

**2023**

# **SUSTAINABLE FOOD TEAM**



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**UCLA** Sustainability Action Research

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# ABSTRACT

As a major global contributor to climate change and environmental degradation, agriculture is one of the most critical issues that must be addressed in sustainability. The University of California, Los Angeles (UCLA), a large and influential institution, has the resources and responsibility to take action towards adopting a more sustainable food procurement framework. Despite considerable progress towards sustainability goals, UCLA experienced a significant decrease in sustainable food purchasing from during and continuing on from the 2019–2020 fiscal year (FY). Our team sought to understand the reasons behind this dramatic drop and help UCLA meet the UC-wide goal of 25% sustainable food procurement by 2030 by performing a detailed analysis of both how food purchases are tracked and how UCLA can purchase from more sustainable sources. We completed this research by conducting a sample audit of UCLA dining hall purchases for FY 2021–2022 to identify any errors in the labeling and tracking of sustainable food items and to determine more efficient ways of tracking purchases in the future. This will be supplemented with an analysis of UCLA vendors and interviews with Housing & Hospitality (H&H) staff to investigate the feasibility of our proposed recommendations and to better understand the relationship between campus food procurement stakeholders. We developed three key recommendations from this process: transition to a more efficient and proactive tracking process and system, increase interdepartmental and cross-campus collaboration, and explore more sustainable food options both within current food vendors and amongst more local California farms.

# **INTRODUCTION**

Food production and its associated activities contribute heavily to greenhouse gas emissions and play a major role in driving climate change. Considering that the world's current, conventional agrifood system accounts for up to 30% of all anthropogenic greenhouse gas emissions, reforming the food system is imperative to mitigate environmental degradation and avoid further pushing the Earth system over its planetary boundaries. Namely, food production releases considerable amounts of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O through agricultural processes involving the soil, livestock, fossil fuel use, agrochemicals, and land-use change. In particular, the last century of agriculture has seen an explosion in the use of synthetic fertilizers, development of new crop varieties, and practice of large-scale farming. Known as the 'Green Revolution,' this period of technological transformation has significantly improved agricultural yields, at the expense of exponentially increased greenhouse gas emissions, environmental degradation, and social consequences (Smith & Gregory, 2012).

Universities are institutions with enormous social and purchasing power, which empowers them with the potential to drive sustainability efforts toward a more healthy, safe, and ethical food system (Barlett, 2011). The primary objective of our project is to work toward the UC-wide goal of 25% sustainable food purchases by 2030 by standardizing the processes of obtaining and accounting sustainable food purchases across UCLA Dining. To accomplish this, we will examine why UCLA Dining has experienced a significant drop in sustainable food purchasing and how the university can improve gaps in sustainable food procurement and accounting, which are areas of study that are still relatively in their infancy, especially when applied in a university context. We will perform a comprehensive audit of UCLA Dining's food purchases and reporting methods, conduct interviews with employees responsible for food procurement within H&H, and create a potential sustainable vendor list that H&H can coordinate with.

# **METHODS**

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# DATA AUDIT

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Firstly, we audited the records of H&H's sustainable food purchases and tracking by examining their collected invoices and spreadsheets. For our audit, we looked at October 2021 and April 2022, the second months of Fall and Spring quarters, respectively. These months are time periods when UCLA dining halls are at full capacity, so they provide a representative sample of food procurement at full volume. Next, we specifically looked at invoices from the vendors Kanaloa Seafood, Nature's Produce, Santa Monica Seafood, US Foods, and United Natural Foods, Inc. (UNFI). The invoices include the name of the food item, date of purchase, quantity, and price. An example of an invoice is included as Figure 1 in the Appendix.

Some vendors also had indicators of sustainability on each product, although these differed depending on the vendor. For example, products from UNFI were considered sustainable if they were labeled "OG1" or "OG2", meaning 100% organic or 95% organic, respectively. To categorize sustainable items for vendors who did not indicate this information on the invoice, we referenced a list created by H&H that detailed which specific items met UCLA's established sustainability certifications. After invoices are received, H&H records sustainable items and their details onto spreadsheets, which is later used to calculate the monthly sustainability spend. Errors in the H&H's record process generally fell into two categories. Either items were marked as sustainable on the invoices but were missing from the spreadsheets, or the items reported as sustainable were not actually marked as sustainable on the invoices or had no accompanying invoice. To record these erroneous items, we created our own tracking spreadsheet that divided the mistakes into the above two categories. See Figures 2 and 3 in the Appendix for details.

# INTERVIEWS

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To gain a deeper understanding of the certification process, the procurement process, and the feasibility of our prospective recommendations, we interviewed sustainability and dining coordinators both at UCLA (UCLA Dining and H&H faculty) and at other UC campuses (UC Davis and UC Berkeley) this past quarter over zoom. We emailed each coordinator with information on our research team and provided times that we would be available to interview them.

We sent five emails to the following parties: Al Ferrone and Charles Wilcots, Senior and Associate Directors of the UCLA Dining Services Administration; Michelle Wellington, Systems Manager of Dining Services Central Office (DSCO); Chef Joey Martin, UCLA Executive Chef; Chef Luis Marcos Hernandez, Head of Culinary at UC Berkeley, and Camille Kirk, Director of Sustainability and Campus Sustainability Planner at UC Davis. We received responses from all of the emails and held five total interviews. Charles Wilcots responded on behalf of himself and Al Ferrone but opted to provide a list of food purchasing steps in his email rather than allowing us to interview him.

We prepared a list of questions for the coordinators and planned for interviews to span about an hour. To avoid bias within our questions, we designed them to exclude our personal preferences, such as certain products or vendors, and statements that can sway the interviewee's response, including unfavorable opinions on the current sustainable procurement process. Each interview helped us enhance our understanding of how the food procurement system works across the UCs and what questions would be best to ask during subsequent interviews. This allowed us to gain the information necessary to make appropriate recommendations.

Questions for Michelle included:

- What is the current process for tracking food purchases for UCLA dining halls?
- How is sustainability accounted for when tracking purchases?
- What improvements would you want to see in data management for food tracking overall as a university?

Questions for Chef Joey included:

- What price range has been allowed for sustainable products and ingredients?
- What priority do you give to the sustainability of a product when deciding what product to purchase?
- How do you see sustainability relating to food procurement in the future?

Questions for the other UC campuses included:

- What food purchasing tracking system do you use?
- What changes have you made to increase sustainability at your campus dining facilities?
- What local farms are you working with?



## Michelle Wellington

The interview with Michelle detailed the procurement and sustainability tracking process at UCLA. As she explained, sustainable items are currently marked in UCLA's system (FoodPro) by vendor and vendor code. After the items are logged, sustainable items are filtered and Brianna Moncada, our stakeholder and the UCLA Housing and Maintenance Sustainability Manager, runs a report that totals sustainable purchases. While there used to be a team of students who worked with the sustainability manager and the executive chef to provide alternative sustainable procurement options, that process no longer exists. Michelle recommended that this team be reinstated and that monthly meetings be scheduled between DSCO and H&H in order to ensure consistent review of sustainable food items. Michelle believes that the current food tracking system works well, but she feels that identifying sustainable items, ensuring that they are purchased, and enhancing communication between coordinators at UCLA should predominate as areas of improvement. As of right now, no one in DSCO is actively researching sustainable food options.

## Chef Joey Martin

Chef Joey provided clarification on the budget, UCLA's relationship with vendors, and the procurement process, as well as indicated his passion for sustainable food options. The culinary team—which consists of Chef Joey, another chef, an assistant, and the senior director of food and beverage—is given a total budget for food procurement for each dining hall, and they decide how to allocate funds for sustainable purchases. They modify which sustainable items they purchase based on what is popular among students. Chef Joey feels that UCLA receives enough funding to be sustainable in certain areas, that it is very important that we choose sustainable options, and that the only other priority is to maximize the student experience. However, the team does not want to raise the price of meal plans (no more than 2.5% per year), and thus has to navigate the balance between sustainable and financially feasible purchases.

The culinary team works with their vendors one-on-one as much as they can. They regularly research and build a network with local farms. In the meantime, the large majority of food items are ordered from US Food and Nature's Produce. When Joey first joined the team, they planned food purchases one year in advance, but in an effort to reflect produce seasonality, they have shortened that time period. Joey passionately agreed with our suggestion that the team should integrate sustainability tracking and labeling into the ordering process in real-time, rather than doing so retroactively.

## Chef Luis Marcos Hernandez

The interview with Chef Luis revealed how UC Berkeley's procurement processes function. For most food items, the culinary team reaches out to local farms first, and if the farms indicate early in the communication process that they cannot accommodate UC Berkeley's needs, the university will move to larger, less sustainable commodified farms. 80% of the beef they get is from a distributor in Oakland who works with Creekstone Farms, which is based out of Arkansas City, Kansas. They receive most of their chicken from Mary's Chicken, who works with Pitman Farms, based out of Fresno, California. Both meat products are certified halal and humane. In regards to produce, they work closely with Day Light Distributors, who works with Coke Farm, based out of San Juan Batista, California. 30 to 40% of rice and grains are purchased from Next Generation Foods, a producer based out of Sacramento, California that employs sustainable practices and uses rotating crops. Chef Luis emphasized that sustainable rice is often double the price of commodified rice.

At UC Berkeley, there are a little over 9,000 meal plan holders, and on any given day, they serve 6,000 to 7,000 meals. Food items are purchased for all dining halls together rather than ordered separately by specific locations. To track these food purchases, UC Berkeley currently uses a software called EaTech, but they are in the process of switching to a platform called Jamix. UC Berkeley is currently in communication with UC Santa Cruz and UC Davis about combining finances, research ability, and institutional power to engage in more of a large-scale search for local sustainable farms in Northern California. Chef Luis mentioned multiple times how it is much easier for Northern UCs to have access to local sustainable farms that can accommodate their needs because of proximity to healthy farmland, compared to UCs in Southern California who are not located as close to such areas.

## UC Davis

Our team conducted two separate interviews with UC Davis, the second interview being with Sustainability Manager Jenni Taylor, Associate Director of Hospitality and Dining Chamayo Yniguez, and Chef Kue Her, who explained their university's food procurement process in a more thorough manner. The Davis team explained how the process works and what they have planned for the future. For the past few months, they have been working with and developing collectives that source from small farmers, including Next Generation and the Yellow County Food Hub. Food hubs such as these offer economic stability for the farms and keep the produce at market price by providing a platform for large purchasers like Davis to commit to buying substantial amounts of produce ahead of time. Davis also currently has an aquaponics organization on campus which works to provide leafy greens for the dining halls, as well as their own student farm which provides produce when possible. The team recently met with the farm staff to talk about modifying the growing system to fewer crops at a much larger scale. Chef Kue noted that the summer is the most bountiful season for produce, but it is also the season when the least amount of students are living on campus. To combat this issue, the Davis team is bringing in 40,000 pounds of tomatoes this summer to roast and preserve for the school year.

The Davis team uses Jamix to track food purchases. While this system still requires an initial manual designation of which products are considered sustainable, it allows staff to then tag these identified products as sustainable immediately upon purchase. Davis will have a team of students this summer who will be tracking sustainable purchases. There are around 6,800 students on their mandatory meal plan, and they serve around 25,000 meals a day. Similar to Chef Joey, the team stressed the importance of balancing sustainability costs while maintaining a reasonable price for student meal plans. Davis has a "Just Ask" program, meaning that anything that is served can be modified for health restrictions, including both vegetarian and vegan options.

# SUSTAINABLE VENDOR RESEARCH

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To locate additional food vendors that UCLA can potentially work with for an increased variety of sustainable products, we conducted research on both the university's current vendors and potential new vendors. In order to meaningfully commence this research, we created our own definition of what sustainability means in relation to food vendors. Our definition of a sustainable vendor requires that the vendor is local (at the minimum, it must be within the state borders of California), adheres to reduced chemical usage (such as pesticides, fertilizers, and so forth), and meets the UC-wide sustainability criteria. The last component refers to third-party certifications approved by the Association for the Advancement of Sustainability in Higher Education (AASHE)'s program, the Sustainability Tracking, Assessment, & Rating System (STARS), which is utilized by the UC system as sustainable standards for food procurement within dining halls and eateries at all campuses. These certifications indicate if an item fits into one of multiple sustainability categories, including sustainable agriculture, humane animal care, fair trade/labor, or sustainable seafood (The Sustainability Tracking, Assessment, & Rating System, 2023).

We identified Nature's Produce as a principal vendor for prospective replacement due to low quantities of sustainable products ordered by H&H. Once the data audit was concluded around week eight of the 2023 Spring Quarter, we determined that the vendor, which is manually tracked by H&H instead of automatically in FoodPro, offers branded and/or non-branded items that have not obtained certifications approved by STARS. For instance, the main role of Nature's Produce is to distribute fruits, vegetables, herbs, dried ingredients, dairy, processed foods, and frozen foods to dining services within the greater Los Angeles region (Nature's Produce). On invoices from this particular vendor, dairy and grain products appeared to be the least sustainable. Most notably, milk and tortillas stood out as unsustainable items because neither of these items had accompanying certifications; however, they appeared on nearly every order. Less than ten sustainable items in total from Nature's Produce were purchased and observed on the October 2021 and April 2022 invoices.

# **EQUITY, DIVERSITY & INCLUSION**

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To integrate Equity, Diversity, & Inclusion within our vendor research, while compiling our vendor list we evaluated the ownership and leadership structures of the potential farms, ranches, and distributors. About half of the vendors researched and included on the list as part of our final deliverable either have owners or people in positions of authority who identify as women and/or people of color. It is not only crucial to account for sustainability within vendor operations, but also to consider individuals who have been historically excluded from business in the United States. We encourage H&H to prioritize collaboration with vendors that have women and/or people of color owners or leaders within the enterprise.

# CHALLENGES

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Most of the challenges we encountered throughout the research process related to the scale of the project and our team's time and capacity. During spring quarter, we made several adjustments to our research plan in order to produce higher quality work that covered a more limited scope. For instance, we had initially planned to conduct a survey to gauge student interest in plant-based dining options, but we shifted to focus on interviews with UCLA and other UC staff instead. While we believe that it is valuable to understand student preferences, our research questions focused on sustainability tracking and reporting, so we decided our work would benefit more from gaining a deeper understanding of the procurement process.

The scale of the audit also changed. Our stakeholder's expectation was that we would audit the entire sustainable food tracking data for FY 2021-22 and FY 2022-23, but we quickly realized that the volume of invoices and spreadsheets would make that an unrealistic goal within the timeline of the class. Instead, we decided to use the months of October 2021 and April 2022 as representative samples of the school year in order to extrapolate the total annual sustainable spend from those months.

While our team succeeded in evaluating the sustainability of current food sources and making recommendations on how to update the tracking system, we had more difficulty addressing our first research question. In conducting our data audit and interviews, we hoped to gain a better understanding of why UCLA's sustainable food purchases have dropped so dramatically since 2019; however, we had difficulty establishing causality on this occurrence. Our research did reveal issues that UCLA is experiencing with the tracking and reporting process, but it is difficult to say if the drop in sustainable food purchases since 2019 can be attributed to these specific factors. Thus, we believe our findings succeed in plotting a comprehensive plan to move forward, but we cannot state with confidence exactly why the food purchases declined so dramatically in the past. Instead, our report should be viewed as general commentary on the current issues with the food procurement process.

# RESULTS

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# THE TRACKING PROCESS

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Our first takeaway relates to the need to improve the tracking process. The primary issues with the current tracking system are that it is inefficient, subject to human error, and retroactive. Currently, the tracking process is completed by hand, requiring someone to comb through each invoice and manually type the information into a spreadsheet. This process is both labor and time intensive, especially considering the volume of purchases UCLA makes and the amount of data to go through. Beyond inefficiency, completing this process by hand makes it subject to human error. The invoices do not always clearly indicate whether an item is sustainable or not, therefore increasing the likelihood that the person in charge of the reporting accidentally mislabels an item. Furthermore, people are prone to mistakes, and completing the process by hand also increases the likelihood that items are mislabelled, whether or not they are clearly marked as sustainable on the invoice. Lastly, since the tracking process is completed retroactively, there is no possibility of immediately shifting the order to include more sustainable items. Any change to the ordering process would have to occur after the quarterly tracking is completed. The spreadsheet tracking is completed weeks to months after the initial purchase, therefore disconnecting the recording process from the buying process. This deprives UCLA Dining of the ability to immediately respond to address gaps in sustainable procurement.

Mistakes associated with the tracking process are not only inefficient, but also expensive. A small, two month sample of data reviewed by our team revealed that the associated cost of mislabelling sustainable items resulted in \$19,805.69 that was wrongly accounted for. Extrapolated across the entire year, this number totals to \$118,834.14 that is wrongly categorized annually, as a result of human error. Table 1 in the Appendix indicates these results. Considering that we based the calculations on a small sample of items, the real value of associated cost due to human error is likely much higher and warrants further research.

For the reasons listed above, one of our main recommendations centers on improving the tracking process. In the short-term, we recommend that identification and tracking of sustainable items should occur at the time of ordering, instead of being completed retroactively. During our interview with Chef Joey, the executive chef of UCLA Dining, we inquired about the feasibility of shifting the tracking to occur at the time of ordering. From our perspective, this shift seemed logical because it would save labor, enable ordering decisions to respond to sustainability data, and improve the accuracy of the tracking. Encouragingly, Chef Joey agreed with us and suggested that he could reach out to vendors in order to have them indicate on the invoices whether items are sustainable or not. To realize this possibility, UCLA Dining and Housing & Hospitality should coordinate with vendors with the aim to implement this new system.

Not only is the methodology of tracking problem-ridden, but the software itself also presents several challenges. FoodPro is an antiquated technology that is unable to keep up with the demands and bulk of UCLA's dining operations. For example, the system is not able to handle the sheer amount of data and cannot produce monthly reports. This is an issue because it means insights must be extracted manually. Furthermore, the system is often difficult to navigate, as drop down menus are not very clear. The software does not automatically designate items as sustainable.

Furthermore, not all vendors that UCLA contracts with are in the system, including several reviewed in the data audit. Despite these drawbacks, the main advantage that FoodPro offers is its familiarity to H&H staff.

However, our team feels that this advantage does not outweigh FoodPro's significant shortcomings, and a new digital tracking software should replace it in the long-run. Moreover, several other UC's have already updated their technology. For instance, both UC Davis and UC Berkeley have transitioned or are transitioning to using Jamix, an improved kitchen management software. Compared to FoodPro, Jamix would allow UCLA Dining or Housing & Hospitality tag items as sustainable upon purchase, therefore facilitating the transition to tracking upon ordering. While there may be an associated cost with shifting tracking softwares, updating the tracking technology is inevitable. Sustainability reporting is only going to become a larger part of UCLA's operations as time goes on, and expecting a university as large as UCLA to continue tracking and reporting by hand is not feasible. Shifting technologies now would benefit UCLA in the immediate and continue to generate enormous returns long-term.

# OPPORTUNITIES FOR COLLABORATION

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Implementing these shifts will require coordination between UCLA Dining, H&H, and DSCO, indicating the need for greater interdepartmental cooperation. A stronger communication network between all three stakeholders would help to facilitate more efficient tracking and a more cohesive campus effort towards reaching sustainable food procurement. All three stakeholders have expressed in some form sharing three common values in providing a high-quality dining experience for students, maintaining accessible prices, and supporting campus sustainability efforts. We believe that by working together they can find common ground to move UCLA's food procurement system forward. New priorities after the COVID-19 pandemic and a change in sustainability leadership impacted previously established practices, particularly between H&H and DSCO. As discussed in our interview with Michelle Wellington, H&H had previously been able to hire a team of interns to research sustainable food items and provide this information to DSCO for use in tracking and procurement. We agree with Wellington's recommendations that this team be re-established, potentially through a future SAR team if H&H does not currently have the resources to hire for this position. We also recommend monthly meetings between DSCO, UCLA Dining and H&H in order to review sustainable food purchases and to verify that any new products are being properly marked according to their sustainability certifications.

Another important potential area for collaboration is between other campuses, particularly other UCs in Southern California such as UC Riverside, UC Irvine, UC Santa Barbara, and UC San Diego. This could be done through an effort similar to that currently underway by the Northern California UCs to develop a collaborative group to support local farms through their collective purchasing power. UCLA can learn from the successes of this effort and act to develop their own coalition by contacting other Southern California UCs to see how they could align to meet shared UC sustainability goals. This could be done in conjunction with the local farm default model where local farms will be the initial vendor that is always considered first before moving onto larger vendors if they cannot provide the necessary product. By developing stronger relationships with local farms and guaranteeing purchases throughout the year, both the universities and the vendors can benefit from the more stable supply chain.

# SUSTAINABLE VENDOR LIST

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After conducting our vendor research and interviewing UC campuses about their vendor and procurement decision-making processes, we developed the following procedure that UCLA can adopt to increase their quantity of sustainable items. First and foremost, we recommend UCLA defaults to small Southern California farms when searching for a new vendor. If UCLA Dining is unable to collaborate with a local vendor with sufficient capacity to meet the university's demand, we suggest moving on to larger Californian farms. In the event that the university is still unable to identify a suitable vendor, then we advise resorting to larger Californian distributors. Scale is critical in this context; by initially defaulting to small, local farms and ranches, UCLA can mitigate the emissions associated with high travel mileage for its food deliveries. Nonetheless, if these farms and ranches are unable to accommodate UCLA's population of students with meal plans, moving towards larger farms and ranches that are within California and who continue to meet sustainability standards is a subsequent option. Lastly, products that are not readily sold at farms or ranches should be sourced from the large distributors located within California that have obtained sustainable certification for a substantial quantity of their products from their partner farms. The potential vendors can be easily contacted by UCLA departments involved with food procurement for their pricing information and delivery schedule and arrange these matters accordingly. Table 2 in the Appendix contains the researched vendors UCLA can potentially collaborate with to accessibly acquire sustainable food products.

Vendors with owners or leaders in positions of authority who are women-identifying and/or people of color are marked with an asterisk. Partner farm owners, business owners, executive teams, and/or founders are either women-identifying and/or people of color. These vendors cover a wide variety of products, especially those that fall under dairy, grains, fruits, and vegetables. Most are California Certified Organic Farmers or USDA Organic (local farms are not, excluding Sweredoski Farms (Sweredoski Farms)) and all are located in California. Heath & Lejeune is an exception as they are more nationally distributed (Heath & Lejeune), but own a warehouse in Los Angeles (California Certified Organic Farmers). The majority of the vendors offer delivery, however, Forneris Farms, Huarache Farms, and Straus Family Creamery do not because they only sell through their own local farmers markets (Forneris Farms), sell through a community farmers market (Huarache Farms), or sell through regular grocery stores (Straus Family Creamery), respectively.

As this shift towards more sustainable vendors may not be immediate, UCLA's current vendors also offer sustainable products, plant-based foods, and environmentally-preferred meat products that can be considered for purchase in increased volumes, especially from UNFI and Santa Monica Seafood. Our team conducted case studies on these two vendors in order to quantify the percent of sustainable purchases by number of food items. From a sample of data from October 2021, 58.13% and 54.67% of items respectively were sustainable (Appendix, Figure 4). These are much higher percentages than the overall UCLA standing of 8% sustainable food procurement in FY 2021-2022. We concluded that several current vendors already have a wide selection of sustainable options, so a potential short-term solution for dining procurement staff is to choose sustainable alternatives more frequently from preexisting vendors when possible. We also found that across several vendors, the meats that are purchased are almost never sustainable. Reducing the amount of meat that is served through efforts such as a meatless Monday program would decrease the need to buy from unsustainable sources.

# **DISCUSSION**

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UCLA's sustainable food goals are a crucial step forward for UC's 2025 Carbon Neutrality Initiative. However, achieving this goal efficiently becomes challenging when tens of thousands of dollars worth of food spending are mistracked. Our research identifies issues not only in data recording, but also the disjointed system of ordering and classifying food as sustainable.

With these results in mind, we developed recommendations for the H&H Sustainability Manager, UCLA Dining chefs, and DSCO. First, we believe that they should consider implementing more effective systems and software to order and track sustainable food. This can include tracking the sustainability of items at the time of ordering rather than doing so retroactively, as well as switching to Jamix as UC Berkeley has recently done. H&H should also reconsider its sustainability standards to make sure that the standards actually capture the true sustainability of food products, such as by incorporating food miles into the sustainability calculations and favoring local farms and ranches over national distributors when possible.

Additionally, we suggest that DSCO and the Sustainability Manager with UCLA Housing and Maintenance have more frequent and collaborative communication. Both parties expressed a lack of alignment, and they aspired to establish a shared understanding. To achieve progress in Dining's sustainability goals, we advise that they establish a consistent meeting schedule for constructive discussion and actionable plans. Finally, H&H can work with the SAR program to re-establish a student team to research sustainable food vendors.

It is clear from our interviews that all parties involved in sustainability and dining in H&H have a sincere desire to advance UCLA's environmental efforts, while maintaining a high-quality dining experience. A common mindset is an essential step towards effective collaboration, and we look forward to this attitude leading to effective action.

# Appendix

**UNFI**  
Remit Payment To  
P.O. Box 742930  
LOS ANGELES, CA 90074-2930  
(800) 679-8735

Moreno Valley CA - OG Reg# 48890

S UCLA SPROUL DINING  
I C/O JEFF VIVIANO  
P 350 DENEVE DR  
T LOS ANGELES CA 90095

PHONE: (310) 206-8663

Customer: 440350  
Invoice: 045752285-003  
Invoice Date: 10/10/21

Terms: Route Master Delivery Date  
NET 30 VM23 4123 10/11/21

Stop Ordered By Ordered On  
7.000 web ENTRY 10/08/21

Taken By Purchase Order SEQ#  
web ENTRY 0032784348 17.000

**INVOICE** Page 1

Title to all merchandise and equipment invoiced shall pass to the purchaser upon delivery with the express understanding that the Buyer's obligation is satisfied only upon full payment of this invoice. A liability charge will be assessed at the rate of 1.5% per month (flat monthly) until the amount is paid in full. Payment in advance is required for all orders. In addition, should any items be damaged between the parties to this contract, the party to be held liable shall be determined by the party to this contract or the interpretation of this contract. The prevailing party in such cases shall be entitled to all reasonable attorney's fees and costs. It is hereby agreed that the actual amount of loss and damage is limited to the actual amount of any damages granted in the original invoice items with "OG1", "OG2" or "OG3" in description are "Organic" items as determined by the USDA's NATIONAL ORGANIC PROGRAM.

[LCN: 226203]

The perishable agricultural commodities listed on this invoice are sold subject to the statutory trust authorized by section 5(c) of the Perishable Agricultural Commodities Act, 1930 (7 U.S.C. 499e(c)). In addition, the beef, pork, lamb and poultry commodities listed on this invoice are sold subject to the applicable statutory trusts authorized by the Packers and Stockyards Act of 1921 (7 U.S.C. sections 196(b) and 197(b)). Until full payment is received, the seller of these commodities retains a trust claim over these commodities, all inventories of food or other products derived from these commodities, and any receivables or proceeds from the sale of these commodities.

For more information on UNFI's Fuel Index Surcharge Policy and the methodology used to calculate, please see <https://www.unfi.com/fuel-index-surcharge-policy>.

Line	Order	Shipped	Cases	Pack	Total	UPC Code	Item #	Brand	Description	Whls. CP	Whls. Ea.	Reg SRP	Weight	Discount	Net Case	Net Each	SRP	Mgr	Extension
1	6	6	25	LB		026938-274931	00059	ABULK	OG2 RED BEANS	37.46	1.4984		151.5		37.46	1.4984			224.76
2	4	4	25	LB		026938-568580	00072	ABULK	OG1 BLACKEYED PEAS	41.04	1.6416		104.0		41.04	1.6416			164.16
3	4	4	25	LB		026938-004712	00471	ABULK	OG2 ROYAL QUINOA TRICLR	53.51	2.1404		104.0	5%	51.55	2.0620			206.20M
4	4	2	25	LB		026938-004750	00475	ABULK	OG2 BLACK ROYAL QUINOA	50.49	2.0196		52.0		50.49	2.0196			100.98
5	4	4	25	LB		042563-012465	00521	ABULK	OG1 BULGUR MED COARSE #3	28.53	1.1412		104.0		28.53	1.1412			114.12
6	4	4	25	LB		026938-548407	00552	ABULK	OG2 WHITE ROYAL QUINOA	49.28	1.9712		104.0		49.28	1.9712			197.12
7	4	4	25	LB		026938-268206	67642	ABULK	OG1 BLACK LENTILS	45.72	1.8288		104.0		44.22	1.7688			176.88M
8	4	4	25	LB		653793-195059	00603	AGIUSTOS	OG1 GIUS WHEAT BRIES SPT	21.79	0.8716		102.6		21.79	0.8716			87.16
9	4	4	25	LB		026938-023195	02319	AGIUSTOS	GIUS GARBANZO FLOUR	29.14	1.1656		102.4		29.14	1.1656			116.56
10	6	6	25	LB		708953-101309	01032	ALOTUS FDSOGL	LOTUS BRN JAS RICE	44.73	1.7892		150.6		44.73	1.7892			268.38
11	6	6	25	LB		073416-040397	00628	ALUNDBERG	OG2 LUND RICE BRN JASMIN	42.35	1.6940		150.0		42.35	1.6940			254.10
12	6	6	25	LB		073416-402010	01571	ALUNDBERG	OG2 LUND BRN BASMATI RCE	42.34	1.6936		153.0		42.34	1.6936			254.04
13	1	1	4/1	GAL		049568-011288	11754	*FOLLOW	FFH ORIGINAL VEGETABLE	64.49	16.1223		35.0		64.49	16.1223			64.49

3170 **AZD338**

3170 **BPM584**

476082370015-05-4505

Figure 1: Example Invoice from Google Drive

Date	Dining Hall	Vendor	Item	Invoice Number	Quantity	Unit Price	Total Price	Plant Based?	Sustainable?	Certification	Problem
2021-10-10	B Plate	UNFI	KASHI H2H HNY TSDOAT	045752285-003	4	\$42.75	\$171.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	OG2	Was not recorded originally
2021-10-17	B Plate	UNFI	CHOICE PRM JPNS GRN	045772608-003	10	\$18.71	\$187.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	OG2	Was not recorded originally
10/14/21	De Neve	Santa Monica St Clams	Whole shell, 17-22 ct, Vac Pac	7301097	15 CS/150.00	\$4.49	673.50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	MBA	Marked MBA 3 but really MBA 4
10/01/2021	De Neve	Nature's Product	Granola (Hemp Plus) Organic	#02240345	1	\$92.55	\$92.55	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/02/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02240793	8	\$39.65	\$319.60	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/04/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02241592	4	\$39.65	\$158.60	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/05/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02242239	4	\$39.65	\$158.60	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/06/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02242923	10	\$39.65	\$396.50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/07/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02243643	6	\$39.65	\$237.90	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/27/2021	De Neve	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02256907	3	\$43.55	\$130.65	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/08/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02244431	1	\$54.10	\$54.10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/08/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02244431	10	\$39.65	\$396.50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/09/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02245281	12	\$39.65	\$475.80	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/12/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02246815	2	\$43.45	\$86.90	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/13/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02247509	7	\$43.45	\$304.15	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/14/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02248630	10	\$43.45	\$434.50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/15/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02248949	2	\$43.45	\$86.90	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/16/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02249856	7	\$43.45	\$304.15	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/18/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02250703	10	\$43.40	\$434.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/19/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02251373	10	\$43.40	\$434.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/20/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02252038	6	\$43.40	\$260.40	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/21/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02252738	7	\$43.40	\$303.80	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/22/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02253543	10	\$43.40	\$434.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/23/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02254367	15	\$43.40	\$651.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/26/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02255856	4	\$43.55	\$174.20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)
10/27/2021	B Plate	Nature's Product	Yogurt (Coconut) Harmless Harvest	#02256479	7	\$43.55	\$304.85	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organic	Missing from spreadsheet (on invoice)

Figure 2: Team Spreadsheet of Sustainable Items Not Originally Recorded as Sustainable

Date	Dining Hall	Vendor	Item	Invoice Number	Quantity	Unit Price	Total Price	Plant Based?	Sustainable?	Certification	Problem
10/20/21	Sproul	Santa Monica Sr Clam meat, whl		7038723	6 CS/60.00	\$4.43	265.80	<input type="checkbox"/>	<input checked="" type="checkbox"/>	MBA4	Wrong Date - Received 10/25/21
10/20/21	Rieber	Santa Monica Sr Seaweed Salad,		7038291	20 TR/88.00	\$3.26	\$286.88	<input type="checkbox"/>	<input type="checkbox"/>	?	No Sustainability Rating/Can't find online
10/26/21	Rieber	Santa Monica Sr Seaweed Salad,		7045117	24 TR/105.60	\$3.26	\$344.26	<input type="checkbox"/>	<input type="checkbox"/>	?	No Sustainability Rating/Can't find online
10/16/21	Rende	Santa Monica Sr Seaweed Salad,		7033431	12 TR/52.80	\$3.26	\$172.13	<input type="checkbox"/>	<input type="checkbox"/>	?	No Sustainability Rating/Can't find online
10/28/21	Rende	Santa Monica Sr Seaweed Salad,		7047440	20 TR/88.00	\$3.26	\$286.88	<input type="checkbox"/>	<input type="checkbox"/>	?	No Sustainability Rating/Can't find online
10/19/21	Covel	Santa Monica Seafood		70936494				<input type="checkbox"/>	<input checked="" type="checkbox"/>	MBA	All sustainable purchases from 10/19/21 marked as 1
10/26/21	Covel	Santa Monica Seafood		7046329				<input type="checkbox"/>	<input checked="" type="checkbox"/>	MBA	Sustainable purchase from 10/27/21 marked as 1
10/28/21	Covel	Santa Monica Sr Seabass Corvine		7047604	16 CS/160.00	\$6.58	\$1,052.80	<input type="checkbox"/>	<input type="checkbox"/>	MBA	Unrated sustainability
10/28/21	Covel	Santa Monica Sr Snapper, Fillet, S		7047604	8 CS/160.00	\$7.14	\$1,142.40	<input type="checkbox"/>	<input type="checkbox"/>	MBA	Unrated sustainability
10/29/21	Covel	Santa Monica Seafood		7049089				<input type="checkbox"/>	<input checked="" type="checkbox"/>	MBA	Sustainable purchases from 10/29/21 marked as 1
10/08/21	B Bowl	Santa Monica Sr Seaweed Salad,		7020350	8 TR/35.20	\$3.26	\$114.75	<input type="checkbox"/>	<input type="checkbox"/>	?	No Sustainability Rating/Can't find online
10/07/2021	De Neve	Nature's Produci Banana (Regula	#02243816		4			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Rainforest Allian	Missing on invoice, but seen on spreadsheet
10/08/2021	De Neve	Nature's Produci Banana (Regula	#02244621		8	\$19.31	\$154.48	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Rainforest Allian	Missing actual invoice, but seen on spreadsheet
10/11/2021	De Neve	Nature's Produci Banana (Regula	#02246239		6	\$19.31	\$115.86	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Rainforest Allian	Missing on invoice, but seen on spreadsheet
10/07/2021	De Neve	Nature's Produci Banana (Regula	#02243816		4			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Rainforest Allian	Mislabeled file; says 10/11 but is actually a repeat o
10/12/2021	De Neve	Nature's Produci Banana (Regula	#02247041		4	\$19.31	\$77.24	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Rainforest Allian	Missing on invoice, but seen on spreadsheet
10/14/2021	De Neve	Nature's Produci Banana (Regula	#02248407		6	\$19.31	\$115.86	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Rainforest Allian	Mislabeled file; says 10/15 but is actually 10/14, as
10/20/2021	De Neve	Nature's Produci Banana (Regula	#02252335		4	\$19.31	\$77.24	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Rainforest Allian	Missing actual invoice, but seen on spreadsheet
10/21/2021	De Neve	Nature's Produci Banana (Regula	#02252923		6	\$19.31	\$115.86	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Rainforest Allian	Missing actual invoice, but seen on spreadsheet
10/22/2021	De Neve	Nature's Produci Banana (Regula	#02253722		6	\$19.31	\$115.86	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Rainforest Allian	Mislabeled file; says 10/21 but is actually 10/22, as

**Figure 3: Team Spreadsheet of Non-Sustainable Items Originally Recorded as Sustainable**

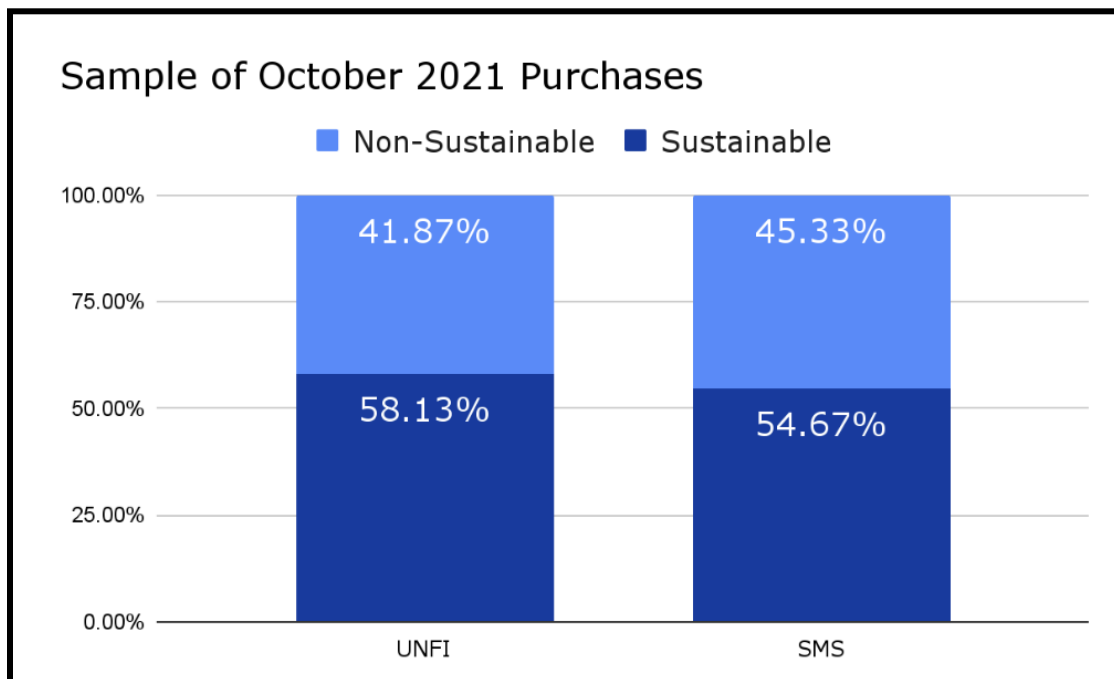
Category	Associated Cost
Oct. '21 Missing Sustainable Items	\$9,015.20
Oct. '21 Additional Sustainable Items	\$4,438.30
Apr. '22 Missing Sustainable Items	\$4,625.33
Apr. '22 Additional Sustainable Items	\$1,726.86
<b>TOTAL</b>	<b>\$19,805.69</b>

**Table 1: Human Error Cost**



Product Type	Scale	Vendor
Fresh Produce	Local	Forneris Farms
Fresh Vegetables, Herbs, & Spices	Local	Sweredoski Farms
Fresh Produce	Local	Huarache Farms*
Dairy Products	Large	Straus Family Creamery*
Grain Products	Large	La Tortilla Factory*
Fresh Produce	Distributor	Heath & Lejeune
Fresh Produce	Distributor	Earl's Organic*
Fresh Produce	Distributor	Veritable Vegetable*

**Table 2: Potential Vendors with Associated Products and Scale**



**Figure 4: Sustainable vs Non-Sustainable Food Purchase Sample**

## Works Cited

- Barlett, P. F. (2011). Campus Sustainable Food Projects: Critique and Engagement. *American Anthropologist*, 113(1), 101–115. <https://doi.org/10.1111/j.1548-1433.2010.01309.x>
- California Certified Organic Farmers. (n.d.). *Heath & Lejeune, Inc.* CCOF. <https://www.ccof.org/partner/heath-lejeune-inc>
- Earl's Organic Produce. (n.d.). *ABOUT*. Earl's Organic. <https://www.earlsorganic.com/>
- Earl's Organic Produce. (n.d.). *PARTNERS*. Earl's Organic. <https://www.earlsorganic.com/people>
- Forneris Farms. (n.d.). *FARM MARKET*. Forneris Farms. <https://fornerisfarms.com/farm-market>
- Forneris Farms. (n.d.). *Home*. Forneris Farms. <https://fornerisfarms.com/>
- Heath & Lejeune. (n.d.). *About*. Souilly Organic. <http://www.souillyorganic.com/>
- Huarache Farms. (n.d.). *FAQ*. Huarache Farms. <https://www.huarachefarms.com/faq>
- Huarache Farms. (n.d.). *Huarache Farms*. Huarache Farms. <https://www.huarachefarms.com/>
- Huarache Farms. (n.d.). *Team*. Huarache Farms. <https://www.huarachefarms.com/team>
- La Tortilla Factory. (n.d.). *Home*. La Tortilla Factory. <https://www.latortillafactory.com/>
- La Tortilla Factory. (n.d.). *Story*. La Tortilla Factory. <https://www.latortillafactory.com/story/>
- Nature's Produce. (n.d.). *What We Offer*. Nature's Produce. <https://naturesproduce.com>
- Smith, B. G. (2008). Developing Sustainable Food Supply Chains. *Philosophical Transactions: Biological Sciences*, 363(1492), 849–861. <http://www.jstor.org/stable/20208471>
- Straus Family Creamery. (n.d.). *Frequently Asked Questions*. Straus Family Creamery. <https://www.strausfamilycreamery.com/faqs/>
- Straus Family Creamery. (n.d.). *Meet Our Team*. Straus Family Creamery. <https://www.strausfamilycreamery.com/about/our-team/>

Straus Family Creamery. (n.d.). *Sustainable Organic Dairy*. Straus Family Creamery.

<https://www.strausfamilycreamery.com/>

Sweredoski Farms. (n.d.). *Sweredoski Farms*. LocalHarvest.

<https://www.localharvest.org/sweredoski-farms-M24984>

La Tortilla Factory. (n.d.). *Home*. La Tortilla Factory. <https://www.latortillafactory.com/>

La Tortilla Factory. (n.d.). *Story*. La Tortilla Factory. <https://www.latortillafactory.com/story/>

The Sustainability Tracking. (2023, February 6). *Food and Beverage Purchasing*. The Sustainability Tracking, Assessment, & Rating System.

<https://stars.aashe.org/resources-support/help-center/operations/food-and-beverage-purchasing/>

UNFI. (n.d.). *Products*. UNFI. <https://www.unfi.com/products>

Veritable Vegetable. (n.d.). *Organic Produce Wholesale Distributor*. Veritable Vegetable.

<https://veritablevegetable.com/>

Veritable Vegetable. (n.d.). *Who We Are*. Veritable Vegetable.

<https://veritablevegetable.com/howweare/>