
WASTE NOT WANT NOT.

A GUIDE FOR RAISING AWARENESS ON FOOD WASTE
REDUCTION USING SOCIAL CAUSE MARKETING

PREPARED BY:
ALEXANDRA BARLAS
CELIA HARRADENCE
RENATA HUYGHEBAERT
& NICOLE MULENGA-WOO

PREPARED FOR THE SASKATCHEWAN WASTE REDUCTION COUNCIL IN PARTNERSHIP
WITH THE UNIVERSITY OF SASKATCHEWAN'S OFFICE OF SUSTAINABILITY

EXECUTIVE SUMMARY

The following report is a detailed social marketing strategy created for the Saskatchewan Waste Reduction Council (SWRC). This strategy was developed after following an in depth analysis of the external environment including current political, economic, social, technological, environmental, and legal factors. Taking these factors into consideration, the most appropriate primary target market was determined to be University of Saskatchewan students, with the secondary target market being food vendors on campus. These target markets were deemed the most accessible and viable to work with. For the marketing campaign, three primary goals were developed:

1. To reduce food waste on campus by 5% by December 2016 among university students.
2. To increase the number of Green Pack volunteers by 10 individuals each consecutive year.
3. To ensure that 40% of the target market is aware of the food waste epidemic.

These goals are believed to be achievable for the SWRC and help guide the direction of the marketing campaign. Three main recommendations were created to implement these goals:

1. Create a Food Waste Reduction Week on the University of Saskatchewan (U of S) campus in conjunction with the waste reduction week proclaimed by the Saskatchewan government from October 17th to 23rd. This week will include campus advertising through an article in The Sheaf, USSU radio show and podcasts, posters, university televisions and social media
2. Develop a "Pile of Waste" guerilla marketing campaign on the U of S campus to generate buzz
3. Work with food vendors on the U of S campus to raise awareness about food waste

Using both social media and mass media communication for all recommendations, the U of S student population will be reached, and these individuals will become educated on the issue of food waste. During the Food Waste Reduction Week, additional attention will be brought to the University of Saskatchewan's Office of Sustainability's Green Pack volunteering program. By raising awareness, attracting more volunteers to the program may be accomplished. The overall marketing strategy can be used as a pilot program to be later implemented at other universities and colleges in Saskatchewan, as well as for the general public of Saskatchewan.

A schedule and budget for the marketing plan have been included to help guide the SWRC with their implementation of the outlined recommendations. Additional appendices have also been included with prototypes and further detailed guidelines for implementation. This social marketing strategy will effectively assist the SWRC in raising awareness about food waste among U of S students and initiate a positive change for the future.

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INTRODUCTION

The culture in Western society has evolved into a place where excessive eating is accepted and throwing away food is the norm. One third of the world's food supply is being thrown away rather than eaten, and there is an ever-growing concern of food shortage. The large disconnect between these two growing problems has made the obvious solution of wasting less food ever so important (Green, 2013). The existing obstacle that must be overcome is determining how to encourage society to buy less food at the point of purchase. As the Saskatchewan Waste Reduction Council is unable to reach consumers on a global scale at this time, focus will be placed on the Saskatoon community with potential expansion in the future.

Currently, our client, the Saskatchewan Waste Reduction Council, has implemented minimal marketing strategies in regards to this issue and have communicated minor efforts to the general public. In order to increase awareness of this issue, the council must quickly become familiar with the appropriate marketing strategies and determine which actions they must take. In this report, detailed marketing recommendations have been provided to address the issue of food waste and help in reducing this widespread issue. Our co-client, the University of Saskatchewan Office of Sustainability, operates as an advisor to university units on how to efficiently use their resources and minimize their negative impact on the environment. Presently, the U of S Office of Sustainability has a volunteering program called Green Pack, but the program lacks awareness around campus. Our focus for the U of S Office of Sustainability is to build awareness around that program while simultaneously increasing food waste awareness.

ENVIRONMENTAL ANALYSIS

The Saskatchewan Waste Reduction Council is a non-profit organization with a primary focus on facilitating the citizens of Saskatchewan with waste reduction. Included below is a PESTEL environmental analysis on the food waste reduction industry.

POLITICAL

Currently, there is no governmental plan in place for Saskatchewan in terms of reducing food waste. If this is something that the government of Saskatchewan would like to focus on in the future, they could follow the actions taken by other provinces such as British Columbia and Halifax. British Columbia introduced the *Food Donor Encouragement Act* in 1997 which legalized the donation of safe food to encourage food donation and discourage food waste ("Food donor encouragement act", n.d.). The city of Halifax has a "precycling" information page on their city website which educates residents to make purchasing decisions that reduce

food waste (Garbage, Recycling & Green Cart, n.d.). Both of these provincial governments have taken action to combat the continuously growing problem of food waste, which is something that the government of Saskatchewan can learn from for the future. The Saskatchewan government has, however, declared October 17th to October 23rd as waste reduction week to promote and encourage food waste reduction in the province ("Waste Reduction Week", 2014).

ECONOMIC

The GDP in Canada has slowly been increasing, and this means the economy is growing ("GDP growth", n.d.). With this growth, new restaurants continue to open and Canadians are able to afford more food. Both of these factors inevitably lead to food waste. Additionally, Saskatchewan holds one of the largest number of restaurants per capita in Canada and these restaurants are being sustained by Saskatchewan citizens ("Saskatchewan Travel Guide", n.d.). It is evident that these individuals have money to spend on eating out which further contributes to the food waste problem that is present in the province and the rest of the country.

SOCIAL

In terms of the attitude and opinion Saskatchewan citizens have on food waste reduction, there is certainly a desire and intent to take action and help fix this problem. Unfortunately, this has not lead to action taken by individuals to make a change. In Saskatchewan specifically, there is a lack of proper education in terms of the implications of food waste, which means that residents do not realize how significantly their future actions could positively impact this growing concern of food waste.

TECHNOLOGICAL

In trying to approach the problem from a different perspective, a technological analysis of food composting has been included below. Although this is not directly related to reducing the problem at the point of purchase, acknowledging this issue is important for understanding and succeeding in reducing food waste after the point of purchase.

Composting is an extremely important technological advancement in the food waste industry as it can keep food out of the landfill. Once food is composted, it can be used as a fertilizer for plants, instead of decomposing in a landfill without oxygen which produces methane gas ("Compost Your Food Scraps", n.d.). In Saskatchewan, only 26 percent of residents composted kitchen waste in 2011 as compared to 45 percent of all metropolitan area households in Canada combined ("Composting by households in Canada", n.d.). This means that educating

and informing these individuals with the benefits of composting could help increase Saskatchewan's numbers.

ENVIRONMENTAL

As the average temperature in Saskatoon is two degrees celsius, problems such as fresh food rotting easily are not as present as they would be in warmer climates ("Average Temperatures in Saskatoon, n.d.). The cold temperatures tend to be a contributing factor to the reason why Saskatchewan residents make less frequent, large, one-stop trips to the grocery store as opposed to smaller, more frequent ones. Although this is the case, the summer months of July and August do tend to be warmer, and potential negative environmental effects could arise if there is improper management of waste.

LEGAL

Currently, there are no environmental regulations in Saskatchewan regarding waste reduction. Unlike mandatory recycling bins in the city of Saskatoon, compost bins that encourage the reduction of food reaching the landfill are not mandatory in the city. Although this is the case currently, these compost bins are still available to the citizens of Saskatoon by the Saskatchewan Waste Reduction Council. The city of Saskatoon also offers rebate on the purchase of compost bins (Saskatchewan Waste Reduction Council, n.d). The city of Regina also promotes composting to help reduce waste, although this is not an environmental regulation by the city ("Your Guide To Composting", n.d.).

THE COMPETITION

Within the food industry, the Saskatchewan Waste Reduction Council will face several competitors. Amongst these, only indirect competitors exist. Taste of Saskatchewan, which is a food festival that features over 30 of Saskatoon's restaurants serving their house favorite dishes, is one source of indirect competition. Saskatoon Ribfest is another competitor which is a family event that serves ribs and encourages the purchase of copious amounts of food. These events, as well as others such as the Saskatoon Exhibition, are indirect competitors. These competitors focus on undesirable activity, which consists of purchasing abundant amounts of food even though a large amount of the food bought tends to go to waste. In regards to direct competitors in Saskatoon, the Saskatchewan Waste Reduction Council is in control of recycling, landfill, household hazardous waste, food waste reduction, composting, and much more. Because the council works so closely with the municipal government and city of Saskatoon, no direct competitors have been found at this time.

SEGMENTATION AND TARGET MARKETS

The goal of segmenting is to define specific groups of individuals who are similar and therefore likely to respond to messages in comparable ways. Various factors can be used when determining segmenting and identifying a target market. Some of these factors include geographic, demographic, psychographic, and behavioral factors. When segmenting the market to implement a targeted marketing plan for food waste reduction, many of these factors were taken into account. The following segments were identified as being the most effective to target.

VIABLE TARGET MARKETS

University Students: This segment includes students at the University of Saskatchewan, including both undergraduates and graduates. The students targeted are of all ages and genders, and specifically amongst these individuals, the students who at any point in time have purchased food or meal products on university premises. These students have many things in common; they are currently attending school, which will cause them to react similarly to specific messages and stimuli.

SUB-SEGMENTS OF THIS MARKET ARE AS FOLLOWS:

Hipsters: Usually defined as persons who follow the latest trends and fashions, especially those regarded as being outside the cultural mainstream. Many of these individuals already have an existing awareness about healthy and sustainable food options. This segment may be more open-minded and likely to notice educational marketing materials concerning food waste. Placing messages and promotions around the school would work well with these students and could also create word-of-mouth communications and awareness.

Granolas: Described as people who are environmentally and socially aware, open-minded, left-winged, and active. This segment is already conscious of the consequences of food waste and would therefore be more likely to participate in campaigns and spread the word to other students. These types of students would be eager to volunteer to promote food waste reduction as well.

Uninvolved Students: Students that are not exceedingly involved in social causes on campus and most likely unaware of food waste problems. These students may be more inclined to purchase food for convenience without thinking of the environmental or social ramifications, and may be motivated to get involved if they become more educated on the subject. Providing posters and demonstrations around the school may give these students the information they need to actively reduce their food waste.

ADDITIONAL IDENTIFIED SEGMENTS

Parents: Another identified segment are parents generally around the ages of 30 to 50, who have young and/or teenage children and are still the main providers of food within the home. These individuals would generally be more concerned about food costs and spending, and may be more receptive to educational marketing concerning food waste. With the cost of food in grocery stores on the rise, this segment would be less likely to willingly waste food. This segment may better understand the value of food waste reduction by describing food waste in terms of money spent. Another benefit of targeting this market segment is that if they adopt the desired behaviour of avoiding food waste at the point of purchase, their children are more likely to adopt this behaviour in the future.

Low income families: Low income families are described as parents with children whose combined family income is less than \$40,000. Since their income is not high, they may be more concerned with saving money. By encouraging these individuals to only buy what they need, they will be more likely to save money on groceries, and will reduce their food waste. Targeting these consumers by placing posters in grocery stores would be the most effective as they would think before purchasing.

Single, business professionals: These consumers include business professionals aged 25 to 40 with an annual income of \$60,000 or more. They tend to have busy lifestyles and may not have time to plan meals or grocery runs. This makes these individuals more likely to eat out at fast food restaurants or put less thought into the purchase of groceries. Since fast food restaurants tend to give relatively large servings and these individuals are usually rushed to consume their meals, this would cause more food to be wasted.

SECONDARY TARGET MARKET

Food Vendors: These individuals are the owners and employees of restaurants within the university. Some of these restaurants include the Marquis Cafeteria and the lower Place Riel food court. This segment is constantly catering to students and faculty within the university. The cause of food waste on campus is partly due to these vendors as they tend to serve large portions that go uneaten. Working with the university food vendors to take actions that will result in less food waste is desired.

CHOSEN SEGMENTS

The primary target market chosen for the food waste reduction marketing plan is University of Saskatchewan students, with the secondary target market being food vendors. These two segments were chosen as viable markets as the university campus environment is an ideal testing ground for the implementation of a pilot program. The University of Saskatchewan

Office of Sustainability has already established that food waste is a serious issue on campus, and this issue establishes a need for change within this target markets. The severity of this problem will continue to rise if it is not attended to. Due to the limited budget that has been provided, market research can be conducted on campus at a lower cost with less risk. Food vendors on campus provide opportunity to observe different purchasing and consumption patterns of university students. Since many of the university students visit the food vendors on campus, these places would be ideal for the promotion of food waste reduction.

Looking more closely at the primary target market chosen, this segment includes males and females predominantly between the ages of 18 to 25. Using the VALS assessment, this target market was determined to be part of the experiencers group (Strategic Business Insights, 2016). This means that they are spontaneous, consider themselves to be sociable, and are first in and first out of trend adoption (Strategic Business Insights, 2016). The readiness for change for this segment would be higher as they are more susceptible to new trends and more willing to make a change.

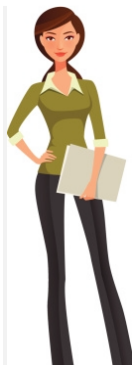
PRIMARY TARGET MARKET PROFILE:



Meet Josh, he is a 19-year-old second year business student at the Edwards School of Business. Josh plays recreational sports at the university during his free time, and is looking to gain volunteer experience to include on his resume. On the weekend, Josh spends time with friends and attends many social events. Josh is considered by his friends to be very extroverted and sociable.

Josh would be a good target market as he is looking to become more involved in volunteering. Josh is in the beginning stages of learning about society's impact on the environment and is interested in finding ways to help out. This may make him more susceptible to food waste reduction and volunteer promotions. Josh also participates in social events which would make him more experienced when working with others.

SECONDARY TARGET MARKET PROFILE:



This is Cindy. Cindy owns a food vendor in Lower Place Riel at the University of Saskatchewan. Cindy's establishment serves hundreds of University students each day. The portions served at her vendor are relatively large but provide a reasonable portion of food for the amount of money that is exchanged. Cindy has taken many steps toward becoming more environmentally friendly in her personal life, but hopes to do so with her business as well. She is open to any suggestions regarding the reduction of food waste and the promotion of it.

GOALS

The overarching goal that the Saskatchewan Waste Reduction Council would like to achieve is to educate and engage consumers on the issue of food waste, focusing on waste reduction at the level of consumer purchasing decisions. To fulfill these purposes, the following three goals have been constructed below along with the related objectives. The objectives are touched on briefly, and will be discussed further in the recommendations section.

GOAL 1: REDUCE LEVEL OF FOOD WASTE

Our primary goal is to reduce food waste on campus by 5% by December 2016 among university students.

OBJECTIVES

The SWRC desires a change in the buying habits of the primary targeted audience at the point of purchase, and to facilitate this process, we will be working with Marquis Hall and the lower Place Riel food vendors on campus. These food vendors will display an informational poster by their cash register informing students on how they contribute to food waste reduction. We will also have targeted marketing through school advertising, mass media and social media posts, and guerilla marketing techniques. Additionally, the University of Saskatchewan Student Union (USSU) has its own radio show and podcasts, and advertisements as well as guest speakers from the SWRC will be featured on these channels. Lastly, an article will be posted in The Sheaf, which is the university newspaper, to reach the target audience on a larger scale. These

techniques will raise awareness about the issue and help reduce the amount of food waste that occurs on the University of Saskatchewan campus.

GOAL 2: ENGAGEMENT

To increase the number of Green Pack volunteers by 10 individuals each consecutive year.

OBJECTIVES

We want to encourage university students to join the Green Pack program created by the U of S Office of Sustainability. This will be done through the advertisement of volunteer positions on campus for the annual Food Waste Reduction Week. This week has been implemented by the Saskatchewan government, and the SWRC will take advantage of this week by running promotional and informational campaigns and events on campus. There will be a variety of different volunteering positions available for students, and since this volunteering will be done through Green Pack, it will lead to increased student involvement in the program. Not only would students gain valuable volunteer experience, but they would also be helping to educate their fellow classmates on the risks of food waste, the rewards of food waste reduction, and involve themselves in other events held by the University of Saskatchewan Office of Sustainability.

GOAL 3: AWARENESS

To ensure that 40% of the target market is aware of the food waste epidemic.

OBJECTIVES

By providing information through posters, The Sheaf, CFCR radio station, online communication, university televisions, Food Waste Reduction Week activities, and creating media and public excitement for this week, students can become aware of the problem of food waste and how it affects our society. The volunteering mentioned in the previous goal will also assist in increasing awareness. Awareness will be measured before and after promotional activities take place on campus through survey distribution.

OVERVIEW OF THE STRATEGY

The marketing campaign we would like to implement for the Saskatchewan Waste Reduction Council will be made up of several segments, which are included below.

PILE OF WASTE

Our first and expectantly most significant tactic will be using the concept of guerilla marketing. We will place a large pile of food on display during Food Waste Reduction Week with a statistic that shows how much food is wasted in Canada. This will be displayed in the Arts Tunnel, as it is one of the highest traffic areas on campus. It will also be displayed in Marquis Hall, since the buffet style servings strongly encourage food waste. The final location will be the bowl, or the area in front of the U of S Administration Building. This area will need to be booked by the Office of Sustainability in order to secure a space for the display. The pile will consist of actual food waste that has been generated by members on campus. The food will also be covered by wrap to reduce any unpleasant smells caused by the display. By having this campaign during Food Waste Reduction Week, it will catch the attention of students as it is something they do not normally see on their way to and from class. Along with the other informational advertisements and educational messages distributed by the Saskatchewan Waste Reduction Council during this week, which will be further explained below, students will have multiple opportunities to learn about and be reminded of the campaign. *Examples of this campaign can be seen in Appendix 9.*

UNIVERSITY TV

We would also like to make use of the plasma television screens stationed throughout the university campus. We found that these televisions are placed in areas that are visible to students when they are waiting for classes to start or for a friend in the hallway. We chose this medium over placing posters on bulletin boards as these boards can become very cluttered. By implementing educational advertisements on these TVs, the advertisement will be shown on its own for ten to fifteen second intervals with no other distractions. The advertisement itself would include promotional messages that encourage the reduction of food waste, as well as inform students about the implications of food waste.

FOOD VENDORS

When partnering with the secondary target market identified, University of Saskatchewan food vendors, there are two goals we would like to reach, which are to reduce the amount of food that these vendors waste, as well as educate students about their food waste reduction efforts.

We recently spoke with all of the food vendors in the lower Place Riel food court, and they each expressed enthusiasm in participating and displaying information about food waste. With their participation, there is a significant chance that the primary goal will be achieved, which is to reduce food waste by 5% by December 2016, as these vendors largely contribute to the food consumption of university students.

FOOD WASTE REDUCTION WEEK

Lastly, we would like to encourage the University of Saskatchewan to participate in a Food Waste Reduction Week across campus. This is a week that has been proclaimed by the Saskatchewan government from October 17th to 23rd, and it would be a great opportunity for the university to participate in an already established campaign. By engaging in the promotion of food waste reduction, it will not only educate students on campus, but will also result in free media coverage. This, in turn, will create buzz on campus that will grab the attention of students, and more widely, the citizens of Saskatoon.

Our decisions for these campaigns were also influenced by the “4 Ps” of nonprofit marketing, and are elaborated upon in the sections below.

PURSE STRINGS

At this time, we do not believe that large donations from corporations will be needed for the overall marketing campaign as it is low budget. However, in terms of promoting Food Waste Reduction Week on campus, donations from the University of Saskatchewan, as well as clubs, societies and departments, could be utilized to increase awareness.

POLICY

Governmental policies that create an environment surrounding the target audience can be very beneficial in supporting waste reduction change for the long run. By creating an environment conducive to behavior change towards the established goals, the target audience would be much more willing and interested in taking part of the change. Although this is the case, we do not feel that there would be enough movement for a policy to be introduced at this stage.

PARTNERSHIPS

Partnerships for this marketing plan are discussed further in this report on page 24.

RECOMMENDATIONS

Based on our findings, we have developed the following recommendation in order to meet each goal. Each segment is divided into the creative details required for the process as well as the channels, including partnerships, that will need to be visited in order to realize this strategy. These recommendations can be used on the University of Saskatchewan campus as a pilot program, and further adjusted and expanded to other schools or larger crowds in the Saskatchewan area after they have been tested and evaluated.

FOOD WASTE REDUCTION WEEK (OCT 17TH - 23RD)

This first recommendation corresponds with all three goals, which are:

1. *Reduce food waste on campus by 5% by December 2016 among university students,*
2. *Increase the number of Green Pack volunteers by 10 individuals each consecutive year and*
3. *Ensure that 40% of the target market is aware of the food waste epidemic.*

As most university students are unaware of how much food is being wasted on campus, we want to draw attention to the issue while also increasing their level of engagement and reducing the level of current food waste.

CREATIVE

FOOD WASTE REDUCTION WEEK

A Food Waste Reduction Week is to be hosted on campus by the University of Saskatchewan's Office of Sustainability from October 17th to 23rd, 2016. We believe that this week will bring the issue of food waste to a focal point so that university students will stop and think about their current behavior regarding food waste. In order to advertise this particular week, advertisements regarding the reduction of food waste will be placed on the university televisions around campus. These advertisements will use the SWRC's slogan of "think more, waste less" as the primary message. To reinforce that idea, we will have a series of advertisements showing picture comparisons between \$600 of wasted food and a \$600 product that university students would rather spend their money on such as textbooks or headphones. We chose \$600 because Canadians waste approximately that much worth of food each year (David Suzuki Foundation, 2016). The idea is to show students that by reducing the amount of food wasted, they can benefit their own lives as well. The advertisements will be bright to draw more attention to them as well. *Refer to Appendix 6 for a prototype of the poster.*

PILE OF WASTE DISPLAY

The main focal point of the Food Waste Reduction Week is the “Pile of Waste” displays (*please refer to “Pile of Waste” section below*). Along with the “Pile of Waste” displays, there will be more information shown on top of them in the form of posters that resemble the Food Waste Reduction Week advertisements in order to give passing students more information on the issue. Each display will have at least two volunteers present to answer any questions the general public may have.

GREEN PACK PROGRAM

We recommend the use of volunteers through the U of S Office of Sustainability Green Pack program to help with activities during this week. Since these volunteers are already students who are invested in making a difference in the areas of sustainability, their ideals and goals line up well with those of the SWRC, and they will be more likely to lend their time to the Food Waste Reduction Week.

CHANNEL

SOCIAL AND MASS MEDIA

For the Food Waste Reduction Week, mass media and social media channels were chosen to relay information to the public about the event. For social media, the University of Saskatchewan Office of Sustainability and SWRC Facebook pages will be used, as they already exist with a substantial follower base. Additionally, the University of Saskatchewan Facebook page will be used to reach an even greater amount of students as this page has a significantly larger follower base. It was decided to use the plasma screens that are located throughout campus rather than traditional paper posters. This ties in with the Saskatchewan Waste Reduction Council’s views as an organization that resources should be wasted less, and to try and avoid using paper materials. The plasma TV advertisement needs to be submitted to the USSU’s media coordinator for approval (*see implementation schedule for timeline*).

PAWS BULLETIN

An announcement for the Food Waste Reduction Week will also be made on the PAWS website bulletin messages. Since students use the PAWS website frequently to check their emails and class content, we believe this high traffic volume will help increase awareness of the event. A PAWS bulletin should be submitted to the website by October 15th, 2016. It is recommended this be submitted by the Office of Sustainability’s community engagement

coordinator. A bulletin should also be created and submitted to the website by September 10th, 2016, calling for student volunteers for the Food Waste Reduction Week.

GREEN PACK RECRUITMENT

We believe that the attention from this Food Waste Reduction Week can be used to attract more volunteers for the Green Pack program and help achieve the second goal, which is, *to increase the number of Green Pack volunteers by 10 individuals each consecutive year.* University of Saskatchewan students will be likely to engage in volunteering once they are more aware of the program because many students include volunteer experience on their job applications. Because of this, we recommend that two laptops are available at each “Pile of Waste” display, supervised by volunteers, to give passing students the opportunity to sign up for the Green Pack program. We also suggest that the Green Pack program release an advertisement on the PAWS website specifically for an upper level marketing student to help with running and updating the social media sites during the food week and to help oversee the activities occurring at that time as well. This will reduce the work load of the week for the SWRC and ensure someone with experience in the marketing field is in charge of these duties. It will also increase the level of awareness about food waste and the level of volunteering for the Green Pack program.

THE SHEAF

An additional channel that would aid in achieving a broad audience at the university is The Sheaf, which is the student run newspaper on campus. An article could be submitted regarding food waste and how it affects students on campus. A segment specifying how wasting less food helps save money would really speak to the student audience. It is best that the editor of The Sheaf be contacted by September 21st to allow for a possible interview process and editing of the article. Having the article released by October 19th would coincide with Food Waste Reduction Week.

PILE OF WASTE

This second recommendation corresponds primarily with the third goal which is: *to ensure that 40% of the target market is aware of the food waste epidemic.*

CREATIVE

GUERRILLA MARKETING

Guerilla marketing is defined as "...a creative, non-traditional and many times interactive type of advertising that is typically a low-budget production." Guerilla marketing succeeds at establishing its brand awareness (Wanner, 2016). This concept can be taken and applied to raising issue awareness for the food waste problem at the University of Saskatchewan. It gives the brand the opportunity to make a strong, positive reputation for itself in a memorable fashion (Wanner, 2016). As Wanner states "...the ability of guerrilla advertising is to break down barriers consumers have created, to filter traditional advertising messages, and actually get inside a consumer's mind in order to make a lasting impression with the new and exciting ideas these campaigns pose to their consumers". We believe that this method of advertising works best for the Saskatchewan Waste Reduction Council because it is incredibly low cost and is one of the best ways to bring attention to the issue in a way that gets noticed.

STAGES OF CHANGE THEORY

Bringing attention to the issue is the first step in trying to change undesirable behaviour in individuals according to the stages of change theory (Weinreich, 2011) (*Refer to Appendix 4*). At this stage, the individual is not aware of the problem and therefore does not realize they are at risk for the negative behaviour. Since guerilla marketing is so effective at raising awareness, it lines up well with this stage of the theory. The posters that are to be developed for this campaign will also help target students who find themselves in the contemplation phase which is when an individual realizes that they may be at risk for the negative behaviour and begin to consider whether they should do something about it. At this stage, it is important to emphasize the benefits, which our posters do. Social pressure is also very effective to help with behaviour change at this stage.

FOOD PILE

The food waste pile marketing on campus will coincide with the Food Waste Reduction Week. We will have three different piles displaying food that has been thrown away over the course of a day rather than eaten from various locations on campus such as, Marquis Hall and lower Place Riel. By showing all the food on display, we believe it will have a forceful impact on students as to how the food that is wasted builds up so quickly.

THE LOGISTICS

The most important and crucial part in making sure the “Pile of Waste” displays works effectively is to have the displayed food removed in a sanitary manner that does not disrupt the work of the employees or compromise the health of those handling it and placing it in displays. We recommend that volunteers use gloves at all times while handling the food. The food for the displays should be taken from dishes that have leftover food the day before it is displayed. Doing this ensures that there is no rush when bringing the food from the locations to the displays. In the case of lower Place Riel, we recommend that an arrangement be made with janitorial staff to keep the garbage bags from the previous day in a storage area until the next morning. On the morning of the displays, volunteers can remove food and place it on the displays before the morning school rush. We recommend that the food be placed on flat cardboard. Plastic wrap will also be required to cover all food in order to prevent bugs or unpleasant smells from spreading. This is important as we want to ensure the displays do not discourage students from visiting them and attaining more information on the campaign. Refer to Appendix 9 for a prototype of the “Pile of Waste” displays.

CHANNEL

WHERE

The “Pile of Waste” guerilla marketing activity will be displayed in the Arts Tunnel, the Bowl on campus (the lawn area in front of the university’s Administration area), and the Marquis student dining hall during Food Waste Reduction Week.

USSU RADIO AND PODCAST

It is recommended that both social media and mass media be used as marketing channels. For these channels, we advise that one primary spokesperson from the SWRC is elected, preferably someone who has experience in the social media channel and is comfortable with public speaking. The mass media channel of preference will be the local community radio station. The CFCR community station can be used to discuss food waste on campus in the form of guest messages, as the University of Saskatchewan Students’ Union (USSU) has its own weekly radio show and podcast in collaboration with the CFCR station. A show segment could be broadcasted inviting both a representative from the Office of Sustainability and the SWRC to speak about the upcoming Food Waste Reduction Week to inform students about the event. The show would be structured to include statistics about food waste and some of the root causes of food waste. The SRWC should reach out to the USSU Vice-President of Student Affairs in September and solidify a date to air a radio segment in advance of Food Waste Reduction Week.

SOCIAL MEDIA

Facebook should also be utilized to advertise the marketing guerilla activity after it has been displayed in the key locations. This way, the “Pile of Waste” can have the highest impact and a recap can be posted online in case some students missed a chance to view the event. These posts would be included on the Facebook pages of the U of S Office of Sustainability, SWRC, and University of Saskatchewan.

FOOD VENDORS

The third recommendation corresponds primarily with the first and third goals which are: *to reduce food waste on campus by 5% by December 2016 among university students*, and *to ensure that 40% of the target market is aware of the food waste epidemic*. By having posters regarding food waste at the point of purchase we hope to entice students to think twice before ordering oversized portions or food that they are likely to end up throwing away.

CREATIVE

For the food vendors, poster templates will be provided that display information about how the vendors are helping to reduce food waste. Each poster will say “we are proud supporters of reducing food waste” and then include a fact about the food waste problem to inform students. The posters can be modified to include how that particular vendor is contributing to food waste reduction. The posters for the food vendors will use bright colors in order to attract attention with a simple layout so that they are easy to read. *Refer to Appendix 8 for the prototype.*

CHANNEL

PARTNERSHIP WITH FOOD VENDORS

It is recommended to initiate a direct partnership with the food vendors in lower Place Riel. This will be beneficial for future marketing collaborations. Students usually purchase food on campus from the lower Place Riel vendors, and this indicates that the vendors are one of the first points of contact to educate students about food waste. Print media will be the main channel of communication and education for lower Place Riel. The posters will be placed in a visible area at each individual vendor location. The final placement will be up to the vendor's discretion. All vendors in lower Place Riel were contacted to determine if they would be in agreement to display marketing media about food waste awareness; a verbal agreement to display media was reached with all vendors. These vendors include the following businesses:

Extreme Pita, Harvey's, Le Crepe Bistro, Treats, Umi Sushi Express, Flaming Wok and Mrs. Vanellis.

It is recommended to pre-test the posters over the summer months of June through August. At the beginning of August, vendors will be asked to fill out a comment card that provides feedback on any remarks they may have received about the posters or of proposed improvements. The posters will be redesigned according to comments and a final product will be delivered to the vendors by the end of August, corresponding with the new school year commencing September 1st.

SOCIAL MEDIA

The final recommendation corresponds primarily with the third goal which is: *to ensure that 40% of the target market is aware of the food waste epidemic.*

CREATIVE

For the SWRC's Facebook posts, we recommend posting photos from each day of the Food Waste Reduction Week. On average, Facebook posts with photos generate 39 percent more interaction than their photo-less counterparts (Cooper, 2013). For each day of the Food Waste Reduction Week, we recommend that a "tip of the day" is posted with methods regarding how people can reduce their food waste, accompanied by a picture taken on campus of the Food Waste Reduction Week festivities. For advertising on Facebook, it is recommended that the use of SWRC's slogan photo is used to ingrain the message of "think more, waste less" with the Food Waste Reduction Week. Additionally, a promotion of Food Waste Reduction Week in the form of a poster advertisement can be displayed on the U of S Office of Sustainability and University of Saskatchewan pages before the week begins to reach a larger number of individuals and raise awareness of the event.

CHANNEL

The social media strategy for food waste awareness at the University of Saskatchewan is to concentrate on Facebook media channels. The SRWC has an active Facebook account, and it is suggested that buzz about the Food Waste Reduction Week is created at least two weeks in advance on this platform. The University of Saskatchewan and U of S Office of Sustainability Facebook pages, which have a greater follower base, will also be used to promote this week.

The benefits of using a Facebook channel is that creative content can be changed frequently to avoid advertisement fatigue as opposed to using prepaid mass media channels. Social media

content managers have access to Customer Relationship Management tools that are available on Facebook to categorize data and target specific viewers. Advertising opportunities on Facebook for specific channels cost as little as \$7.00 dollars a day. Facebook data allows targeting of customers who are similar to SWRC's follower base. This means more people with interest similar to SRWC will be able to view and click on advertisements. The Facebook insight feature is beneficial to gaining a better understanding of the target audiences. This feature allows SRWC to track page performance metrics, engagement metrics, audience demographic, impressions and reach.

The SRWC can ensure they are posting advertisements during peak times to maximize its Facebook strategy. Peak times for Facebook are generally Monday to Friday between 8am and 8pm (Upbin, 2016). Traffic spikes midweek between 1pm to 3pm with Thursday having the highest peak time of the week at around 3pm (Upbin, 2016). It is advised to post advertisements for Food Waste Reduction Week during these peak times, three times a week.

BUDGET

The SWRC has given us a budget of \$5000 for this project. The main portion of the budget will be used for the purpose of the guerilla marketing campaign and the materials required for it as well as for the cost of graphic design services. We will be displaying most of the advertising materials for the campaign on the university website, through social media channels, and on the television displays throughout the campus. By using these advertising methods we will be able to mitigate some of the costs and save the budget for other marketing materials and production costs. Due to the SWRC's relationship with the University's Office of Sustainability, some costs incurred will be significantly less. The total budget for the recommendations we have provided is \$775.99, which we found to be reasonable and incredibly low-cost for this marketing campaign. *Refer to Appendix 2 for the final budget.*

ADDITIONAL RECOMMENDATIONS

These recommendations have been created for possible future use. At this time, they were unable to fit in with the budget and set implementation plan, but we believe that they are important alternatives to consider for future use.

SMALLER PORTIONS

By working with the on-campus food vendors, it could be encouraged to provide smaller portions or add an additional smaller size to their menu. This would allow students to pick a meal that may be better suited to them and their eating habits. Marquis Hall could also provide

smaller plates to students or have the food be served by cafeteria staff. By having staff serve the food, students would be less likely to take more than they will eat and would therefore decrease the amount of food they waste. Using smaller plates in the cafeteria would cause students to feel as if they are taking more food than they actually are. Many people feel the need to fill their plate, so if the plate is smaller, it is likely that less food will be taken.

TUPPERWARE CONTAINERS

During Welcome Week at the University of Saskatchewan, many festivities and events are held. The Saskatchewan Waste Reduction Council could create Tupperware containers with their logo and slogan printed on them. 100 of these Tupperware containers would be distributed to each of the food vendors in lower Place Riel to be given out to students who purchase food from them. This would not only encourage students to take home their leftovers, but would also support the reduction of food waste.

PERMISSION AND PARTNERSHIPS

There are various groups that will require communication with The Saskatchewan Waste Reduction Council in regards to permission and partnerships. These groups are in direct correlation with the promotional recommendations we have created for the council, and are mentioned below.

PERMISSION

For the promotional recommendations we have suggested for the SWRC in regards to Food Waste Reduction Week in October, permission must be granted from various groups around the University of Saskatchewan. These groups include the University of Saskatchewan, the U of S Office of Sustainability, food vendors, the USSU, CFCR, and The Sheaf. This permission will allow the council to place wasted food piles on campus in the Arts Tunnel, Marquis Hall, and the bowl. This will also give the SWRC approval to use Green Pack volunteers for this week of promotional events. The council will also need permission to advertise their efforts during Food Waste Reduction Week as well as information about the effects of food waste on the TV screens around campus. The food vendors in lower Place Riel must also give permission to the council to help them reduce food waste in their facilities and display information by the cash register to notify the students of the food waste reduction efforts of each food vendor. We have already contacted each food vendor, and the permission to display this information has been granted. In addition, the SWRC must gain permission from the USSU and CFCR to include a segment on their radio show, the University of Saskatchewan and U of S Office of

Sustainability Facebook pages to post about the Food Waste Reduction Week, and The Sheaf to include an article about food waste in their newspaper.

PARTNERSHIPS

We recommend that the Saskatchewan Waste Reduction Council partner with the University of Saskatchewan and the food vendors in lower Place Riel on campus. The partnership with the university will aid in promoting the reduction of food waste during Food Waste Reduction Week, such as on their Facebook page, and could lead to financial aid for the promotional plans. Additionally, partnerships must be created with each food vendor on campus, which we have already begun to establish after speaking with each vendor. This partnership will ensure that food vendors are equally invested in reducing food waste as the Saskatchewan Waste Reduction Council is. By partnering with these food vendors, the SWRC can come into direct contact with services that students use on a regular basis, and it is probable that the root of the problem will be reached. A preliminary meeting must also be conducted with other stakeholders such as food services, communication services and the University of Saskatchewan Students' Union (USSU).

Food services must approve the display in the Marquis building. This department could also serve as an invaluable partner in the future educational process. Educational activities such as a waste less Monday could be held in conjunction with the Marquis Food Services and the Office of Sustainability.

It is recommended to also partner with The Sheaf which is the student run newspaper at the University of Saskatchewan. As The Sheaf is available in both print and online it reaches a large audience with the student community. An informational or opinion piece in The Sheaf about food waste could reach a larger audience, especially if it coincides with Food Waste Reduction week.

Communication services must approve marketing material used outside of the designated tack boards. Likewise, the USSU must be contacted before making use of any of the plasma screens across the university as well as scheduling a CFR radio show chat.

IMPLEMENTATION PLAN

Activity	Where	When/ Who
<ul style="list-style-type: none"> -Food Waste Reduction Week -Preliminary Advertising -Food Waste Pile -Preliminary Scheduling 	<ul style="list-style-type: none"> -Facebook Page -CFCR Radio Show -Arts Tunnel -Bowl -Marquis Dining Hall 	<ul style="list-style-type: none"> -Begin Facebook advertising schedule on October 1st, 2016 -Schedule CFCR radio show September 15th, with USSU VP Student Affairs. -Recruit Volunteers from Green Pack. By September 30th, 2016 -Contact USSU table booking, Facilities Management Division Room Booking and Food Services to obtain permission for "Pile of Food Waste" display and to book a table in the Arts tunnel. By September 20th, 2016
Food Waste Reduction Week	University of Saskatchewan	October 17th to 23rd, 2016
"Pile of Waste" display	<ul style="list-style-type: none"> Marquis Dining Hall Bowl Arts Tunnel 	<ul style="list-style-type: none"> -Arrange with custodial to have garbage from October 18th, 2016 stored until the morning of the 15th for display -Set up October 19th, 2016 -Display for a day
Sheaf Article	The Sheaf and U of S newsstands	<ul style="list-style-type: none"> -Contact the editor of the Sheaf by September 21st to secure interview and article -Release Article October 19th, 2016 (Sheaf releases new content on Wednesdays)
Food Vendors	Lower Place Riel	<ul style="list-style-type: none"> -Contact Graphic Designer by May 1st, 2016 in order to commission all poster designs -Pre-test posters June 1st, 2016 - August 1st, 2016 -Have vendors fill out a comment card -Deliver final improved posters to all vendors by August 15th, 2016

Social Media Strategy	Office of Sustainability, Saskatchewan Waste Reduction Council, and University of Saskatchewan Facebook feeds	-October 1st, 2016- October 23rd, 2016 start advertising Food Waste Reduction Week -Posts to be 3 times a week on Mondays, Tuesdays, and Thursdays, between 1 and 3 pm -Increase posts to daily between 1pm and 3pm during Food Waste Reduction Week
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A media contact list has been created in order to help with the implementation with the marketing plan. *Refer to Appendix 3 for the Media Contact List.*

EVALUATION

In order to evaluate each goal, three different evaluation criteria have been put in place.

The first evaluation criteria is meant to evaluate the first goal: *to reduce food waste on campus by 5% by December 2016 among university students.* The SWRC should employ the current food audit methods already conducted by the U of S Office of Sustainability. First, we recommend that a food audit is done at the end of September, before the Food Waste Reduction Week begins to see where current food waste levels exist. A month following the Food Waste Reduction Week, another food audit should be completed to determine if there is a reduction in the level of food waste. Additional audits should be conducted bi-annually to see if the Food Waste Reduction Week resulted in the reduction of organic waste.

Our second evaluation method is developed for the second goal: *to ensure that 40% of the target market is aware of the food waste epidemic.* Facebook analytics can be used to determine how well the posts in relation to the Food Waste Reduction Week, and the guerilla marketing campaign in general, have done in terms of likes, shares, comments and views. This tool should be used continuously throughout the campaign and beforehand as well so that comparisons can be made. The second way that awareness can be measured is through surveying done both before and after the Food Waste Reduction Week (Appendix 5). The survey can be provided to complete on the PAWS system, and it is recommended that all survey takers be entered for a chance to win a small prize in the form of a Tim Horton's gift card or equivalent.

The third and final evaluation plan is fairly straightforward. The number of Green Pack volunteers both before and after Food Waste Reduction Week should be compared in order to determine if the goal of increasing Green Pack volunteers by 10 individuals is completed by the end of the year.

CONCLUSION

In conclusion, we believe that this report will be a valuable stepping stone to a targeted marketing approach for reducing food waste at the University of Saskatchewan. By implementing a week long Food Waste Reduction Week, the SWRC will have a platform to specifically create awareness about food waste. The SWRC can adjust its educational approach throughout the following years. The mass media marketing channels recommended, along with the renewed social media strategy, will allow the SWRC to reach its target market on a wider and deeper scale. The overall goal that we hope to achieve with this plan is to spread educational awareness on the implications of food waste and encourage consumers to make better choices.

APPENDIX 1 – ZIG ZAG ANALYSIS

Item # 1: The LA Times

News Media

Mary MacVean

<http://www.latimes.com/home/la-hm-food-waste-20151017-story.html>

“Buying to many groceries you don’t use? Here are 8 tips to waste less food?”

What if every time you went to the grocery store, you bought five bags' worth of food, dropped two of them in the parking lot and kept walking? Unconscionably wasteful, right? But researchers estimate that we waste 40% of our food in the U.S.

"We waste about 50% more food per person than we did in the 1970s," says Dana Gunders, a staff scientist at the Natural Resources Defense Council and author of the new "Waste Free Kitchen Handbook."

Gunders is not a chef and not immune to frozen pizza nights in her own home. She set out to learn how everyone can waste less food. "It is money going straight in your trash bin," about \$1,500 a year for the average household of four, she says.

"It is real money, and we don't see it because it happens in these little bits and pieces. Nobody wants to waste food, and yet it just happens."

Here are eight ways to waste less without too much effort.

1. Get a wake-up call. Keep a log for two weeks (Gunders has a template in her book) of all the food you throw out, how much, why and its worth. It could inspire a change in habits.
2. Buy what you will eat. Stop for a minute before you head to the cashier. People often load their carts with high aspirations, Gunders says. "I recommend that people look in their grocery cart and think about when they'll eat the food. If you can't think of the day and time when you're going to eat that food, you might want to take a second look."
3. Reconsider expiration dates. "They do not indicate the food is unsafe," Gunders says, but often are the manufacturer's best guess of when a product is at its best. "Just knowing that is helpful. If you're someone who lived by those dates, just try pushing them by a day or two."
4. Make friends with your freezer. Milk, butter, sliced bread and blanched vegetables all can be stored there when you go on a vacation. An organized freezer, with food labeled and the oldest food toward the front, is more efficient too.

5. Give wilted vegetables a new life. Lettuce, broccoli and some other vegetables can be revived with a soaking in a bowl of ice water.

6. Compost. A bin can keep inedible food — as well as peels and cores — from going to landfills, and the result will be great garden soil.

7. Have a party a couple of days after Thanksgiving. The U.S. Department of Agriculture estimates that 35% of the turkey (excluding the bones) sold in the U.S. does not get eaten. Keep that from happening in your home by serving it to guests, perhaps in new recipes. (Gunders includes a chart for planning portion amounts for party guests.)

8. Learn to make soup and bread pudding. Among other recipes, these two are great ways to use up ingredients (all sorts of vegetables, stale bread, mushy fruit).

Item #2: Geulph Mercury

Educational Media

Owen Roberts

<http://www.guelphmercury.com/opinion-story/4638897-you-can-help-avoid-food-waste-by-buying-less-of-things-more-often/>

You can help avoid food waste by buying less of things more often

When it comes to most forms of waste, our society spends more time and energy dealing with it than preventing it.

But a new report says that's a wrong-headed approach to Canada's \$27-billion food waste problem. It's calling on the food industry to take the lead in getting everyone from farmers to consumers to get involved.

The report, *Developing an Industry-Led Approach to Addressing Food Waste in Canada*, was co-authored by Dr. Martin Gooch, chief executive officer for Value Chain Management International. He says farmers are among those who are losing significant profits to food waste, through the cost of inputs that go toward producing food that is lost along the value chain or thrown away.

He claims up to 40 per cent of everything farmers raise or grow becomes waste.

Given that figure, there's a lot of room to improve and keep some of that money in growers' pockets, which will ultimately help keep the price of food in check.

"This is a multibillion-dollar opportunity for the industry to come together, reduce food waste, improve efficiencies and start capitalizing on what is currently being sent to landfill and composting," Gooch says.

"Farmers are paying for inputs used to grow food that is thrown away ... and this is a form of waste, too. Ultimately farmers get paid for what gets sold to consumers, not for what gets thrown away."

He notes that food waste is highly visible during fresh fruit and vegetable season, when people typically buy in greater volumes — such as an entire basket of fruit (often at discounted prices) rather than a few pieces — and rarely get to the end before the lot goes bad.

The report estimates about 10 per cent of food is wasted on the farm. This results from such factors as incorrect planting, management and harvesting, overproduction, overfeeding, climate change, weather conditions and lack of connectivity downstream to processors and other participants in the value chain.

But the real hot spot for waste is in the kitchen. Fruits and vegetables haven't changed much over the years, but consumers have. Once, a lot of people canned, and those who bought mega-size baskets of tomatoes, for example, from farmers' markets or roadside stands were destined to spend the next day or so putting them up for the fall or winter. Little would be wasted.

But canning and other time-honoured — and time-consuming — food preservation traditions are not mainstream anymore, owing to changing lifestyles and demographics. Along with safety and quality,

people want convenience — and clarity. They need help knowing how to prepare the kind of fresh food that's coming off fields and orchards now, beyond just plucking it out of a basket.

They need more guidance, such as recipes, and more options, such as smaller-sized packages, even if they're less economical. If they don't have that knowledge and those options, chances are the fresh food they buy will go to waste. I think people would rather pay more for a smaller quantity, and use it all, than pay less for a larger amount and watch it rot.

Some producers have been ahead of the food-waste, consumer-education curve for years. Others are catching up, as is the industry itself. Advanced storage approaches for some commodities, aimed at longer shelf life, are being researched with support from the Ontario government at the University of Guelph and elsewhere.

Ultimately, those approaches will help. But with 50-plus per cent of food waste in the value chain being attributed to consumers, there's still a lot of room for improvement at home.

You can read the full food waste report online at <http://goo.gl/mMtBHj>.

Owen Roberts teaches agricultural communications at the University of Guelph. His column appears Mondays. You can also check out his Urban Cowboy blog on www.guelphmercury.com.

Item #3: Saskatoon Ribfest

Website

Eating Event

<http://saskatoonribfest.com/>



Join us for fun and festivities at Saskatoon RibFest. This four-day family event offers delicious, succulent ribs barbecued by some of Canada's top "Ribbers" plus live entertainment, children's fun area, food vendors and beer gardens. Did we mention that admission, parking, children's activities and musical entertainment are FREE?!!

Item #4: Taste of Saskatchewan

Website

Eating Event

<http://www.tasteofsaskatchewan.ca/>



Saskatoon's festival of fabulous food will feature over 30 of Saskatoon's finest restaurants serving their house favorite dishes in beautiful Kiwanis Park from July 14th to 19th, 2015. The menu is outstanding, from succulent entrées to delicious desserts to specialty items -- enjoy old favorites or try something new -- A Taste of Saskatchewan is indeed Saskatoon's Favorite Event!

Item #5 – Government of British Columbia: Ministry of Environment

Toolkit

TetraTech

http://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/resources/food_waste_reduction_toolkit.pdf



EXECUTIVE SUMMARY

Tetra Tech EBA Inc. (Tetra Tech) was retained by the British Columbia Ministry of Environment (Ministry) to review food waste prevention programs and develop a post-consumer residential food waste prevention toolkit. The toolkit is a resource that helps local governments or non-governmental organizations address the issue of preventable post-consumer residential food waste. This report describes different program models and their components, and provides guidance for identifying suitable approaches, based on a community’s size, capacity, and priorities.

Food waste reduction or prevention is a strategy for preventing food waste from being created in the first place. Most people don’t realize how much food they throw away every day. Uneaten leftovers and spoiled food make up over 25% of the waste discarded from a household. It is estimated that every person in the province of British Columbia (BC) (through the residential curbside collection program) throws away 100 kg of preventable food waste each year.

Community interest in food waste prevention is growing in BC as more community organizations are beginning to educate both businesses and the public on the many benefits to food waste prevention/reduction. Food waste prevention has become a topic of interest as it represents a significant opportunity to reduce environmental impacts that are caused by western civilization’s food consumption habits. Food waste prevention has social, environmental, and economic benefits for citizens and municipalities.

This study was undertaken to help BC’s local governments understand the importance and value of food waste prevention programs. A business case shows how these programs would affect sustainability measures such as social, environmental, and economic factors outlined in Table A. Food waste prevention programs and programming options were presented in a manner that shows how local governments can develop, implement, and adapt programs that would meet their needs, objectives, and/or available resources.

Table A: Sustainability Benefits for Food Waste Prevention/Reduction Programs

Social	Environmental	Economic
Residents and customers care about food waste	Reduce environmental footprint associated with growing, processing, and distribution of excess food (water, fertilizer, land, fuel, etc.)	Less waste to dispose means reduced waste management costs including avoided processing costs and lower collection costs
Increased partnerships with community and civil society organizations through joint advocacy efforts to reduce food waste	Diverting food waste from disposal conserves landfill space or infrastructure capacity, and helps to reduce greenhouse gas emissions both from hauling and from methane production in landfills	Less need for additional processing infrastructure or disposal capacity due to the reduction in the total amount of garbage and organic material generated
Increased donation of food to help food security and supply of food for people who need food	Helps meet community commitments to greenhouse gas (GHG) reduction targets in Official Community Plans, Regional Growth Strategies, and Climate Action Charter ¹	Reduced consumer cost of buying food that is ultimately never consumed and wasted
	Diverting food waste from composting conserves processing space and capacity, and reduces GHG associated with hauling and processing of organics	

¹ Reducing food waste can also make a significant contribution to tackling greenhouse gases. It has been estimated that 7% of all global GHG emissions, or 3.3 billion tonnes CO2 equivalent (CO2eq) per year, are due to preventable food waste (WRAP, 2015).

Reducing food waste decreases the amount of food waste that needs to be managed. Management costs include hauling costs, landfill costs (where a large portion is often still disposed), and organics process costs. Food waste reduction represents a significant opportunity to reduce the total quantity of waste that needs to be managed thereby reducing the municipality's associated waste management costs.

Two financial case studies were evaluated. Both programs demonstrated a payback in disposal cost savings between \$3.40 and \$5.50 for every \$1.00 invested in the food waste prevention program. The analysis is summarized in Table B. In addition, for every tonne of food waste that is prevented there are savings to residents of approximately \$5,000 by not need to purchase food and drink that is ultimately wasted, and 4 tonnes of GHG reductions (UNEP, 2014).

Table B: Program Payback and Savings per Household

	Herefordshire and Worcestershire, UK	West London Boroughs
Number Of Households	312,545	601,000
Program Costs		
Food Waste Prevention Program Cost	\$171,900	\$321,782
Program Implementation Cost/Household	\$0.55	\$0.54
Reductions and Savings		
Estimated Tonnes Reduced/Year	2,340	5,250
Tipping Fees (\$/Tonne)	\$103	\$138
Gross Savings In Disposal Costs	\$241,020	\$724,500
Disposal Savings Over 1 Year/Household	\$0.77	\$1.21
Disposal Savings Over 3 Years/Household	\$1.85	\$2.94
Return on Investment¹		
Three Year Payback	\$3.40 for every \$1.00 spent	\$5.50 for every \$1.00 spent

¹ In addition, there are approximately \$5,000 in savings by residents from preventing food waste and 4 tonnes of GHG for every tonne of food waste that is prevented (UNEP, 2014).

Typical Components for a Food Waste Prevention Program

Each municipality is different and needs to consider developing a pilot or program that meets its needs and the needs of the residents. Key considerations which need to be taken into account when tailoring a program include, but are not limited to:

- Drivers, goals, and objectives;
- Resources available: staff time, technical support (e.g., marketing and program development), and budget;
- Timeline for planning and implementation;
- Target populations: number of residents and demographics; and
- Partnership opportunities.

Food waste prevention programs typically consist of the following elements and tools. These broadly fit into the following four categories:

1. Conventional media awareness campaigns, e.g., radio adverts, posters, and local newspaper articles;
2. Online media awareness campaigns, e.g., websites and use of social media;
3. Behaviour change strategies and tools, e.g., meal planners, food waste challenges, and storage tips; and
4. Community outreach events, e.g., food waste workshops, farmers markets, and local film screenings.

A program scan was completed to identify relevant programs/campaigns that have a residential food waste prevention component, and that have tested program tools that are relevant to implementing residential food waste prevention programs in BC. The full list of 22 programs identified can be found in Appendix A. These programs were ranked from high to low in terms of having the most useful materials, data, and case studies for developing a municipal toolkit that is applicable to BC communities. The four programs identified as being most relevant to mid-sized municipalities in BC are listed in Table C. Many of the other programs identified in the scan have drawn considerably on these programs in developing their own resources and advertising.

Table C: Most Relevant Programs for Mid-Sized BC Communities

Name	Country	Key Elements
Food: Too Good to Waste	U.S.	<ul style="list-style-type: none"> - Developed by the U.S. Environmental Protection Agency (EPA) - Provides resources for reducing food waste at home which can be downloaded - Tried by a number of U.S. municipalities
Love Food Hate Waste (LFHW)	UK	<ul style="list-style-type: none"> - Developed by WRAP - Raises awareness and guides people to take small practical steps - Provides online resources for individuals/communities - A number of municipalities have rolled out LFHW campaigns
Think Eat Save: Reduce Your Food-Print	Germany	<ul style="list-style-type: none"> - Developed by the Save Food Partnership - Aims to act as a platform for exchange of ideas and projects - Website provides news and resources including graphics for a campaign package and a guide for rolling out a campaign
Food-Print Project*	Canada (BC)	<ul style="list-style-type: none"> - Developed by Farm Folk City Folk - Focuses efforts on assessing how much food waste Vancouverites produce and how to reduce that waste at home - Provides resources such as shopping tips, food storage, etc.

This report provides the rationale and a summary of tools for BC municipalities to make a business case for food waste reduction programs. The tools and resources summarized within this report are intended to create opportunities for BC municipalities to begin to implement food waste reduction programs and demonstrate leadership on the issue.

We are seeking feedback on the tools and information presented in the report. Please, after looking at this toolkit, take the time to email the Ministry at envprotdiv@victoria1.gov.bc.ca to provide comment on the usefulness of the information presented.

Item #6 – Sustainable Foodservice

Website

Sustainable Foodservice

<http://www.sustainablefoodservice.com/cat/waste.htm>

The screenshot shows the Sustainable Foodservice .Com website. The header features the logo and tagline: "Sustainable Foodservice .Com Providing information, resources and operational assistance for foodservice operators interested in sustainability." Navigation links include Home, Sustainable Shift Drink Blog, About, Press, and Contact. The main content area is titled "Restaurant Waste Reduction" and contains the following text: "Waste reduction is one of the most effective low cost or no cost ways to reduce disposal fees, and green a commercial kitchen. Most waste reduction practices are just simple good business practices with the 'green' designation being an added bonus. Most foodservice operation throw out a massive amount of garbage, most of which could be diverted. 75% of material in today's landfill is recyclable or compostable, while 50-70% of the weight of a foodservice operation's garbage consists of compostable food items. Food packaging makes up most of the remaining weight of the garbage's bins, but account for around 70% of the volume of foodservice trash. A foodservice operation without recycling, composting or any waste reduction program can reduce their disposal cost by at least half by implementing simple, structured practices. Rethink. Reduce. Reuse. Recycle." Below this text is a section titled "Rethink" with the text: "In the waste management vernacular Rethink encourages individuals and businesses to consider the way they use goods. Rethinking your waste production is not only the action of reducing the amount of waste a business produces, but a complete redesign of the way one uses goods, if it uses them at all. Rethinking waste involves looking at each and every product and person that passes through the doors or sits in a facility, then changing the way they eat, work, supply or...". The left sidebar contains "Categories" (Cleaning Green, Disposables, Biodegradable Products, Energy Efficiency, Equipment, Fats, Oils and Grease, Food, Food Waste, Animal Feed, Composting, Food Donation, Vermicomposting, HVAC, Lighting, Office, Renewable Energy, Waste Reduction, Water Conservation) and "Resources" (Books and Movies, Government Links). The right sidebar includes a "Site Search" box, "News Archives", and two promotional images: "Save Energy. Save Money. Start Today. Heat Recovery System" and "HUNTER ORIGINAL".

Restaurant Waste Reduction

Waste reduction is one of the most effective low cost or no cost ways to reduce disposal fees, and green a commercial kitchen. Most waste reduction practices are just simple good business practices with the "green" designation being an added bonus. Most foodservice operation throw out a massive amount of garbage, most of which could be diverted. 75% of material in today's landfill is recyclable or compostable, while 50-70% of the weight of a foodservice operation's garbage consists of compostable food items. Food packaging makes up most of the remaining weight of the garbage's bins, but account for around 70% of the volume of foodservice trash. A foodservice operation without recycling, composting or any waste reduction program can reduce their disposal cost by at least half by implementing simple, structured practices. Rethink. Reduce. Reuse. Recycle.

Item #7 - Global News

News Media

Meaghan Craig

<http://globalnews.ca/news/2461485/how-to-save-yourself-some-money-as-food-prices-rise/>

January 18, 2016 5:33 pm

Updated: January 19, 2016 8:40 am

How to save yourself some money as food prices rise

By Meaghan Craig

Reporter Global News

SASKATOON – As the dollar continues to slip, Canadians can expect to be shelling out more at the grocery store. According to experts, there are things you can do to save yourself some big bucks in the long run and it starts with a little something called “the best before” date.

In many cases, perfectly good food ends up in the garbage after consumers prematurely toss it and confusing labels are often to blame for wasted food and money.

“I think that the way some products are labelled it is unclear to the consumer what best before dates mean, when they should use the product, how they need to store it, etc.,” said Phyllis Shand, professor of food science at the University of Saskatchewan.

So what is a best before date?

“In Canada, the majority of our food products if they have a shelf life of less than 90 days are mandated to have a best before date,” added Shand.

In other words, how long a product will retain its freshness. Which means you aren’t going to fall ill if you eat something on the best before date or even the day after.

“Best before dates are also an indicator of quality and not safety. Our concern about safety is more related to how we handle the food, whether it’s stored at the proper temperatures at that time,” said Shand.

You can both buy and eat foods after the “best before” has passed but it might not taste as good. Its likely either lost some freshness, flavour or the texture has changed. In some cases the nutritional value of the food such as its vitamin C content may be lost.

According to Shand, this means milk stored in a cold fridge will likely last you several more days even a week beyond its best before date. Eggs can last up to a month; however, you’d likely want to use them in baking at that point as opposed to using them for breakfast.

“For a product like ground beef, you have one day for the store to sell it and then one to two days at home before you either should cook it or freeze it for later use.”

Expiration dates are different and are typically only seen on specialty products. Meal replacements, nutritional supplements and infant formula will have an expiration date and foods should not be eaten after the date passes.

In 2014, it's estimated the cost of Canada's food waste reached \$31 billion. The majority of that waste was driven by consumers at 47 per cent or close to \$14.6 billion worth of food.

"In Saskatoon, the biggest contribution to our landfill is organics so a lot of that is food that ends up in the landfill and creates methane which is a large contributor to our environmental problem," said Gord Enns, executive director of the Saskatoon Food Council.

Starting this spring, food waste will be accepted as part of the city's Green Cart program. Items like fruits, vegetables, bread, eggshells and coffee grounds will now be accepted along with any grass clippings and leaves.

Enns says it's a good start to a big problem but there are other jurisdictions that have done a lot more to encourage recycling and composting. He'd also like to see more people growing their own food and more food education provided to the public starting at grade-school level.

For now though, if consumers want to start getting serious about reducing their own food waste there's a helpful tool you can download on your phone called The FoodKeeper.

It's as easy as typing in a food and the app will tell you how long it should last refrigerated and/or frozen.

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Item #8 – BBC News

News Media

Caroline Hepker

<http://www.bbc.com/news/business-28092034>

Food waste reduction could help feed world's starving

By Caroline Hepker

BBC World Business Report

3 July 2014

"If food was as expensive as a Ferrari, we would polish it and look after it." Instead, we waste staggering amounts.

So says Professor Per Pinstrup-Andersen, head of an independent panel of experts advising the UN's Food and Agricultural Organization on how to tackle the problem.

Some 40% of all the food produced in the United States is never eaten. In Europe, we throw away 100 million tonnes of food every year.

And yet there are one billion starving people in the world.

The FAO's best guess is that one third of all food produced for human consumption is lost or wasted before it is eaten.

The latest report from the expert panel of the UN Committee on World Food Security concludes that food waste happens for many different reasons in different parts of the world and therefore the solutions have to be local.

Take Chris Pawelski, a fourth generation onion farmer from the US. Mr Pawelski has spent months growing onions in the rich, black soil of Orange County, New York, but the supermarkets he sells to will only accept onions of certain size and look.

"If it's too wet or too dry, the bulbs simply won't make the two-inch size that's required," he says.

"There might be imperfections and nicks. There's nothing wrong with that onion. It's fine to eat. But the consumer, according to the grocery store chain, doesn't want that sort of onion."

In the past, rejected onions would have been sent to rot in a landfill. Now Mr Pawelski works with a local food charity, City Harvest, to redistribute his edible but imperfect-looking onions.

City Harvest says in 2014 it will rescue 46 million pounds - about 21 million kilograms - of food from local farmers, restaurants, grocers and manufacturers for redistribution to urban food programmes.

In rich countries, supermarkets, consumers and the catering industry are responsible for most wasted food. But supermarkets have come under particular pressure to act.

UK supermarket chain Waitrose is attacking food waste in all parts of its business. The upmarket grocery chain cuts prices in order to sell goods that are close to their "sell by" date, donates leftovers to charity and sends other food waste to bio-plants for electricity generation. The idea is for Waitrose to earn

"zero landfill" status.

But then there are consumers like Tara Sherbrooke. A busy, working mother of two young children, she works hard to avoid wasting food but still finds herself throwing some of it away.

"I probably waste about £20 worth of food every week," she says. "It's usually half-eaten packets of food that have gone past their 'best before' date."

In the UK, studies have shown that households throw away about seven million tonnes of food a year, when more than half of it is perfectly good to eat.

Part of the problem is poor shopping habits, but the confusion many consumers have with "use by" and "best before" food labels is also a factor. "Use by" refers to food that becomes unsafe to eat after the date, while "best before" is less stringent and refers more to deteriorating quality.

Plus, as Prof Pinstrup-Andersen points out, food in wealthy countries takes up only a relatively small proportion of income and so people can afford to throw food away.

In developing countries, the problem is one not of wealth but of poverty.

In India's soaring temperatures fruit and vegetables do not stay fresh on the market stall for long. Delhi has Asia's largest produce market and it does have a cold storage facility.

But it is not big enough and rotting food is left out in piles. There is not enough investment in better farming techniques, transportation and storage. It means lost income for small farmers and higher prices for poor consumers.

In terms of calories, farmers harvest the equivalent of 4,600 calories of food per person per day. But on average only 2,000 of those calories are actually eaten every day - meaning more than half the calories we produce are lost on their way from farm to dinner fork.

There is enough food for everyone, just a lot of inefficiency, the FAO report concludes.

The environmental impact of all this wasted food is enormous. The amount of land needed to grow all the food wasted in the world each year would be the size of Mexico.

The water used to irrigate wasted crops would be enough for the daily needs of nine million people. And wasted production contributes 10% to the greenhouse gas emissions of developed countries.

Newtown Creek Wastewater Treatment Plant in Brooklyn, New York, is one project trying to reverse that environmental damage. The plant takes food scraps from local schools and restaurants and converts them into energy. Inside towering, silver eggs food waste is mixed with sewage sludge to create usable gas.

The pilot programme is particularly timely. New York City's restaurants will be required to stop sending food waste to landfills in 2015 and will have to turn to operations like these as alternatives.

So progress is being made. Waste food is high on the agenda politically and environmentally.

But there is still much more work to be done. As Prof Pinstруп-Andersen admits: "We don't really know how much food is being wasted. We just know it's a lot."

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Item #9 – The Drum

News Media

Jennifer Faull

<http://www.thedrum.com/news/2015/06/17/sainsbury-s-tackles-food-waste-rescue-campaign>

The Drum

17 JUNE 2015 - 11:05AM | POSTED BY JENNIFER FAULL

Sainsbury's tackles food waste with 'to the rescue' campaign

Sainsbury's has launched a campaign offering people advice, recipes and storage tips on getting more out of produce as supermarkets come under increasing pressure to tackle the problem of food waste.

Rival Tesco recently partnered with food redistribution charity FareShare for a scheme to send surplus food from its stores to local charities.

Sainsbury's has a nationwide programme with Fareshare but is looking to build on it with the '...to the rescue' campaign.

It conducted research which claimed British families could benefit from over 60 tonnes of additional vitamins and minerals annually by reducing food waste as well as save up to £700 a year.

Potatoes, bread and milk were among the most frequently binned foods leading Sainsbury's to create content with recipes and tips to help people reduce their food waste.

Paul Crewe, head of sustainability at Sainsbury's, said: "Throwing away food is often associated with wasting money, but our research published today as part of our '...to the rescue' campaign shows there is also a wider health issue. Our easy tips and recipes have been created to assist with both reducing food waste and benefiting the health of UK families. None of Sainsbury's food waste goes to landfill and any surplus food fit for human consumption is donated to charities."

Earlier this month, Labour MP Diane Abbott called on the government to introduce legislation which would ban supermarkets from throwing away food and instead give it to charities.

In France, legislation already exists that bans large supermarkets from discarding food which could otherwise be used for animal feed and sent to charities.

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Item #10- The Star Phoenix

News Media

Liane Faulder

<http://www.thestarphoenix.com/life/food/waste+escapes+this+cookbook/11027202/story.html>

Saskatoon StarPhoenix

No waste escapes this cookbook

LIANE FAULDER, EDMONTON JOURNAL 05.03.2015

Food journalist Cinda Chavich knows how to make a point.

“If food waste was a country, it would be the third largest emitter of carbon dioxide on Earth,” says Chavich, author of the freshly minted Waste Not, Want Not Cookbook – a guide to saving food, money and the planet.

Chavich, a former Calgary food writer now living and working in Victoria, has been writing about food, and penning cookbooks, for many years.

But it wasn’t until attending a food conference a year ago in Portland, Ore., that she became inspired to tackle the issue of food waste with a new collection of recipes.

“When I heard that 40 per cent of the food we produce in North America is thrown away, it blew me away,” she recalls. “Not only is it a social issue, it’s an environmental issue.”

Regular readers will know food waste is a pet peeve of mine. In addition to carbon dioxide, other harmful toxins, such as methane, are created when organic waste rots in landfill. Land and water are squandered when good food is discarded. The wallet suffers when we purchase fresh fruits and vegetables, only to toss them in the bin. According to Statistics Canada, about 50 per cent of the food wasted is lost in the home.

While the conversation about food waste is vigorous in the United States and Britain, it’s not common chatter in Canada. Through her new book, Chavich hopes to change that. There are 140 recipes in the Waste Not Want Not Cookbook, and countless ideas for sustainable use of food in the kitchen. In a sidebar penned Don’t Waste It! that runs with every chapter, Chavich offers creative tips for turning extra food – from apples to avocados – into tasty morsels instead of trash. The last chapter, called The Weekly Feast, encourages organization by offering suggestions on what to do with a selection of proteins, such as a chicken, that will provide meals well into the week.

Q: What did you hope to accomplish through this cookbook?

A: I’m trying to give people inspiration and a handbook. I’m trying to educate them on the issue of food waste and why we need to do something about it. And then I want to give them strategies and simple ideas. They can open the book and say “I have asparagus, what could I do with it?” I’ve done the research for people.

Q: How has writing the book changed your own habits in the kitchen?

A: My parents grew up in the Depression, so we didn’t waste at home. I could live on a soup bone for a

week if I had to. But we live in an era of abundance and when you're a food person, you're always buying new things when you see them, and shopping in ethnic markets for all kinds of crazy things you may or may not use. Before you know it your fridge is jam-packed with food, and you don't find something until it's off in the bottom of the crisper.

My habits have got better because I'm thinking about it all the time. I have this new, clear, plastic bin in the middle of my fridge that I bought at a local kitchen store. I cull things in my fridge and put them in the middle bin – anything, grapes, peppers. And then when I go into the fridge at night, I try to figure out how to do something with the stuff in my box. And to put it together in an interesting way. Last night, we were tired, and I thought, should I buy something? Sushi maybe? But I looked in the fridge, we had Polish garlic sausage, big thick pitas, and some little cherry tomatoes that were looking dodgy, and pesto. So we had pizzas; we fired them on the barbecue. Sometimes it's a matter of taking five minutes and thinking about it.

Q: What are your top tips for reducing waste in the home?

A: It sounds really boring and it's hard to do, and people have been saying it forever – but don't go shopping without a list. Look in your fridge, see what you have and what you don't have, go to the supermarket and buy what's on your list and don't be tempted by everything you see.

And plan your meals. If you're going to make a big batch of something, think about how you might use it the next day. Open your fridge when you're cooking dinner and sift through what's in there and try to be creative and come up with something new. Often we throw things out that are squidgy, so do what chefs do, and throw it in a soup. If it's berries, make jam. Roasting vegetables is another brilliant thing to do; when the root vegetables get soft, toss them with olive oil and roast. They are wonderful in a pasta or as a side dish. Learn some mother recipes – the frittata, the risotto, the stir-fry – these things are completely malleable.

Item #11 – Recycling Council of Ontario

Website

Recycling Council of Ontario

https://www.rco.on.ca/waste-free_lunch_challenge

The screenshot shows the Recycling Council of Ontario website. At the top left is the RCO logo. To the right is a login section with fields for 'Username' and 'Password', and links for 'Login' and 'Forgot Password'. Below this is a navigation bar with links for 'Newsroom', 'Upcoming Events', 'Donations', 'E-Directory', and 'Contact us'. A main navigation bar contains 'Home', 'About RCO', 'What We Do', 'Resources', 'Membership', and 'Support Us'. The page title is 'What We Do'. The breadcrumb trail is 'Home | What We Do | Programs | Waste-Free Lunch Challenge'. The main content area is titled 'Waste-Free Lunch Challenge'. On the left is a sidebar with 'Programs' (3RCertified, RCO Awards, Take Back The Light, Waste-Free Lunch Challenge, Waste Reduction Week in Ontario), 'Events', 'Projects', and 'Policy'. On the right is 'Related Content' with a link to 'WFLC website'. The main content features a cartoon illustration of two children holding a globe with a recycling symbol, and the text: 'The goal of the Ontario Waste-Free Lunch Challenge (WFLC) is to help schools reduce the amount of garbage they produce and to educate students, staff, and parents about waste reduction. School lunches are a major source of waste in Ontario – the average student's lunch generates a total of 30 kilograms of waste per school year, or an average of 8500 kilograms (18,700 lbs) of waste per school per year. A waste-free lunch (sometimes called litter-less, smart, garbage-less or waste-not lunch) contains no throwaway packaging or food leftovers. As a first priority, lunches are packed in servings that will be completely eaten. To avoid any packaging, all food and drinks are packed in reusable containers within a reusable lunch bag or box. All containers are re-sealable, so that leftover food and drink that is not eaten can be consumed (or

The goal of the Ontario Waste-Free Lunch Challenge (WFLC) is to help schools reduce the amount of garbage they produce and to educate students, staff, and parents about waste reduction. School lunches are a major source of waste in Ontario – the average student’s lunch generates a total of 30 kilograms of waste per school year, or an average of 8500 kilograms (18,700 lbs) of waste per school per year.

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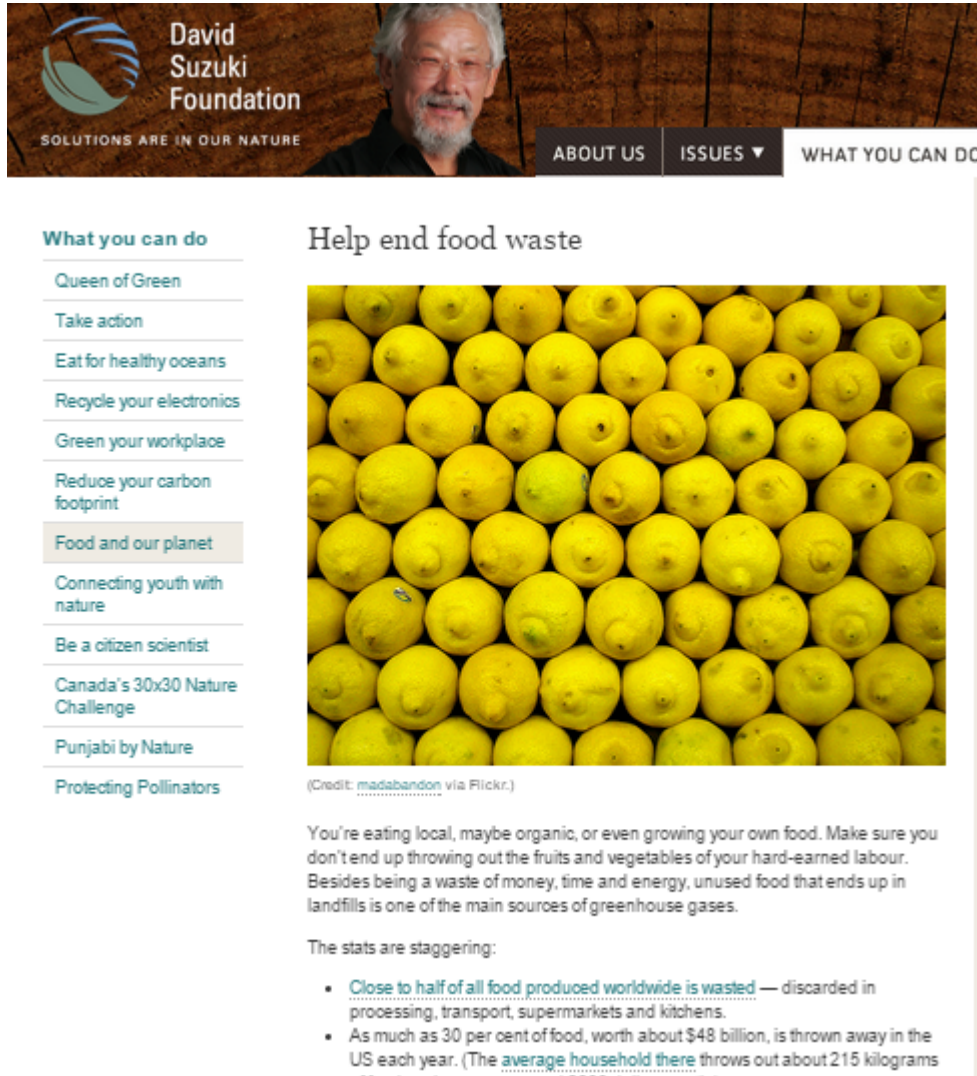
The Teacher Resource section on the WFLC site includes materials and tips to help you plan a waste-free lunch event. These include a sample letter to parents, ideas for how to pack a waste free lunch, sample PA announcements and other class/school activities, garbage/recycling facts, and suggestions for curriculum connections. Click on WFLC site link in the sidebar to find out more.

Item #12 – David Suzuki Foundation

Website

David Suzuki

<http://www.davidsuzuki.org/what-you-can-do/food-and-our-planet/help-end-food-waste/>



The screenshot shows the David Suzuki Foundation website. At the top left is the logo with the text 'David Suzuki Foundation' and 'SOLUTIONS ARE IN OUR NATURE'. To the right is a photo of David Suzuki. A navigation bar contains 'ABOUT US', 'ISSUES', and 'WHAT YOU CAN DO'. The 'WHAT YOU CAN DO' section is active, showing a list of topics: Queen of Green, Take action, Eat for healthy oceans, Recycle your electronics, Green your workplace, Reduce your carbon footprint, Food and our planet (highlighted), Connecting youth with nature, Be a citizen scientist, Canada's 30x30 Nature Challenge, Punjabi by Nature, and Protecting Pollinators. The main content area is titled 'Help end food waste' and features a large image of lemons. Below the image is a credit line: '(Credit: madabandon via Flickr.)'. The text reads: 'You're eating local, maybe organic, or even growing your own food. Make sure you don't end up throwing out the fruits and vegetables of your hard-earned labour. Besides being a waste of money, time and energy, unused food that ends up in landfills is one of the main sources of greenhouse gases. The stats are staggering:'. A bulleted list follows: '• Close to half of all food produced worldwide is wasted — discarded in processing, transport, supermarkets and kitchens.' and '• As much as 30 per cent of food, worth about \$48 billion, is thrown away in the US each year. (The average household there throws out about 215 kilograms

Educational material concerning food waste as found on the David Suzuki Foundation website. The website gives tips on eating local and stats on worldwide food waste.

Item #13 – Management Consulting Company

Toolkit

Oliver Wyman

http://www.oliverwyman.com/content/dam/oliver-wyman/global/en/2014/jul/OW_Reducing_Food_Waste.pdf



REDUCING FOOD WASTE

HOW CAN RETAILERS HELP?



Sustainability is a high priority for most retailers, and food waste is a problem that attracts significant political and media attention. Many individual retailers have launched programmes aimed at addressing it, and some retail leaders have been particularly vocal: for example, in a 2013 article carried in the Telegraph, retail giant Tesco's CEO Philip Clarke declared "war on food waste", even if it meant reduced sales. And the industry as a whole has also responded: associations such as the Food Waste Reduction Alliance in the US, the Waste and Resource Action Programme (WRAP) in the UK, and the Retailers' Environmental Action Programme (REAP) in Europe have all been established with waste reduction as their primary goal.

Item #14 – Global Food Security

Toolkit

Global Food Security Programme

<http://www.foodsecurity.ac.uk/assets/pdfs/food-waste-report.pdf>



This report was commissioned by the UK's Global Food Security (GFS) programme to better understand the issues surrounding food waste in developing and developed countries, with a particular focus on understanding where new approaches and new research may be instrumental in reducing waste. The report is an independent assessment of the state of knowledge of the food waste area, and is aimed at all stakeholders involved in the programme. The findings of this research are to guide future research funding priorities, but do not represent the policy position of GFS partners. This report is underpinned by an extensive literature review, analysis of a survey circulated to a number of interested parties within the food system and over 40 consultations with GFS partner organizations and external stakeholders. The GFS secretariat would like to thank all who contributed to this report.

Item #15 – Agriculture and Agrifood Canada

Website

Brandon University

<https://www.brandonu.ca/rdi/files/2014/03/Abdel-Presentation2.pdf>



**An Overview of Canadian
Food Loss and Waste Estimates**

*Presented at the Webinars and Speaker Series, Rural Development
Institute, Brandon University*

*Ottawa, ON
June 4th, 2015*

This report is from the University of Brandon. It provides an overview of Canadian food loss and waste estimates. It claims waste happens at the Farm level: over-production, weather damage, pests/diseases, market conditions, deterioration, post-harvest handling and storage Processing: input quality, machines, works, cold chain, market Packaging, marketing and distribution Retail: over-ordering, cold chain, price promotion, produce display design, differentiation Households: preferences, labelling, buying too much, demographics.

Item #16 – Dive! The Film

Documentary

Jeremy Seifert

<http://www.divethefilm.com/default.aspx>



Inspired by a curiosity about our country's careless habit of sending food straight to landfills, the multi award-winning documentary DIVE! follows filmmaker Jeremy Seifert and friends as they dumpster dive in the back alleys and gated garbage receptacles of Los Angeles' supermarkets. In the process, they salvage thousands of dollars worth of good, edible food - resulting in an inspiring documentary that is equal parts entertainment, guerilla journalism and call to action.

Item #17 – Maclean’s Magazine

Magazine Article

Cinda Chavich

<http://www.macleans.ca/society/life/how-to-solve-the-food-waste-problem/>

How to solve the food waste problem

Billions of dollars worth of good food is thrown away each year. Now some businesses and cities are saying no.

Cinda Chavich

May 5, 2015

At the Root Cellar, Victoria’s busy green grocer, the fresh produce is in perpetual motion—turned, trimmed, culled and completely refreshed by an army of workers twice each day. Co-owner Daisy Orser says her nearly 100 employees, whether they’re stocking clerks or cashiers, are all trained to cull produce that’s not perfect. But you won’t find much of it in the waste bin, because the company has several systems in place to make sure that less than one per cent of the food they buy hits the compost.

It’s labour-intensive but profitable, says Orser. Ripe or scarred items go first to the discount table or to feed hungry people at the Rainbow Kitchen and the University of Victoria’s student-run Community Cabbage, then to a green bin, along with carrot tops and corn husks that shoppers leave behind, for local farmers to collect to feed chickens and pigs. Excess berries go to Wild Arc, a wild animal rescue and rehabilitation centre. Composting is a last resort. “Our consumer in Victoria is an anomaly,” admits Orser, who counts 200 local farmers and food producers among her suppliers.

Still, that ethic is slowly taking hold as governments, cities and businesses around the world turn their attention to the global issue of food waste. A staggering 40 per cent of the food produced in the developed world (and 30 per cent worldwide) is never consumed. It’s food that’s discarded from farm to fork, tossed in the field because it’s not the right size or shape, cycled through stores and restaurants, and chucked out of every single family’s home refrigerator. In fact, half of the estimated US\$1 trillion worth of food the UN says is discarded each year is the wilted lettuce and expired milk that’s dumped by consumers, with another 20 per cent tossed by grocery stores and restaurants. Dana Gunders, a scientist at the U.S. National Resource Defense Council (NRDC), found \$150 billion worth of edible food ends up rotting in American landfills and producing methane, a greenhouse gas 20 times more damaging than CO₂. Meanwhile, food production uses 80 per cent of all fresh water consumed in the U.S. If food waste were a country, it would be the third-largest emitter of greenhouse gases in the world, after China and the U.S., and a major contributor to global warming.

When Vancouver couple Grant Baldwin and Jen Rustemeyer decided to spend six months eating nothing but discarded food for their recent documentary *Just Eat It*, they found mountains of bagged salads, sealed yogourt and packaged baked goods in city dumpsters. At one point, Baldwin dives into an 5.4-metre bin brimming with tubs of hummus, dumped due to mislabelling but with more than three weeks left on the product’s “best before” date (another arbitrary industry practice that leads to trashing of perfectly safe and edible foodstuffs).

Systemic food waste is largely hidden, and Canada is behind the curve when it comes to addressing the issue. According to the Ontario-based consulting firm Value Chain Management International (VCMI), Canadians waste \$31 billion in food each year. VCMI, a private firm that specializes in helping companies in the agriculture and food industries maximize profits, is the only organization that’s been tracking the

impacts of food waste in Canada. “The first real body of work highlighting the problem of food waste is from the NRDC—we don’t have an NRDC in Canada,” says Martin Gooch, VCMI’s founder and CEO. We also don’t have a national food-waste policy in Canada. “I find that intriguing,” says Gooch, an adjunct professor in management and economics at the University of Guelph. “Governments are more regionalized here. In the U.S. and U.K. things are more centralized, and in those countries there are greater resources and motivation to get something going.”

Many say consumers, in Canada and beyond, are ultimately to blame. We want it all: cheap, perfect, unblemished fruits and vegetables of a certain size and shape. So perfectly good tomatoes too ripe to be trucked across the country or too large for a supermarket “three-pack” are rejected. Apples showing the scars of rubbing against a leaf or branch never get to the store. A scene in *Just Eat It* shows celery farmers in California discarding more than half of each plant, trimming away outside ribs and leaves to deliver a right-sized celery heart to fit perfectly into a plastic bag. All of the “trim” is left lying in the field.

The EU has made some strides when it comes to food waste. Tristram Stuart, the author of the 2009 book *Waste: Uncovering the Global Food Scandal*, shamed EU regulators into rescinding rules that made it illegal to sell produce that didn’t meet strict cosmetic standards; once, only straight cucumbers and bananas with a particular length and curvature were acceptable. Now the UN has declared an international war on food waste, and selling these imperfect fruits and vegetables is a growing trend.

You are about to hear more about food waste here in Canada, too. The West Coast is leading the way for change. While many municipalities across Canada encourage household composting of food scraps, in Vancouver, it’s now mandatory for all—as of Jan. 1, 2015, the organic waste ban applies to homes, apartment buildings, restaurants, grocery chains and all institutions serving food. Similar bans are in place in San Francisco, Seattle, Halifax and Nanaimo, B.C.

Residents can see Vancouver’s campaign on billboards and buses, half-eaten spring rolls and melons announcing, “Hey! Food isn’t garbage.” This spring, Metro Vancouver will launch its own version of the U.K. website for consumers—called *Love Food, Hate Waste*—a first in Canada.

Vancouver treats food waste as “a resource,” says Carrie Hightower, a technical adviser in Metro Vancouver’s zero-waste implementation program, sending it to commercial composters like Harvest Power where an anaerobic digester converts organic waste into green energy.

While the B.C. Restaurant and Food Services Association has said the food scraps ban will be devastating to small restaurants, many have adjusted. In a pilot study based on the LeanPath food-waste prevention system developed in Portland, Ore., high-profile Vancouver eateries including Campagnolo, Vij’s and the Four Seasons Hotel learned to track and reduce their food waste. No one wants to run out of food at a wedding or banquet, says Four Seasons executive chef Ned Bell, but measuring what’s wasted in a big kitchen is an eye-opener. “Most hotels already compost but we had scales in the kitchen to weigh food scraps before they went into the green bin,” says Bell. “It prints out a report—‘throwing away 10 kg of shortribs’—that really helps everyone in the kitchen understand the problem.”

Chris Whittaker, the chef behind Forage, a fully sustainable and zero-waste restaurant in Vancouver’s Listel Hotel, says a few changes netted big results. “The breadbasket was the No. 1 cause of food waste because 50 per cent of people don’t eat it,” says Whittaker, “and it was going straight into the bin. The style of service helps, too. With small plates there’s 50 to 60 per cent less wasted food coming back to the kitchen.”

Calen McNeil, owner of Victoria's Big Wheel Burger, is proving that even fast food can be carbon neutral. Thanks to recyclable food containers and cutlery, composting, and shrinking the portion size of their popular fries, there's now only one garbage pickup every six weeks at the busy burger joint. By buying a \$100 carbon credit every month, MacNeil has eliminated Big Wheel's "carbon foodprint." "Restaurants are one of the highest carbon-producing businesses per square foot," says McNeil, who is also behind Victoria's Food Eco-District, Canada's first carbon-neutral restaurant district. "It may be slightly more expensive to compost but you are going to be paying to remove your garbage anyway."

Most businesses do not know how much food they waste. Sonya Fiorini, director of corporate responsibility for Loblaw, Canada's largest food retailer, cannot say how much food the company discards but says it's working with Gooch at VCMI "to get at what's wasted and why it's wasted." She says Loblaw has "grinding mills" at 38 of its stores, designed to divert food waste to anaerobic digesters in southern Ontario. And, following the French supermarket chain, Intermarché, Loblaw sells "naturally imperfect" apples and potatoes, produce deemed too "ugly" by the industry, at discounted prices to prevent food waste.

It's a step in the right direction, says Gooch— reducing food waste at the source, not just recycling it. "The focus on cheap food and on volume is a symptom of a broken system, one that's unsustainable in the long term," he says. "Encouraging composting or feeding animals with food scraps may look good as a PR exercise but it's a sodding expensive way to produce animal feed and dirt."

Item #18 – Metro Vancouver Food Scraps Recycling

Website

Metro Vancouver

<http://www.metrovancouver.org/foodscraps>



Item #19 – Love Food Hate Waste

Print Ad

Government of UK

<http://www.coloribus.com/adsarchive/prints/love-food-hate-waste-campaign-lamb-13223955/>

**POTATO
LOVERS**
hate waste

I love spuds. So I store mine in a cool dark place to make them last longer. If they've gone sprouty, after a proper peel they're ready to mash. And I always like freezing any leftovers in bags for a quick and easy shepherd's pie topping. Lovely jubbly.

lovefoodhatewaste.com has more tips and recipes to help you waste less food and save up to £50 a month.

wrap Material change for a better environment

**LOVE
FOOD**
hate waste

Item #20: Inglorious Fruits and Vegetables

Advertising Campaign

Intermarché

<http://www.marcelww.com/#work/inglorious-fruits-and-vegetables>



The idea was 'to fight against food waste, Intermarché, the 3rd largest supermarkets chain in France, decided to sell (30% cheaper) the non-calibrated and imperfect fruits and vegetables: "the inglorious fruits and vegetables."'

Item #21: Just Eat It

Documentary

Grant Baldwin

<http://www.foodwastemovie.com>



Filmmakers and food lovers Jen and Grant dive into the issue of waste from farm, through retail, all the way to the back of their own fridge. After catching a glimpse of the billions of dollars of good food that is tossed each year in North America, they pledge to quit grocery shopping cold turkey and survive only on foods that would otherwise be thrown away. In a nation where one in 10 people is food insecure, the images they capture of squandered groceries are both shocking and strangely compelling. But as Grant's addictive personality turns full tilt towards food rescue, the 'thrill of the find' has unexpected consequences.

Item #22: U of S Office of Sustainability

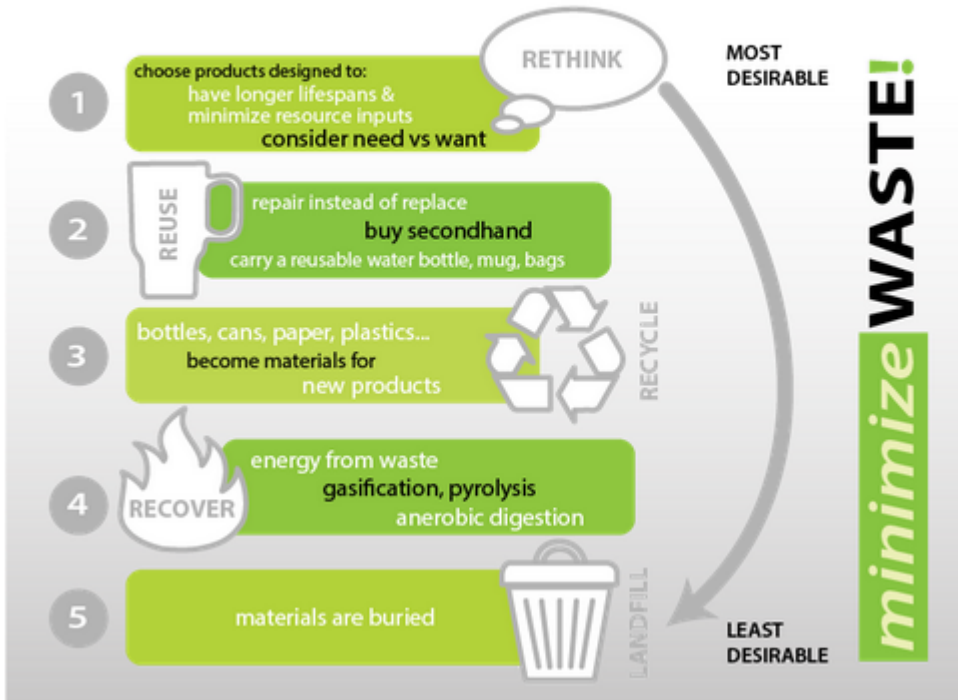
Educational Media

U of S Office of Sustainability

<http://sustainability.usask.ca/>

Waste Hierarchy

Minimize waste by following the waste hierarchy: first rethink, then reuse, recycle, recover and finally send waste to the landfill. Download a waste hierarchy poster [here](#).



Item #23: Food For Thought

Educational Poster

Wessex Scene

<https://www.wessexscene.co.uk/features/2013/03/25/our-wasteful-world-the-global-problem-of-food-waste/>



Similar Findings

Colour

- Use of bright colors such as yellows, blues, and greens was common in advertisements
- Plain backgrounds focusing on food as the focal point

Font Style

- Clean, legible fonts such as Helvetica and Arial were most often used

Wording and Taglines

- “Waste not want not” was a common phrase found throughout advertisements

Pictures

- Mostly photos of ugly or damaged foods
 - Bananas and apples were commonly used
 - Pictures of garbage dumps filled with food were used mostly on organization pamphlets and information sources

Other

- Pie charts were used often to show how much food was wasted
- Numerical facts such as “3 million tons of fruit are thrown away each year” were common
- A mix of rational and emotional appeal focusing on humor was a common theme used in advertisements
- Rational appeal was used in news articles and information about food waste
- Emotional appeal focusing on pleasure and having fun was used by organizations focusing on undesirable behaviour

APPENDIX 2 – BUDGET

Graphic Designer	\$150 x 3 hours =	\$450.00
Food Waste Display		
Plastic Wrap		\$20.00
Gloves	\$10/100 gloves =	\$10.00
Total Food Waste Display Cost		\$30.00
<hr/>		
Poster Printing Costs	\$14.99 x 10 posters =	\$149.99
	\$100.00 x 1 large poster =	\$100.00
<hr/>		
Survey Prize Cost (Tim Hortons Gift Card)		\$25.00
Facebook Advertising	\$7/ad x 7 days =	\$21.00
<hr/>		
Total Cost		<u>\$775.99</u>

The costs for the budget were obtained from the following sources:

1. **Danger Dynamite Graphic Designs** - <https://www.dangerdynamite.com/graphic-design>
2. **Staples** - <http://www.staplescopyandprint.ca/PrintOnlineInfo/PosterInfo.aspx>
3. **Facebook Website** - <https://www.facebook.com/business/learn/how-much-facebook-ads-cost/>

APPENDIX 3 – MEDIA CONTACT LIST

General Inquiries	Communications@usask.ca	306-966-6706
Matt Wolsfeld, Community Engagement Coordinator OOS	matt.wolsfeld@usask.ca	306-966-2200
Naomi Zurevenski, Editor in Chief	editor@thesheaf.com	
Jason Kovitch, Business and Services Manager, USSU	Jason.kovitch@ussu.ca	306-966-6990
Jason Ventnor, Communications and Marketing Manager, USSU	jason.ventnor@ussu.ca	306-966-6976
Jay Allen, Program Director at CFCR	pd@cfcrc.ca	
Danger Dynamite, Graphic Designer and Website Addition	Graphic designer	(306)-881-0555

APPENDIX 4 – STAGES OF CHANGE THEORY

Stages of Change Theory a.k.a. "The Transtheoretical Model"



APPENDIX 5 – BEFORE AWARENESS SURVEY

Have you heard of the University of Saskatchewan Office of Sustainability?

Y N

If so, how did you hear about it? Check all that apply:

- PAWS
- Social Media
- Posters
- Radio
- Television
- Newspaper
- Friends
- Family
- Peers
- Other (please specify) _____

Have you heard of The Saskatchewan Waste Reduction Council?

Y N

If so, how did you hear about it? Check all that apply:

- PAWS
- Social Media
- Posters
- Radio
- Television
- Newspaper
- Friends
- Family
- Peers
- Others (please specify) _____

Have you heard of Food Waste Reduction Week?

Y N

Would you be interested in volunteering for certain events during the Food Waste Reduction Week held by The Saskatchewan Waste Reduction Council?

Y N

AFTER AWARENESS SURVEY

Have you seen this ad before?

Y N



Have you heard of the University of Saskatchewan Office of Sustainability?

Y N

If so, how did you hear about it? Check all that apply:

- PAWS
- Social Media
- Posters
- Radio
- Television
- Newspaper
- Friends
- Family
- Peers
- Other (please specify) _____

Have you heard of The Saskatchewan Waste Reduction Council?

Y N

If so, how did you hear about it? Check all that apply:

- PAWS
- Social Media
- Posters
- Radio
- Television

- Newspaper
- Friends
- Family
- Peers
- Others (please specify) _____

The University of Saskatchewan's Office of Sustainability created a volunteer group called Green Pack. This group of volunteers works together with the Office of Sustainability to achieve sustainability initiatives. Some of these initiatives include helping with recycling and waste reduction efforts at campus events, helping promote Office of Sustainability events, distributing promotional materials and being a regular advocate for sustainability on campus.

Would you be interested in volunteering for the University of Saskatchewan's Office of Sustainability Green Pack program?

Y N

APPENDIX 6 - COMPARISON ADVERTISEMENT PROTOTYPE

Gain.



Loss.



The average Canadian wastes \$600 worth of food each year...

Will you take the **gain** or the **loss**?



APPENDIX 7 - UNIVERSITY TV ADVERTISEMENT PROTOTYPE

**IN CANADA, 40% OF
THE FOOD WE BUY IS
WASTED.**



**THINK MORE,
WASTE LESS,**

IN CANADA, **40%** OF
THE FOOD WE BUY IS
WASTED.



WHAT WILL
-you-
DO TO REDUCE WASTE?

**WE ARE PROUD SUPPORTERS OF
REDUCING FOOD WASTE.**

**IN CANADA, 40% OF THE FOOD
WE BUY IS WASTED.**



**THINK MORE
WASTE LESS.**

**WE ARE PROUD SUPPORTERS OF
REDUCING FOOD WASTE.**

**IN CANADA, 40% OF THE FOOD
WE BUY IS WASTED.**



**WHAT WILL
-you-
DO TO REDUCE WASTE?**

APPENDIX 9 – PILE OF WASTE



APPENDIX 10 – ADVERTISEMENT IN PLACE RIEL



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