UBC Social Ecological Economic Development Studies (SEEDS) Student Report

UBC Food Systems Project 2006 Scenario 5: Composting

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Scenario 5: Composting

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Abstract:

Scenario 5, a component of the UBC Food System Project (UBCFSP), aims to promote education, raise awareness and increase composting participation within the UBC community. Using research and material developed by our colleagues in previous years, as well as inputs from primary source student surveys and interviews with UBCFSP partners, we found current levels of campus composting participation to be low. Also, the effectiveness of current marketing and educational tools were poor. Following analysis of the data collected, we derived several recommendations for the various stakeholders within the food system; prepared updated marketing materials with attention to the theories of social marketing in order to increase composting awareness on campus; outlined a budget for the proposed campus-wide marketing campaign, which will coincide with the introduction of additional compost bins on campus; and discussed the linkages between the UBC food system and that of the global community.

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Introduction:

This report's purpose is to examine the current composting situation at UBC and determine key problem areas where improvements can be made. This project is based on a new composting scenario that is part of the UBC Food System Project (UBCFSP); a groundbreaking project developed for AGSC 450 that incorporates students' knowledge of global sustainability issues to the food system at UBC. As part of the composting scenario, four groups worked collaboratively to ensure that a broad scope of research and recommendations for the UBC composting program could be developed.

Our report begins with a discussion of the scenario problem definition and its relation to the global context. It contains a dialogue of our group members' value assumptions, and how they may have affected our work on this project. Suggested modifications of the UBCFSP 7 Guiding Principles are also included.

Next, our report outlines the methodology that was used to research the problems within the composting program on the UBC campus. Determination of the current marketing and educational materials on campus is reported as part of our research of on-campus composting. Further research was done that identified how effective current marketing and educational materials are, and is also incorporated into this report. Based on this research, steps of action that outline our group's plan to improve the composting program at UBC are detailed. Finally, suggestions to the UBCFSP partners and next year's AGSC 450 class are outlined in our recommendations.

A discussion on the relationship between the UBCFSP and the globalized food system brings the report to a close. This discussion articulates the learning that we have grasped over the course of our degrees and involvement in the AGSC series, particularly as AGSC 450 students.

Problem Definition:

In June 2000, in response to public concern over long-term environmental effects of increasing waste accumulation, UBC Waste Management launched the UBC Composting Program (UBCWM, 2005). The goal of this program was to promote composting to induce waste reduction and to increase public awareness of composting on campus (UBCWM, 2005). Initially, UBC Waste Management focused on small-scale composting, which involved the use of worm bins and backyard bins (UBCWM, 2005). In 2004, UBC invested in a large-scale composting system and built the first Canadian, on-campus, in-vessel composting facility. This facility is capable of composting 4 to 5 tonnes of waste per day, including normally non-compostable waste such as meat, dairy and paper products (UBCWM, 2005). Once the material has decomposed it can be used on the campus grounds and at the UBC farm as top soil, making it part of a closed loop system (UBCWM, 2005).

Although UBC Waste Management has a number of tools to promote composting on campus such as posters and educational brochures, composting workshops, and in-vessel composting tours, composting awareness and involvement on campus is low (UBCWM, 2005). UBC Waste Management would like to expand the composting program, but bin usage is currently too low to warrant an increase in composting pick-up times. A further problem that hampers the expansion of the composting program is the contamination of the composting bins with materials that break the composting machine (UBCWM, 2005). Therefore, this composting scenario was designed with several objectives: to assess the effectiveness of current educational tools used to promote UBC composting, to analyze the current levels of participation in composting, and to identify any barriers or limitations to participation on campus.

This scenario identifies a predicament that is reflective of a larger, global problem. UBC alone produces over 12 tonnes of garbage everyday (WasteFree UBC, 2005), of which approximately 70% is compostable (UBCWM, 2005). Without the composting program, all of this recyclable waste would be sent to the Vancouver landfill located in Delta (City of Vancouver, 2005). Eventually, this landfill will be filled to capacity and other landfill sites will need to be created. Considering that UBC is a small proportion of Vancouver's population, we can perceive the vast amount of waste that our city alone produces, and how much of it unnecessarily ends up in the landfills.

A number of problems are caused by including compostable waste in landfills. Due to the anaerobic conditions created in a traditional landfill, compostable material takes an extended amount of time to decompose compared to the time needed in a composter (UBCWM, 2005). These conditions also instigate the production of harmful products such as methane (an explosive greenhouse gas) and leachate (a toxic chemical) (Read et al., 2001). When compostable waste is diverted from landfill sites to composters, the environment, economy and society all benefit. These benefits include: less garbage ending up at the landfill, so more land will be conserved; less waste accumulation in landfill, thereby decreasing the production of harmful landfill products; saved money and energy by reducing the transportation needed for garbage disposal; compost can be used as top soil for gardens to prevent moisture loss, saving money by reducing the need to purchase chemical fertilizer (UBCWM, 2005); and finally, increased public awareness on composting, which encourages people to be responsible members of society and to become more involved in their community. Composting has the capacity to do much more than just decompose food scraps; it can play a vital role in changing our global society.

Visions and Values

As a group, we believe in an ecologically-focused and environmentally sustainable paradigm. We exhibit weak anthropocentrism; we tend to regard humans as above other forms of nature, and emphasize cultural and human connections, particularly a strong sense of community. We must assume that the value assumptions we portray as a group have affected the work that we have done on the UBCFSP. Although we attempted to conduct research and make recommendations without bias, values are an underlying component of personalities that inevitably affect thoughts and opinions.

We feel that the 7 Guiding Principles of the Vision Statement for a Sustainable UBC Food System are a good base upon which to build a sustainable food system at UBC. These Principles fulfill an essential role in the development of the UBC Food System by acting as an instrument of regulation and connectivity. The 7 Principles offer a reference point from which the progress of food system initiatives can be monitored. Additionally, the presence of written goals improves the likelihood of the project having lasting effects. The Principles also provide a vision for the use of a system of cyclical nature, where outputs can be used as inputs, emphasizing the importance of composting and recycling for system self-sufficiency. They offer flexibility through the recognition that food can and must be both affordable and accessible, and simultaneously socially and financially viable. It is clear to us that these Principles cannot be followed without some degree of support from outside inputs. The following are our suggestions pertaining to the enhancement of the 7 Guiding Principles of the Vision Statement for a Sustainable UBC Food System:

- We suggest that the 7 Guiding Principles be formatted in a temporal order according to priority.

- There is a need to address the short-term financial sustainability of the Food System, as this is important to the success of many of the Project Collaborators, such as UBC Food Services.
- There is a disconnect between the 'plain language' version and the 'academic' version of the Principles; in the academic version, Principle 7 addresses the need for a "balance of imported and local foods", but Principle 3 in the plain language version states that food should be "ethnically diverse". Principle 1 also states that "food is locally grown." Although the plain language version suggests a desire for ethnically diverse food, it could be understood that this should be locally grown. Therefore, Principle 3 of the plain language version could be changed to: Food is ethnically diverse, affordable, safe and nutritious, and is a balance between imported and local foods. This will ensure that when people read the Guiding Principles they realize that we do not insist that *all* food must be locally grown, produced and processed.

Evaluation of the Composting Subsystem (Our Methodology):

In order to assess current student awareness of and participation in composting at UBC, we developed a systematic way in which to gather information. We chose to use a qualitative and observational approach of data collection through a questionnaire of UBC students that live on and off campus, and through personal and electronic interviews with specific UBCFSP's partners (Andrew Parr, Sarah Johnson, Nancy Toogood, and Juan Solorzano). We also went to specific buildings on campus to take photos and note the accessibility of composting bins and availability of marketing and educational tools. The above-mentioned tools will be explained further below.

Questionnaire: We conducted primary data collection through a questionnaire to determine UBC students' knowledge about composting. The questionnaire that was prepared (refer to Appendix

1) posed questions that allowed us to assess three particular aspects of composting: how much students actually know about how to compost, how often students compost, and what, if any, barriers prevent students from composting. The questionnaire was prepared in consultation with UBCFSP teaching assistant Yona Sipos-Randor, in order to provide unbiased and non-guiding questions to interviewees.

Interviews: In order to address the feasibility of our proposed actions, we engaged in personal and electronic interviews with specific UBCFSP partners. Electronic interviews were conducted with Andrew Parr of UBC Food Services, Sarah Johnson of UBC Waste Management, and Juan Solorzano from the Sustainability Office. A personal interview was also conducted with Nancy Toogood of AMS Food and Beverage Department.

Observational Data Collection: Composting bins in buildings around campus (such as the SUB, Macmillan, and the Forestry Science Center) were observed to determine accessibility of the bins. Photos were also taken of the bins and posters to determine the current educational and marketing materials in use.

Research on Social Marketing Principles: Social Marketing applies the concepts of commercial marketing in order to 'sell' an idea rather than a product. In the case of this scenario, we are trying to 'sell' the idea of composting. Therefore, once we finished our data gathering, we needed to know about social marketing principles to ensure that any campaign, promotional items, or events that were designed would be congruent with these principles. As part of the social marketing concept, we have also drawn upon a popular and well-established health behaviour theory, the Stages of Change theory (Weinreich, 2003). The Stages of Change theory is based on the idea that people change their behaviour in stages, starting at the pre-contemplation stage and moving through to the maintenance stage. Therefore, depending on the

results of the questionnaire described above, we would know which stage of composting knowledge or capability students were at. A composting campaign could be focused on directing students from this stage to the next.

Current Marketing and Educational Tools:

Although the composting program at UBC is relatively new, UBC Waste Management has implemented a number of initiatives to create awareness about composting on campus. These initiatives include a composting and recycling newsletter (*The Rind*), composting workshops for worm bin and backyard bin composters, weekly in-vessel composting facility tours, on-line composting fact sheets, and booths and displays at special events throughout the year (UBCWM, 2005). Marketing initiatives also include posters at compost bins, signs in UBC gardens, as well as bookmarks (UBCWM, 2005). Furthermore, UBC Waste Management has implemented a number of organics collection sites including Totem and Vanier cafeterias, Ponderosa Café, International House, Scarfe, AERL, the Forest Science Center, MacMillan, Sage, Koerner, Green College, David Lam, Brock Hall, UBC Childcare Services, the SUB, and private residences on campus, such as Hawthorne Greens and Gage (UBCWM, 2005).

Effectiveness of Current Educational and Marketing Tools:

Although UBC Waste Management has developed marketing and educational tools (as described above), their actual presence and visibility is limited. Although it was discovered that six out of seven composting bins have some sort of signage, only two were using UBC Waste Management materials (Group 17 Stakeout Summary). It is important for the UBC Waste Management materials to be consistent across campus, since one key social marketing principle is that “no matter what you do in your campaign, try to stick to one main "look" and slogan, or people may not realize all the pieces are from your organization” (Weinreich, 2003).

Furthermore, only five out of seven bins were clearly identified as compost and none of the sites had any educational materials present (Group 17 Stakeout Summary).

In order to determine the effectiveness of the tools being used on campus, we issued a questionnaire (described above in the methodology section) to 35 UBC students that live on or off campus. From this survey we found that almost all students interviewed knew what composting was and had at least a general idea of how it works. However, although 14 of the students surveyed knew that they lived near a composter, almost none incorporated composting into their daily lives; only 6 out of the 35 composted, and of these, 2 only compost when convenient (refer to Appendix 2, Figure 1). The most common reasons given for not composting were lack of accessibility and insufficient knowledge about where composting exists on campus (refer to Appendix 2, Figure 2). If the cited barriers were removed, 25 of the students would consider composting.

When we looked at the students' knowledge about where composting exists on campus, 18 students were unaware that they could even compost on campus. The other 17 students that knew that composting existed cited a range of different places, but overall did not know most of the composting locations. Of the marketing tools currently present on campus to promote composting, only 7 students in our survey had ever seen signs of composting. As a result, when asked how they thought UBC was doing about marketing composting on campus, their answers were fairly dismal (refer to Appendix 2, Figure 3). These results mimic the results of the Banner Report that found that there is a low level of awareness about sustainability programs on campus (UBC Sustainability Office, 2005).

In addition to the questionnaire, we consulted with a number of the UBCFSP partners as described above. From these conversations, we developed a marketing and education campaign as follows:

Steps of Action:

As there is a lack of knowledge about composting on campus, our aim is to improve awareness about composting. Based on social marketing principles, we have developed a marketing and advertising campaign that attempts to alleviate this issue. A key principle that we drew from social marketing is that "consistency and continuity are key to a successful campaign." (Weinreich, 2003) We have also decided to develop materials aimed at university-aged students who are at a 'pre-contemplation' level (from the Stages of Change theory described above) due to the lack of awareness about composting on campus (from questionnaire results). Before students can move on to the 'contemplation' stage (i.e. actually thinking about composting) they must first be made aware that composting exists, and where and how to do it.

Development of 'Paper' Marketing and Advertising Campaign:

The marketing and advertising campaign is recommended to take place when UBC Food Services implements their campus-wide composting initiative in September 2006. Since we are trying to maintain consistency and continuity in the design, and as a result of our consultation with Andrew Parr at UBC Food Services, we have designed materials that consistently incorporate the UBC Waste Management 'Monkey' (Andrew Parr). These materials have been designed in collaboration with a graphic design and advertising student, to ensure that they are of a quality that is comparable with those already created by UBC Waste Management (Marty Chow). The marketing campaign consists of five different posters aimed at different levels of social marketing and the Stages of Change theory; why compost, where to compost, and what to

compost. There are three posters that address 'why compost', and have been developed with our target population of young students in mind (refer to Appendix 3). These posters were designed to catch attention of students, and also provide information and facts on composting.

The poster that addresses 'where to compost' is designed with the intention of presenting the locations of compost bins to students in a visually effective manner (refer to Appendix 3). With the implementation of the campus-wide composting program, this poster can be adjusted to include all the food service locations that have compost bins available. Finally, the 'what to compost' poster was developed to increase knowledge about the products that can and cannot be composted, to start addressing the issue of contamination (refer to Appendix 3). As well, we have developed two different stickers that can act as 'cues to action' for students to further increase awareness. The idea for the stickers was not only a social marketing idea (Weinreich, 2003), but was also a suggestion from the Banner Report (UBC Sustainability Office, 2005). One sticker has been designed for the AMS paper cups (refer to Appendix 3). AMS cups are made of a special type of paper that feels very similar to Styrofoam, hence there is little understanding that they are actually paper. We have designed a sticker that can be placed on the cups (for at least the month of September) that will not only increase awareness that these cups are made of paper, but also that they are compostable (refer to Appendix 3). The second sticker is for placement on the 'door' of garbage cans that are in the vicinity of compost bins (see Appendix 3). This in turn will not only further increase composting awareness, but also act as a cue to action and may start to initiate behaviour changes. Finally, to increase education about composting on campus, we have created a brochure outlining the difference between composting waste and waste going to the landfill (see Appendix 3). This material is particularly important as many students revealed that they were unsure what the advantages of composting were when

compared to waste decomposition at a landfill site. This could be made available at all locations that have a compost bin. We feel that all the above-mentioned materials will be useful for UBC Waste Management. In conversation with Sarah Johnson of UBC Waste Management, it was established that there is a "need to improve the promotional material" that is currently in use (Sarah Johnson).

Placement of Marketing Materials:

The location of marketing materials for composting initiatives is a crucial aspect of the potential success of the marketing campaign we are proposing for implementation. If placed strategically, a campus-wide marketing campaign has the potential to greatly increase awareness about composting and even prompt a behaviour change to start composting.

The major targets for advertising should be any high traffic areas on campus, such as the Student Union Building (SUB), but must first be approved by the Student Administrative Commission (SAC) (Nancy Toogood). Other high traffic areas include areas in which students and staff have a moment to read, such as the inside of bathroom stalls and elevators. Marketing material should also be visible and readily available around upper year student residences, such as Walter Gage, Fairview Crescent, and Marine Drive Residences. The students who live at these residences have a large impact on the waste generated within the UBC Food System because of their time spent living and working on campus (these residences differ from dormitory-style Totem and Vanier residences, where composting is easily accessible in the cafeterias). In addition to this advertising, informative posters must be effectively utilized around composting bins in order to reduce the incidence of contamination.

Development of 'Peer' Marketing Campaign

In addition to this 'paper' marketing campaign, it is essential that different channels of media are used. We have contacted the UBC Sustainability Office to determine interest in spreading the word about composting through the Sustainability Ambassadors. Upon consultation with Juan Solorzano from the UBC Sustainability Office, we found that they have several resources available to complement our campaign, including: sustainability coordinators, booths, and network connections (Juan Solorzano). The sustainability coordinators have three focuses throughout the school year, one of which is materials reduction, which is usually scheduled for November to January. By having sustainability coordinators educate students on composting later in the year, reinforcement of the information that students have been seeing since September will occur. Since the Sustainability Office has booths set up during orientations at the start of the school year (eg. GALA, Imagine, and transfer students), as well as pro-sustainability events throughout the year (such as UBC Responsible Consumption Week) putting up posters and brochures at these booths would help to spread awareness about composting to new students.

To create the above-mentioned marketing materials, a budget will be necessary. UBC Waste Management, in an electronic interview, said that they "have limited financial support for promotions, (but) so far have not been too limited in (their) ability to produce posters, etc." (Sarah Johnson). Furthermore, UBC Food Services suggested that they "will definitely work with Waste Management on the marketing piece, and more importantly, on a good pick up and controls piece to ensure contamination etc. is kept to a minimum." (Andrew Parr) Based on information from these two services, we believe that the budget samples that we have developed are feasible and realistic (refer to Appendix 4).

Recommendations for UBCFSP Partners:

*Recommendations for UBC Waste Management **and** UBC Food Services:*

◦ Coordinate a composting campaign for September 2006 to coincide with the introduction of composting bins in UBC Food Services outlets. The campaign should include posters, educational materials and marketing materials. Materials have been developed to aide in this campaign and can be found in Appendix 3. (If the posters and stickers are elected to be used, the design student who helped develop them is willing to ensure that they are 'print-ready' and can be contacted at [redacted])

◦ Have at least one worker from each UBC Food Service Location attend a composting workshop or tour to learn about composting on campus.

Recommendations for UBC Waste Management:

◦ When composting bins are distributed, ensure the bins come with UBC Waste Management educational and marketing materials so students will know that composting is a campus-wide program and will become more aware of the role of the UBC Waste Management.

◦ All marketing materials should look uniform; the "monkey" should be present throughout.

◦ Collaborate with UBC Food Services on the above mentioned campaign. As part of this, displays could be set up, such as a pile of coffee cups outside the sub which would draw attention to the idea that paper is compostable.

Recommendations for the UBC Sustainability Office:

◦ Have sustainability ambassadors emphasize the issue of increased composting at UBC when informing classes of sustainability programs being run at UBC

◦ Have sustainability coordinators address classes during their Waste Reduction Focus period (November 2006 to January 2007) to increase awareness about composting and to reinforce the

composting campaign that will have been initiated in September 2006.

◦ When recruiting sustainability officers, the sustainability office should try to increase advertisement of the positions in all faculties in order to engage a broader representation of students, which would facilitate the spread of sustainability awareness.

Recommendations for AMS Food and Beverage Department:

◦ Start using paper cups in all AMS Food Service Establishments, not just Blue Chip Cookies.

◦ Place compostable stickers (see Appendix 3) on paper cups so that people will know that the cups are not made of Styrofoam and that they are compostable (for at least the month of September). (Note that AGSC 100 students must do service, and some students can be arranged to help place the stickers on the cups; alternatively, as the cup of coffee is being ordered, the worker can place the sticker on the cup).

◦ Have at least one worker from each AMS Food Service Establishment attend a composting workshop or tour to learn about composting on campus.

Recommendations for AGSC 450 2007 colleagues:

◦ Run education focus groups with on-campus students to learn about their thoughts and ideas on composting through discussion; focus on a specific demographic, such as on-campus students or students in a particular year.

◦ After the campaign of 2006, determine if there is an increased awareness of composting on campus. If awareness has increased, ensure social marketing is addressing students that are at the contemplation stage (Stages of Change theory) instead of addressing at the pre-contemplation stage. For example, in order to move from contemplation to action, messages should promote the benefits of performing the behavior and minimizing the barriers.

◦ Paper towels can be part of the composting program → research how feasible it is for paper towel compost bins to be put in bathrooms across campus and have it part of the janitorial service or voluntary service.

◦ Make sure composting is part of university town (collaborate with the University Town scenario)

◦ Determine feasibility of increasing the number of composting bins around campus (i.e. 1:1 ratio of garbage to compost bins) and develop a campaign to address the problem of contamination.

◦ Determine the feasibility of creating a sustainability ambassador 'composting officer' position who would specifically work on the composting campaign.

Reflections on the linkages between the UBCFSP and the globalized food system

The UBCFSP provides us with a better understanding of the global food system. As global citizens, we need to create an environment that is healthy and sustainable. By developing our knowledge of how to create a sustainable community on the small scale model of the UBC food system, we can learn how to transfer positive innovations to the global food system. The UBCFSP is an excellent tool to supply us with an understanding of how a food system works, and as a result, we will be able to apply our knowledge to the global food system.

<u>Similarities between UBCFSP and the globalized food system:</u>

◦ UBC food system is a small scale food system that has inputs and outputs like any other food system.

◦ The composting cycle that has been created at UBC (i.e. food waste composted to top soil for our campus grounds) can be applied to our globalized food system where our compostable garbage can be composted and used on our planet's earth.

◦ By educating students in UBC about composting, they will be able to spread the word to people they know. As a result, more people will be aware of the importance of composting.

◦ UBC food system is a small scale version of the global food system, so it is an ideal place to implement new changes (i.e. sustainability and composting) and see the feasibility before implementing these changes in the global food system.

◦ There is the same disconnection between UBC students/residents and their food, as can be seen in the globalized food system. If we want the world as a whole to understand more about where our food comes from and to appreciate the labor behind it, we need to start at a local level, and educate UBC students on the fact that their food does not just come from a store or outlet.

◦ The microcosm of UBC has the same waste management issues as the globalized food system in that both are looking into alternative waste management solutions and creating awareness of the impact on the environment of the current landfill situation.

Even though the UBC food system is an excellent tool for us to have a better understanding of the globalized food system, we must consider that there are some differences between the two food systems.

<u>Differences between UBC food system and the globalized food system:</u>

◦ UBC food system is a much smaller scale model compared to the globalized food system and the food system at global level is much more complex → the same theories may not apply to both systems.

◦ The majority of people in the UBC food system are more educated than at the global level.

◦ UBC is quite forward in its thinking and has sustainability as a goal (UBC Sustainability Pledge).

◦ The UBC food system does not have to deal with international trade issues to the same degree that globalized food system.

◦ A greater percentage of people at UBC are aware of composting and are of a liberal mindset.

Conclusion:

Analysis of our findings from student surveys, UBCFSP partner interviews, and observational data collection, it is clear that awareness of composting programs on campus is low. As a result of our findings, we concluded that it is imperative to market our 'product' to the UBC population assuming that the vast majority of students and staff are in the 'pre-contemplation' stage of the Stages of Change Model, with respect to composting. With the implementation of our proposed strategies and marketing material, as well as those of our colleagues addressing other aspects of scenario 5, it is possible to increase awareness and participation in composting initiatives on campus. Increasing composting awareness will enable our AGSC 450 colleagues of 2006/2007 to develop strategies for a population in the 'contemplation' stage, enabling the UBFSP to progress towards closing the food system 'loop' and developing an increasingly sustainable UBC.

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Appendix 1: Student Questionnaire

1. Where is your residential area?
    a. What is your living situation? (Please circle)
        i. ON CAMPUS OFF CAMPUS
        ii. HOUSE APPARTMENT/CONDO
        iii. OTHER_____

2. Do you know what composting is and how it works?
    a. If so, please explain.
    b. * If not, or incorrect answer, we will explain:

3. Do you incorporate composting in your daily life (i.e. at home/school or both)?
    a. If so, what do you do on a regular basis as part of composting (i.e. what do you put in the composting bin?)
    b. How often do you compost? (i.e. do you compost daily or only when it is convenient?)
    c. Do you live/work in an area where there is a composter nearby?
    d. If so, what kind of composter is present? (i.e. worm-bin composting, backyard bin composting, and in-vessel composting)

4. Are there any barriers that prevent or limit you from composting (i.e. insufficient knowledge or lack of accessibility to composting bins)?
    a. If these barriers were removed (i.e. with more knowledge or more accessibility to composting), would you consider composting?

5. If possible, please list up to 5 materials that can be composted and 5 materials that cannot be composted within the UBC (in-vessel) composting program.

6. Do you see signs of composting around campus? (i.e. whether it exists, whether people are doing it, any visible advertising or instructional posters, etc.)

7. Are you familiar with any composting program(s) around campus?
    a. If so, which program(s) and do you participate in any?
    b. How did you find out about these program(s)? (i.e. posters, word-of-mouth, etc)

8. Do you know where and how you can compost on campus?
    a. If so, where and how?
9. On a scale of 1 to 10, how well do you think UBC manages compost or organic waste?

1 2 3 4 5 6 7 8 9 10

Very Poorly **Very Well**

10. On a scale of 1 to 10, how well do you think UBC advertises composting?

1 2 3 4 5 6 7 8 9 10

Very Poorly **Very Well**

Appendix 2: Findings from Student Interviews

Figure 1.Composting Frequency Among Respondents

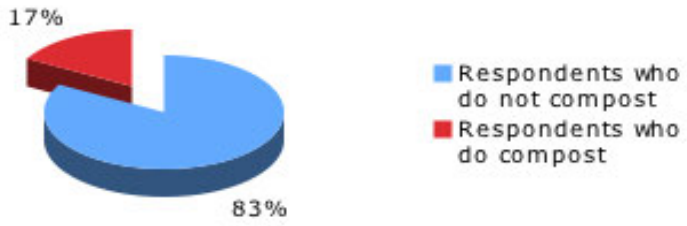


Figure 2. Reasons for not Composting

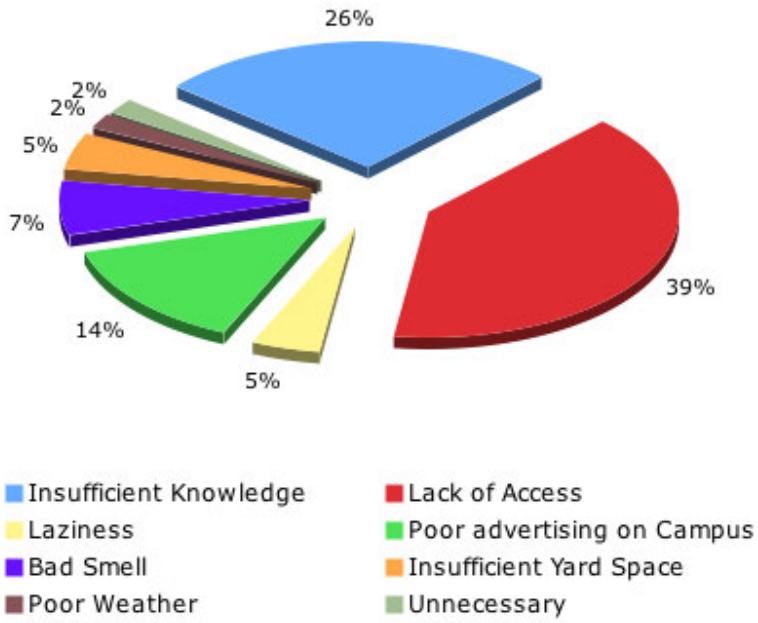
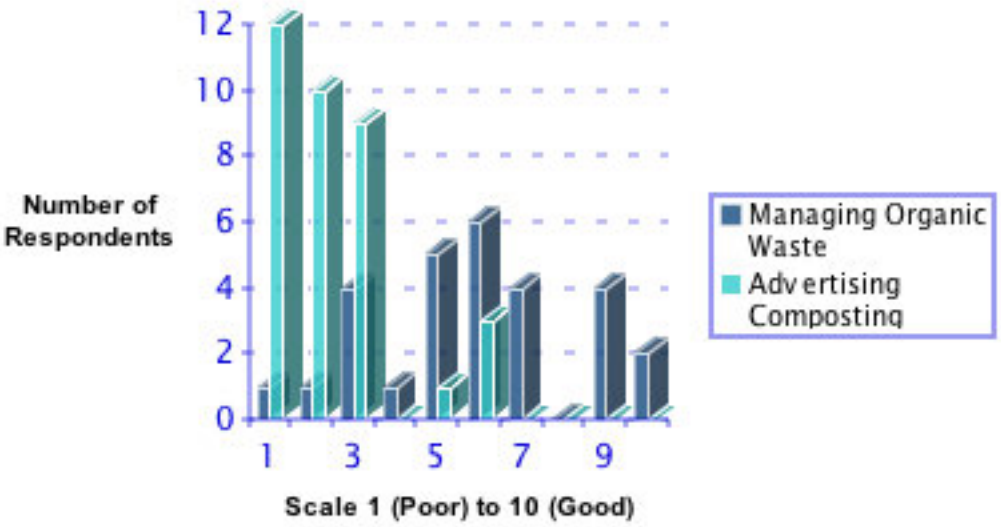


Figure 3.Respondents' Perceived Advertizing and Management of Organic Waste at UBC

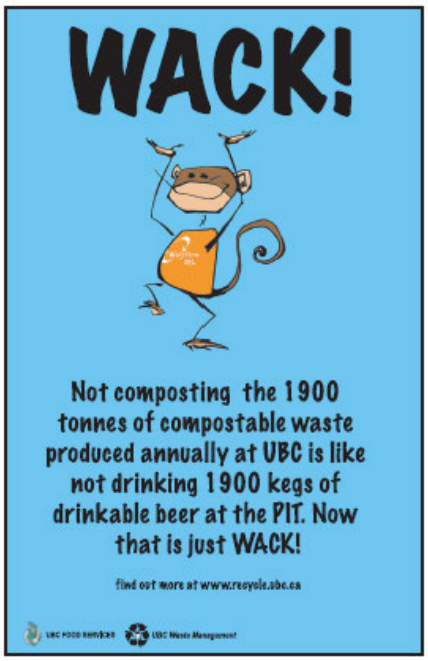


Appendix 3: Marketing and Educational Materials

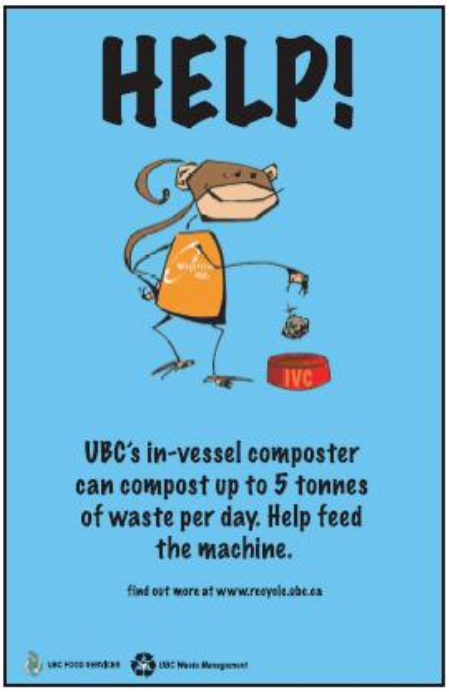
Sticker 1: Sticker for Garbage Cans (to be placed in locations that have a compost bin)

Sticker 2: Sticker for AMS Food and Beverage paper cups

Poster 1: Poster for UBC Waste Management and UBC Food Services that describes 'Why' students should compost.



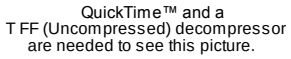
Poster 2 and 3: Posters for UBC Waste Management and UBC Food Services that describes 'Why' students should compost

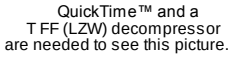


Poster 4: Poster for UBC Waste Management and UBC Food Services that describes 'Where' students should compost.

Poster 5: Poster for UBC Waste Management and UBC Food Services that describes 'What' students can compost.

Brochure 1: For UBCWM to highlight the advantages of composting over landfill use





Appendix 4: Example Budget Summaries

#s	Item	Selection 1	Selection 2	Selection 3	Selection 4
1080	Small stickers-beverage cup	Black & White	Black & White	Colour	Colour
600	Bumper stickers-garbage can	Black & White	Black & White	Colour	Colour
100	Posters	Black & White Recycled	Black & White Recycled Laminated	Colour Recycled	Colour Recycled Laminated
100	Brochures	Black & White Recycled	Black & White Recycled	Colour Recycled	Colour Recycled
	Totals	**$158.50**	**$267.50**	**$394.50**	**$503.50**

* Please feel free to explore other options via the attached excel sheet