

UBC SUSTAINABILITY REPORT: REDUCING RED MEAT CONSUMPTION ON CAMPUS

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REDUCING RED MEAT CONSUMPTION ON CAMPUS**

COMM 486F SUSTAINABILITY MARKETING

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EXECUTIVE SUMMARY

As one of the most sustainable universities in North America, UBC has garnered itself a reputation for thought leading in all kinds of green initiatives to reduce GHG emissions on campus. Since 2007 when UBC hit their Kyoto targets, UBC has made public commitments through their Climate Action Plan, launched in 2010, to continue their leadership in sustainability (Climate Action Plan, 2014).

UBC Sustainability, one of the campus' main organizations that heads major sustainability projects, has put forth a new initiative to align with UBC's GHG reduction mission, called the Climate Food Action Plan. The objective of this Action Plan is to find areas in the food service industry that contribute most to UBC's carbon footprint, and attempt to reduce or eliminate these areas. The result from the initial research was the key finding that red meat contained the largest carbon footprint, which includes the feeding and watering of the cattle, the vast amounts of methane they produce, and finally, the transportation of the meat itself to campus. Thus, the primary objective of UBC Sustainability's Climate Food Action Plan is to reduce red meat consumption on campus.

The initiative itself has a significant positive health impact on students and faculty, however, a very small portion of the UBC population is actually aware of the health and carbon footprint impacts of red meat. Furthermore, the increasing academic workload and extracurricular activities that put pressure on both students and faculty during the school week create severe time constraints for finding and deciding on food outlets and meal choices. Through both secondary and primary research, it is clear that the target market this Action Plan wants to reach is most concerned about price, due to student budget, and convenience, due to time constraints within the day. UBC Sustainability has the unique advantage and opportunity to use their leadership on campus to promote, educate and inspire sustainable choices with the two main strategies in this marketing plan to reduce red meat consumption on campus.

The two strategies center around: first, creating awareness, and second, changing consumer behaviour. Our tactics to create awareness range from educational material, such as increasing information on existing websites, to partnering with faculty barbeques, to guerilla marketing campaigns to spark dialogue on campus on the issue of the carbon footprint and health impacts of red meat. Our tactics to change consumer behaviour focus on heavily promoting healthy choices, such as embracing Meatless Monday, which has been adopted by many universities across globally, and gamification tactics geared towards students living on campus, primarily in first-year residences.

With the implementation of these strategies along the suggested timeline, UBC will be able to achieve goals towards their increasing commitment to sustainability, and dedication to lowering their own carbon footprint and contribution to global climate change.

CLIMATE FOOD ACTION PLAN OVERVIEW

The University of British Columbia has made commitments and has taken actions that have led them to be regarded as one of the most sustainable post secondary institutions in the world. UBC is now deemed one of the world's leaders in sustainability on a multitude of fronts. UBC was the first Canadian university to adopt a Sustainable Development Policy, open a Sustainability Office, and publish Canada's first campus-wide sustainability strategy. UBC has earned top grades in the Sustainable Endowments Institute's College Sustainability Report Card and UBC earned Canada's first gold rating in the new international program (STARS) that assesses sustainability achievements in higher education. They are on a mission of continuous improvement that is mapped out through committing to, measuring, and executing challenging yet realistic goals.

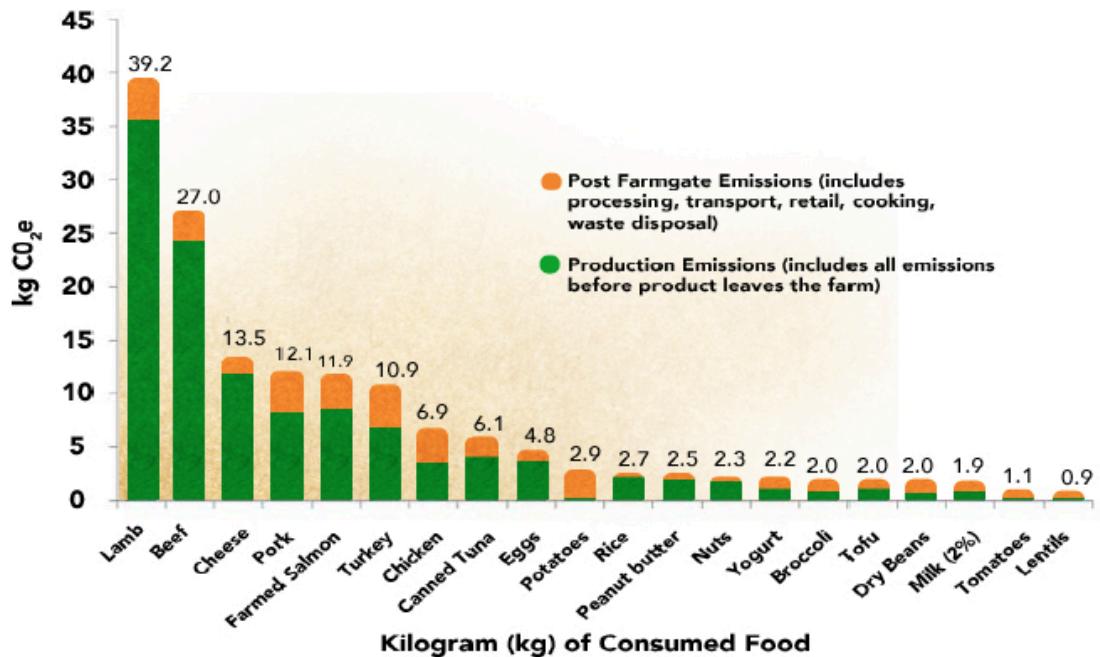
UBC has made strides in programs, initiatives, products, and innovations that have involved green buildings, local food, urban agriculture, clean energy, fair trade certifications, organic adoptions, recycling, and composting among others. They have taken strides to address the sustainability on campus but also on how to address the issue on a regional, national, and international scale.

One area for growth in UBC's Sustainability efforts on the Vancouver campus involves the Climate Food Action Plan 2010-2015, which addresses how food contributes to the greenhouse gases (GHG) footprint produced by the campus. In partnership with the UBC Food System Project (UBCFSP) they identify, plan, and implement actions that can decrease the GHG emitted by food, including production, transportation, and consumption. The UBCFSP is a collaborative, community-based action research project initiated jointly by the UBC Faculty of Land and Food Systems and the UBC SEEDS Program. UBCFSP also works in alliance with other campus organizations including the AMS Food and Beverage Department, UBC Waste Management, Sprouts, Agora, and the Center for Sustainable Food Systems at UBC Farms.

The first initiatives to quantify the GHG impact of food on campus were made by a SEEDS project. Their findings showed that the type of food had the greatest impact on GHG impact rather than other factors such as transportation costs. Red meat, including beef and lamb, has the highest GHG emissions per kg of food consumed. They are known as high carbon foods.

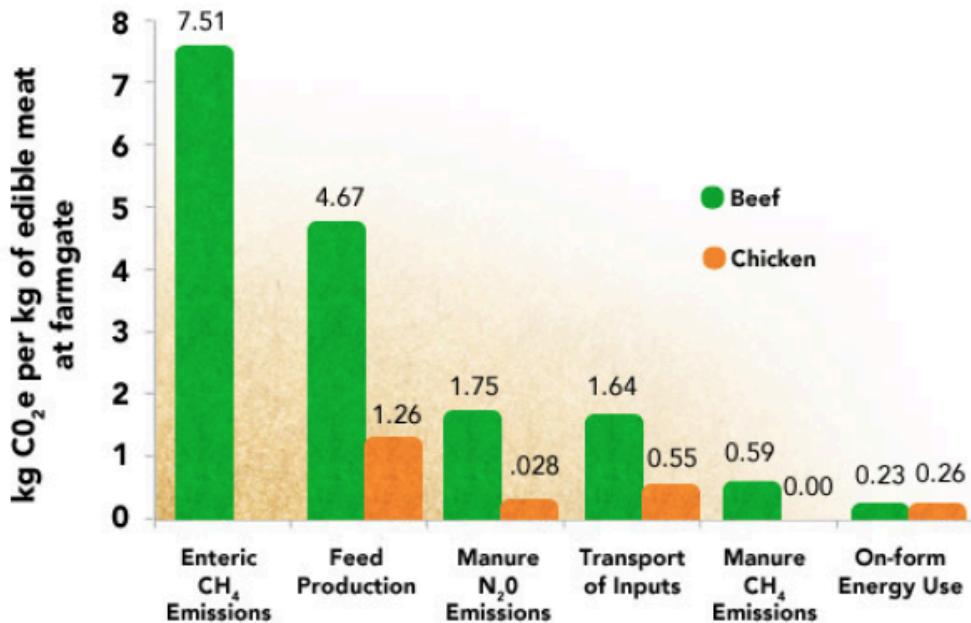
Red meat production in particular requires large amounts of pesticides, chemical fertilizer, fuel, feed, and water. Furthermore it generates GHG, toxic manure, and wastewater that contaminate groundwater, rivers, streams, and the sea. Additionally, red meat is a culprit for causing health problems including heart disease, cancer, and obesity. The GHG emissions vary depending on the quantity of fertilizers used, differences in soil conditions, packaging, freezing, processing and other farming and production systems used. Beef and Lamb are considerably worse for the environment than any protein source. Lamb, beef, chicken, Tofu, and lentils produce 39.2, 27.0, 6.9, 2.0, and 0.9 kg CO₂e respectively according to one source (Hamerschlag, 2011). Please see chart below.

Figure 1. Full Lifecycle Greenhouse Gas Emissions from Common Proteins and Vegetables



The negative impact of beef can also be conceptualized by comparing it with chicken, a comparable protein that is much more sustainable regarding enteric methane gas production, feed production, manure N₂O emissions, transport of inputs, manure CH₄ Emissions, and on-farm energy use (see chart below). It is interesting to see that transportation of beef has a relatively small effect on overall carbon emissions (Hamerschlag, 2011).

Figure 2. Sources of Emissions from Beef and Chicken Production



UBC, UBC Sustainability, UBCFSP, and all other supporting organizations are committed to sustainability especially within the confinements of the university campus. They have recognized the impact red meat consumption has had on UBC's GHG emissions, and want to take action.

CURRENT SITUATION

Sustainability at Universities

In colleges and universities across the United States, students, faculty, and staff are forging new paths to sustainability. From private liberal arts colleges, to major research institutions, to community colleges, sustainability concerns are being integrated into curricula, policies, and programs (Sterling, 2004). New divisions, degree programs, and courses of study cross traditional disciplinary boundaries; sustainability clubs and initiatives; and new sustainability issues link to historic social and educational missions (Barlette, Chase, 2004). They are doing this to:

- Be leaders in solving tomorrow's problems
- Evoke reputational value
- Stimulate innovation and leverage academics
- Decrease operational costs
- Promote a healthier work environment
- Become part of the university sustainability conversations
- Capitalize on the opportunity to shape future generations

Universities are dealing with issues relating to everything from water conservation and alternative energy forms, to sustainable food consumption and transportation alternatives (Vanderbeek, 2014).

Furthermore, students and staff at many universities are open minded, open to change, and often more concerned about sustainability than the general public. Students, faculty, and staff have worked together to take leadership roles to make their campuses more sustainable.

Food Sustainability

Food sustainability has become a growing concern in the field of sustainable development and is an issue touched upon by higher education institutes as well.

In general, health and sustainability issues have become very important to consumers on the whole. They are increasingly concerned with food safety and nutritional value but also local production, sustainable packaging, animal welfare, non-GMO, and impact on natural resources.

As the sustainability food movement gains traction, Alison DaSilva, EVP of Cone Communications states that "...it's not just about the 'mom and pop shop' or farm stand. Even large companies have a role to talk about where they source food from and the respective impacts on the environment.

Women and Millennials seem to be leading the trend towards sustainability in food. They are most concerned about the health of themselves, other people, and the planet. Millennials have shown a particular interest in the protection and renewability of natural resources, organics, and social issues associated with food production.

- 72 percent protect and renew natural resources (vs. 65 percent U.S. average)
- 66 percent organic (vs. 52 percent U.S. average)
- 66 percent supports a social issue and/or charity (vs. 49 percent U.S. average)

- 61 percent locally produced (vs. 74 percent U.S. average)

(Sustainable Brands, 2014)

These demographics that show particular interest in sustainability, and food sustainability in particular are easily accessed from Universities.

Food Sustainability at Universities

At universities, recent trends in food sustainability include providing fair trade alternatives, organic alternatives, and providing local or even university farmed food. A related trend has increased the amount of healthy alternatives on campuses that also tend to be better for the environment (Good Housekeeping, 2014).

The idea of reducing red meat consumption to decrease carbon emissions, fresh water usage, and fossil fuel depletion began to achieve traction. Today, the issue is now a priority among universities and sustainability leaders. However, the general public seems to remain relatively unaware of the phenomenon.

Few universities have actually acted on the issue of red meat this far, however, the following tactics have already been adopted:

- Meatless Monday, 129 universities and colleges globally: Meatless Monday became a global phenomenon, with 129 schools no longer offering meat in their residence dining halls and controlled food outlets one day a week (Meatless Monday Campaign, 2014).
- ‘Veguary’, Middlebury College: Middlebury College promotes February as a month with the aim of decreasing meat consumption by as much as possible. They encourage veganism, vegetarianism, and flexitarianism (little meat consumption) on their campus for the month using social media, and print advertisements. The campaign is targeted at all meat and is less focused on red meat in particular (Welcome to Veguary, 2010) (Barker, 2013).
- Mushroom Council Partnership, University of Massachusetts Amherst: UMASS has partnered with the Mushroom Council to develop a burger that is a 50-50 blend between mushrooms and ground beef (UMASS, 2014).
- Health – Red Meat Parody Flyer, McMaster University: McMaster developed a flyer showing the environmental impacts of beef relative to other protein alternatives.

It is interesting to note that in Europe Universities are taking less of a leadership role in decreasing red meat consumption but they are in fact reacting to promotions and regulations set by the European Union including their Green Public Procedurement Process.

The University of British Columbia has yet to make any formal commitments to the reduction of red meat on campus. However, there is an opportunity for UBC to emerge as a leader in this initiative and pave the way for best practices going forward.

Market Size

The markets under consideration include the 65,000 students, faculty, and staff that live, study, and work on the UBC Vancouver campus. This is a fixed number and the objective for this campaign is to resonate with as many of these people as possible (UBC Facts and Figures, 2014).

SITUATION ANALYSIS

Comparing the city of Vancouver and UBC to other cities and campuses in Canada and the US, Vancouver and UBC have a very unique market. Vancouverites, students, and faculty at UBC are immersed in a market where sustainability, organic lifestyle and social awareness are the norm.

Specifically at UBC, sustainability is most often at the forefront of any campus decision wanting to be made to align with UBC's Climate Action Plan to reduce emissions by 100% by 2050 (Climate Action Plan, 2014). Due to UBC's Climate Action Plan, there is an abundance of initiatives that are geared towards achieving these goals and benchmarks set within the plan. This positively affects campus awareness of sustainability already, however, can contribute to confusion surrounding sustainability and its initiatives.

As our social product is more of an aim to alter consumer behaviour, the Situation Analysis is based upon our main goal of lowering red meat consumption on campus versus all obstacles, such as student lifestyle, and other causes which may distract the target market.

Strengths

A strength of our social product is the fact that eating less red meat makes people feel good; eating lean meat alternatives such as chicken or fish gives you a healthy amount of protein and omega fatty acids without sitting heavy in your stomach. This feel-good strength is supported by an intrinsic motivation to want to eat less red meat, and that once eating less red meat becomes a habit, people will begin to reach for healthier alternatives without thinking twice. UBC is able to build on these strengths already by offering many food outlets where healthier alternatives are served, such as the CIRS building café, Sauder café, and Sprouts.

Weaknesses

Despite these food outlets being great alternatives, the location of these outlets is not always the most convenient for many students and faculty at UBC, especially with the immense size of the campus. Students do not wish to walk fifteen to twenty minutes in between classes or while studying; students want to quickly grab food that is close by so that they can resume their work. In regards to eating healthy alternatives, students find that healthy options on campus are not always the most cost-effective for student budgets, and as a result, opt for greasy burgers that have a less significant effect on the contents of their wallet (such as Triple O Tuesdays). Furthermore, awareness on campus of the carbon emission content in red meat is extremely low, with a very small portion of students conscious that GHG emissions are significantly worse in beef than chicken.

Opportunities

This lack of awareness creates the opportunity for UBC Sustainability to educate the campus on the GHG of beef and more sustainable alternatives to beef, as well as share UBC's Climate Action goals in a unique and positive way. With an increasing trend in demand for "superfoods" such as quinoa, acai berries, and kale, UBC has the opportunity to follow this craze and serve low-emission alternatives that align with trends. Another positive to the "superfood" obsession is the fact that none of the superfoods thus far are high in GHG, and as a result, align with UBC's Sustainability goals. Furthermore, concern for health and sustainability as part of everyday

lifestyle is also on the rise. Nutrition, physical activity and environmentally friendly products are rapidly growing trends that give UBC Sustainability's red meat consumption project an advantage as a sustainable initiative on campus.

Threats

Threats to UBC Sustainability's campaign efforts can be attributed to the increasing academic workload and the amount of pressure there is on students to be involved in a number of extracurricular activities while also performing well academically. This can lead to an amount of apathy towards other initiatives and campaigns on campus when there are so many other pressing items on people's minds. In addition to this apathy, social media apathy, called slacktivism is extremely prevalent in today's cause marketing. Slacktivism is a "feel-good" measure in support of a social cause that has no real effect, other than making the person satisfied from the feeling that they have contributed (i.e. "liking" a Facebook page promoting a cause without actually doing any action to support the cause). Furthermore, due to the popularity of sustainability and UBC's considerable commitment to sustainability, there is an overwhelming amount of initiatives that are vying for student and faculty attention. There are also lots of non-sustainability-related initiatives on campus that are competing for students' attention and time.

PROBLEM DEFINITION AND GOALS

The overall objective for our project is to reduce red meat consumption on campus by 5%* by April 2015. Red meat such as Beef or Lamb has the highest carbon emissions footprint on the environment, thus focusing on changing student's eating habits towards consuming lower carbon footprint foods would make a significant difference in reducing UBC's overall carbon emissions.

*Our team could not gather the actual figure of red meat sales at UBC, therefore this figure is just an estimate, which should be discussed, refined, and tracked based on actual red meat campus consumption/purchase volumes in the future.

Our main strategies to do this revolve around increasing awareness through social media, education, and changing consumer behaviour. By targeting UBC students' and faculty's lack of awareness through educational tactics, the first strategy aims to alter people's perceptions about red meat and meat alternatives. Our second strategy aims to incentivize and reinforce good eating habits and behaviour. Details on strategy and tactics are further below in the report.

Insights on our consumers of interest were gathered in two ways: through secondary data and primary data. Secondary data helped us understand broader consumer and demographic trends while our primary research enabled us to gather information specifically on the UBC market.

Secondary Research

The majority of people that work and live on the UBC campus are between the ages of 17 and 34. They are known as the millennial generation. The millennial generation in general is playing an important role in trends in sustainability, and in food.

In a study conducted by PEW research center only 32% of North Americans considered themselves environmentalists. However, their behavior indicates that they are in fact the most sustainable age cohorts. They are more likely to pay more for responsibly made products, recycle and compost properly, and use public transport as a sustainability effort. A PEW survey indicated that Millennials are most likely to favor environmentally friendly policies. In general they are highly educated, and liberal minded, which has been directly correlated with the likelihood of making more sustainable decisions (Rayapura, 2013).

In regards to food, Millennials are less concerned with brand names than other age cohorts. They are doing research into their food purchases and making decisions based on health benefits and quality. They have grown up seeing the obesity epidemic take form and Millennial food consumption aggregate does involve an assessment of health benefits. And although Millennials are living on tighter budgets, some people in this demographic are willing to pay more for products that are better for them, or better for their planet (Immersive Crew, 2013). Millennial food preferences are also very global and receptive to cultural diversity in their food. They also value convenience and compatibility with their "on the go" lifestyles (UBC Food Services Contracted Presentation, 2013).

Primary Research

Our primary research was collected through a digital survey distributed through the AMS newsletter, the UBC Sustainability social media channels, Faculty Government Newsletters, and various social circles. The survey collected 268 responses from students, faculty, and staff from a variety of faculties with a variety of different statuses (i.e. what year they were in, if they were an undergrad, graduate, faculty, or staff). Survey respondents included those that lived on campus, and off campus (See Appendix A).

In total, 13% of survey respondents did not eat meat and although they were omitted from further questioning, these respondents did indicate that they did not eat meat because of animal/ethical reasons (41% of respondents), and for environmental reasons (29% of respondents). Religion, and health concerns were not major reasons people decided not to eat meat.

The survey indicated that 59% of respondents said they buy a meal on campus at least once a week (See Appendix B). Most survey respondents indicated that the top three ways they obtain food while on campus is by bringing food from home, or purchasing it at the SUB, or at UBC food service outlets (i.e. Stir It Up Café, Ikes Café, etc.). Refining these responses we found that the UBC Food Service Outlets, Tim Hortons, and Honor Roll were the top food location choice among survey respondents. From this we learned that any point of sale marketing efforts would need to be featured in these locations.

Survey respondents stated that convenience and price are the most important selection criteria for where to eat on campus. Convenience was ranked number one 34% of the time, price 30% of the time. Health and food taste were considered less important being ranked as most important 18% and 15% of the time respectively (See Appendix C). This gave us insight into how we would potentially promote more sustainable food options offered at specific locations. For example, promoting Sprouts would take the form of its central location and low prices instead of its health attributes or great taste.

We were able to get a sense of our respondent's food preferences by providing a hypothetical menu in which respondents would hypothetically place an order. The most popular item was the turkey deli sandwich (29%), and the lowest were chicken curry with rice, veggie wrap, chicken salad, and hamburger, all at less than 9% of survey respondents' first choice. At the very minimum this showed that we are not battling a prevalent "burger addiction" on campus, which was a concern going into the research phase (See Appendix D).

Another key takeaway was that 63% of students make sustainable choices if it is easy and convenient, while only 23% of students make more sustainable choices even if it is not easy or convenient (See Appendix E). This number is also likely highly overstated from a social desirability bias. And while we learned that many of our respondents are taking actions to be more sustainable, few respondents indicated that reducing red meat consumption was one of these actions. In fact, although almost 100% of respondents knew that beef was one of the worst foods for the environment, only 5.5% of the survey respondents were eating less meat as a personal sustainability initiative. People were unaware that lamb had similarly negative impacts on the environment. It is important to note however that the vegans and vegetarians who may have had this motive did not answer this question, since they were filtered out of the survey early.

Customer Segmentation

Upon analyzing our survey results, we gained an understanding of our consumers' behaviours and attitudes. We were also able to identify key segments within the market. The market can be segmented into four primary segments in which most UBC students, faculty and staff could fit into.

The All-Stars: This segment includes varsity athletes, fitness enthusiasts, and other highly active individuals. Our survey indicated that 26% of respondents engaged in rigorous physical activity everyday. These highly active individuals would be concerned with protein intake, muscle recovery, and being satiated throughout the day. They may be drawn to beef-heavy meals as a way to stay full throughout the day. They need to be educated that other protein sources can have as much or more protein while also being leaner, such as chicken (See Appendix F).

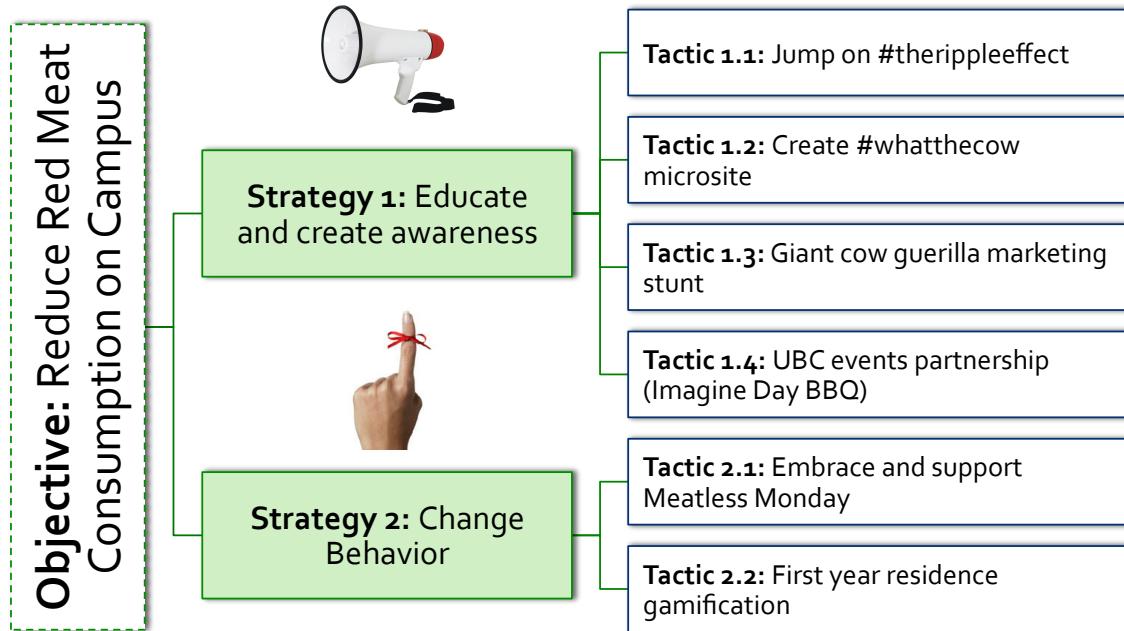
The Granola: This segment includes those who actively make choices with social, environmental, and economic sustainability (less so) in mind. This segment is real and sizable in Vancouver. Our survey indicated that 86% of respondents were making efforts to be more sustainable, and 23% of those were doing so even if it wasn't convenient. Participation and excitement surrounding other sustainability initiatives proves there are consumers on campus with a large degree of commitment to these initiatives. This segment would be the most aware and informed segment and could be advocates or social leaders for the cause on campus (See Appendix F).

The Busy Bee: The busy bee segment represent those who are busier than average. This segment includes those who are highly involved in extracurricular activities, are academically keen, are part-time workers on top of full course loads, or have additional responsibilities outside the norm. These people are those that are most concerned with getting food fast. They are not willing to walk across campus to get their meals because they don't have time. Our survey indicated that this segment is certainly real and prominent as 34% of respondents indicated that convenience was the most important factor in deciding where to buy food on campus (See Appendix F).

The Beauty Queen: This segment includes the people who are most concerned with health, nutrition, and weight management. They are mostly female but not exclusively. They are concerned with the number of calories they consume each day for health reasons (diets) or for social reasons (looking their best). Messaging promoting the health, calorie, and fat benefits of protein alternatives compared to red meat would appeal to them. Although this segment is less likely to admit they belong here, we are confident that it exists. In our survey, many respondents said that their choice from a hypothetical menu was determined by healthiness. Furthermore, on the hypothetical menu question, a cross tabulation showed a strong correlation between low calorie alternatives and the responses of females (See Appendix F).

STRATEGIES AND TACTICS

We have developed two strategies that will meet our objectives and appeal to our target segments. These strategies and supporting tactics can be summarized in the chart below:



Strategy 1 - Generating Awareness

We conducted an online survey and asked respondents if they felt strongly against the consumption of red meat, to which only 5.5 % of respondents say yes due to environmental concerns. This low number suggests that general awareness on the environmental impacts of red meat is very low on campus. Furthermore, 72% of respondents said if they were informed of the environmental impacts of food choices on menus that it would, or at would somewhat affect their purchasing behavior.

This is why ensuring that UBC students, staff, and faculty are aware of the damage that eating red meat can have on the environment is critical. The first step to decreasing red meat consumption on campus is by spreading awareness of this large issue. In creating awareness about the issue along with a call to action to check out our website or other social media accounts to find out more information about red meat's environmental impact, not only will awareness increase, but engagement with the subject matter as well.

Tactic 1.1 - Jump on the #rippleffectUBC

Our first suggested tactic to increase general awareness on campus would be to integrate into the #rippleffectUBC's current sustainability marketing campaign.

This specific campaign is meant to generate awareness on UBC's current sustainability initiatives, and also encourages students to make more sustainable choices, as every step counts to making a better environment. This campaign has a ton of exposure, through a series of different posters, billboards and bus stop signs highlighting different sustainability issues, located in high traffic areas. They also have a very appealing website that their posters always direct the audience towards. The website is an interactive hub for all sustainability dialogue at UBC, with information on sustainability initiatives, and an aggregation of social conversation and information about ripple labs. Our recommendation is to partner with the #rippleeffectUBC and market our social cause through their online portal.

Read the Stories

At UBC, we are putting sustainability into action. Read about how we are using our campus as a living laboratory through these ten campus initiatives.



Climate & Energy



Recycling & Waste



Water



Green Buildings



Purchasing



Food



Transportation



Courses & Teaching



Social Sustainability

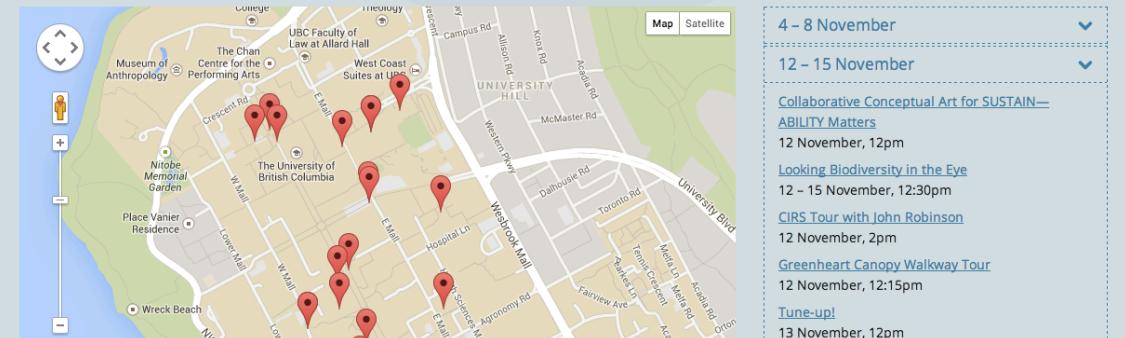


Economic Sustainability

As you can see above, they already have a "Food" tab, where they talk in-depth about issues of sustainable farming. We believe that our social cause would fall nicely under this tab, and align perfectly with what the website is already promoting. When students press the "Food" tab, they can find more information about the consumption of red meat. We would create a separate landing page from the "Food" one, where students can have more in-depth information about the impacts of red meat on a "What The Cow" landing page from the ripple effects website. Our website URL would be <http://rippleeffect.sustain.ubc.ca/food/whatthecow>, and we would also link our website to UBC Sustainability's other social media accounts to ensure there is a strong, cohesive sustainability messaging at UBC.

Find a Ripple Lab

Fun (and sometimes surprising) pop-up Ripple Labs are being held across campus from **Nov 4 – Nov 15** to showcase sustainability in action at UBC. Use the map and Ripple Lab listing to find one near you!



Furthermore, in partnering with UBC Sustainability's the #rippleeffectUBC campaign, we would suggest to create a ripple lab that focuses on food sustainability. Perhaps hosting a workshop or seminar that educates students about the impacts of red meat over a free meatless lunch would be an enticing idea to get people out.

Tactic 1.2 - Create #whatthecow Website

In joining forces with the #rippleeffectUBC we also recommend that a new separate website page is created for further education on the environmental impact of red meat. The website page would be called #whatthecow. We would market this website through various campus-wide marketing campaigns, and would display the website URL on all of our Guerrilla Marketing Stunts, as well at Campus Events.

We believe this is a great slogan/website name as it is catchy and memorable. #whatthecow is similar to phrases such as “Holy Cow,” and “What the heck,” which are often said when something is shocking. We also find having “Cow,” in the name makes it directly tie back to our social cause of decreasing consumption of red meat on campus, such as from cows.

Tactic 1.3 - #whatthecow Guerrilla Marketing Stunt

One of the primary tactics to increase student awareness would be to do a large guerrilla marketing display on campus. Our team believes that in order to get our message across to a campus of extremely busy students, displaying something HUGE, that can easily be noticed by on-going students rushing between classes, would have a large impact in getting our message across. Large guerrilla marketing tactics like this have been done in the past at UBC, and have gained a ton of exposure.



In fact most recently, the engineering faculty pulled off a series of stunts on campus within 24 hours where they renovated the Dean's office into a Janitor's closet, and they also placed the shell of a Volkswagen Beetle atop UBC's campus clock tower. These stunts attracted a lot of media exposure and were featured on several online articles, print media as well as news broadcasts. These stunts were done to market the strong culture of the UBC engineering faculty and to hopefully inspire more young people to pursue engineering as a profession (The Ubyssey.)

Similar to the Engineering guerrilla stunts, we would create a massive (we mean BIG) cow and leave this cow in various public places across campus for one week at a time. These locations would have a lot of on-going student traffic, such as Mckinnes field and the down sloping water feature near the UBC Bookstore. We would put this giant cow in the middle of the field, or in the middle of the water pond and have a sign that does not state what the cow is doing or what it represents, but only have #whatthecow and a call to action to our website to find out more of why the cow is there (See Appendix G).

We think this would be a strong marketing tactic, as students are going to be curious as to why there is a giant cow on campus, and there will be no information near the cow as to why it is there. If they are curious, then they will feel inclined to check out the website and find out more information. In doing this stunt, we would increase public interest and gain media attention towards our social cause and open up UBC to further discussion on the impact of red meat.

We would have a press kit that is ready for any press that wants to contact UBC Sustainability for more inquiries on our #whatthecow guerrilla marketing stunt. This press kit would include messages that are prepared to release to media once we are contacted. We would also have a spokesperson prepped on what to say if they are contacted for an interview.

Tactic 1.4 - Partner with Faculty Free BBQ Events

Our last tactic to increase overall awareness about the effects of red meat consumption would be to partner with different faculty events during the first week of university. During that time, many faculties host a free barbecue event to welcome their incoming and returning students. Usually

these barbeques only serve hamburgers and veggie burgers. Our team suggests that we partner with these faculty barbeques and lobby to carry only chicken and vegetarian patty options instead of red meat options, and help us promote our sustainability social cause.



We would have a booth set up at the barbeques where we can talk to students (especially first years) more about our social cause of reducing red meat consumption, and how much better these alternatives are for you and how

great they taste. As the barbeques are always free, students would not be averse to eating the options that we have available, and as they are mostly first-years eager from high school, there is a good chance they would be eager to listen.

We think targeting first years is beneficial as they will be at UBC for four more years to come, so trying to create awareness and change habits early on in their university career would deeply positively impact UBC's total carbon emissions in the future.

To convince the faculties to help support our cause with their welcome barbecues, we need to highlight how it would be beneficial for them to switch from regular burgers to our more sustainable options. Some key reasons as to why they should switch to our cause would be that our suggested alternatives are a lot healthier than regular burgers. We would also suggest highlighting that in offering more carbon friendly burger options, it would help their faculty align with UBC's brand of "being one of the most sustainable campuses in North America," and would imprint a positive and consistent impression on the first year students.

This event would have a lot of traffic as the food is free, we would be targeting students who would be at UBC and could make a huge difference in the next upcoming four years, and lastly it would help UBC maintain and keep consistent with its reputation of being one of the most sustainable campuses in North America.

Strategy 2 - Change behaviors of consumers

Generating awareness about the environmental impact of red meat products is the first step towards changing student's perspective about their protein choices. Strategy 1 has provided some innovative ideas to capture student's interest on this cause. However, in order to reach the UBC Sustainability objective, generating awareness is not enough. Students need to actively choose food options containing no red meat and for this reason Strategy 2 focuses on enabling and encouraging students to lower their consumption of red meat on campus.

Any social and/or environmental initiative demanding behavior change from consumers faces the issue of the “value to action gap”. This concept refers to the fact that consumer’s awareness and concern towards the environment do not fully translate into changes in behavior (Schuchard 2008). To address this challenge, our team has generated two marketing tactics under Strategy 2 centered on promoting, encouraging and rewarding students for choosing meat-alternative options.

Tactic 2.1 - Embracing Meatless Monday

Meatless Monday is a global movement whose mission is to promote vegetarian/vegan eating habits one day a week. Vancouver is a leading member of this social phenomenon, as it proclaimed Canada’s first meatless Monday on June 10, 2013 (CTVNews, 2013). Furthermore, the main supporter of this initiative in the country is Earth Save Canada, a Vancouver-based charity. Given that UBC is located in a city where people are already somewhat familiar with this movement, our team is confident that embracing Meatless Monday is an effective medium to encourage eating behavior change among the student body.

The fact that hundreds of academic institutions across the globe have already joined this movement is verification to the movement success. McGill and Queen's Universities were the firsts to seek this opportunity in Canada (Meatless Monday on Campus, 2014). UBC can follow in their footstep and become the first University in western Canada to join the Meatless Monday. This collaboration effort can be beneficial towards achieving UBC's GHG emission reduction targets as well as boosting its reputation as a leader in sustainability.

Meatless options on “special”

Our team proposes a price promotion campaign to help embrace the Meatless Monday movement. Our vision is for all UBC food service outlets (Residence dining halls and faculty/library cafés) to have a vegetarian option on “special” every Monday. This promotion addresses the two most significant factors affecting student’s food-purchasing decisions on campus: affordability and convenience (Findings from Survey). By adopting this promotions campaign in all the UBC food services locations across campus, plant-based or other protein options become more attractive as students are highly influenced by a price reduction. As well, this switch in behavior is made more accessible to students no matter his/her location on campus as the incorporation of the Meatless Monday “specials” would be in effect in all UBC food services locations. Ideally, once the concept gains momentum, private food outlets would follow suit.

To further support Tactic 2.1, research shows that much of human behavior is automatic, cued by environmental stimuli, resulting in actions that are largely unaccompanied by conscious reflection (Marteau, 2012). In reference to our tactic, a large number of students would automatically respond to choose the “special” without really evaluating the fact that it does not have meat. Therefore, marketing the plant-based meals as the value-meal every Monday could capture positive behavioral change from students who had no particular intention of eating vegetarian prior to the point of purchase. Ideally, it would be great if students were fully conscious of food purchasing behavior but realistically that is not always the case. Therefore, our team thinks a price promotion is particularly effective to students eating on campus.

Remind and Reinforce behavior change

As mentioned previously, students are busy, always on the go with limited attentiveness. Therefore the communication campaign embracing the Meatless Monday movement needs to be witty, interesting and diverse in order to appeal to the needs of different consumer profiles. In keeping in line with the guerilla marketing campaign of Tactic 1.3, the team proposes to have a variety of informative facts regarding red meat consumption display across key location on campus in non-traditional mediums. The different variation of the messages is tailored to highlight different aspects of meat consumption that specifically appeal to the five diverse consumers segments. Our team thinks this is necessary as we recognize that the student body is diverse and one generic message would not resonate with everyone (See appendix H for mockups of marketing materials).

Tactic 2.2 - Gamification for first year students

Gamification refers to the use of game mechanisms, such as points and challenges, in ordinary activities. There is a growing trend in corporations as well as the non-for-profit sector of adopting such an approach in order to improve and change people's behavior. According to a study done by Practically Green, Gamification proves to be a great tool to encourage employees to support social change in the workplace (Marcus pp 597-601). This study found that the game environment made particular actions more visible than they otherwise would be. By creating a reward scheme as well as announcing the challenge in the workplace, gamification helped foster new social norms within a group of people as well as provided positive feedback for behavior change. Because a game approach offers effective ways to motivate users into actions, our team suggests that a gamification in the dining halls of the first year residences would be equally as effective.

More specifically, our team suggests to "gamify" the consumption of red meat in the dining halls of Vanier and Totem during the school term in order to increase the engagement of students taking action to reduce GHG from red meat. In the process, consistently rewarding students' switch to non-red-meat alternatives. Tactic 2.2 contributes to modifying the eating habits as well as the social norm around food of first year residents (Please refer to the tables below for details)

#WHATTHECOW DINING GAME!			
Use gamification as a vehicle to help reduce GHG emissions on campus	Build a community that is conscious and aware of the impact of their food choices	Shift student's diet to one that consistently includes both healthy and environmentally friendly options	
WHO: First year residents living in Totem and Vanier as well as any future residents were there is a common dining hall		WHEN: The game would take place throughout the school year	
GAME OBJECTIVE & REWARD SCHEMES			
To actively choose main dishes that contain no red meat in order to earn as many stamps as possible	<i>For every 10 stamps collected, the student is entitled to next entrée for free</i>	To be the residence building with the highest ratio of stamps per student resident in order to win the game	<i>The winning residence is given the #whatthecow award. As well, the entire residence is entitled to a common prize (ideas below)</i>

HOW THE GAME WORKS	
I.	A Students decides to select a meal without red meat
II.	At the point of purchase, the student would present his/her game card to be entitled to collect a stamp (can be digital if budget supports software implementation)
III.	At the end of collecting 10 th stamp, the cashier gives the student another game card as well as a voucher to claim the reward
IV.	The game cards would be deposited in clear cow piggy banks visible students. Close to the end of the term, the game cards would be tallied in order to generate the stamp to student ratio
V.	The residence building that has the highest stamp to student ratio wins the game. The winners all get to enjoy a reward as well as the bragging rights of being the most food sustainable!

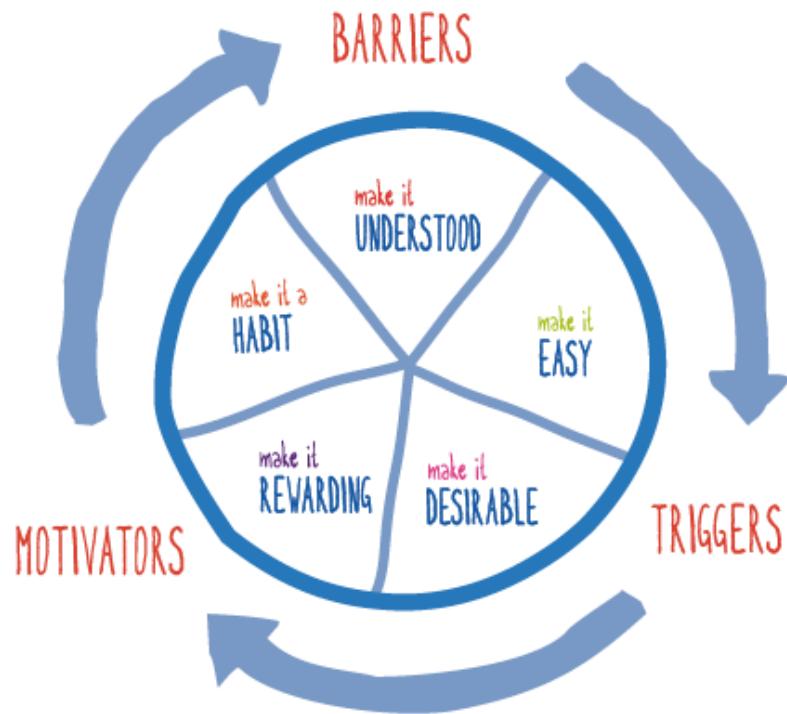
GAME CONSIDERATIONS:

- On Mondays, only meatless options get a stamp. On the rest of the days, unprocessed chicken and fish alternatives can also be considered as alternatives
- A one-month pilot program next fall is highly suggested to collect feedback from students and further refine the logistics and rules of the game
- Ideas for the Collective Reward:
 - The residence that wins the game is given a #whatthecow award in the form of a symbol that can be clearly displayed in a common area.
 - The winning residence is entitled to an attractive prize that motivates students to play the game. Some suggestions include: Complimentary year-end party, reimbursement of \$X value to the student housing account. Complementary cleaning of their room
- Using recyclable game cards and vouchers are a short-term plan to keep track of impact as well as to administer the reward system
- In the long term, our team highly suggests using technology to create an online platform where student's can share, view and track their results. This can be through the development of a mobile-app, website and/or integrating the game with student's UBC card plan account online. We suggest enlisting the help of students on campus to create this app, potentially the computer science faculty
- Please refer to wespire.com for inspiration as well as some ideas to how technology can be used in gamification

Targeting first year students in residence is a very strategic decision. The transition into University can be a phase where student's habit, behaviors and attitudes change. We intend to capitalize on this.

At this stage, students are more open to try new products as well as adopt new behaviors since they are experiencing a change in lifestyle (Duhigg 2012). Therefore, our team sees this group of students as the most likely to adopt the switch to meatless alternatives. The fact that it is compulsory for first year resident's living in Totem and Vanier to purchase a UBC meal plan amplifies the success of the proposed "food game". We also believe that our focus to positively impact the eating behavior of first year students will echo into the rest of their time at University and beyond.

EFFECTIVENESS OF OUR MARKETING STRATEGIES



Based on *Uniliver's Five Lever's for Change Model*

- **Make it Understood-** Raising awareness of red meat and encouraging acceptance of alternative meat options. Tactic 1.1, Tactic 1.2, Tactic 1.3
- **Make it Easy-** Establishing convenience of eating less red and increasing consumer's confidence about this shift in behavior Tactic 1.4, Tactic 2.1.
- **Make it Desirable-** Make eating less red meat a social norm, a community's goal, a fun and rewarding experience. Tactic 1.3 Tactic 2.1, Tactic 2.2
- **Make it Rewarding-** Creating incentives for student's to reduce their meat consumption. Having tangible payoffs to encourage this behavior as well as measuring results in order for them to see their positive impact. Tactic 2.2
- **Make it a Habit-** Reinforcing and reminding students to eat less red meat. Tactic 2.1, Tactic 2.2

IMPLEMENTATION

To bring our initiative to life we have outlined how and when these tactics could be implemented (See Appendix I):

Strategy 1

Tactic 1.1: To bring our recommendations to life, initial efforts need to be made to develop the infrastructure required for the campaign to run successfully. The first step is coordinating efforts and initiatives with the #RippleEffectUBC website. This would likely require pitching to them what our cause is and demonstrating how this initiative could work as part of the larger #RippleEffectUBC effort. Upon approval by the #RippleEffectUBC we would work with UBC sustainability to see how they could represent the initiative on their Facebook page.

Tactic 1.2: Following approval by #RippleEffectUBC and UBC sustainability, we would begin developing our own microsite which would link from the #RippleEffectUBC page. It is expected that this development will take approximately three months, and if implemented immediately could take place during the summer 2014 months.

Tactic 1.3: We recommend the #whatthecow guerilla marketing stunt taking place for two to four weeks in September 2014. We chose September in order to stimulate conversation on the topic early in our initiative. Additionally, this is when students are on campus but less distracted by the heavy workload of the mid to end semester. For maximum impact and to avoid consumer wear-out we think the time period for the stunt should be limited. People will know when it is there and know when it is gone. July and August could be used to contact suppliers to physically acquire the cow.

Tactic 1.4: To build on the back to school BBQs, naturally this will take place in the first couple weeks of the semester in September. Working with existing events on campus will get us the exposure and reach we are looking for. Food ordering, volunteer recruiting, signage, booths, and other logistical requirements would be coordinated in the weeks leading up to the first week back at school.

Strategy 2

Tactic 2.1: We recommend that Meatless Monday become part of UBC campus life by September 2014. To make this happen, the “specials” will have to be coordinated with UBC Food Service Outlets on campus in the months leading up to September. Further promotional efforts will take place throughout the 2014 and 2015 school years to remind consumers what actions to take on Mondays. The implementation of these promotional activities may be subject to change, however initial planning has promotions heavily stacked in September in effort to bring this issue to the forefront of conversation. In September, we propose launching the promotions on napkins that will be distributed at the Nest/SUB and other UBC Food Service Outlets in September (and run for one month). Also in September, promotional posters will be posted on high traffic bulletin boards around campus (and be there for three months). Similarly, bathroom door posters will be placed in the Nest/SUB and Rec center washrooms (for two months). To remind students later in the school year, bus stop posters similar to the #RippleEffectUBC ones advertisements could be launched in February (for one month), and the

bathroom door advertisements could be implemented again in March (for one month). Less promotional effort is suggested in the summer months and during exams in order to reach the maximum number of people with the most effect and value.

Tactic 2.2: We propose the gamification in first year residences to take place during the month of March in 2015. March is vegetarian month, and it is late in the year when students know each other well, the Totem-Vanier rivalry has been fully developed, and students are more likely to participate. At the end of this month, a celebration will take place to recognize the winning residence. This month of gamification is used as a pilot program to see if the logistical requirements are compatible with residence dining operations. If the program is a success we suggest it is implemented year-round beginning in September 2015, with a winner at the end of each semester. At this time, the number of stamps required to get a free meal may need to be increased.

EVALUATING SUCCESS

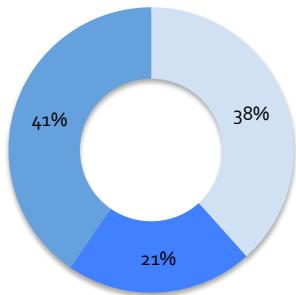
To evaluate the success of this initiative quantifiably the amount of red meat consumed (or purchased) needs to be tracked and compared to the amounts consumed in the past. Although this metric was not available during the course of our project, with some digging it is likely that there is in fact receipts or the like that could communicate this number, or be tracked in the future. Going forward, a conscious tracking of how much red meat is purchased (via receipts) is an exertion we highly recommend. Tracking the red meat sales or purchases from franchises that are external to UBC does however present an obstacle. Some franchises may be willing to disclose their metrics to UBC Sustainability, but those who do not, will not be included in the measurement of total red meat consumption on campus. By doing this we are able to see if the marketing efforts being implemented have any effect on the consumption of red meat.

To supplement the above recommendations for evaluating success a survey could be issued over time to evaluate consumer awareness and purchasing behavior (See Appendix J for a sample). Questions asked could include if they have participated in Meatless Monday, or recognize the #whatthecow campaign. To assess consumption behavior changes, questions involving self-reporting of eating behaviors could be included. Although self-reporting on consumption behaviours is not ideal, if factual tracking is unavailable, it is the next best alternative. The survey would need to be issued periodically over time (i.e. once per year or semester), and the differences in the responses would be analyzed.

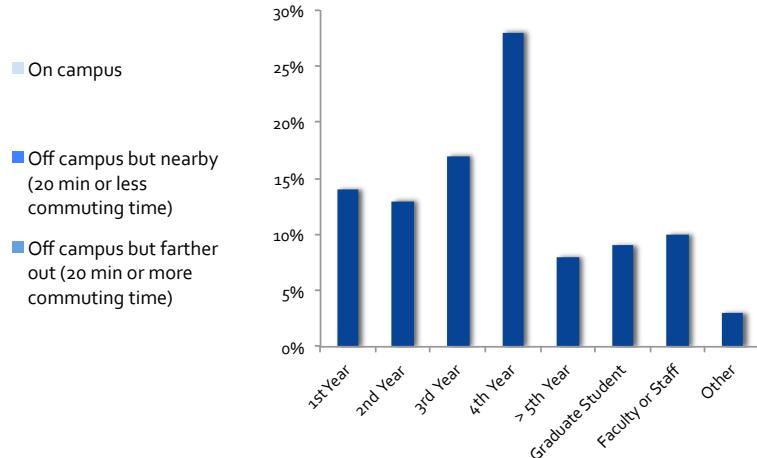
APPENDICES

Appendix A

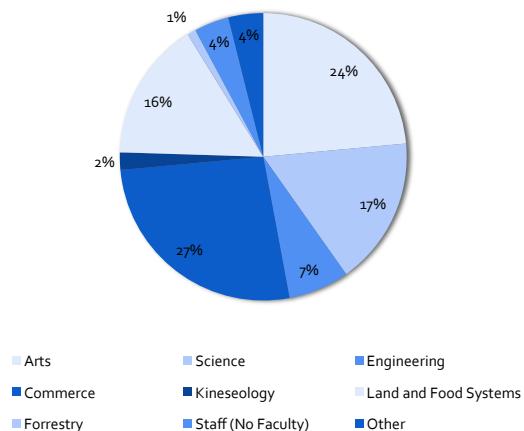
SURVEY RESPONDENTS PLACE OF RESIDENCE



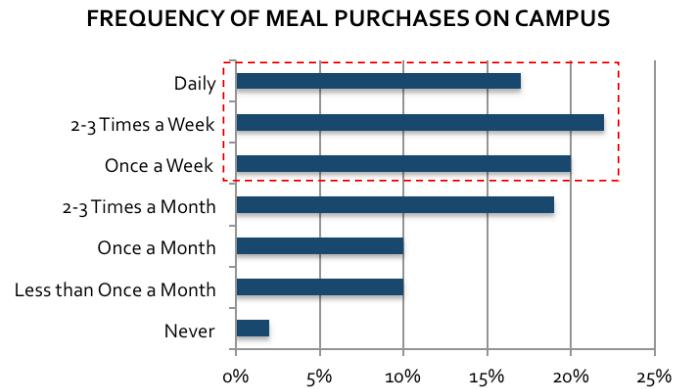
STATUS OF RESPONDENTS



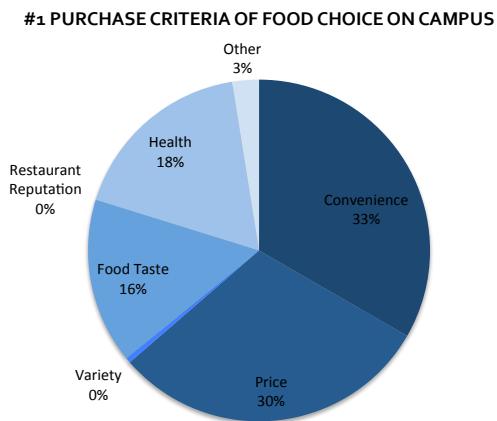
FACULTY OF RESPONDENTS



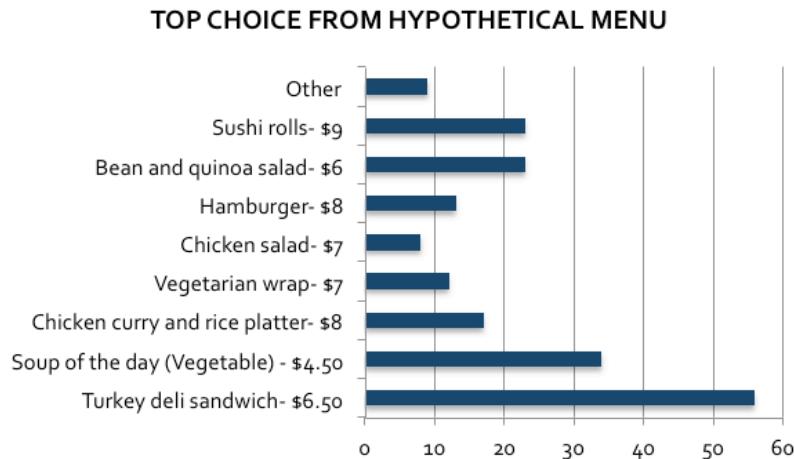
Appendix B



Appendix C

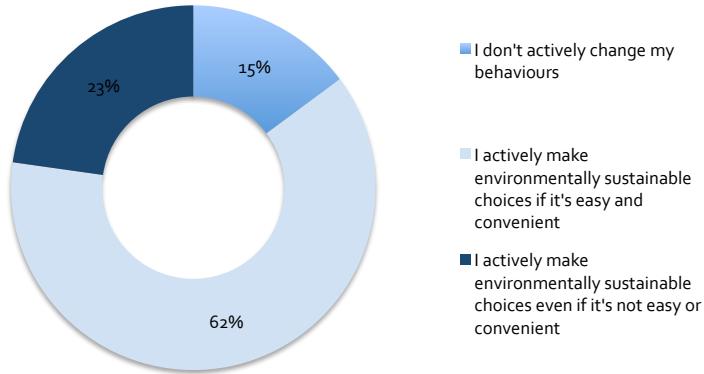


Appendix D



Appendix E

SUSTAINABLE CHOICES AMONG SURVEY RESPONDENTS



Appendix F

Consumer Segment Personifications:

* All personifications are actual survey respondents and have given permission to be featured in this report

The All-Star:

Meet Ben Chow. Ben is a 4th year kinesiology student. He is the assistant captain and starting power hitter on the Men's Varsity Volleyball team. Also, in the summer he is on Canada's National Beach Volleyball team. During the week Ben practices for at least two hours every day, and does 1 hour of cross training. In September to get into top form for the season, his coaches often hold two practices per day. On the weekends, he travels across western Canada competing rigorously for UBC. Ben eats about 8,000 calories everyday. He is so active that his metabolism is constantly in overdrive. He tries to eat as healthy as possible but his top priority is staying full. When he gets food on campus he usually goes to the Delly where he can get a sandwich with extra meat. Sometimes he goes to Tim Hortons or Triple O's as well.

The Granola:

Meet Rachel Lee. Rachel is a 3rd year Geography student. Rachel is a busy student and she works at Mountain Equipment Co-op on the weekends. For the last two summers she has gone to northern BC to do tree planting. When she graduates she wants to work in a career involving water management. She is not involved in many sustainability initiatives on campus, but sustainability is very much a personal value she holds. She recycles, composts, and buys local, fair trade, and organic products when she can. On campus her favorite place to get her meals is at Spouts. She is not completely vegetarian but has been considering it for some time. If the line at Sprouts is too long, she likes the Delly, Agora, and sometimes CIRS Loop Café when she is there studying.

The Busy Bee:

Meet Geoff Lister. Geoff is a very keen 5th year commerce student in marketing. He runs his own photography company with his roommate, and was also the editor of the Ubyssey this past year. Geoff is always running late and even sleeping has become very low priority. Geoff spends a lot of time on campus in group meetings, studying, or racing around doing Ubyssey research. He rarely has time to pack his own lunches and meals and therefore eats many meals on campus. He buys most of his food at the SUB, since that is also the location of his Ubyssey office. Convenience is key. He says that his food has become a “means to an end” and will literally eat “anywhere that is close and has a short line”.

The Beauty Queen:

Meet Klara Brulhart. Klara is a 2nd year Arts student in Spanish. She is an athlete and a model. She places a high priority on maintaining her figure as this is a necessary for her modeling jobs. She researches what food will provide her with the nutrients she needs and watches the amount of fat, carbohydrates, sodium, and sometimes calories in her food. On campus she eats at the Honor Roll, or at the UBC Food Service Outlets where she likes to get the salads or vegetable cups.

Appendix G

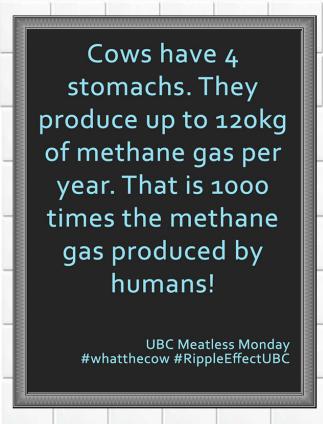




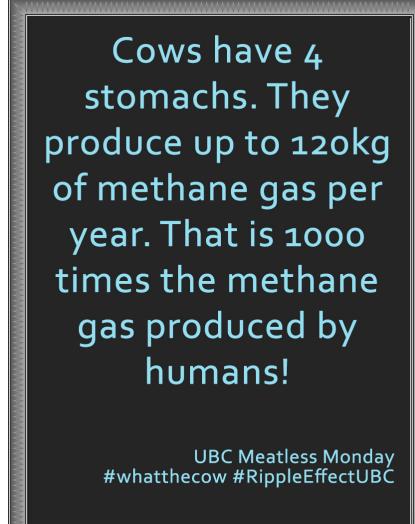
Appendix H

Each type of promotion is tailored to a specific target segment. Those segments are labeled beside each mock-up.

The All-Star (male),



and the Busy Bee

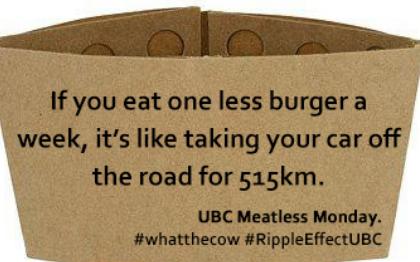


The Granola

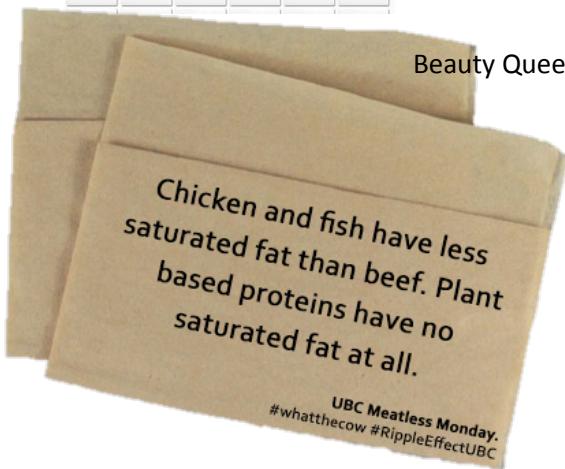
8 beef slaughter houses are among North America's top 20 industrial polluters!

UBC Meatless Monday
#whatthecow #RippleEffectUBC

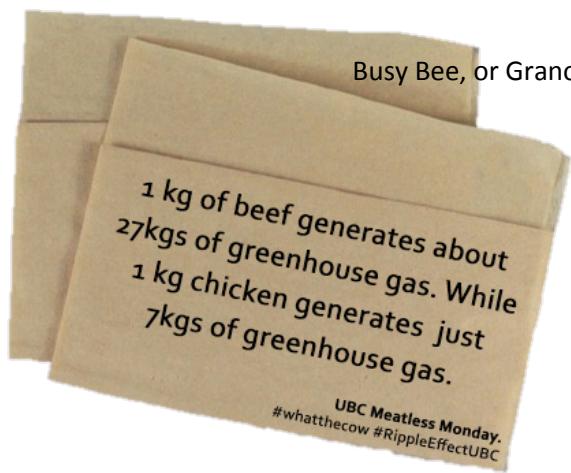
Busy Bee, or Granola



Beauty Queen



Busy Bee, or Granola



If everyone in the U.S. didn't eat meat one day a week, it would be like taking 7.6 million cars off the road.

UBC Meatless Monday
#whatthecow #RippleEffectUBC

Busy Bee, or Granola

In 100g of beef there is 23g of protein. In 100g of chicken there is 25g of protein.

UBC Meatless Monday
#whatthecow #RippleEffectUBC

The All-Star, Beauty Queen

Appendix I

Appendix J

Measuring Success – Sample Survey Questions:

Measuring Consumer Awareness

- Have you consciously participated in the Meatless Monday on campus?
 - Yes, no, unsure,
- How often do you participate in Meatless Monday?
 - *Potential answers:* Almost every Monday, sometimes, infrequently, never
- Have you seen the #whatthecow hashtag used on campus or in UBC related social media?
 - *Potential answers:* Yes, no, unsure
- What does the #whatthecow hashtag mean?
 - *Potential answers:* List potential meanings for respondents to choose from

Measuring Consumption

- How many times per week do you eat beef or lamb on campus?
 - *Potential answers:* Daily, 3-4 times per week, 2-3 times per week, once a week, never
- Have you eaten meat on campus in the past week?
 - *Potential answers:* Yes, no, unsure
- Did you eat beef or lamb last Monday?
 - *Potential answers:* Yes, no, unsure

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