

Marketing and Promoting Plant-Based Foods

As plant-based foods grow in popularity, food service providers need to develop strategies to ensure that their stakeholders understand the differences as well as benefits associated with them. Despite this popularity, 77% of respondents brought up at least one concern with plant-based foods. This report includes insights into the data collected from Arizona State University students and recommendations for what to consider when marketing and promoting plant-based foods. A number of appendices exist, aimed at covering the following themes:

- Access to and availability of Plant-Based Foods on Campus;
- Understanding Nutrition, Serving Size;
- Lack of familiarity with the carbon footprint associated with foods;
- Replacing ingredients with plant-based alternatives.

Marketing appendix items additional to this report include

- A link to a “Linktree” site, which houses a number of resources for students, examples, and information;
- Promotional and educational signage examples for Aramark;
- A database with the serving, nutritional, and carbon footprint information for a number of ingredients;
- Recipes re-imagined: A way to compare current recipes to similar recipes that are more inclusive and accessible to more dining styles. This resource also compares nutrition and carbon footprint based on a primary protein source.

Background

During the 2022–23 academic year, our group New Norm (Melanie Chen, Markkus Pfirman Schlosser, and Carli VanValkenberg) worked with Aramark (Sun Devil Hospitality) to help Aramark expand plant-based food options on campus. Earlier this year, we explored Aramark’s goals, comparing them to market competitors as well as to programs with particularly powerful or well-received initiatives to increase plant-based foods.

New Norm developed and conducted the Plant-based Food Perceptions Survey (PBFPS) in Spring 2023 to gain a better understanding of the needs, concerns, and barriers students had about accessing or exploring plant-based foods, but also to learn which ingredients students would like served so that as Aramark continues to develop meals, they can be directly informed by stakeholders.

After surveying students, we studied trends across respondents. Overall, we found that **students who were already eating a primarily plant-based diet reported fewer barriers** to eating plant-based than students who were not already, suggesting that the disparity is based on perceptions. This report combines findings from the survey with language, design, and resources that might address these concerns and barriers.

The 21st Century Consumer

While we originally defined stakeholders in this project as the students, faculty, and staff that regularly utilize on-campus dining halls, there is a specific group of stakeholders that depend on on-campus dining halls for the majority of their meals. These students are largely first-year students who live on campus and

have a meal plan. While living and dining on campus is a great way for new students to acclimate to university life, they rely on the dining services to meet their dietary and nutritional needs and preferences, often skills that young people in the first years of independent living are still developing. We recommend that Aramark focus on educating in the areas of nutrition and serving size with a focus on and inclusion of plant-based foods. Normalizing the inclusion of plant-based proteins will build familiarity with various ingredients, and encourages the idea that *all humans need nutrition* and that *there are a number of ways* to fulfill those needs.

While surveying in person, we were reminded of the relationship young people have with technology. We designed marketing, educational and promotional materials with digital accessibility in mind, and we encourage Aramark to continue to use digital platforms to create and host resources for students.

Insights and Recommendations Between Groups

The way that Aramark uses marketing and education to engage with students will vary based on the needs of the group, the barriers and concerns they identify, and their willingness to incorporate plant-based foods into their diets.

Findings from the survey helped guide our recommendations for engaging with primary stakeholders; we organized them by their “Willingness to increase plant-based foods in their diet” (Q3), which we used as a way of grouping respondents, all of which reported significant trends.

Students who said “No” to increasing plant-based foods:

- Had the highest rate of students reporting that plant-based foods “don’t taste good” to them (66%)
- Reported nutritional concerns at a higher rate than any other group (44%)
- 61% of respondents in this group have never considered going plant-based

Engaging with this group: Students in this group might be reached through educating on nutrition—primarily protein—engaging them by serving simple, fresh produce, minimally processed. This group might not react as positively to marketing containing “Plant-based” or “Vegan” language or labeling. They are most likely to be engaged through tools that can educate them about protein and serving size but might be impressed to see that plant-based protein bases like tofu have protein comparable to beef.

Resources applicable for this group:

- Integrated signage at dining stations
- Tools for nutrition, not necessarily focused on Plant-based

Students who “already eat plant-based:”

- The data from this group was interpreted very differently because it reflects experience, and while a “self-report” bias can influence all responses, we look to this group as “subject matter experts” in navigating, accessing, and articulating the experiences of plant-based students.
- 57% experience no barriers or concerns associated with plant-based foods
- Had overall the lowest rates of reported concerns and barriers
- Still reported concerns about “taste” and “nutrition” at rates comparable to the rest of the groups.

Engaging with this group: This population has a unique level of experience navigating campus dining halls and accessing plant-based foods because they depend on them. By listening to their experiences, and involving them in the continuing development of offerings, Aramark can build meaningful relationships with the student community.

Resources applicable to this group:

- Guides on nutrition in a plant-based diet (link)
- Ingredient Database (see appendix)
- Feedback lines

Students who said “Yes,” they are willing to increase plant-based foods:

- experienced the highest rate of “environmental” concerns and barriers (12.3%)
- report the lowest rate of “Plant-based foods don’t taste good to me (13%)
- make up the majority of students surveyed- 58% of all respondents.

Engaging with this group: This group is highly receptive to tools, resources, and signage that educates, as well as promotes plant-based foods.

They will benefit from the ability to make informed decisions about the foods they choose. This group would be likely to try a plant-based option in a tasting setting, and would likely be willing to give feedback.

It is important that tools and language used in marketing do not focus on plant-based eating as the opposite of meat or animal products—this creates an unnecessary dichotomy between plant-based and non-plant-based diets, instead of reimagining a more inclusive style of serving and preparing meals that is accessible to all dining needs.

Ensure that the promotion and labeling of dishes are “taste-focused” and visually appealing. These elements are key to new users, as they decide whether or not to try a new ingredient or dish.

Resources applicable to this group:

- Special events/tastings with feedback
- Comparative signage (see appendix)
- Ingredient Database (see appendix)
- Informational Signage (see appendix)
- MyEmissions calculator- especially the comparison feature (link in appendix)
- Sustainability assessment quiz (link in appendix)

Venn-Diagram comparing intervention and engagement with all 3 groups:

One model used in the presentation of this material was a Venn-diagram that compares engagement strategies across and within groups. We found that by creating this diagram, it was easier to see the similarities and specific differences between ways of engaging these groups. As it turns out, even the most dissimilar groups- students in the “no” category and students in the “already plant-based” category might be engaged in similar ways. Using this tool shows that while there is a wide range of comfort and understanding about plant-based foods, there are similarities in the techniques and tools that would benefit students, regardless of their willingness to integrate plant-based foods into their diets (Appendix F).

Resources for Aramark, Resources for Students

Based on the needs and findings from the PBFPS, conversations with Aramark, and exploration of decision making processes, we designed a number of tools, accessible in a digital format, that can be used by primary stakeholders. These tools are designed to be accessible, understandable, and empowering to all students. Some of these tools are accessible via Linktree, and others exist in the appendix section of this document.

Linktree:

Linktree is software that allows a streamlined mobile platform with custom links to be accessed via QR code. New Norm created a Linktree for Aramark to share with ASU students as a catalog of information including on-campus access to plant-based foods, nutritional and environmental calculations, and plant-based recipes. While this Linktree page is designed to engage and educate students, the tools within can certainly be used by Aramark as well.

- URL for Linktree: <https://linktr.ee/plantbasedresources>

Currently, the Linktree contains the following resources:

“Who’s Open and What’s Cooking? ASU Dining Halls and Menus” with link to ASU Dining Venues Page. This link was included for students to find dining halls offering foods that meet their needs, addressing the access and availability concerns brought up in the survey.

Meatless Monday Website: One of the PDF poster designs promotes Meatless Monday, an initiative that exists on a global scale. Since 2003, the campaign’s goals of improved personal and planetary health have been two-fold education and engagement. Meatless Monday has been incorporated into corporate settings, schools, universities, and restaurants, but also at a personal consumption level for individuals and families.

Meatless Monday Report From ASU Sweete Center: This is a Capstone report conducted in 2022. It explains the history and ongoing popularity of the Meatless Monday movement and the associated Best Practices. This report is unique because of how thorough it is, and because it was written specifically for an ASU setting.

Eating Sustainably Quiz: A self-assessment that addresses knowledge gaps, builds familiarity with the carbon footprint of food items, and how small choices can have a larger impact.

41 Easy Plant-Based Recipes: Included as inspiration both for students looking to cook their own plant-based foods, but also for Aramark, as they look for plant-based meal options. This website is useful due to its simple ingredients, scalability, and focus on seasonal and local flavors.

Substituting with Plant-Based Ingredients (Guide for Baking): Many survey respondents requested plant-based desserts specifically. This tool shows how to adjust traditional recipes to make them plant-based. By making changes to existing dishes, Aramark can increase the number of dishes accessible to plant-based consumers, without having to create entirely separate dishes for them. This has the potential to reduce food waste but moreover, it sets the standard that plant-based foods should exist not as a separate category of food, but rather, that plant-based foods can be enjoyed by all.

Calculating Serving Size and Nutrition

About 37% of respondents cited concerns about nutrition as a barrier to engaging with plant-based foods. These items in the Linktree offer allow students to calculate nutrition and serving size for almost any ingredient. As students gain familiarity with using tools like this, they slowly become familiar with nutrition at a higher level, based on what their individual needs are. While this might not be the tool that encourages students to eat plant-based foods specifically, the skills can be applied to the larger process of informed decision-making regarding accessing and building nutritiously complete meals, plant-based or otherwise.

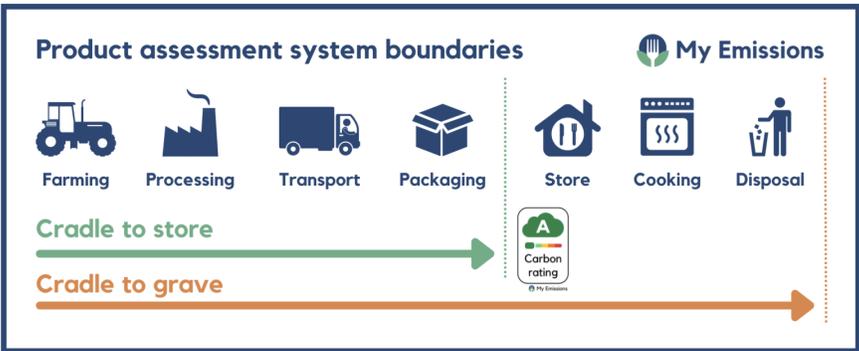
My Emissions: Food Carbon Footprint Calculator

This tool can be used to calculate the carbon footprint for entire meals, making it usable both by students and Aramark, in their planning and preparation of foods.

MyEmissions’ tool serves as a complement to the above nutrition and serving size calculators; it is a database that allows users to input the quantity of one or more ingredients and receive an “Emission Score” (gCO₂e) along with a “Carbon Rating” from A–E (see figure below).



This score is calculated as a “Cradle to store” framework, which includes farming, processing, transport, and packaging of the items, but it does not account for the variable emissions of storing, cooking, and disposing of the food (see figure below). A paid version of the program is available which calculates “Cradle to grave” with more complete information about an organization's operations.



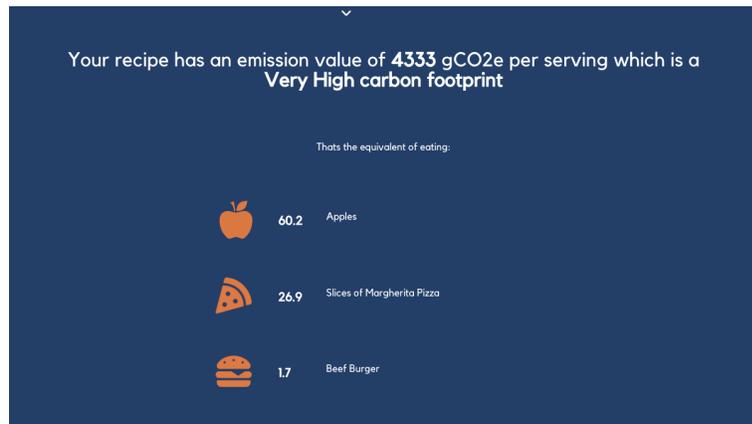
Aramark is encouraged to explore this tool by substituting high-scoring ingredients with lower-scoring ones and using this information to promote the dish as being more planet-friendly than before. This might be particularly powerful when marketing and promoting Aramark’s specific “Cool Foods” menu. For every carbon calculation, My Emissions provides an “equivalent of” function, which allows users to see what items are compared to the ones they are calculating. This gives users an understanding of the scale and magnitude that their decisions hold, as well as offers a comparative lens to make decisions.



4333 gCO₂e *per serving*

Very High carbon footprint

*Values based on estimates and not for commercial use. If you're interested in carbon labelling for your company, [click here](#) for more information



Often simply comparing items can “translate” otherwise abstract numbers to something more tangible- It is hard to imagine eating 60 apples, and the context comparison has the potential to make consumers think twice both in the short term, but also as they sit with the information over the long term.

The accessibility and ease of use of this tool make it valuable to Aramark and the ASU population, but also for the long-term decision-making strategies that students will use later in life.

Results from our survey uncovered that “environmental factors” such as carbon footprint or land and water usage were overall less likely to influence decisions made by students, regarding their own food choices (see figure below). We encourage Aramark to include climate information in future messaging, as it might become something that promotes positive change.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Taste	79	1	5	3.95	1.270
Nutrition	79	1	5	3.86	1.185
Environmental	79	1	5	3.95	1.154
Variety	79	1	5	3.99	1.245
Availability	79	1	5	4.08	1.207
POI_Composit	79	1.00	5.00	3.9646	.95368
Valid N (listwise)	79				

Ingredient Database

We created this database to serve as a basic comparison of plant-based and non-plant-based ingredients, their serving sizes, calories, protein, and carbon scores. The database is organized by food group, and ranked by carbon emission score, from low (best for the environment) to high. This naturally brings plant-based foods to the top of lists, highlighting the associated benefits, without stigmatizing meat and animal-based products. We aimed to include and calculate specific student requests in this database.

Comparative Signage

We designed a number of digital signage examples that can be displayed in dining halls, at serving stations, or even on digital platforms like social media. We created them to be easily understood, quick to read, and informative. Signage is a vital component of marketing, but the added benefits of educational and empowering content can capitalize on the intersection of decision-making and understanding of those decisions (Appendix C).

Reimagined recipes

For Sun Devil Hospitality specifically, we have a number of recipes, reimagined to be plant-forward or plant-based. Each example takes an existing recipe—many found online in Aramark’s publicly available recipe database—and compares it to a plant-forward or plant-based one by serving size, protein, calories, and carbon footprint (Appendix D).

Final Reminders

Aramark has the opportunity to influence a student body that is highly receptive to plant-based foods. While there are significant trends within and between groups, there are a number of key themes that are applicable to all. As Sun Devil Hospitality continues to develop strategies to promote and market plant-based foods, it is important to remember:

Small changes make a big impact: Any time a dish or meal can be made plant-based, it should be. Often, simply by changing the type of milk in a recipe, or by using oil instead of butter in its preparation, a dish can be made inclusive to plant-based students. This strategy increases the percent of plant-based dishes offered and even reduces the need to make an additional plant-based alternative to some dishes.

Engagement will need to catch the attention of students: Students are in a hurry, and signage will need to communicate information efficiently. While we encourage students to learn about calculating nutrition and carbon, we understand that they often will not have the time or desire to do so. This is why it is important that as much as possible, this work be done *for* students, and displayed in the promotion and labeling of food items.

The more you can do for students, the better: The inclusion of eco-labeling in display signs, as well as comparative language (i.e. “equal to”) will help students understand protein comparability as well as carbon footprint or emission score.

Students are enthusiastic about plant-based foods: Interest is present, but students will need resources on nutrition and protein content to begin making the connection to environmental initiatives like reducing carbon and water usage.

Appendices:

- A. Linktree PDF:  LinkTree QR Code and WebAddress.docx
 - a. Linktree URL Link: [Plant-based Resources Linktree](#)
 - b. Meatless Monday Website: [Meatless Monday](#)
 - c. Eating Sustainably Quiz: [QUIZ: What is the environmental impact of the food we eat?](#)
 - d. 41 Plant-based Recipes: [41 Easy Plant-Based Recipes & Meals | Forks Over Knives](#)
 - e. Plant-based cooking/ baking ingredients substitution guide: [Vegan Baking Substitutions](#)
 - f. MyEmissions Food Carbon Footprint Calculator: [Food carbon footprint calculator](#)
- B. Ingredient Database:  Ingredient Database SV.docx
- C. Signage, Marketing Design Examples created by New Norm:
 -  Marketing Graphics and Poster Designs .pdf
- D. Recipes reimaged:
- E. Marketing TOWS Spring 2023:  Marketing TOWS.pdf
- F. Engaging Groups Venn Diagram:  Engaging Groups VD.pdf