Food Labels to Leverage Sustainable Change at U of M
Final Report

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I. Executive Summary

In 2011 the University of Michigan announced major sustainability goals. Among these goals was the commitment to purchasing 20% of food from local sources. To reach this goal, University consumers must make more sustainable purchasing choices. The Food Labels Team mainly focused on the “Go Blue, Eat Local” label, which directly relates to the local purchasing goal. However, vegetarian and vegan labels were also considered sustainable because of the minimal environmental impacts of vegetable production in comparison to meat production. The overall objective of The Food Labels Team was to develop methods to increase and encourage sustainable purchasing in University Unions and Dining Halls.

To obtain data for this report, 863 students at the University of Michigan took electronic surveys about dietary preferences, and recognition and utilization of food labels. Some important data includes:

- 70.22% of students indicated that they at least sometimes read U of M food labels.
- Go Blue Eat Local: Recognized by 68.71% of students, used by only 23.36%.
- Vegan: Recognized by 66.94% of students, used by only 30.17%.
- Vegetarian: Recognized by 22.9% of students, used by only 9.24%.

This indicates that the vast majority of students read U of M food labels, and although these labels are somewhat recognizable, less than 50% of the students who recognize the label actually use it.

A thirty-minute focus group was conducted to better understand the students’ perspective on most effective labeling design, placement, and education. Some key findings were:

- Students stated the need for self-explanatory and descriptive labels that incorporate both text and universally intelligible symbols. Students noted that it is nearly impossible to tell the difference between the vegan and vegetarian labels.
- Students felt that further information regarding the meaning of food labels was important.

Through this data and extensive research, we have compiled a complete set of recommendations based on label design, education, food arrangement, and sign placement to improve food labeling on campus and consequently encourage more sustainable eating habits for students. These recommendations include:

- Incorporate minimal, descriptive wording on labels when possible so students can more easily understand them. In particular change the design of the “Go Blue, Eat Local,” vegetarian, and vegan labels.
- Students should be further educated on the importance of sustainable food choices through U of M’s sustainable food labels, the expanded use of tabling information, suggestive selling, and further promotion in the “Green Wolverine” Guide.
- The University should take advantage of key locations near registers to promote sustainable and local foods.
- Finally, food labels should be displayed consistently and accurately at all times, even in prepared food case displays. Digital signage is an important tool for U of M to consider in the future to ensure accuracy of labeling at all times through an automated system.
II. Background/Introduction
Food systems play a major role in the worldwide movement to establish a more sustainable culture. The modern globalized food network is successful as a result of enormous distance between producers and consumers. In the past decade, the local food movement has grown into a collective effort of conscientious individuals hoping to establish more sustainable food practices. As a result, production, transport, processing, and consumption have all come under scrutiny by those hoping to bring such practices back to a local level. This growing change in mentality towards food is attempting to improve quality and freshness, as well as lower the environmental impact that food creates (DeLind, 2010).

In order to promote change, consumers need to acquire knowledge about the benefits of purchasing local, more sustainable foods, and where these products can be found (DeLind 2010). An effective way to do this is by labeling foods beyond their basic nutritional value. There is an increasing amount of labeling focused on sustainability, such as local, fair trade, no artificial hormones, saving rainforests, sustainable fisheries, and humane treatment of animals. Many universities, restaurants, and other establishments are implementing their own food labeling systems with varying definitions and designs for each label. This, along with proper education, can cause significant change in the purchasing behaviors of consumers by providing information on alternative food options (Matts, 2010). Education can help to form connections between environmental issues and the labels that represent them. The following report specifically focuses on how to best bring these practices to the University of Michigan.

In 2011, The University of Michigan announced its goal to purchase 20% of food from local sources by 2025. The University defines local as food, “grown or processed within the State of Michigan or within 250 miles of the Ann Arbor campus” (Larson, 2011). In order to effectively reach this goal, it is essential that the University have the support of its students, faculty, and staff.

University Dining Services and the University Unions has a system currently in place that labels food as Vegetarian, Vegan, Halal, Kosher, Gluten-Free, Local, or MHealthy. The purpose of this system is to help inform students about the foods they eat, accommodate specific dietary restrictions, identify healthier food options, and distinguish items made from locally grown ingredients. Through surveys, focus groups, and research, the current food labeling system has been evaluated. The following report outlines research, findings, and recommendations to better encourage sustainable food purchases at the University of Michigan.

III. Project Goals/Objectives
The Food Labels Team aims to increase sustainable purchases in University Unions and Dining Halls through improved label design, student education, food arrangement, behavioral change and sign placement. The Food Labels Team primarily focused on the “Go Blue, Eat Local” label, which directly relates to the local purchasing goal. However, vegetarian and vegan labels were also considered sustainable because of the minimal environmental impact of vegetable production in comparison to meat production. By encouraging the purchase of sustainable food items through labeling, The Food Labels Team hopes to support the University-wide goal of sourcing more local and sustainable food options.
IV. Methodology

The Food Labels Team administered a fifteen-question survey to 863 students enrolled at the University of Michigan (see Appendix i for additional survey results). Almost a quarter of these surveys were collected by selecting random students in-person while they were in a dining hall or Union location. While conducting interviews in-person, The Food Labels Team observed conditions in various on-campus locations such as Beansters, U’Go’s, Bert’s, South Quad Dining Hall, West Quad Dining Hall, and Mosher Jordan Dining Hall. Some results from the online survey are included below. The survey was designed to gather information about where students frequently eat, their use of food labels, and how much they know about sustainable initiatives at the University. The breakdown of respondents by year and gender are represented in the following charts:

Additionally, most students, 89.8% did not have a major/minor related to the environment and 77% of respondents ate in dining halls everyday or a few times a week.

The Food Labels Team also facilitated a focus group with undergraduate students, graduate students, and operational managers from the Union Dining Services. Keith Soster, director of Union Food Services and team sponsor, selected participants for the focus group from his food committee. The focus group expanded The Food Label Team’s understanding of how to make valuable recommendations for the University of Michigan food labeling system. This was accomplished by asking students to choose and explain their favorite food label out of a group of four icons from different schools. The four icons were all grouped by category, such as gluten-free, vegetarian, or local (see Appendix iii for full Focus Group Transcript).

Additionally, The Food Labels Team interviewed Kathryn Whiteside, a registered dietician and menu planner at Residential Dining Halls. She spoke about the University’s interests and limitations when procuring food as well as general information about the labeling system at the University.

The Food Labels Team faced a few limitations including reluctance to take surveys, skewed
sample population, and biased results during the focus group. It is important to consider shared characteristics of individuals willing to take surveys, for example, an interest in food or dietary restrictions. Also, despite targeting freshmen and sophomores in the emailed survey, a few upperclassmen responded in-person. Many upperclassmen do not have meal plans and consequently spend less time at dining halls and Union locations - potentially skewing results. The Focus Group consisted of students who are on a Food Advisory Committee. Membership in a Food Advisory Committee demonstrates a previous interest in food issues on campus, and the possibility of prior awareness of the U of M food labels.

**IV. Background Research**

**Case Study of Vegan/Vegetarian Diet Being Sustainable**

Individuals choose to become vegetarian or vegan for a variety of reasons including environmental, ethical, or health concerns. After considering the correlation between dietary decisions and larger societal issues, many choose to align dietary behaviors with their beliefs and values. A report conducted by the University of Chicago found that adopting a vegan diet has a greater impact in the fight against global warming than switching to a hybrid car (Eshel, 2006).

Food production is also a large contributor to global warming. According to a study conducted in Scotland, livestock emits approximately 150% more greenhouse gasses than chicken or fish (Salonen, 2012, p. 17). Additionally, raising livestock uses vast amounts of land for grazing, growing feedstock, and consumes large quantities of freshwater supply. This makes raising livestock a very intensive agricultural practice, generating a large carbon footprint. This study also found that, “the ecological footprint of an ovo-lacto vegetarian diet is 40% lower than the footprint of people who favour omnivore diets” (Salonen, 2012, p.17). Based on this evidence, The Food Labels Team considered vegetarian and vegan diets to be sustainable food options.

**Education Increases Label Usage**

In a study of 208 undergraduate students Anne B. Marietta, Kathleen Welshimer, and Sara Anderson found that students’ prior knowledge of food labels was positively correlated with attitude, usage, and understanding of these labels. Students completed a nine-question, multiple-choice test in order for researchers to assess students’ prior education on labels and ability to successfully read the labels. Students who reported prior education on label reading had significantly higher knowledge scores (4.6 +/- 1.6) than those who did not (4.1 +/- .7). Attitude was also measured by asking questions relating to the usefulness, accuracy, and truthfulness of food labels. Out of 25 possible points, the mean score was 17.3 +/- 2.7. Results revealed that the higher the attitude score, the more likely the students were to use the food labels. This study concludes that, “label-reading education is associated with greater knowledge about labels, more favorable attitudes toward them, and increased use of labels in making food choices” (Marietta, Welshimer, Long Anderson, 1999). This supports that an education program would be useful for the University of Michigan to increase students’ knowledge and utilization of food labels, while also improving their attitude towards the labeling system.

**Suggestive Selling in a Dining Hall Setting**

Suggestive selling is “a marketing technique which capitalizes on the art of selling items to a customer, while suggesting additional items that may complement the original item” (Hoffman, 2011). This technique is simple and effective at increasing sales, especially for complementary
items such as salad and dressing or toast and eggs. A recent study had waiters and waitresses ask customers if they wanted a side dish with their meal, which resulted in an increased sale of side dishes by 17% (Hoffman, 2011). This strategy has been widely adopted amongst foodservice businesses to help increase sales of specific items. If this same system were applied to University foodservices, there is potential to increase sales and consequently students’ knowledge of sustainable food items.

**V. Findings**

*Survey Results*

![Figure 3](image)

- The main reasons that students did not read the food labels were: “Food labels are not important in determining my food choices” (40%), and “I don’t have dietary restrictions” (39.31%).
- However, 40.7% of surveyed students indicated that they had some sort of dietary restriction.
- 71.2% of these students responded that they rely on U of M food labels to ensure they are making the proper decisions that align with their particular dietary restrictions and choices.
- When presented with images of the U of M food labels students recognized and utilized the labels in the following proportions:

![Figure 4](image)
• In order to gauge students’ current understanding of sustainable food, survey participants were required to type in the first word that comes to mind when hearing the phrase “sustainable food.”
  o The most common responses included, “Environment,” “Healthy,” and “Local.”
    (To see more common responses, please see Figure 3, in Appendix i)
• Additional comments, common themes are listed below (all specific comments can be found in Appendix ii):
  o List all of the ingredients on the labels, and have labels out consistently.
  o Local foods should be more clearly defined- possibly include food miles on label.
  o Distinguish more between vegetarian and vegan labels.
  o Make sure information is accurate- students noted mistakes in what was labeled vegetarian and vegan.

Focus Group- Label Analysis:
During the focus group, The Food Labels Team displayed three groupings of food labels. Each grouping represented a different food category such as vegetarian, gluten-free and local. The groupings contained four examples of icons from different schools and ensured a diverse use of images, symbols, and texts. Michigan State’s food labels are more complex, using both texts and images. On the other hand, Northwestern University has a very simple system using only one letter to represent the label. The group chose which label they preferred in each grouping and explained their choice.

The first set of labels (Figure 5) consisted of vegetarian icons from Michigan State (Figure 5a), University of Michigan (Figure 5b), University of Connecticut (Figure 5c), and Northwestern University (Figure 5d). When asked which label was most effective and easiest to comprehend, six people voted for Michigan State, two people voted for the University of Michigan, and zero people voted for the remaining two. The group stressed that the word “vegetarian” displayed on the Michigan State label helps to clarify the difference between vegan and vegetarian.

The next set of labels, representing the gluten-free category (Figure 6), were from Michigan State University (Figure 6a), University of Michigan (Figure 6b), University of Connecticut (Figure 6c), and Yale University (Figure 6d). Michigan State received seven votes, University of Connecticut received one, and the remaining two received zero. The focus group all agreed that the graphics and wording on Michigan State’s label was extremely informative and concise. It was noted that the University of Michigan gluten-free label uses the universal “gluten-free” sign, but is not recognized by students outside of the gluten-free community and therefore received zero votes. Although the gluten-free label has no direct implications on sustainability, it is important to learn from this example that in order to make the most understandable sustainable labels, it is necessary to include representative images as well as wording.

The third set of labels (Figure 7) represented locally grown or sourced food. Examples were used from Michigan State (Figure 7a), which received three votes, University of Michigan (Figure 7b) which received five votes, and both the University of Connecticut (Figure 7c) and Grand Valley State University (Figure 7d) which received zero. The majority of the groups expressed that they liked the “Go Blue” text from U of M, in addition to the map on the Michigan State label, and
suggested it would be most effective to combine the two.

*Figure 5 a, b, c, d Figure 6 a, b, c, d Figure 7 a, b, c, d*

**Focus Group - Education:**
The Food Labels Team also asked focus group students where they thought education about food labels could occur early on in the college experience. Responses between participants varied greatly. One student noted that the goal of labels is to provide an image that speaks for itself, and therefore should require no education. For instance the MHealthy label currently has a Michigan block M, with the word “healthy” underneath it. Because of the word “healthy,” the label is easily understandable. However, the university food service is unable to print the small lettering necessary when scaling these labels for food cards in the dining hall or Unions. As the symbol gets smaller, they simply take away the word “healthy”, and the label is left with only a block M. By including the same imagery on labels, both with and without wording, as well as encouraging increased education, students will better understand the meaning of food labels campus-wide.

**Interview**
In addition to the survey and focus group, Kathryn Whiteside, a registered dietitian and the Assistant Director of Administrative Services for Residential Dining Services, answered questions specifically relating to U of M food labels. Kathryn stressed that the University has always tried to purchase local foods because it “makes sense”. Local foods are cheaper due to less transportation costs and they help support the local community. Ms. Whiteside noted that it usually takes around 3 weeks or more to repay food providers, which discourages some local partners from contracting with U of M. She also stressed the importance of safety and health standards, above sustainability goals, because the University’s reputation is on the line everyday. Traceability is necessary because if a student becomes ill due to a food related sickness, the University of Michigan is held responsible. Finally, Ms. Whiteside spoke about the importance of education before students enter the dining hall. She believes that once a student is in the dining hall, they are unlikely to have labels significantly influence their food preferences. Kathryn also noted that the dining halls are eventually moving towards digital signage. These signs would be linked with the University’s database, which records all food purchased by the University. The digital signs would include information about nutrition, allergies, and other icons relating to an item. This system would make labeling efforts easier and more accurate.
Observations
The Food Labels Team did an in-person analysis of Beansters, U’Go’s (League), U’Go’s (Union), Bert’s, South Quad Dining Hall, West Quad Dining Hall, and MoJo Dining Hall.

- Beansters - The case of prepared food lacked labels completely. Cookies and chocolate were prominently offered next to the register.

- U’Go’s (League) - Less than five labels were found throughout the store. Fliers were posted on one wall advertising sustainability and nutrition information, however The Food Labels Team missed these during the first investigation.

- U’Go’s (Union) - There appeared to be more consistent labeling throughout the store, however many labels were small and easily missed.
• Bert’s - The store did not use any labels to advertise products as sustainable or local. After scouring the offerings, local Ann Arbor chips were found hanging off a shelf, well below sight line.

![Figure 9- Local Chips Hanging off shelf, with no label](image)

• South Quad Dining Hall - Table tents advertised “delicious and local” butternut squash used in dining hall dishes.

• West Quad Dining Hall - A small sign outside the dining hall advertised labels and definitions. Students in line to swipe their M-Cards did not appear to notice or read the sign.

• MoJo - Napkin holders highlighted the definitions of halal, gluten free, Mhealthy, vegetarian, and vegan labels, but did not mention local label. Table tents additionally promoted sustainable habits in the dining halls.

• All - All food venues visited were full of bright colors from packaging and assorted signage. This makes it a challenge for posters and labels to stand out.

(Please see Appendix iv. for more pictures from observations)
VI. Recommendations

The survey results indicated that only 23.36% of students utilize the local label, 30.17% use vegan labels, and 9.24% utilize the vegetarian label. However, in order for U of M to encourage sustainable eating habits for its students, these percentages should be substantially higher. To address this issue, the food labels team created several suggestions for improving the labeling system, specifically related to sustainability at the University of Michigan. Suggestions are based on results of surveys, focus groups, interviews, research, and in-person observations. These recommendations are split into four different categories: sustainable labels, student education and interaction, arrangement, and staff training.

Sustainable Labels

**Change “Go Blue, Eat Local” Label:** The focus group suggested combining both the Michigan State University local label and the current University of Michigan local label. Based on these suggestions, The Food Labels Team created a new local label that includes the words, “Go Blue, Eat Local” in addition to an outline of the state of Michigan. When the size of the icon is reduced, and wording is unable to be included, the symbol is still intelligible because of the Michigan image and Block M. Below are images of the new label, with and without the wording:

![Figure 10](image10.png) ![Figure 11](image11.png)

**Change Vegan and Vegetarian Label:** In the survey comments section and focus group, many students mentioned that the difference between these two labels is unclear. During the focus group, the majority of participants chose the Michigan State vegetarian label over the current U of M label because it includes the word vegetarian, which clarifies the difference between vegan and vegetarian food. To ensure that consumers are able to differentiate these two labels, descriptive words should be included, along with more representative imagery.

![Figure 12](image12.png) ![Figure 13](image13.png)
**Student Education and Interaction**

**Continued use of tabling information:** As mentioned in the focus group, some students are bored or sit alone at the dining halls and many times this results in students reading the table tents. U of M should take advantage of this and highlight the local, vegetarian and vegan labels as well as the importance of eating more sustainably. This is especially important during the first few weeks of school when students are becoming acquainted with the dining halls.

**Suggestive Selling:** Through daily interactions with students, Union and Dining Hall staff should regularly promote sustainable and local options that are available. In order to be successful, staff must be educated by managers on the origins of particular products. This education could be part of mandatory training about food labels, their specific definitions, and communicative strategies that all staff receive when first being hired by the University. Additionally, it would be beneficial for staff to sample key items that fall under local and sustainable categories in order to have informative and impactful conversations with students. Not only would suggestive selling increase the consumption of sustainable options, but it also targets the 12% of students who claim to disregard food labels. For students more open to labeling, suggestive selling could be used to remind students to look out for the “Go Blue, Eat Local” label throughout the stores and dining halls.

**Food and Sign Arrangement**

**In-Store Location:** High traffic locations next to the register should be taken advantage of. Placing local or sustainable foods in these areas will increase purchasing of these items. A specific suggestion would be replacing the cookies currently located in Beansters with local cookies (see Appendix vi for an example of what this may look like). This would still target consumers looking to crave their last minute sweet tooth, however in a more sustainable manner. Implementing this idea would coincide with data from an article in *The New York Times,* “Lunch Line Redesign,” which emphasizes that food next to the cash register heavily increases the chance of purchase. In this study, a New York school tripled the number of salads purchased by placing them in this convenient location (Wansink, 2012). By utilizing this tactic in U of M foodservices there is a significant opportunity to increase sustainable purchases.

**Food Cases:** In prepared food cases, signs should be held up by a stand in front of specific food items. This would grab the attention of a perusing customer and provide valuable information about the food. Drawing consumers’ attention to facts such as local, or sustainable will provide the opportunity to make food choices based on these labels. Consumers may select specific choices over other options because of the belief that they would have a fresher taste, healthier quality, and support local businesses (Ikerd, 2005).

**Future Considerations**

The Food Labels Team recommends an innovative and forward-thinking approach to the future of food labels at the University of Michigan. While it is likely not feasible for the following recommendations to be implemented for at least a few years, it is important to continue researching these possibilities, especially as new technology emerges.

**Electronic Signage-** As mentioned by Kathryn Whiteside, the University of Michigan is exploring the possibility of transitioning to electronic signage in the dining halls. This
technology will not only decrease the use of paper signs in dining halls, but will also improve the accuracy and consistency of signage. Specific meal options will automatically be tied to corresponding labels such as vegetarian and vegan. This eliminates mislabeling and will increase students’ confidence in the labeling system at the University of Michigan. The University Unions could also consider a similar system. Despite the time necessary to develop a product database, time will be saved by Dining Hall and Union workers who previously needed to search for labels and make sure products corresponded with appropriate signage.

**Interactive Electronic Screen** - According to Keith Soster, an interactive electronic screen is an additional consideration and will cost approximately $5,000. An interactive screen could be piloted in the Union U-Go’s location. If successful, electronic screens could also be utilized in other on-campus locations such as highly frequented Bert’s in the Shapiro Undergraduate Library or dining halls. These devices would be touch-screen and allow students to search for local and sustainable items. Once students click on a product, students could learn the stories behind the items and where it is sourced from, such as local farms, bakeries, or University partners. It would additionally be possible to watch a short clip of interviews and background information on local and sustainable food producers.

**Follow-up Survey/Focus Group** - To measure success of recommendations provided by The Food Labels Team, it is advised to issue a follow up survey. This survey would highlight many areas focused on during the original survey. Most importantly, previous results should be compared to future results of both food label recognition and usage.

**VII. Conclusion**
University Unions and dining halls have the capability of leveraging change in local, vegetarian and vegan eating, and food purchasing habits. University Unions and dining halls should first ensure that students understand the meaning and context behind each label by extending the use of tabling information, expanding educational activities, and fully incorporating a sustainability framework into the University’s plan. Additionally, in order to encourage more sustainable eating habits, arrangement and suggestive selling should be strategically utilized in combination with a consistent and clear labeling system.

The recommendations by the Food Labels Team are directed at awareness, education, communication strategies, and sustainable purchasing behaviors. These strategies have varying effects and all are necessary to change long-term behavior at the University of Michigan. By promoting a sustainable culture through internal practices, the University of Michigan will be better equipped to meet and surpass its food purchasing goals. Institutions of higher education possess a unique and important opportunity to lead by example in a move towards a more sustainable society.

In 2011, University of Michigan president Mary Sue Coleman stated that, “sustainability defines the University of Michigan.” Because sustainability is a defining factor at the University of Michigan, it is imperative to embrace this mission in all aspects of operation. The University Unions and Dining Hall Services have the responsibility to source local and sustainable food products to do their part in this overall mission. It is only through forward thinking and cooperation that the University of Michigan can remain “the leaders and best.”
 VIII. Works Cited


IX. Appendix:

i. Survey Results

Dietary Restrictions/Limitations

- None of the Above: 59%
- Everyday: 18%
- A few times a week: 5%
- Once a week: 3%
- Once a month: 10%
- Once a semester: 5%
- Once a year: 4%
- Never: 1%

Figure 1

How Often Do you eat in the Dining Halls?

- None of the Above: 59%
- Everyday: 18%
- A few times a week: 5%
- Once a week: 3%
- Once a month: 10%
- Once a semester: 5%
- Once a year: 4%
- Never: 1%

Figure 2
What is the first word that comes to mind when hearing the phrase, “Sustainable food”? 

![Keywords Cloud](image)

Figure 3

**ii. Additional Comments/Suggestions From Survey**

**List all ingredients on food options**

- All ingredients should be listed, because my allergy to food dye is uncommon and I never know if I am eating it.
- In the dining halls include a list of some of the main ingredients of each dish on the label.
- Ingredients listed on food cards.
- Please articulate whether or not a food is dairy. It is almost never clear and it is very frustrating.
- Please indicate if the food is spicy/ has pepper in it. I've had to leave food on my plate because I didn't know it was hot and I wasn't able to eat it.

**Allergy Related**

- It would be helpful if, for food allergies, you indicated if a food was manufactured in the same facility as an allergen.
- Also, for some foods (i.e. cookies), the staff handles the cookies with nuts and without nuts together and contaminates the nut free ones.
- Please improve the allergen labeling system. I would like to know what kind of nuts are in each item for I am not allergic to all.
- Please make them specify when any type of flour besides the regular white flour is used in dishes because I have bad allergic reactions to the whole wheat.
More Nutrition Information:
- add more nutritional entrees in bursley hall. Most of the main courses aren't that healthy
- Add the nutritional labels to the labels
- I often eat in North Quad, and while they do a great job of labeling food as vegetarian, they do not provide the nutrition facts for each individual food item (the number of calories, grams of protein, etc.) like Mojo does. I would greatly appreciate it if they could start this.
- I think everything should be labeled with calorie counts, nutrients, origin of ingredients etc..
- Love some of the new vegetarian options. I wish there were nutrition labels on more things.
- List serving sizes and accurate calorie information on everything. Be WAY more specific with labels
- Listing calories on the food labels can be triggering to students with eating disorders and focuses on numbers instead of overall health.
- Post calorie counts on more food items, possibly matching the amount per serving related to the calories to the amount that is actually served.
- Provide nutrition info on all foods!
- The labels don’t always have nutritional facts, and I think they should all have it

List Sodium Content
- Could the labels include the amount of salt in the food?
- Give the sodium content of all food on the labels please. I feel like I'm consuming way too much salt!
- More things should be listed, sodium content for instance.

Label Design:
- BIGGER LABELS
- Include in small print the meaning of each label (e.g. V- vegan) so that if some one is not familiar with the logo they will still know what it means
- With the logos, the word healthy pops out which is why I recognize it and look for it when I choose foods. The word on the label definitely helps a lot.

Make Organic/All Natural Label:
- Are our vegetables GMO?
- I know that it’s a lot to ask to have a selection of things that are organic. But, I know that a lot of things that are in the dining halls at this point are all-natural. I spend a lot of time before each meal looking online at ingredients lists so I know what these things are. I would really appreciate a label for "all natural" or, if that's hard to define, maybe label things that have hydrogenated oils or high fructose corn syrup and things like that. It would save me a lot of time.
- Why don't we have organic options?

Suggestions for Local label:
- Have the food miles calculated for at least some foods. How far were all of the components
transported and how much CO2 was emitted?

MHealthy should be clearly defined:

- Fried fish with M healthy label is not healthy
- I dieted and lost 60 pounds so I would say I know what food is healthy and what's not and some of the foods labeled healthy are not in any way. I mean just because lasagna has spinach doesn't mean it automatically becomes healthy, it still has bad carbohydrates in it... maybe if it was whole-wheat lasagna but that's still a lot of fat from the cheese.
- I don't know what qualifies a food to be "MHealthy"
- I feel that the majority of the "M healthy" options really aren't healthy. Most of them appear to have too much sauce, seasoning, fat, etc. to actually be healthy. I depend on my own knowledge of healthy eating instead of trusting the university's idea of "healthy."
- I think that sometimes the "M Healthy" in particular is a poor standard of what is actually healthy. It seems to me that this distinction is given to foods that meet some criterion based their macronutrients per serving regardless of serving size. For example, at Bursley, last week, there was a Nacho Cheese dip given the qualification of "M-Healthy" because it only contains 2 grams of fat, 4 grams of carbs, and 2 grams of protein. While this dip isn't so bad in moderation, its proportions are still way off the mark. The fat compared to the other two macros is way too high. Additionally, some vegetable blends given the distinction of M-Healthy aren't really all that healthy. For example the "San Francisco Vegetable Blend" has no fat, but also no protein, and over half of the carbohydrates come for sugar. Once again, while in moderation this is no big deal, it shouldn't qualify to be a "healthy" food. I would personally like to see more clean, lean meat options in the dining halls which I would consider 'M-Healthy'.
- Sometimes MHealthy is NOT healthy at all. It's misleading for students trying to eat healthy, but unsure how to do so.

Education/Outreach:

- It would be nice to explain the labels, like what criteria must be met to be labeled such and such.
- Maybe define all the food labels in all things that include readings about food labels.
- Put a story on the table cards in the dining halls educating us about this.
- Sometimes I notice food labels that are not located in places that are easy to read, or easy to figure out what food the label is for. In general though, I think it's a good system that is executed reasonably well right now.

Mislabeling:

- Gluten free items do not match the list (http://www.housing.umich.edu/system/files/pdfs/gluten_allergies_2010.pdf) of gluten-free foods (there are more on the list). It's hard to memorize what's gluten free in the dining halls! Please update the labels, thanks :)
- I don't think the food cards match the portion sizes very well. It's also hard to determine amounts of food when they're given in oz. You should provide information in terms of cups or number.
- Make sure food labels are accurate. Show correct amount of carbs especially for those with diabetes
• The accuracy of the food labels is quite inaccurate at times. I often find myself having to double-check the ingredients of the dishes. Many times, items that are labeled vegan are not actually vegan. This is definitely a problem.
• The serving sizes on some of the nutritional labels for food are wrong/incomplete
• When I look at the menus, sometimes the vegan food is not accurate with what the menu says. It is quite disappointing at times.

Inconsistent Food labeling
• I noticed sometimes the nutrition facts aren't available for certain meals/on certain days in the dinning halls (in specific, I noticed this a few weeks ago in Bursley). I suggest keeping these up.
• I really rely on the food labels when choosing food, and when they are not out, or when they are unclear, or incorrect, it becomes more frustrating, and difficult to tell what the food is. The labels should always be out and should always be correct.
• I wish that the north quad dining hall had these labels
• It's hard to figure out which foods I can eat when the signs aren't always out by the food.
• Not everything always has labels which can be annoying
• Sometimes food is put out without any label at all; these labels need to always be clear and directly above what the food is :) 
• Sometimes there are homemade labels which do not specify if a dish is vegetarian or not!
• Sometimes when the food is a special local food there won't be a nutrition label on it and I think there should be in order to promote healthy choices
• Still include vegetarian/vegan info on hand-written labels
• There almost always labels in the dining hall that only have the name of the food and give no other information.
• Things that are vegetarian are not always labeled as such!!!!!
• When a cafeteria has a special meal day, they often do not put the allergies or any of the other symbols on the makeshift labels. While I understand that this takes a lot of time for a label that may only be used a couple of times a year, it makes it difficult for people who rely on this information to know what they can and cannot eat.

Miscellaneous
• Health facts should be on all food stations in the dining halls
• I live off campus and so I don't often eat U of M food, but I think it is important for the school to accommodate students with dietary restrictions. I also think the environment is important, so sustainable and local foods should be sold/eaten whenever possible.
• Organics are great...!
• Sustainability shouldn’t just mean that you buy and serve us locally grown food. The usage of food should be sustainable. At the end of every meal the dining halls throw away pans and pans of clean, unspoiled, untouched food instead of donating it to a shelter.

Offer more particular food options:
• I never see kosher food in the dining halls
• Additional non tofu vegan/vegetarian options
• Have more options that are gluten free
• I definitely want our food company to be a company that gives us primarily local food. Right now we only have 10% local food...this is hardly anything.
• I think there needs to be a few more healthy options in the dining hall, like more whole grain options.
• I wish we had vegan eggs
• I would really like to see specifically more for meat, but a hormone free and free ranging choice
• Include more vegan options less vegetarian.
• It'd be great to incorporate more local food
• Look into more avocado
• More healthy choices on each menu
• More healthy food made available or advertised so people are aware
• More Kosher Symbols
• More local food! Support the farmers.
• More options for vegans, always have rice milk, more whole grain bread that actually has fiber in it, healthier peanut butter that's not full of high fructose corn syrup, the tofu curries are really yummy
• More raw fruit and vegetables
• More Salmon it is delicious. Also make sure the pasta in Mo-jo is always full; it is often empty. Other than that, you guys are doing great.
• More vegan options, please.
• More vegan/vegetarian options, always. The fresher, the better.
• Please have more halal options in the university unions
• Some of the dinning halls need to offer a greater fruit selection like WQ.
• Stir fry options
• The dining hall should get more pairs
• The labeling seems fine to me, although more actual vegetarian meal options would be nice... but I'm pretty sure that's not in the bounds of this study
• Though Michigan dining halls do provide some vegetarian options, the majority of hot food served is non-vegetarian or vegan. Living off a diet of pasta and salad is fun for no one
• Use less butter when making breakfast

Additional Comments (out of scope of our project):
• Expand the dining hall hours later than 9 pm.
• Go for quality not quantity. I mean, you have to go for quantity in a school this size, but most of the cafeterias are like my high school food wise. And it's not good. It's edible but it doesn't make me want to have a meal plan.
• Make the dining halls open later like 10 on the weekends.
• Sometimes the food has absolutely no flavor (e.g. steamed vegetables), but most of the time, food is overwhelmingly salty. Can the dining hall food be adjusted for a happy medium?
• The food in the dining hall isn’t very good (especially bursley)
• There should be compost bins in dining halls such as in the business school
iii. Focus Group Transcript

Which label in Figure 2 is most effective at grabbing your attention in addition to explaining what the symbol or image portrays?

- 6 votes for Figure 2a.
- 2 votes for Figure 2b.
- 0 votes for Figure 2c,d.

Why?
- Figure 2a includes the word vegetarian, which clarifies the difference between vegan and vegetarian food.

Which label in Figure 3 is most effective at grabbing your attention in addition to explaining what the symbol or image portrays?

- 7 votes for figure 3a.
- 0 votes for figure 3b,d.
- 1 vote for Figure 3c.

Why?
- Figure 3a has both the visual and text to explain the label.
- Figure 3b and d are confusing and not easily recognized.

Which label in Figure 4 is most effective at grabbing your attention in addition to explaining what the symbol or image portrays?

- 3 votes for Figure 4a.
- 5 votes for Figure 5b.
- 0 votes for Figure 5b,c.

Why?
- In Figure 4a, they liked how the label has a map because it connects to show supporting local.
- In Figure 4b, they liked that it states “Go Blue Eat Local” because it connects back to the University of Michigan.
- Majority suggested combining both the “Go Blue Eat Local” with the map of Michigan because it says where the food is coming from and connects back to the University of Michigan, so it “hits close to home.”

What signs are most unfamiliar and confusing in the current University of Michigan labeling system?

- The U for Kosher.
- The H for Halal.
- V (for vegan) and the carrot (for vegetarian) and confusing.

Here is an example of Stanford’s labeling system. Are more specific and separate categories like local sources, sustainable produce more valuable or is it too complicated?
• Add more to what is shown.

The University of Wisconsin using a simple stop light system—using yellow, green, and red.
• Many felt that stoplight is too simple and you need more classifications.

Where do you think education about these labels could happen early on in your college experience? Many people don’t know what labels mean, what is the best way students can learn what labels mean early on?
• Labels and icons should already show students what the labels mean and they should speak for themselves, therefore, education programs should not be needed.
• If labels are clear enough then you don’t need an orientation program. They should be in printed out and explained in napkin holders in the dining halls.
• The residence hall advisors should be trained to know more about the labels and tell students during the first hall meeting to briefly discuss them. This doesn’t need to be a huge event, but should bring students attentions to the labels.
• Pamphlets to explain the labels could be helpful.

Would you be more likely to purchase sustainable food if it was in its own section at Union Stores and Dining Halls?
• Yes. Featuring sustainable food in its own area would help them get sold more; therefore it is most beneficial in its own category.

Does labeling help?
• People focus and want brand names. Most people will buy brands they associate from childhood or frequently buy.
• People will buy the cheaper food.
• Price plays a big role in purchasing behavior.

Do people associate local or sustainable food with being more expensive?
• Yes. People assume it has a higher price.

Who looks at the labels?
• Freshman Student: Most students just look at the food but if you are vegetarian, vegan, or have food allergies you will look at the labels.
• MHealthy catches my eye.
• I gravitate towards local and sustainable foods, but most people would walk right past it.

Other comments:
• Adding a label about eggs and milk.
• Need to incorporate all allergies.
• Labeling should be consistent throughout campus.
iv. Photos from in-person Observations

*Figure 4- Colorful packaging in stores makes it hard for labels to be seen.*
v. Additional Recommendations:

Accurate and reliable information: In the survey, students mentioned concerns regarding the
amount of sodium as well as caloric intake; therefore information on labels, specifically serving size, must be accurate so students can make more informed choices. An increased emphasis should be placed on accuracy and reliability to eliminate students’ concerns for mislabeled food.

**Additional Ingredients:** Many students noted that their allergy restrictions are not addressed in U of M food labels. These include things like wheat flour, or dairy.

**Consistency:** Students mentioned in the survey that the signage is very inconsistent in placement, nutritional information, and list of ingredients. This confuses students, as they do not find the same signage for the same products. Consistent labeling is key to create a credible labeling system at U of M. The dining halls and Union food stores should make sure to consistently label foods every day.

**Change Gluten-Free Label:** Due to misunderstanding of the gluten-free label, it should be changed for greater recognition amongst students. Having a picture of wheat in the middle of the sign would help more people recognize what the label stands for.

**vi. Additional Images:**
Figure 7- Local cookies by register with recommended label.