| UBC Social Ecological | Economic Develo | pment Studies | (SEEDS |) Student Rei | port |
|------------------------------|-----------------|---------------|--------|---------------|------|
|------------------------------|-----------------|---------------|--------|---------------|------|

Increasing Education, Awareness, and Participation in Sustainable Food Systems

Katherine Chan, Jenny Chen, Kelly Gibson, Emily Kwan, Florence Ng, Sharmin Taher,

Francesca Wong

University of British Columbia

AGSC 450

April 13, 2007

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

UNIVERSITY OF BRITISH COLUMBIA

AGSC 450

University of British Columbia Food System Project (UBCFSP)

Scenario 6: Increasing Education, Awareness, and Participation in Sustainable Food Systems

April 13, 2007

Presented By: Group 24

Katherine Chan
Jenny Chen
Kelly Gibson
Emily Kwan
Florence Ng
Sharmin Taher
Francesca Wong

Table of Contents

| Abstract | 3 |
|---|----|
| Introduction | 3 |
| Problem Definition | 4 |
| Vision Statement and Identification of Value Assumptions | 5 |
| Methodology | 5 |
| Findings | 6 |
| Discussion | 7 |
| Recommendations | 10 |
| Conclusion. | 14 |
| References | 14 |
| Appendices | 15 |
| Appendix I: Plan of Action Timeline | 15 |
| Appendix II: Role of Volunteers | 16 |
| Appendix III: Promotional Materials | 17 |
| Appendix IV: Games | 19 |
| Appendix V: Thought Swap Invitation and Template | 24 |
| Appendix VI: Thought Swap Contact list with Notes | 25 |
| Appendix VII: TAG Newsletter Article | 28 |
| Appendix VIII: Confirmed Organizations in Attendance at 2007 Fair | 29 |
| Appendix IX: Contact Information for Film Screening | 29 |
| Appendix X: Budget | 30 |

Abstract

University food systems are microcosms of the global food system therefore universities should take the initiative to act responsibly as role models for the larger society. University of British Columbia Food System Project (UBCFSP) is an ongoing project developed to make UBC a more sustainable campus.

Based on our group's interpretation of the work done by previous Agricultural Science (AGSC) 450 students, we proceeded by completing a review of relevant literature and revising last year's educational campaign as means to celebrate UBC's accomplishments in food systems sustainability. Our hopes are by promoting UBC's sustainable culture to individual students it will influence their future food choices. We have compiled a set of tools that would be useful in raising awareness and encouraging behaviour change. We organized a campus-wide sustainability thought swap session to generate ideas and involvement in the fair. We researched sustainable media and believe that screening movies about the growth and processing of foods such as "Black Gold" or "Our Daily Bread" would provoke and inspire individuals. We have also created bookmarks, wristbands, and games as educational promotional items. Finally, our group has synthesized several recommendations to UBCFSP collaborators and future AGSC 450 students to follow up and improve the October sustainability fair by: collaborating with Imagine UBC and the centre for Teaching and Academic Growth's (TAG) to advertise the fair, designing educational games and setting up a souvenir table at the fair. In the long term, we would like to see an increase in sustainable ideas featured throughout UBC's entire curriculum.

Introduction

With the increase in globalization, consumers expect year-round availability of food products from around the world. Developments such as the building and maintenance of transportation, intensification of agricultural technology, commitment to global free trade policy and vertical and horizontal centralization of the corporate food system have all contributed to changing the food supply. An increase in distance that food travels contribute to negative externalities that can include: harmful ecological impacts and lower nutritional value. To help re-localize the food system, there needs to be an increase in education, awareness and participation in a sustainable food system. UBC is home to over 38000 students between the two campuses and has an underground culture of sustainability.

It has been shown that individual food choices are affected by environment, culture, peer groups and media (Raine, 2005). Our goal is to increase the awareness of UBC's culture of sustainability so that students and faculty food choices will be affected by it. By designing the fair as a celebration of UBC's accomplishments in food systems sustainability, we will help transfer UBC's sustainable culture to individual students.

The following paper will outline how we progressed with this information to form a plan for the 2007 Sustainability Fair. It includes a problem definition, vision statement, identification of value assumptions, methodology, findings, discussion, recommendations and conclusion. We focused our efforts on three main areas: research, promotion and games.

Problem Definition

Our task is to act as an event planner for the Sustainable Food Systems component of the 2007 UBC Sustainability Fair. Our problem was to find ways to promote and educate about food systems sustainability through an event. Our scenario is connected to the broader problems in the food system because our choices have an impact in this system. By educating people about eating in a more sustainable fashion, their choices will have a greater positive impact on the environment and allow future generations a chance to secure food.

Vision Statement and Identification of Value Assumptions

As a group, we identified with vision statements four and five. We thought vision statement four was essential because it includes future generations. It is important to consider them because they cannot only take on problems we have created, but also bear the burden to

progress in a more conscientious manner. We choose five to serve as a guiding principle on our project; as we are trying to encourage change from this level.

Our value assumptions influence our views by helping us prioritize what changes are most important. More over, we felt that the vision statements were seeds for our ideas and opinions. Our only concern was the vision statements lack of definition of community. We felt it was very important that the vision statement pertain not only to our faculty but to the entire campus as model for the future of UBC.

Methodology

We began the project by consulting as much relevant literature as we could, including: reviewing all 2006 AGSC 450 Educational Campaign Scenario papers (groups 10, 12, 14, 22, and 24), the 2006 Sustainability Fair Summary Report and SWOT analysis. We analyzed UBC Sustainability office reports and any related material regarding social marketing. We also used literature from course Food Nutrition and Health 473: Nutrition Education in the Community, where we learned the best way to affect change in groups is not through individual counseling, but rather by changing and highlighting aspects of the community's culture.

In order to promote and develop a more sustainable food system, our group hosted a research event. Based on previous literature from the UBCFSP we felt there was a great need to involve more people from across UBC. To solve this, we hosted a campus wide Thought Swap with food system sustainability leaders, and encouraged those who could not attend to send their thoughts through email. We also invited the attendees to participate in the UBC Sustainability Fair at any component (i.e. planning, contributing materials, and attending).

We designed some educational promotion items (i.e. bookmark, wristband, poster) and developed two interactive games (i.e. Know your seasonal foods and Are you smarter than an Aggie?) to increase participatory learning at the fair. We revamped 2006 AGSC 450 Group 24 pamphlet and collaborated with 2007 AGSC 450 Group 30 to increase the educational value.

Findings

Thought Swap

The Sustainability Thought Swap was not well attended, we feel, due to late notice for invitees as well as busy time of the year. Valuable input was collected from those that did attend. The findings we found most meaningful included:

- Advice from three students, who felt learning is best when they can get involved and have positive role models
- Collaboration with TAG (the centre for Teaching and Academic Growth) could be a
 powerful and cost effective way to advertise the fair and our goals. Alice Cassidy
 expressed an interest in doing an article about our group's project to be published in
 the September issue of the newsletter.

For a detailed list of invitees, with notes please see Appendix VI.

Movie Night

Film screening during the fair is another tool to promote and educate individuals on food systems sustainability. Two suggested movies for the movie night are "Our Daily Bread" and "Black Gold-*Wake Up and Smell the Coffee*".

"Our Daily Bread", a film by Nikolaus Geyrhalter, explores today's industrial and unsustainable food production system. This silent movie showcases the disjointed food system which uses animals and plants only to satisfy the ever-growing greed by humans. We believe this movie would inspire individuals to critically examine our current unsustainable industrial food system and motivate them to explore sustainable ideals.

"The Black Gold", a film by Nick & Mark Francis, showcases the painful journey of coffee growers in Ethiopia and the low prices paid for their hard-work. The filmmakers claim that this movie tells the true story behind many coffee growers in Ethiopia. We would suggest screening this movie at the fair to emphasize the importance of buying and selling fair trade coffee on UBC campus and the world over. UBC Food Services, now sells only fairly traded coffee in their outlets, and this film would be a great way to showcase UBC's efforts towards fair trade policies. This movie too would raise awareness among the UBC community to fair trade practices and sustainable options.

Discussion

Thought Swap

Even though this year's Thought Swap was not well attended we believe it should be carried out again next year, as number of ideas generated from the four people who did attend were profound and inspiring. Those in attendance had a lot to say about how to educate students on sustainability and their own experiences and initiatives surrounding sustainability. The reason we feel the thought swap could be effective, if better organized and held at a different time of year, is because we have learnt organizational culture is a powerful tool that can be used to impact individual behaviours (Manley *et al*, 1998). Using the organizational culture at UBC to

impact change on its current students can be both effective and resource saving. A well attended thought swap could be a powerful tool to connect people from all over campus to share their experiences and motivate each other to proceed with their important work.

At the Thought Swap, one person in attendance brought up the example of University of Acadia, where a strong culture of sustainability has been adopted. Her impression was, on that campus everyone behaves in a more sustainable fashion because that's what everyone does. We feel that UBC has the underpinnings of that right now; the next push should be to bring this underground current of sustainability out into the open and have it be adopted by the entire student population. It is a misconception to think that our faculty is the only one involved in sustainability efforts. From our research we found that many faculties including: commerce, sociology, education, botany, zoology, history and more all have sustainability leaders. We should use the fair as a vehicle to celebrate and display these efforts so that students have a chance to see what UBC really is and connect with sustainability leaders.

We believe a thought swap will work if better planned because people will learn and embrace things if they have a chance to participate in them. By involving faculty right from the planning stage will help increase their willingness to contribute to the fair and ensure it captures a better image of UBC as a whole.

Promotional Tools

In order to develop effective promotional items to encourage behaviour change, it is important to remove barriers and address the benefits of the action. Some of the barriers to act in a sustainable manner are lack of incentives, forgetfulness, and ignorance. Based on Community-Based Social Marketing theory, creating commitment, prompts, norms, communication, and

incentives are some psychological tools that could target these barriers and remove them, and promote behaviour change.

Selling silicon wristbands at the fair is a good way to promote the concept of sustainability at UBC and to fundraise for the fair. A design of the wristband is attached in Appendix III; it is green in colour representing care to our environment. In current trend, wearing a wristband symbolizes a statement in support of a cause or a charitable organization. It is hoped that we could create a norm in the UBC community. Moreover, wearing wristband creates commitment within a person and to remind people about sustainability after the fair is over. Wristbands can be sold at \$3 each to help fundraising for our event.

In addition, the bookmark is another effective promotional item that could motivate behaviour change. Students at UBC have lots of books to read. Bookmarks with sustainability messages are useful prompts to remind students about sustainability issues at UBC. Design samples of bookmarks can be found in Appendix III. Our bookmark designs are smaller in size (1" x 3") than the conventional ones (2" x 7"). It is because we think most people do not put away their bookmarks while they read; our design is to attract students to keep the bookmark inside books while they are reading, thus increasing chances that the students will pay attention to the bookmark and our messages.

A pamphlet is an important tool to increase awareness and knowledge pertaining to the issue of sustainability at UBC. We reviewed all of 2006 AGSC 450 pamphlets and selected group 24's pamphlet, for further improvement. This year, group 30 also decided to edit previous year's group 24's pamphlet. Hence, we collaborated together and improved on the pamphlet. Both of our groups think that the pamphlet should focus on sustainability, not just local food.

Furthermore, we edited some lesser changes, for example, the URL to the sustainability office, wordings, and information websites.

Promoting the Fair

Posters, UBC emailing system, and AMS Insider are tools we could use to promote our sustainability fair. A design of our poster can be found in Appendix III. It is red in colour to grab people's attention. The UBC emailing system is an effective tool reaching the whole population of students at UBC; however, one concern of this tool is that people are getting so many spam emails from the UBC system; the attention to UBC emails may be scarce. We have contacted AMS about inserting our event date in the agenda to remind people of our event. In order to get the date published in the AMS Insider, our sustainability fair coordinator will need to provide the date, time, location, and other event information to the editor. The editor can be contacted directly via

Recommendations

Thought Swap

Using the Thought Swap template (see Appendix V), next year's Thought Swap should be scheduled at the beginning of the Winter 2007 school term to assist the planning of the 2008 Sustainability Fair. We believe the Thought Swap is an excellent venue for exchanging ideas with sustainability leaders and promoting the 2008 Sustainability Fair to a wider audience. Since next year's AGSC 450 class does not occur until January 2008, facilitators for next year's Thought Swap need to be students of another class, eg AGSC 350, or the instructors and TAs of the current AGSC 450 course.

We found Alice Cassidy to be resourceful and helpful. She has offered to feature an article on the 2007 Fair and Group 24's learning experience in the TAG (Teaching and Academic Growth) monthly newsletter (hopefully in the September 2007 issue). As we have already e-mailed a group photo and provided some information (see Appendix VII) for Alice in writing up the article, we strongly recommend a follow-up with her at the beginning of September to ensure the article is published. The TAG newsletter would be a powerful promotional and networking tool and the follow-up would only require a short e-mail checking up the status of the article.

Alice Cassidy also suggested advertising the fair via announcements in the first year classes. We agree this would be an easy and inexpensive way to reach many students (since the first year classes are generally over 100 students!). She put forth the names, Carol Pollock and Kathy Nomme as ways to reach the first year biology students. Their email addresses are and respectively.

Movie Night

We suggest screening one film during the fair due to budget constraints. Please refer to Appendix X for cost estimation for a film screening. By screening "Black Gold", we believe, students and consumers would have a better understanding about the importance of fair trade coffee. The screening of "Our Daily Bread" would help students understand how food has come to be in our grocery stores at such an affordable price, and what sacrifices have been made to get it there.

We have contacted the film distributors for both the movies in North America and the contact information is included in Appendix IX. The film screening would be organized in

collaboration with SPROUTS. The fair organizers would have to contact the film distributors to obtain the DVD of the movie and contact SPROUTS for the general organization of the screening. The contact information for SPROUTS is included in the Appendix VIII.

Games

To maximize the impact of the fair, we decided to educate fair-goers using fun, innovative and interactive educational games about sustainability. Our hopes are that the games will be engaging and leave participants with lingering knowledge about sustainability. The two games we came up with were "Are you smarter than an Aggie?" and "Know your seasonal Foods" (see Appendix IV for game instructions).

We thought "Are you smarter than an Aggie?" would be a good opportunity for some friendly competition between a Land and Food System student and another student outside the faculty. Our goal is to recreate the show "Are you smarter than a 5th grader?". The "subjects" we created are based on the UBC Farm, Nutrition and Health, Sustainability, and our own faculty.

"Know your seasonal foods" was created to educate people on what foods are in season. There was a time when people knew what was in season based on availability in grocery stores that is not the case anymore. Our hope is that by bringing to attention the seasonality of BC grown produce, participants may then make a point of buying foods in season or perhaps choosing the BC grown produce (as oppose to non-BC grown produce) when it is available.

Promoting the Fair

We recommend a set up of a souvenir table at the fair to attract people who may not know about sustainability but would like to look around and do some shopping. At the fair, we do not only want to attract people who are already interested about sustainability issues, we would also like to attract people who have no knowledge and/or no interest of this topic to learn a few concepts or just to hear about this new term, sustainability. Additionally, with last year's success of the mascot, we decided to continue having one at the fair to attract people to come, promote sustainability and take pictures with them. Instead of renting the mascot, we recommend buying one (see Appendix X) as it will cost less and can be used for other events when needed.

Imagine UBC

It would be a great idea to promote the concept of sustainability to all first year students on their first day of school. We contacted Stephen Ng, the First Year Coordinator, who plays a key role in organizing the campus-wide event, in hopes of seeking his valuable opinion about the possibility of promoting the concept via two ways.

We hope to have the UBC Sustainability Office web address (www.sustain.ubc.ca) printed on the first year student souvenir mugs and to have MUG leaders discuss the sustainability concept with first year students as they tour around the "sustainability street" on campus. Unfortunately, Stephen was not available to comment.

We consequently contacted Kim Davidson, the Student Development Coordinator who also plays an important role in arranging the first year student orientation. Our group was delighted to receive Kim's encouraging response. All in all, the Orientation Team is receptive to our two ideas.

The 2007/08 academic year is an excellent time for our group to work with Sustainability Pledge Ambassadors and the Orientation team to develop an efficient, effective method of presenting the importance of the sustainability to incoming students.

Revolutionary Curriculum

As a more long-term goal with would like to suggest collaborating with UBC Professors to ensure the ideals of sustainability are being applied to academic curriculum wherever possible. Alice Cassidy and some of her colleagues have expressed enthusiasm for including sustainability examples in their courses, and even suggested a stronger collaboration with the UBC farm. As potential educators about sustainability, they have potential to be significant influences on the next generation of students to become sustainability leaders.

Conclusion

As a group, we believe that by implementing these suggestions, people who participate in this event will be engaged and motivated to choose more sustainable practices. To encourage everyone to re-localize the food system, we recommend the UBC Sustainability Office, UBC Food Services, AMS Food and Beverage Department, UBC Waste Management, UBC Farm, Campus and Community to participate in this event. By having a greater number of participants in the fair, it can help lift the mood and create an atmosphere that is dynamic and interesting. We recommend to our AGSC 250 2008 colleagues to continue creating new ideas that are entertaining and feasible and also to remind them to have fun doing it!

References

- Boyle, Ali; Billey, Danielle, Cassidy, Alice and Lee, Linda. Personal Communication Thought Swap. 28 March 2007.
- Manley, T.R., Martin-Vega, L.A., Shaw, W.H., and Mighdoll, P. 1998. "Understanding organizational culture and its role in organization transformation and development". Engineering and Technology Management, Pioneering New Technologies: Management Issues and Challenges in the Third Millennium 11(13), 342 49.
- Raine, K. (2005). Determinants of Healthy Eating in Canada. *Canadian Journal of Public Health* **96** (Supplement 3): S8-S14.

Appendix I: Plan of Action Timeline

| Date | Task | Contacts/Cost |
|--------------------------|---|--|
| As soon as possible | Contact AMS insider to get sustainability fair date and information published in the 2007-2008 school agenda | Contact info: |
| On or around May 1, 2007 | Order/Print off Promotional Materials | Contact info: Wristbands - www.braceletswristbands.com (\$270) Bookmarks - Ultra Xpress Printing - www.printprint.ca (\$50) Phamplet - Staples (\$470) Posters - Copy Smart in the Village (\$175) Estimated Cost: \$935 |
| On or around May 1, 2007 | Order Vegetable Mascot Costume | Contact info: Buycostumes.com (Carrot for Adult) Contact info: Shop.com (Apple for Adult in Brands on Sale Inc.) Estimated Cost: \$100 |
| On or around May 1, 2007 | Decide which movie to screen and contact appropriate person | Contact info: see Appendix IX Estimated Cost: \$290 |
| June 1, 2007 | Follow up with Kim Davidson for advertising and educating about sustainability at Imagine UBC | Contact info: |
| June 1, 2007 | Contact Sprouts manager to set up screening, provide them will all necessary information | Contact info: Sprouts or Colleen O'Brian at |
| August 30, 2007 | Contact Alice Cassidy re: published sustainability fair article in TAG newsletter | Contact info: Alice Cassidy |
| September 5, 2007 | Email Andrew Riseman from AGSC 100 Volunteer Coordinators, please see information piece attached in Appendix II | Contact info: Andrew Riseman |
| September 5, 2007 | Email recruiting 4 th year student volunteers for "Are you smarter than an Aggie?" | Contact info: |
| | | Kim Davidson for AGSC mug leader volunteers: |
| September 6, 2007 | Hang up printed posters in the SUB and other buildings across campus | |
| September 30, 2007 | Contact first year professors to ask for them to make an announcement regarding the sustainability fair. | Contact info: Kathy Nomme |
| | | Carol Polluck |
| | | Cathleen Nicols |
| October 3, 2007 | 2 nd Annual Sustainability Fair, Congratulations you have done it! | |

2008 Fair Preliminary Plan of Action

| January 5, 2008 | Recruit volunteers/ decide who has time to | AGSC 350 Professors for |
|------------------|---|---------------------------------------|
| | conduct a thought swap | recruiting student volunteers if |
| | | that is thought best |
| January 5, 2008 | Book a room for Thought Swap | The link for online room booking: |
| | Perhaps using a room in the FNH building | http://www.landfood.ubc.ca/booki |
| | would be better suited as it is more central | ngs/fns_room.php |
| | in campus. | |
| January 10, 2008 | Email invitation for 2 nd Sustainability | See Appendix VI for a potential |
| | Thought Swap | list of participants put together for |
| | | the 2007 Thought Swap |
| January, 2008 | Depending on facilitator availability hold | |
| | Thought Swap in January 2008 to generate | |
| | ideas for 2008 Sustainability Fair | |

Appendix II: Roles of Volunteers

Before Event - Set up tables, help with set up of tent and activity booths

During Event - Help staff the booths and run the activities

Recruit people coming off the bus

One lucky person gets to wear a vegetable costume

One person needed to take care of person in vegetable costume

After Event - Aid in clean up

Tables Cleared and put away Removal of debris if any

Estimated Numbers:

10 for set up

10 for clean up

2 for costume

Advertisement for AGSC 100:

Be a part of something that lasts! Volunteer at the annual UBC Sustainability fair. This unique fair co-organized by fellow AGSC students in 4th year, highlights different ways each student at UBC can contribute to making it a sustainable place. It also has free give-aways, live music and representation of great sustainability efforts around the city.

Volunteering activities include: helping set up and clean up, manning the booths, running the activities and other fun things that will come up.

What's in it for you? This is a great way to find out more about what UBC does to become sustainable and meet some interesting people.

The Requirements: Sign up for a two hour time-slot during the day, the time you sign up for will determine what sort of tasks you will be doing. The fair is held on October 3, 2007

Dresscode: Please wear jeans and a white t-shirt when working at the fair. Volunteer tags will be provided for you.

We are looking for approximately 20 volunteers.

Appendix III: Promotional Materials

Bookmarks:

Front:



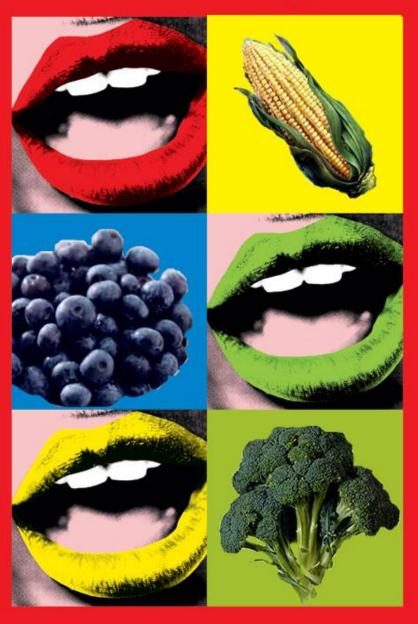
Back:



Wristbands: Green silicon wristbands with "UBC SUSTAINABILITY" (www.braceletswristbands.com)



come join us today!



UBC Sustainability Fair

Date: October 3rd, 2007 (Wednesday) Time: 10:00am - 3:00pm

Venue: Sunken Cement Plaza (outside SUB)

Appendix IV: Games Plans

Are you smarter than an Aggie?

Contestants:

- Host (one 4th year student/MUG leader/instructor) as the "teacher"
- 3 Aggie students (prefer 4th year student/MUG leader) as the "classmates"
- 1 other contestant as the "challenger"

Game Play:

- 10 questions per category
- Start answering from question #1 to #10
- Question categories (can choose in any category to answer)
 - UBC Farm
 - Nutrition and Health
 - o Sustainability (Social, Economic, Environmental)
 - o Land, Food & Community Faculty

- Rules

- Contestant can choose one aggie student to help him/her
- Contestant can choose one category to answer question (aggie answers same question without telling the answer)
- Ocontestant answers question alone to gain points, but if he/she needs help then can use the following "cheats"
 - Copy can copy answer of aggie student
 - **Peek** can peek at answer of aggie student and choose if he/she agrees with it
 - Save aggie student can save contestant if he/she answers question wrong

- Answering questions

- o Contestant must say "my final answer is..."
- o Contestant much indicate if he wants to use his/her cheats
- One wrong question answered ends the game

- End of game

- Contestant must say "I am NOT smarter than an Aggie" unless ALL questions are completed correctly
- Contestant must say "I AM smarter than an Aggie" if ALL question are answered correctly
- **Prizes** will be given for participation, i.e. choice of wristband or bookmark.

Are you Smarter than an Aggie Sample Questions

| UBC Farm: | b. 1986 |
|--|---------|
| | c. 2003 |
| 1. When was the first UBC Farm established? | d. 1997 |
| a. 1915 | |

- **2.** How big is the UBC Farm?
 - a. 24 acres
 - b. 100 acres
 - c. 24 hectares
 - d. 100 hectares
- **3.** Over the last few decades, why did the UBC farm move from the main campus to mid-campus and finally south campus?
 - a. better view
- b. accommodate a growing student population
 - c. fertile soil
 - d. no specific reason
- **4.** How many farm(s) is/are there in the city of Vancouver?
 - a. 4
 - b. 3
 - c. 2
 - d. 1
- **5.** What do you call a volunteer at the farm?
 - a. volunteer
 - b. farm friend
 - c. farm buddy
 - d. the crew

Nutrition and Health:

- **6.** Which plant is used the most in most of our industrial food?
 - a. corn
 - b. apple
 - c. potato
 - d. carrot
- **7.** Which food is **not** included in the Canadian food guide?
 - a. banana
 - b. hot dog
 - c. ice-cream
 - d. chips
- **8.** What are the three macronutrients?

- **9.** What's a PUFA?
- **10.** How do you calculate BMI?
 - a. Harris-Benedict equation
 - b. skin-fold molecules
 - c. weight in kg/m²
 - d. weight only
- 11. How many kcals in a gram of fat?
 - a. 4 kcal
 - b. 5 kcal
 - c. 9 kcal
 - d. 10 kcal
- 12. Arenic is:
 - a. a nutrient needed in small amounts
 - b. rat poison
 - c. a seasoning in Arabic cuisne
 - d. a and b
- **13.** What product can most lactose intolerance people tolerate?
 - a. milkshakes
 - b. ice-cream
 - c. apple flavored milk tea
 - d. yogurt

Sustainability:

- **14.** Which term is not included in the 3-legged stool of sustainability?
 - a. economic
 - b. educational
 - c. social
 - d. environmental
- **15.** What are some externalities associated with increased food miles? Name 2.
- 16. What is the average distance a food item travels?
 - a. between 4000 and 7000 km
 - b. between 500 and 800 km

- c. between 2500 and 4000 km
- d. between 1000-2000 km
- **17.** Where does Canada import most of its agricultural goods?
 - a. Thailand
 - b. United States
 - c. Mexico
 - d. China
- **18.** What is the common goal of agroecology?
 - a. conserve biodiversity
 - b. maintain biodiversity
 - c. increase agriculture
 - d. decrease agriculture
- **19.** How do we measure species diversity?
 - a. counting
 - b. Simpson's index
 - c. Whither function
 - d. guessing

- **20.** What is a niche?
 - a. a family
 - b. a vegetable
 - c. the deepest area in a river
 - d. a place where a species occupy

Land and food systems:

- **21.** How many majors and concentrations are there in the Faculty of Land and Food Systems?
 - a. 6
 - b. 12
 - c. 15
 - d. 20
- **22.** Name the three degrees in this faculty?
- **23.** Where is the MacMillan Building (MCML)

Answer Key:

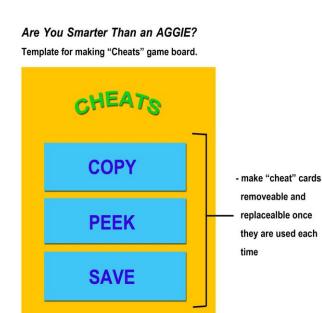
- **1.** a
- **2.** c
- **3.** b
- **4.** d
- **5.** b
- **6.** a
- **7.** d
- **8.** Protein, fat, carbohydrates
- **9.** Polyunsaturated fatty acids
- **10.** c
- **11.** c
- **12.** d
- **13.** d
- **14.** b

- **15.** Negative ecological impacts, decreased nutritional value, and overall flavour
- **16.** c
- **17.** b
- **18.** a
- **19.** b
- **20.** d
- **21.** b
- **22.** B.Sc. Agroecology , B.Sc. Food, Nutrition and Health and B.Sc. Global

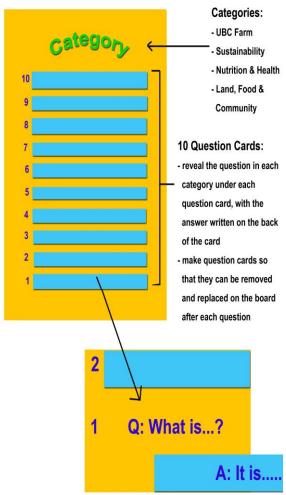
Resource Systems

23. 2357 Main Mall, UBC Vancouver, B.C.,

Canada V6T 1Z4



Are You Smarter Than an AGGIE?? Template for making game board and question cards.



Know Your Seasonal Foods?!

Game

- 1 host (4th year stud/MUG leader/instructor)
- Volunteer player
- Each side of the dice represents a category
 - o 4 sides questions associated with each particular season
 - 2 other sides 1 bonus question, 1 random question (can pick which ever season they want to answer)

Game Play

- Player rolls the dice until it falls lands with one certain face up
- Whichever face of the dice is rolled determines the question to be answered
- Total of 4 questions (i.e. 4 rounds of rolling dice)
- If player answers all 4 questions correctly then he/she wins a prize, i.e. choice of wristband or bookmark

Questions (Seasons)

- Spring

 Asparagus, beans, beets, broccoli, carrots, cauliflower, chicken, cucumbers, currents, eggs, garlic, halibut, herbs, lettuce, potatoes, rhubarb, salmon, spinach, strawberries, tomatoes

- Summer

 Apples, beans, beets, blueberries, broccoli, cabbage, carrots, cauliflower, cherries, chicken, corn, crabapples, cucumbers, current, eggs, figs, garlic, gooseberries, halibut, hazelnut, herbs, honey, lettuce, loganberries, onions, peaches, pears, plums, potatoes, raspberries, rhubarb, salmon, squash, strawberries, tomatoes

- Fall

 Apples, beets, broccoli, cabbage, carrots, cauliflower, chicken, corn, crabapples, cranberries, cucumbers, eggs, garlic, gooseberries, honey, kiwi fruit, lettuce, onions, pears, potatoes, pumpkins, squash, strawberries, tomatoes

- Winter

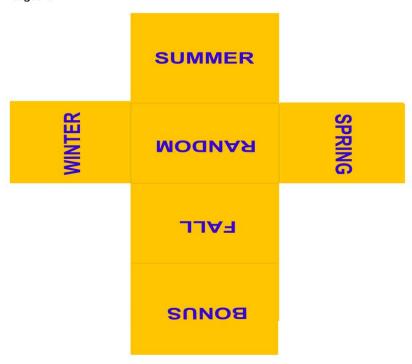
o Apples, beets, cabbage, carrots, cauliflower, chicken, eggs, garlic honey, kiwi fruit, onions, potatoes, squash, tomatoes

Bonus Question

- Which foods are in season ALL YEAR ROUND?
 - o Answer: Beets, carrots, cauliflower, chicken, eggs, garlic, potatoes, squash, tomatoes.

Know Your Seasonal Foods

Template for making Question Dice - Fold along the lines and stick sides together.



Appendix V: Thought Swap

Invitation for 2007

Could be just slightly modified for 2008 Thought Swap

Dear Recipient,

You have received this email because you have been identified as a food systems sustainability leader at UBC. We are a group of Land and Food Systems students helping to organize the 2007 Sustainability Fair at UBC. We would love to collect your ideas on ways to celebrate your sustainability achievements at the fair.

What: You are invited to a Thought Swap

When: Wednesday March 28, 2007

Time: On a drop in basis anytime between 10-1

Where: MacMillian Building Room 170

Refreshments will be served!

Please RSVP

If you are unable to attend, but have someone you could send in your place or would like to share your thoughts by replying to this email, we would welcome that as well. For all email responses we have attached a consent form, by replying to this email you agree that your ideas can be used for this project. Also if you know of other people who would be interested in participating please pass along this invitation.

Thank you.

Sincerely, Kelly Gibson On behalf of AGSC 450 Group 24

Thought Swap Template

Our Goal:

In an effort to maximize the effectiveness of the UBC Sustainability Fair, our group decided to educate SUB users about UBC's culture of sustainability. From our classes we have learnt that the best way to effect change in groups is not through individual counseling but rather by changing and or highlighting aspects of the community's culture. Our thoughts were, if we educate participants at the fair about the ongoing efforts being made all over campus to contribute to sustainability, it will impact their behaviour to be more sustainable. We invited all of you to help spark ideas about the best way to daylight the culture and gain some excitement and momentum through out campus about the upcoming fair.

Individual Questions:

- How would you describe your project(s) at UBC?
- What does a sustainable UBC campus look like to you?
- How would you like to see these ideas incorporated in the fair?
- Would you be willing to participate in the fair by either submitting a poster for display/attending the fair to talk about your accomplishments, etc?
- What activities would you like to see in the sustainability fair?
- What activity do you think would be most effective in educating the public regarding sustainability issues?

Group Activities:

Gather as much information as possible about the **current and past actions** that the student or on-campus groups and organizations have done **contributing to food system** sustainability in UBC

Gather ideas and **connect different actions across faculties** contributing to food system sustainability

Gather ideas about the way to improve the effectiveness of the fair

How UBC came to be adapt a **sustainable culture**/what the future of this culture looks like

Appendix VI: Thought Swap Contact Lists with Notes

| Name | Email Address | Notes/Comments |
|------------------|---------------|--------------------------------------|
| Patricia Kachuk | | Retired from UBC, moved to |
| | | Ontario, not interested in being |
| | | contacted for further involvement |
| Matt Edgar | | AGUS President. Sent out an idea |
| | | via email. Would like to see more |
| | | connections between projects. (for |
| | | example the Barn Beer Gardens |
| | | Fundraiser earlier in the year to |
| | | connect sustainability events) |
| Delisa Louis | | AGSC 450 TA, not in attendance, |
| | | no response |
| Gavin Wright | | AGSC 450 TA, expressed an |
| | | interest in attending but was unable |
| | | due to prior engagements |
| Christopher Suen | | AGSC 450 TA, emailed to RSVP |
| | | for attendance but did not make it |

| X/ C: | | ACCC 450 Th An 1 14 1 |
|--------------------|---|--------------------------------------|
| Yona Sipos | | AGSC 450 TA, Attended thought |
| | | swap. Served as advisor for set up |
| | - | and plan. |
| Lorenzo Magzul | _ | AGSC 450 TA, did not attend |
| Collen O'Brain | | Emailed to RSVP but did not make |
| | | it over |
| Brenda Sawada | | UBC SEEDS contact, emailed to |
| | | say she had been planning to drop |
| | | by but her day become too hectic |
| Elaine Sprague | | Got an auto response to say she |
| | | was out of the office |
| Thomas McCormick | | No response |
| Xiaotao Bi | | No response |
| Sally Hermansen | | No response |
| Les Lavkulich | _ | Miss typed email address and the |
| | | mailer demon went into my junk |
| | | box so we didn't find out until it |
| | | was too late |
| Peter Boothroyd | | No response |
| Steve Alisharan | | Out of office reply automatically |
| | | generated |
| Ron Cenfetelli | | No response |
| Dylan Roth | | No response |
| Amanda Vincent | | Sent an email to RSVP saying she |
| Timuraa viiiooni | | would try to drop by but never |
| | | made it |
| Thomas Kemple | - | Typo in email address not noticed |
| Thomas Kemple | | until too late, as notice went into |
| | | spam box |
| Jolie Mayer-Smith | - | No response |
| Linda Peterat | - | No response |
| Shona Ellis | - | No response |
| Coll Thrush | - | No response |
| | _ | • |
| Student | | No response |
| Environment Centre | - | Complete and Later of fourtainting |
| Alice Cassidy | | Came by with lots of fantastic |
| UDGE : | - | ideas, see report for more details |
| UBC Environmental | | Wrong email address. Mailer |
| Law Group | | delivery failure went into spam |
| D | - | box and not noticed until too late |
| Brent Skura | | No response |
| Art Bomke | | No response |
| Agora Eats Café | | Kelly Gibson is on the Agora |
| Committee | | committee, she attended but in a |
| | | student way, so her input is |
| | | included as a student writer on this |
| | | report. If this happens again the |
| | | new committee members should be |
| | | included. At this point Agora is |
| | | not technically allowed to advertise |
| | | |

| | | outside of MacMillian and so |
|---------------------------------------|---|--|
| | | could not participate in the fair, but |
| | | may be able to next year (the |
| | | committee is currently working |
| | | toward changing this) |
| Dan Putler | - | No response |
| Bernard Bauer | | No response |
| Liska Richer | | No response |
| Anthony Brunetti | | Miss typed email address, and the |
| | | mailer demon went into my junk |
| | | mail box so I didn't find out until |
| | _ | too late |
| Tom Sullivan | | No response |
| Danielle Billey | | AGSC 450 student participated in |
| | | group discussion with other |
| | | students. Had many great ideas |
| | | and would be willing to be |
| | | contacted next year for consult, |
| | | however is moving to Victoria |
| Ali Boyle | | AGSC 450 student also |
| | | participated in group discussion, |
| | | with many great ideas. See more |
| | _ | detail within report. |
| Linda Lee | | AGSC 450 Student came to |
| | | participate in discussion and shared |
| | | her vision of what a sustainable |
| | | campus looks like |
| · · · · · · · · · · · · · · · · · · · | | |

Appendix VII: TAG newsletter article: photos and Q & A



Briefly describe yourselves and what you're doing for your class.

We are a group of AGSC 450 students and every year AGSC 450 students would form into about 30 groups of students to examine different scenarios of the UBC Food System and ways of improving it.

Describe your Sustainability Fair 2007 project for AGSC 450.

We wish to create a Fair that is, rather than handing out an information pamphlet to students who might throw it away later, we wanted to engage the students through a more direct way. We came to the conclusion that it could be done through a celebration of our culture of sustainability at UBC. We wish to engage more students across disciplinaries and faculties, welcoming them to the celebration of sustainability.

What's PBL and is it effective/ineffective for you? Why?

Problem based learning is an approach that is often used in the courses of the Faculty of Land and Food Systems. Our project is close to its philosophy for we are provided with scenarios of the problems with the UBC Food system and we need to apply a lot of skills and research into solving it.

What is the most effective way for people to learn about sustainability, in your opinion? We believe the best way is, affirmed also by our fellow students who attended the Thought Swap, to physically engage the students and provide them with respectable role models to look up to. Students often feel inundated with knowledge and hard facts and the most effective way to engage a student is to relate the issue to him or her and provide him/her the tools to solve it.

Appendix VIII: Organizations who have confirmed to attend the fair in October 2007

| UBC Food Services Dorothy Yip | FarmFolk/City Folk Jeff Nield |
|--|--|
| | |
| UBC Waste Management | Sprouts |
| Soriano, Caroline | Colleen O'Brian |
| | Future Education Coordinator |
| Pat Fitzgerald (supervisor) | |
| UBC SEEDS and Sustainability Office (SO) Brenda Sawada | Your Local Farmers Market Society Sarah McMillan |
| | (Assistant Operations Manager) |
| UBC Farm Mark Bomford | |
| | |

Appendix IX: Contact Information for Film Screenings

| Black Gold Movie Distributor: | Our Daily Bread Movie Distributor: |
|--------------------------------|------------------------------------|
| Tom Alexander | Lori Fried |
| Director, Theatrical Releasing | First Run/Icarus Films |
| Mongrel Media | 32 Court Street, #2107 |
| 1028 Queen Street West | Brooklyn, NY 11201 |
| Toronto ON CANADA M6J 1H6 | |
| | |
| | |
| | |
| | |
| | |

Appendix X: Budget

| <u>Item</u> | Cost | Quantity | Source | <u>Note</u> |
|-------------------------|--------|----------|---|---------------------------------|
| Wristbands | 270 | 500 | Circle Bracelets | Debossed @ \$0.54 |
| Shipping | Free | | | www.braceletswristbands.com |
| | | | | |
| | | | | 1" x 3"; @ \$0.05. Double-sided |
| Bookmarks | 50 | 1000 | Ultra Xpress Printing | colour |
| Shipping | Free | | | www.printprint.ca |
| | 470 | 1000 | G 1 | 00.47 |
| Pamphlet | 470 | 1000 | Staples | \$0.47 each. Folded |
| Posters | 145 | 500 | Copysmart | 8.5" x 11" colour |
| Tosters | 143 | 300 | Сорузнат | 0.5 X 11 Colour |
| Film | | | | |
| Screening | 268 | | Check Appendix IX | |
| Shipping | 20 | | | |
| | | | | |
| | | | 1. Buycostume | 1. www.buycostumes.com |
| | | | S | 2. www.shop.com |
| Mascot | 70 | | 2. Shop | |
| Shipping | 30 | | | |
| C | | | 1 Comment | |
| Game Materials (i.e. | | | Copysmart Dollar Store | |
| poster paper, | | | 2. Donai Store | |
| markers, glue) | 25 | | | |
| markers, grac) | 23 | | | <u> </u> |
| | | | | |
| Total: | \$1348 | | | |