - beef cattle, veal calves and dairy cows only • American humane certified, 'Tree range' - laying birds only • GAP(Global Animal Partnership) step 1 and above - beef cattle, veal calves and swine only • GAP step 2 and above - laying hens only • GAP step 3 and above - turkeys only • GAP step 5 - broilers and waterfowl only
<p>YELLOW LIGHT: Purchase when needed. Products meeting these criteria or certifications qualify as Good Food but do not represent the fullest expression of the standard</p>			
<p>Multi-Ingredient and Single-Ingredient Aggregated Products, not including seafood: Products must meet all of the following criteria:</p> <p>A. Transparency / Distance / Size: At least half (50%-99%) of the ingredients* must meet all green-light criteria for Transparency, Distance and Size</p> <p>B. Processor Ownership: Processor must be a privately owned (not publicly traded on the stock market) or cooperatively owned enterprise</p> <p>Multi-Ingredient (and Single-Ingredient Aggregated) SEAFOOD Products: Products must meet all of the following criteria:</p> <p>A. Traceability and Ownership: At least half (50%-99%) of the ingredients* must meet all green-light criteria for Traceability and Ownership for seafood</p> <p>B. Processor Ownership: Processor must be a privately owned (not publicly traded on the stock market) or cooperatively owned enterprise</p>	<p>Single-Ingredient Products (or Multi-Ingredient and Single-Ingredient Aggregated Products if 100% of the ingredients* meet the standard): Products with the following certification:</p> <ul style="list-style-type: none"> • Equitable Food Initiative <p>Multi-Ingredient (and Single-Ingredient Aggregated) Products: Products must meet the following criteria:</p> <ul style="list-style-type: none"> • At least half (50%-99%) of the ingredients* must meet the green-light criteria 	<p>Single-Ingredient Products (or Multi-Ingredient and Single-Ingredient Aggregated Products if 100% of the ingredients* meet the standard), not including seafood: Products with any of the following certifications:</p> <ul style="list-style-type: none"> • FairWild • Biopro Certified Organic • Protected Harvest Certification • American Grassfed • Equitable Food Initiative • Certified Naturally Grown • Eco Peach • Eco Apple <p>Multi-Ingredient (and Single-Ingredient Aggregated Products), not including seafood: Products must meet the following criteria:</p> <ul style="list-style-type: none"> • At least half (50%-99%) of the ingredients* must meet the green-light criteria <p>Single-Ingredient SEAFOOD Products (or Multi-Ingredient and Single-Ingredient Aggregated SEAFOOD Products if 100% of the ingredients* meet the standard) - wild caught only: Products with any of the following certifications or claims:</p> <ul style="list-style-type: none"> • Ocean Wise • Monterey Bay Aquarium Seafood Watch Guide 'Best Choices' <p>Multi-Ingredient (and Single-Ingredient Aggregated) SEAFOOD Products - wild caught only: Products must meet the following criteria:</p> <ul style="list-style-type: none"> • At least half (50%-99%) of the ingredients* must meet the green-light criteria for seafood 	<p>Single-Ingredient Products (or Multi-Ingredient and Single-Ingredient Aggregated Products if 100% of the ingredients* meet the standard): Products with any of the following certifications:</p> <ul style="list-style-type: none"> • American humane certified 'cage free' - laying birds only • American humane certified 'enriched' - laying birds only • Food Alliance Certified - beef cattle and veal calves only <p>Multi-Ingredient (and Single-Ingredient Aggregated) Products: Products must meet the following criteria:</p> <ul style="list-style-type: none"> • At least half (50%-99%) of the ingredients* must meet the green-light criteria
<p>DISQUALIFICATIONS: Do not purchase. Products containing disqualifying characteristics cannot qualify as Good Food in any pillar</p>			
<p>Ultra-Processed Foods: Products containing any of the following ingredients: Aspartame, Acesulfame-Potassium, Butylated Hydroxyanisole (BHA), Butylated Hydroxytoluene (BHT), Caramel Colouring, Olestra (Olefin), Partially Hydrogenated Oil (trans-fats), Potassium bromate, Propyl Gallate, TBHQ/BSI, Saccharin, Sodium Nitrate added, Sodium Nitrite added; Dyes: Red #3, Red #40, Yellow #5, Yellow #6, Blue #3</p>			
<p>*Ingredients defined as raw ingredients, measured by volume, not including water; ingredients must be evaluated at the first step of the supply chain to qualify as Good Food **See Assessment Tips for more information</p>			

Menu Icons



VEGETARIAN

Identifies menu items that fit a lacto-ovo vegetarian diet, including eggs, dairy & honey.



VEGAN

Identifies menu items that are made from plant-based foods only.

Menu choices with this icon exclude eggs, dairy, honey, and any other animal-derived ingredients.



MADE WITHOUT GLUTEN

Identifies menu items that are made without ingredients containing gluten.

PLEASE NOTE:
We cannot guarantee items made in-house are gluten-free due to the risk of cross contact. If you have celiac disease or a gluten allergy please let us know.

Appendix B: Graphs and Pie Charts for Survey Results and Screenshots of Qualtrics Survey

0% ————— 100%

Advancing Plant-Based, Seasonal, and Local Food Choices at UBC

A short survey to help UBC Food Services advance its Food Vision and Values relating to plant-based, seasonal, and local food choices at the UBC Vancouver campus.

→

THE UNIVERSITY OF BRITISH COLUMBIA THE UBC SURVEY TOOL

0% ————— 100%

Please select the option that best describes yourself.

- I am a Student
- I am a Faculty Member
- I am a Staff Member

← →

THE UNIVERSITY OF BRITISH COLUMBIA THE UBC SURVEY TOOL

0%  100%

When making food choices on campus, I consider the environmental and social impacts associated with the growth, transport, and preparation of that food.

- Absolutely Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Absolutely Agree

When making food choices on campus, I consider healthy options to be a priority.

- Absolutely Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Absolutely Agree



THE UNIVERSITY OF BRITISH COLUMBIA

THE UBC SURVEY TOOL

0%  100%

Do you consider yourself to fit with any of these dietary labels?

- I consider myself a vegan (excludes all animal products and by-products: no meats, eggs, dairy, or honey).
- I consider myself a vegetarian (includes some animal by-products such as eggs, dairy, and honey)
- I consider myself a pescatarian (includes eggs dairy, honey, and fish but excludes all meat)
- I consider myself a flexitarian (primarily vegetarian diet but occasionally eats meat or fish)
- I consider myself an omnivore (I eat both vegetarian/vegan meals, and meals including meat)
- I consider myself a carnivore (I choose only meals that contain meat)



THE UNIVERSITY OF BRITISH COLUMBIA

THE UBC SURVEY TOOL



0%  100%

I know when and where UBCFS offers seasonal and local food choices.

- Absolutely Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Absolutely Agree

Please specify how you would prefer to be informed of UBCFS's seasonal and local food choices.

- A logo on menus
- Food Labels
- Informational Memos
- Map showing where food choices come from
- Other (Please Specify)



0%  100%

I consider 'Plant-Based' food choices as:

- Vegan (no animal products or by-products)
- Vegetarian (no animal products but includes dairy and eggs)
- Other (Please Specify)





0%  100%

No matter where I am on campus, I have access to Plant-Based foods from UBCFS vendors (list of vendors: <https://food.ubc.ca/feedme/>)

- Absolutely Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Absolutely Agree

I feel like UBCFS offers a wide range of Plant-Based foods that are appropriate for: (select all that apply)

	Very Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Very Dissatisfied	I am not sure
For breakfast (6-11am)	<input type="radio"/>					
For lunch (11am-4pm)	<input type="radio"/>					
For dinner (4-8pm)	<input type="radio"/>					
Late at night (8pm onwards)	<input type="radio"/>					

I am completely satisfied with the quality of Plant-Based foods offered through UBCFS.

- Absolutely Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Absolutely Agree



0%  100%

Please provide any additional comments regarding the plant-based, seasonal, and local food choices offered through UBCFS, or on campus in general. Is there anything that you feel UBCFS performs especially well, or anything you wish to see amended?





0%  100%

I am aware that the UBC's Food Service (UBCFS) is guided by a list of Food Visions and Values (FV&V).

- I am aware
- I am not aware

If you are aware, where did you get this information on the UBC Food Service's FV&V?

- UBCFS Website
- UBCFS Food Provider Visual Materials (e.g posters)
- UBCFS Social Media
- Word of Mouth
- Other (Please Specify)



0%  100%

(Optional) By providing your email below you will be entered into a prize draw for the chance to win one of two 25\$ gift cards for use at UBC Food Services. Emails will only be used to distribute gift cards, emails will be kept private and will not be distributed to third parties.



Survey Analysis (April 3rd)

Total Responses = 137

Question 1.1 - I am aware that the UBCFS is guided by FV&V

Not Aware → 108 (76.6%)

Aware → 33 (23.4%)

Question 1.2 - If you are aware, where did you find out?

Website → 14 (40%)

Visual Materials (e.g., posters) → 10 (28.6%)

Word of Mouth → 8 (22.9%)

Social Media → 3 (8.6%)

Question 1.3 - Text to Question 1.3

1 Respondent found out about FV&V through this survey

Question 2.1 - When making food choices on campus, I consider the environmental and social impacts associated with the growth, transport, and preparation of that food.

Absolutely agree 17

Somewhat agree 59

Neutral 27

Somewhat disagree 25

Absolutely disagree 10

Question 2.2 - When making food choices on campus, I consider healthy options to be a priority.

Absolutely agree	63
Somewhat agree	59
Neutral	12
Somewhat disagree	3
Absolutely disagree	1

Question 3.1 - Do you consider yourself to fit with any of these dietary labels?

Omnivore	→ 64 (46.4%)
Vegetarian	→ 24 (17.4%)
Flexitarian	→ 23 (16.7%)
Vegan	→ 13 (9.4%)
Pescatarian	→ 11 (8.0%)
Carnivore	→ 3 (2.2%)

Question 3.2 (Column J) - I consider 'Plant-Based' food choices as: - Selected Choice

Vegetarian	58 (43.3%)
Vegan	72 (53.7%)
Other	4 (3.0%)

Question 3.2 Text (Column K) - I consider 'Plant-Based' food choices as: - Other (Please Specify) - Text

Ovo-vegetarian, no animal by products except for eggs
 Vegetarian and halal
 Vegan if possible, but vegetarian if need be
 Choices PRIMARILY including plants, but that may include meat.

Question 4.1 - No matter where I am on campus, I have access to Plant-Based foods from UBCFS vendors

Absolutely agree	8
Somewhat agree	55
Neutral	31
Somewhat disagree	31
Absolutely disagree	8

Question 4.2_1 - I feel like UBCFS offers a wide range of Plant-Based foods that are appropriate for: (select all that apply) - For breakfast (6-11am)

Absolutely agree	8
Somewhat agree	56
Neutral	31
Somewhat disagree	31
Absolutely disagree	9

Question 4.2_2 - I feel like UBCFS offers a wide range of Plant-Based foods that are appropriate for: (select all that apply) - For lunch (11am-4pm)

Very satisfied	23
Somewhat satisfied	49
Neutral	15

Somewhat dissatisfied	24
Very dissatisfied	14
I am not sure	6

Question 4.2_3 - I feel like UBCFS offers a wide range of Plant-Based foods that are appropriate for: (select all that apply) - For dinner (4-8pm)

Very satisfied	22
Somewhat satisfied	47
Neutral	18
Somewhat dissatisfied	21
Very dissatisfied	18
I am not sure	6

Question 4.2_4 - I feel like UBCFS offers a wide range of Plant-Based foods that are appropriate for: (select all that apply) - Late at night (8pm onwards)

Very satisfied	6
Somewhat satisfied	21
Neutral	26
Somewhat dissatisfied	32

Very dissatisfied 29

I am not sure 16

Question 4.3 - I am completely satisfied with the quality of Plant-Based foods offered through UBCFS.

Absolutely agree 9

Somewhat agree 42

Neutral 26

Somewhat disagree 36

Absolutely disagree 20

Question 4.4 - I know when and where UBCFS offers seasonal and local food choices.

Absolutely Disagree 22 (16%)

Somewhat Disagree 58 (49%)

Neutral 23 (17%)

Somewhat Agree 29 (21%)

Absolutely Agree 3 (2%)

Question 4.5 - Please specify how you would prefer to be informed of UBCFS's seasonal and local food choices.

(Could choose multiple answers)

Question 5.1 - I would like to see more student-run food providers such as Agora, Seedlings and Sprouts on campus.

Absolutely Agree: 44

Somewhat Agree: 30
Neutral: 53
Somewhat Disagree: 4
Absolutely Disagree: 1

Question 5.2 - If you agree, please provide a reason for why you would like to see more student-run providers. For example, do you consider them more affordable, or do you enjoy supporting students, etc.

KEY:

Community = Blue

Financial = Green

Accessibility = Red

COMMUNITY

1. I enjoy supporting students and love the creativity and passion that come out of these shops.
2. I enjoy supporting students
3. I like to support local and especially students. I find that as students they better understand our situations and provide better items at affordable prices.
4. Enjoy supporting students and allows more opportunities for students to work on campus
5. I enjoy supporting students and would always appreciate more opportunities for students to work.
6. I enjoy supporting students and it can provide an excellent learning opportunity for the students running the programs
7. I enjoy supporting students!
8. Enjoy supporting other students and having more variety
9. I see old people running stores that UBC campus owns and it makes no sense to me. I know people (including myself) who would love to work those jobs. I love interacting with students and I feel like I am at a school cafeteria with all the people at Starbucks, mercante, harvest market, ETC
10. I enjoy supporting students.
11. It's a fun and rewarding way to build community resiliency and promote a unique learning experience from fellow peers
12. I enjoy supporting fellow students
13. I enjoy supporting other students!!
14. It feels like a much more meaningful exchange of goods (i.e. money for food) when a student is running a food vendor. I feel like I enjoy the food more when I know that a fellow hard-working student has prepared it. Lastly, I appreciate how students are given an opportunity to make an income while on campus.
15. students supporting students is a brilliant initiative in addition to student- run outlets being more accommodating of the likes/dislikes and budgetary and other restrictions from first hand experience
16. i like to support students
17. Supporting students and more variety.
18. I enjoy supporting students!
19. I would like to support them and I feel they would be fresher
20. supporting students!!
21. more volunteer opportunities
22. i enjoy supporting fellow students

23. Enjoy supporting students, students learn about nutrition and providing food for themselves
24. Students know what students want

FINANCIAL

1. I find them more affordable and usually the students are more in tune with what other students want.
2. I consider them more affordable, and I enjoy supporting students rather than a big institution. It makes the food seem more "homemade".
3. Affordability (also I would like to use student card)
4. More affordable and a good way to give back to the community.
5. More affordable, supporting students
6. More affordable and enjoy supporting students
7. Definitely affordability plays a huge role as a driving choice. Supporting students and helping them in any way brings me joy.
8. they're organic, local and the food is well priced and healthy
9. More affordable, more vegan options, could be improved by expanding the meal plan to these places.
10. I consider them to be more affordable especially when we want a late-night healthy snack
11. They're more affordable and provide volunteer opportunities for students
12. I consider them more affordable and enjoy supporting students. I also think these types of establishments provide more opportunities for students to become more involved/gain experience in food service.
13. More affordable and fresher ingredients.
14. They are more affordable and I enjoy supporting students. They also understand more about food-based trends and understand what foods students enjoy. They also are able to engage with other students.
15. More affordable and I enjoy supporting students

ACCESSIBILITY

1. I want the option of plant based food to be as available as non plant based options. I want to be able to have something to eat everywhere I go on campus
2. More access to food that fits both my and my friends' dietary needs
3. A greater variety in options, generally tend to be more affordable
4. I consider them more affordable, like supporting students directly, and like the greater variety of food options on campus.
5. I'd like to see what they have to offer!
6. I like variety

Undefined

1. I did not know these places existed.
2. There are very few food places owned by UBC that hires students over non-students, which is unacceptable. I have never seen a single student working at the Starbucks at the bookstore, few students at open kitchen, no students at Mercante, no students at The Point, no students at Harvest, Subway, Pacific Poke, etc. If students are not going to be hired at these places, UBCFS should be opening up way more places that are student-run and hire students. The fact that all of the student-run places are closed during COVID is extremely disappointing - students need to work in order to afford coming to school here. There need to be more, healthier vegan options as part of UBCFS. As a vegan I am extremely limited in food choices at Open Kitchen and Harvest Market, and as someone who struggles with Gastrointestinal issues, the food is sometimes inedible. We need food that is healthy and that actually tastes good, it is not cheap to eat at UBC. I have had multiple instances at Open Kitchen where food has been undercooked, tasted like nothing, burnt and one time there was so much chili oil in my food it gave me a canker sore. I am extremely disappointed in the quality of UBCFS considering how expensive it is.

3. I haven't seen these at all and I'm just interested in it
4. Because they might be healthier

Question 6 - Please provide any additional comments regarding the plant-based, seasonal, and local food choices offered through UBCFS, or on campus in general. Is there anything that you feel UBCFS performs especially well, or anything you wish to see amended?

Total response = 34

Area performed well: good vegetarian options

Improvement/recommendations

GREEN = MORE VEGAN = 18

1. "It is hard seeing my vegan friend have to eat the same two dishes every day at OC because there are no plant-based options"
2. UBCFS needs more vegan breakfast options (no egg).
3. Please provide more options for plant based living besides eggs, avocados and fries. It's very sad and the menu for vegetarian/vegan options does not change
4. We are forced to get the meal plan in our first year, yet there have been barely any plant based options. I fully have no plant based options for breakfast and this is not okay.
5. My roommate is veg, and they never change the menu in open kitchen aside from removing the items everyone enjoys!
6. I wish there were more diverse plant based choices on the menu.
7. Also Nutrislice is often wrong in saying things are vegan and when I get to open kitchen, they're actually just vegetarian.
8. There need to be more, healthier vegan options as part of UBCFS. As a vegan I am extremely limited in food choices at Open Kitchen and Harvest Market, and as someone who struggles with Gastrointestinal issues, the food is sometimes inedible. We need vegan food that is healthy and that actually tastes good, it is not cheap to eat at UBC.
9. I just wish there was more variety, and more vegan options. There's a bunch of vegetarian ones, but not many vegan options, or veg options that can be made vegan

10. wish there were more **vegan asian** options like noodles or gf rice bowls
11. it's hard to know what is available and vegan when half of the products are not labeled or labeled inconsistently from nutritive saying one thing, to the menu saying something else. Also at least a monthly change of **vegan options** at the vegetarian kitchen.
12. It should be noted that even if something is plant-based, it needs to be nutritionally rounded out like any other meal and that's a major shortcoming of what is currently offered on campus. Eating plant-based should not mean sacrificing protein, and it certainly does not mean just including a single plant in the meal. There needs to be more thought **put into nutritional targets of plant-based foods available.**
13. There are not very many **vegan options.** I, myself, am not vegan or vegetarian but k know many people that are and they find it really hard to eat from places like the residence dining halls.
14. UBC should have more **plant-based** choices for environmental, cultural reasons
15. I hope there will be more **plant-based** food options on campus!
16. I wish there were more **dairy-free** options.
17. Finally, just turn vegetarian kitchen into **vegan** kitchen. It wouldn't be that hard and would make eating plant based so much easier. Veg Kitchen sometimes has 4 vegan options and sometimes only has one. It sucks as I'm sure you can imagine. I'm not a cow; I don't eat milk. Respect that.
PS PLEASE bring back the chocolate oat milk. It was the best thing open kitchen ever served.
18. Places that offer **vegan/plant-based options** should be open for longer (ex. Porch closes at 3pm)

Food labelling = 5

1. Would like to see more careful portioning out of food cause sometimes some ingredients are too much or too little and they don't accurately reflect the **nutrition information provided on Nutrislice**
2. It can be very inconsistent. Sometimes there are 5+ vegan options and other times there are ~2. **Also Nutrislice is often wrong** in saying things are **vegan** and when I get to open kitchen, they're actually just vegetarian.
3. I really think that the calories on the **Nutrislice website are wrong.** Some are wayyyyy too high and some are too low.
4. **Consistent food labeling.** It's hard to know what is available and vegan when half of the products are not labeled or labeled inconsistently from nutritive saying one thing, to the menu saying something else
5. **Also, nutrislice and/or whoever** prints the menus at open kitchen often gets them wrong. It will say something is vegan when it's not or will say it's not vegan when it is. Very frustrating especially when I am SOOOO hungry coming to open kitchen and the food item I had my eye on is not actually something I eat.

Healthier choices + better quality food = 6

1. Wish to see **more cooked vegetables with less oil**
2. There need to be more, **healthier** **vegan options** as part of UBCFS... as someone who struggles with Gastrointestinal issues, the food is sometimes inedible. We need vegan food that is healthy and that actually tastes good, it is not cheap to eat at UBC. I have had multiple instances at Open Kitchen where food has been undercooked, tasted like nothing, been so poorly made it makes you feel sick, and one time there was so much chili oil in my food it gave me a canker sore. Open Kitchen uses cheap ingredients and it seems like UBFS has a “suck it up, this is what you get - at least we’re giving you food” type attitude towards accommodating people with dietary restrictions. I am **extremely disappointed** in the **quality** of UBCFS considering how expensive it is.
3. The food is great, but **it doesn't seem clean?** The foods are often very complex and with all these different sauces and fancy add-ons but **all I want sometimes is some rice and vegetables.**
4. **Also the calories are way too high in all of the plant based foods. It makes it so dinner is like an entire days worth of calories and I don't want to eat anything else.**
5. It should be noted that even if something is plant-based, it needs to be **nutritionally rounded** out like any other meal and that’s a major shortcoming of what is currently offered on campus. Eating plant-based should not mean sacrificing protein, and it certainly does not mean just including a single plant in the meal. There needs to be **more thought put into nutritional targets of plant-based foods available.**
6. Why do you use canola oil for everything????? With everything at Open Kitching being so freaking expensive, one would think you could afford to uses olive oil. **Canola oil is yucky**

Yellow = more vegetarian = 3

1. I would like to see more **vegetarian options around campus, especially for quick, grab and go, meals.** Often, many of the options that are meant to be to-go contain meat.
2. More **vegetarian** **gluten free** items is essential
3. The overall quality and variety at open kitchen is okay, however I find there is only two or three food options I am able to alternate. Please provide **more variety and vegetarian options at open kitchen.** Maybe keep the white bean burrito as a permanent option like the south west bowl? **Please switch up the kitsilano bowl or change the way you marinate the tofu, or just provide more tofu options with meals.** **Being able to sub chicken for tofu for example would make a huge difference.** This would be appreciated a lot by all the vegetarians I speak to at orchard commons. Thank you.

ORANGE= more student run food services 1

UBCFS provides affordable and tasty food which is suitable for students' dietary needs (especially nowadays students are leaning more towards a plant-based diet). I would like to see more **student-ran** food providers because they base their planning on students' needs/dietary trends.

Purple = more variety in general =3

1. There needs to be **more variety**, having the same meals over and over again such as in open kitchen is a little tiring
2. **more options are needed**
3. if the menu could be altered a little bit every once in a while so as to provide **more options**

Blue = gluten free =1

More vegetarian gluten free items is essential

Pink = no extra cost for veg option =1

It would be cool if you could sub a veggie patty on a regular burger at open kitchen instead of having to pay for the vegetable burger which costs extra because it also includes avocado and veggies

Red = more sustainable = 2

1. Please serve more local food, and also please stop serving salads and other foods inside plastic containers. When you say that you care about the environment and use wooden utensils, use paper straws, and then package a chicken breast in a cubic foot of plastic, it makes UBCFS seem hypocritical and it only seems to care about their image. The things that have been done to be more environmentally conscious are far too small. Please consider using either reusable packaging, or something compostable. I feel like I am producing so much waste even when I am eating plant based things, such as buying a salad at open kitchen or harvest.
2. UBC should utilize local resources more and support local farmers

Appendix C: Interview Notes

Interview with Colin Moore

1. **Do you feel UBCFS is fulfilling its commitment to “prioritiz[ing] fresh, minimally processed ingredients”?**
 - Yes, but it’s complex (very big with many locations, depending on location it may be easier)
 - In some locations, required to meet franchise branch standards (e.g Triple-Os and Tim Hortons) This makes prioritization more difficult
2. **Do you feel UBCFS has successfully “reduced meat consumption by making vegan and vegetarian options readily available, abundant, and affordable”?**
 - No, but on a continuum, similar to above where some locations are easier than others
 - Have been reducing animal products for a number of years and are making great progress.
 - The emphasis is on making options as healthy, nutritious and as plant-based as possible.
 - Close to 60%, UBCFS wants to increase
 - Yes to affordable
3. **Do you feel like UBCFS is purchasing a sufficient amount of “seasonal foods from local food producers, as close to UBC as possible”?**
 - Seasonal → no, could be purchasing more, could be doing a lot more (customers have been spoiled and want strawberries, etc all year long)
 - Local → UBCFS does as much as they can. Spend close to \$100k at UBC Farm per year
 - Barriers to Franchises → ex. pushed hard with starbucks to get fair trade, the option isn’t on the table (can’t interfere with how other businesses operate) 7 - national franchise brands

4. **In your opinion, what are some of the best practices currently utilized at UBC that focus on increasing the proportion of plant-based, seasonal, and local food items served through UBCFS?**
 - Plant based → starts with education of UBCFS staff e.g attending workshops
 - Ex. Forward food, culinary institute of america
 - Incorporating the plant-based food metrics when making the menu
 - Seasonal → more a condition of 'Local', different question, depends on the type of food (fruits? seafood?)
 - Local → involved with Feed BC, focussed on only local purchasing in BC

5. **Are there any drawbacks or barriers to increasing the volume of plant-based, seasonal, and local food items? For example, are there problems with the sourcing, storage, and processing of said items?**
 - Finding good plant based foods - that have nutritious, wholesome ingredients without too many additives
 - Customer is a big barrier → people want meat, the demand of the customers isn't controlled by the university
 - Making plant based foods as indulgent, tasty and satisfying as non plant based foods
 - UBC can do a lot on their own - default mentality

6. **Are there any opportunities that UBCFS should pursue in order to better achieve their FV&V specifically related to plant-based, seasonal, and local food items?**
 - Education of the customer base
 - Difficult to measure 'seasonal'
 - Working with FeedBC to get more local "all in"
 - Committed to serving a high amount of plant-based food choices
 - There certainly are opportunities.

7. **Are there any other comments or concerns related to plant-based, seasonal, and local food options at UBCFS that you would like to elaborate on?**
 - Reducing food waste has so many benefits (economy → healthier people equals healthier workforce, lower healthcare costs; "one health" model)
 - Encourage people to eat more plant-based foods
 - Change peoples habits by convincing what's in it for them. (eg. longer life)
 - The story of how it is produced has a lasting impact
 - Focussed on Plant-based diets as it is good for the body, as well as for the planet and economy
 - Broader mandate that they need to be financially successful
 - Producing more food on campus? Would love to see more agriculture on campus
 - Work in Food Indigeneity - complex as it is not simply the food items (Salmon/Bannock) . It is the origin and how/who the food was farmed by
 - Affordability - Tim Hortons is a value brand, but are not focussed on plant-based

Interview with Lorianne

1. **Do you feel UBCFS is fulfilling its commitment to "prioritiz[ing] fresh, minimally processed ingredients"?**
 - Ask suppliers to take on more fresh, minimally processed
 - Yes, it is something the team does well -> housemade/made from scratch. Fewer bottled sauces

2. **Do you feel UBCFS has successfully “reduced meat consumption by making vegan and vegetarian options readily available, abundant, and affordable”?**
 - Really good job about making more options available → channel towards more places that offer plant-based but that might not translate to dietary change
 - Customer demand to traditional foods and include meat → needs more to educate base to move the needle on more plant-based consumption
 - Food is a sacred thing that brings comfort.

3. **Do you feel like UBCFS is purchasing a sufficient amount of “seasonal foods from local food producers, as close to UBC as possible”?**
 - Buying as much as they can
 - Buying from UBC Farm. Less demand from restaurants recently
 - Traditional supply chains are a big part of the picture → sometimes they can’t get fresh plant-based products that are locally grown
 - Could be buying more if there was better access
 - Could change how UBCFS buys it; needs more locally processed/packaged goods
 - Coming into best growing season - spring/summer time - however at this time there are far fewer customers, missing out on many bountiful seasonal foods at this time
 - Customer base is spoiled (people want summer produce in the winter) - really want to keep customer base happy (residence is home for a lot of people)
 - Need to balance between global production and local production
 - Need to find ways to make local foods available year-round (for the time students are in residence)

4. **In your opinion, what are some of the best practices currently utilized at UBC that focus on increasing the proportion of plant-based, seasonal, and local food items served through UBCFS?**
 - Amazing culinary team, and they want to produce meals that guest enjoy and love → that passion is spread throughout the UBC FS
 - Connection to UBC Farm. Compared to Ontario (strong vegetable growing sector) we are very lucky to have the farm here

5. **Are there any drawbacks or barriers to increasing the volume of plant-based, seasonal, and local food items? For example, are there problems with the sourcing, storage, and processing of said items?**
 - Previously worked with Vancouver Food hub, though food safety was an issue (where is produce coming from?)
 - Need to have a consistent supply of product (mainliners are good at getting the volumes UBCFS are looking for)
 - Storage is an issue - cannot take on a years worth of seasonal products for use year-round

6. **Are there any opportunities that UBCFS should pursue in order to better achieve their FV&V specifically related to plant-based, seasonal, and local food items?**
 - Seasonal and local → Growers need a demand and ways to sell their products → perhaps need contracts with local growers to insure the crop
 - Challenges related to growing more food on campus: cost/ labour and management
 - This will give the growers more confidence to grow the local produce - sure that they can make a livelihood.

- Plant-Based → conversation driven around education - customers need to know the reasons behind why eating plant-based is beneficial. Understand “why”, so UBCFS can support the “what” (tasty, nutritious plant based foods)

7. Are there any other comments or concerns related to plant-based, seasonal, and local food options at UBCFS that you would like to elaborate on?

- Needs education on the finances related to the food production system
- Food insecurity → affordability is an issue
- Need to tell the story better about why seasonal, local and plant-based foods are beneficial; needs to connect better to the community
- Education on the choices available, need to do more than just offering plant-based, need to balance with choices
- Can’t just take away what “you think” is the bad option; also don’t agree with shame or negative emotional tactics
 - Education needs to focus on the positive aspect and how to relate it back to the individual
- Misconception about the cost of plant-based foods (people think it is cheap) - possibly the cost from the producer/distributor, extra ingredients needed to make the dish desirable
- Many concerns regarding choices from students depends on their diet (vegan vs carnivore) - tends to be more niche populations
 - More variety in general
- Very different from small restaurants
- Downfall - trying to please everyone with all diets

Interview with Brad Vique

1. **Do you feel UBCFS is fulfilling its commitment to "prioritiz[ing] fresh, minimally processed ingredients"?**
 - Absolutely, progression (still areas where improvement is needed)

2. **Do you feel UBCFS has successfully "reduced meat consumption by making vegan and vegetarian options readily available, abundant, and affordable"?**
 - Made the options available, working on abundant – based on customer choices and demands
 - Actively reduced the number of meat options
 - Default isnt to include meat items (meat as the side option) – available now
 - Feast as test facility – worked for some and not for others, navigating what works best for students
 - Guest choice is important – stay away from restrictive policies
 - Regulations on serving more plant-based products

3. **Do you feel like UBCFS is purchasing a sufficient amount of "seasonal foods from local food producers, as close to UBC as possible"?**
 - Depends on which location and time of year
 - Sept/Oct – lots of local items available (harvest is high)
 - Winter months (yes, storage crops – potato, carrot, apple)
 - Lean local supply
 - Supplier/distribution company (fresh point when not from UBC) tells when vegetables are locally produced
 - Size of UBC and demand for foods determines the supplier, "main liners, etc"

4. **In your opinion, what are some of the best practices currently utilized at UBC that focus on increasing the proportion of plant-based, seasonal, and local food items served through UBCFS?**
 - Volume based purchasing from UBC Farm – chefs order what they like (high minimums from farm) helps drive the sales of farm products, increases creativity of local products grown
 - Able to get more diverse items from the farm and not worry
 - Menu engineering -remove unpopular items, replace plant with plant to cater to the demand of students
 - Transition to pre-order (integrating the relationship) COVID-19 set back the plans
 - Farm is looking into getting processing equipment: washline, peelers for root vegetables, chopping and dicing (in the process of getting)
 - Some forms of processing already in place
 - Good for high volume

5. **Are there any drawbacks or barriers to increasing the volume of plant-based, seasonal, and local food items? For example, are there problems with the sourcing, storage, and processing of said items?**
 - No barriers with waste-management (composting and recycling systems) – low waste streams

Appendix D: Questionnaire and Cover Letter Consent Form

THE UNIVERSITY OF BRITISH COLUMBIA



Liska Richer
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Class Project: Campus Food System Sustainability Initiative: INFORMED CONSENT

STUDY TEAM: *Who is conducting the study?*

Principal Investigator:

Liska Richer, Instructor, Land and Food Systems 450 class, Faculty of Land and Food Systems
E-mail: liska.richer@ubc.ca
Tel: 604.822.3270

INVITATION AND STUDY PURPOSE

You are being invited to take part in this research study because you are affiliated with the UBC food system. We want to learn more about the sustainability of the campus of the food system. This study will help us advance our knowledge and learn more about ways to enhance the sustainability of the campus food system.

STUDY PROCEDURES: *How is the study done?*

This study is being carried out by students within their course on "Land, Food and Community III" (LFS 450) in the Faculty of Land and Food Systems. If you agree to participate, you are being asked to participate in an online or telephone interview, online or telephone focus group, or electronic questionnaire, and your time commitment will vary depending on which one you are participating in. It is estimated that your time commitment will range from 5 minutes to 1 hour. You will be given either a electronic form to answer or be asked verbally a set a questions via online methods. For online interviews or focus groups, you will be sent a link to a Zoom meeting. Please log in using a nickname or a substitute name or research code which will be given ahead of time by the research team. You can participate with your camera on or off, and can mute your microphone (if cases where it is not needed).

STUDY RESULTS

The results of this study will be reported in course based undergraduate reports and will be published in the SEEDS Sustainability Library and UBC cIRcle Digital repository.

POTENTIAL RISKS OF THE STUDY

THE UNIVERSITY OF BRITISH COLUMBIA

We do not think there is anything in this study that could harm you or be bad for you. Some of the questions we ask might upset you or seem sensitive or personal. Please let one of the study staff know if you have any concerns. You do not have to answer any question if you do not want to.

POTENTIAL BENEFITS OF THE STUDY

You may be helped in this study by findings contributing to the advancement of a more ecological, economic and social sustainable food system. In the future, others may benefit from what we learn in this study.

CONFIDENTIALITY

Your answers will remain anonymous unless you provide written permission (below) to the UBC student conducting the interview or survey, to disclose your name, working position or any other information revealing your identity in any possible future use of the information you provide. If you are participating in a focus group, please note that only limited confidentiality can be offered and we encourage participants not to discuss the content of the focus group to people outside the group; however, we can't control what participants do with the information discussed. All documents will be identified only by code number and kept in a locked filing cabinet. Subjects will not be identified by name in any reports of the completed study.

PAYMENT

We will not pay you for the time you take to be in this study.

CONTACT FOR INFORMATION ABOUT THE STUDY

If you have any questions or concerns about what we are asking of you, please contact the Principal Investigator.

Principal Investigator:

Liska Richer, Instructor, Land and Food Systems 450 class, Faculty of Land and Food Systems
E-mail: liska.richer@ubc.ca Tel: 604.822.3270



Liska Richer
Principal Investigator, January 2021

THE UNIVERSITY OF BRITISH COLUMBIA

CONTACT FOR COMPLAINTS: *Who can you contact if you have complaints or concerns about the study?*

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598

PARTICIPANT CONSENT AND SIGNATURE PAGE

Taking part in this study is entirely up to you. You have the right to refuse to participate in this study. If you decide to take part, you may choose to pull out of the study at any time without giving a reason and without any negative impact on your employment, or class standing.

Your signature below indicates that you have received a copy of this consent form for your own records. Your signature indicates that you consent to participate in this study.

Participant Signature Date

Printed Name of the Participant signing above

Appendix E: Audit Raw Data

Audit Results. Open Kitchen online menu. 4/4/21									
Breakfast: Overall					Breakfast: Entrees				
	Vegan	Vegetaria	Contains Meat		Vegan	Vegetarian	Contains Meat		
Grill Kitch	2	4	5		Grill Kitchen	0	2	3	
Vegetaria	2	3	0		Vegetarian Ki	1	3	0	
Breakfast	1	2	0		Breakfast Bar	1	1	0	
Lunch/Dinner: Overall					Lunch/Dinner: Entrees				
	Vegan	Vegetaria	Contains	Notes	Vegan	Vegetaria	Contains Meat		
Grill Kitch	2	4	11		Grill Kitch	0	2	7	
Al Forno	0	2	0		Al Forno I	0	2	0	
Vegetaria	3	1	0		Vegetaria	3	1	0	
Global	1	0	2		Global	1	0	2	
Custom	2	0	3	all sauces and carb	Custom	2	0	3	
Square	1	3	1		Square	0	1	1	
Sandwich	2	4	4		Sandwich	2	4	4	
Burrito Ba	2	2	6	Vegetarian options	Burrito Ba	2	2	6	
Salad Bar	1	1	0		Salad Bar	1	1	0	
Grab n Go	4	10	16		Grab n Go	0	1	2	
Baked Go	4	15	1						
Cookies, c	3	22							

Appendix F: Infographic to clients and general public

UBC FOOD SERVICES

ADVANCING PLANT-BASED, SEASONAL, & LOCAL FOOD VALUES

Clients: David Speight, Melissa Baker-Wilson
SEEDS Representative: Laura Arango

WHY IS IT IMPORTANT TO ADDRESS FOOD VALUES?

Project Purpose

- UBC Food Services (UBCFS) aspires to develop a sustainable food system on campus. To help initiate and guide actions, UBCFS created their Food Vision & Values (FV&V) in 2017.
- Our goal is to review and update guidelines on UBC Vancouver campus that are aimed at advancing the UBCFS's FV&V, specific to plant-based, seasonal, & local food options.

Impacts

- Animal agriculture is the cause of 17% of global GHG emissions (1)
- Consumption of meat is associated with increased risk of cancer, heart disease, diabetes, and other health complications (2)
- Demand for off-season produce have environmental impacts we might not be aware of
 - ↳ Food processing and storage

WHAT ARE OUR PROPOSED DEFINITIONS TO BE USED BY UBC FOOD SERVICES?

Plant-based

Vegan, food produce that contain no animal products or by products

Seasonal

Fresh ingredients purchased from local producers that align with the seasons of the year

Local

Grown, raised, caught, processed within 400km of UBC Vancouver campus

PLANT-BASED

AUDIT DETAILS

- Room for improvement in Grill Kitchen, no plant-based options available
- Not all plant-based options are suitable for a vegan diet

32%

UBCFS (Open Kitchen) has increased its plant-based options up 32% since 2019

Student Opinion

- Increase plant-based food options within residence dining
- Vegan options during breakfast time period
- Increase accuracy of food labelling and nutrition facts

Barriers

- Accommodating for so many diets at the same time
- 1st-year residents cannot access kitchen plant-based alternatives as they do not have kitchens

SEASONAL

Student Opinion

- Create clear labels (eg. logos on menu, food labels, food maps, informational memos) for seasonal offerings
- Create marketing campaigns for seasonal offerings

Barriers

- UBC campus is busiest in fall/winter months where local food production is at its lowest
- UBC purchases as much as it can store from UBC Farm and other local food suppliers
- Difficult to track

SURVEY RESULTS

- Informational cues would help inform students on making 'seasonal' decisions
- Providing information on policy changes and update of UBC's FV&V would help clarify the goals of this project

65%

Of students are unaware of when UBC offers seasonal and local food options

LOCAL

SURVEY RESULTS

- Purchasing more produce from local food producers and incorporating more produce into dining hall menus
- Providing a discount as an incentive to choose plant-based, seasonal, and local food options
- Advertise what is local on the menu

39%

Of students would prefer to be informed of seasonal and local food options through logos on menus

Student Opinion

- Create clear labels (eg. logos on menu, food labels, food maps, informational memos) for local options
- Purchasing more produce from local food producers and incorporating into dining hall menus
- Create marketing campaigns for local offerings

Barriers

- High customer demand in off-season produce (e.g. fruits)
- Availability of local foods, especially during off-season - UBC Farm can only produce so much
- Cost - high quality, fresh food isn't cheap & affordability (food insecurity is also an issue)

RECOMMENDATIONS TO ADVANCE THE FOOD VISION & VALUES

Short-Term

- Redefine 'Plant-based' to mean vegan
- Increase variety of vegan options
- Remove 'Seasonality' as a metric and focus on 'Plant Based' & 'Local'
- Develop a food label for the UBC Farm & local options

Intermediate-Term

- Develop a comprehensive informational strategy & increase the resources devoted to marketing
- Increase local food production/strengthen connections with local food producers
- Continue to develop new recipes & include input from students

Long-Term

- Continue to critically analyze UBCFS FV&V and the practices aimed at advancing them
- Develop pilot programs that aim to increase local food production and increase plant-based food consumption

“Every decision we make in our business, we look at our vision and value statement, and how we can relate this to the vision of values as a department.”

- Sam Wellman (Associate Director Retail Operations)

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