



Food Waste Reduction through Education and Social Behavior Change

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Introduction

Food Waste contributes a large portion of solid municipal waste at UCI. With the goal of reaching zero waste by 2020, food waste at dining halls, retail dining areas, and at the homes of students needs to be addressed. Zero waste in the UC system is defined at 90% diversion rate of solid municipal waste. UCI is currently at 82% waste diversion.

Many back-of-house operations have reached zero waste through training employees to sort waste accurately, and having systems in place that conserve resources. The focus is now on engaging the flux of students that come on campus to be more mindful about food waste and transform the campus culture to influence new student cohorts.

This Fellowship project is aimed at educating students to influence their behaviors regarding food waste at home, and when they eat out on campus.

UCI Dining

- Interactive Waste Display:** Through collaboration with the student-run club Engineers for a Sustainable World, a digital waste display was built to place on top of a three-bin set. Scales at the bottom of the bins weigh materials being placed into each bin, and display the weight discarded. The screens also rotate through items that belong in each bin to encourage students to sort their waste.



- Food court waste audits:** Waste audits at the bins in the food courts were conducted to understand what students are throwing away, and what items to focus on reducing or educating students about.
- Say Boo to Trash/Waste-Free Winter:** Cartoon Halloween/Winter themed characters with waste-related facts and solutions were attached to waste bins at food courts.



- Vegan Hacks:** Vegan Hacks are written on a large chalkboard weekly to promote students to be more mindful about what they are eating and how it contributes to the environment.
- Wiping out Waste:** Done twice a quarter at two dining halls, the Anteater and Pippin, we have students scrape their leftover food waste into big bins and educate them about small changes they can do. We weigh the bins at the end of the night and the weight per person is displayed in the dining halls for the quarter.



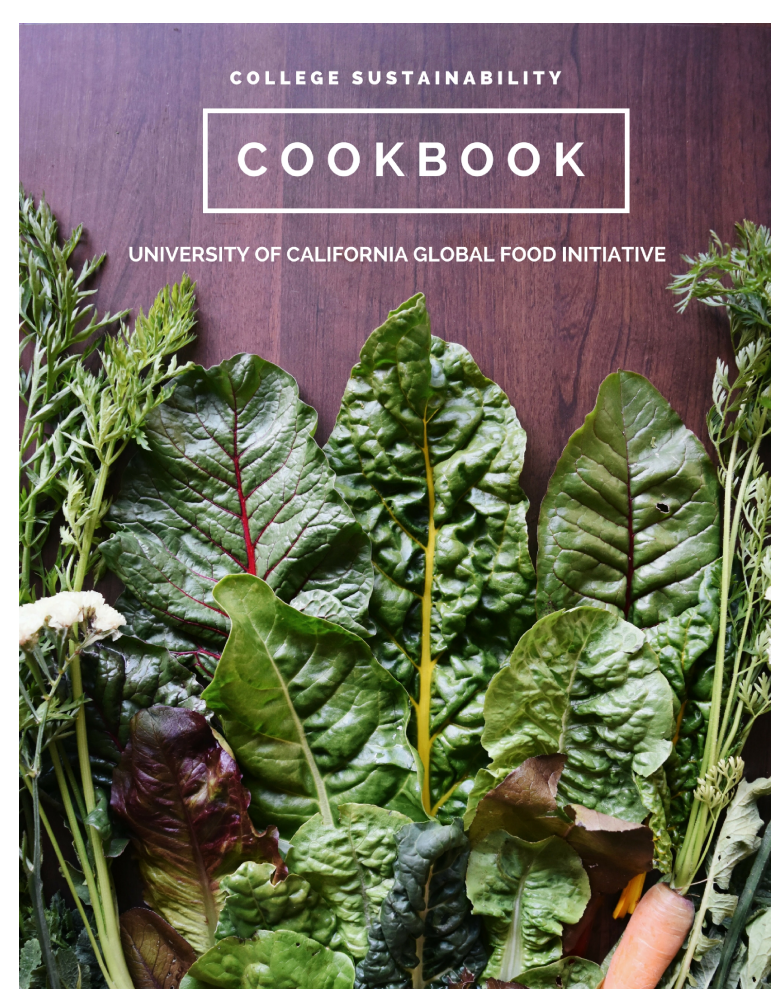
- Trash Talking:** Students regularly stand by waste bins at food courts to educate others on which bin to sort their waste into, as well as where the waste goes on campus.

UCI Housing

- Cooking Programs:** Cooking programs were done at three different housing communities to educate students on cooking techniques, sustainable grocery shopping, and sorting waste. Students are taught easy, quick and healthy recipes to make during the school year to boost their confidence in cooking. Having students cook their own meals cuts down on the amount of single-use plastics that result from purchased to-go meals on campus. Recipes were taken from the sustainability cookbook.



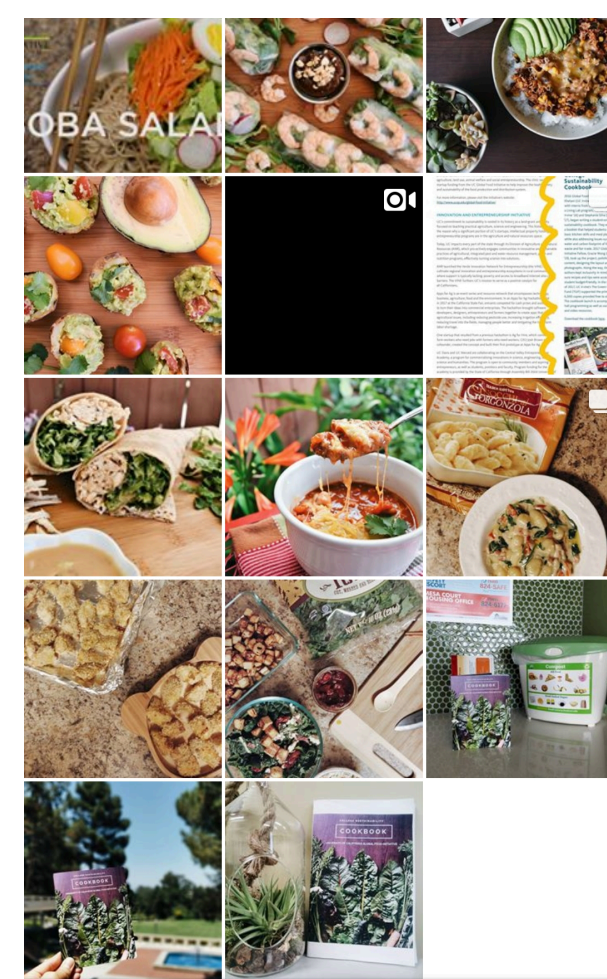
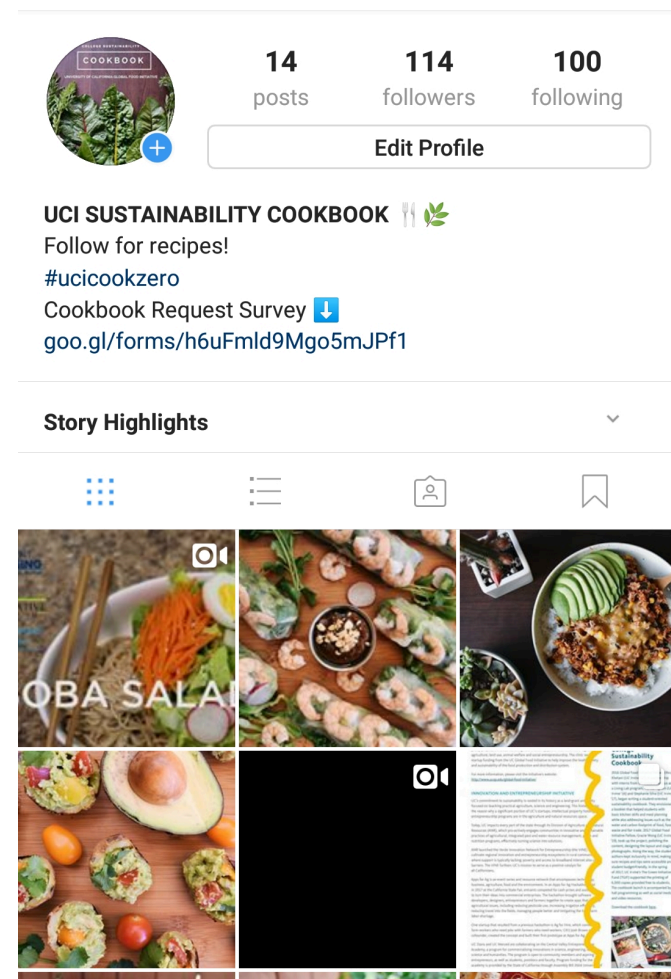
- Sustainability Cookbook Distribution:** A College Sustainability Cookbook was written and designed to help students understand how to cook while integrating sustainable topics such as purchasing sustainably and food waste. The purpose was to decrease the amount of food that spoils in kitchens and decrease dependence on single-packaged meals that contribute a majority of landfill waste as seen in waste audits. 6000 copies were distributed to students through housing communities, clubs, programs, and booting.



- Cookbook videos:** Three 60-sec tasty-style videos were filmed, featuring three recipes from the cookbook to promote the launch of the cookbook. They provide a quick, digestible way for students to learn how to cook the recipes and try them out themselves. The videos were featured in the UCI housing newsletters as well as the ucicookbook Instagram.



- Instagram:** The Instagram @ucicookbook was created to have a larger reach for students to learn about the cookbook and about the recipes included. The account features key recipes and updates.



Results and Outcomes

The response from students during cooking programs is generally positive. Students who live in dorms use it as a way to bond with each other as well as learn how to cook for the years where they will not have a meal plan. Students gain experience cooking recipes they would not normally try and are allowed hands-on experience to make the transition less daunting.

The College Sustainability Cookbook was featured in the 2017 University of California Annual Report on Sustainable Practices. The cookbook was also used for UCI's submission for Sierra's 2018 "Cool School" ranking.



College Sustainability Cookbook

2016 Global Food Initiative Fellow, Dhruvi Khetani (UC Irvine '17), in partnership with interns from UCI Irvine's Campus as a Living Lab program, Varida Nigam (UC Irvine '16) and Stephanie Silva (UC Irvine '17), began writing a student-oriented sustainability cookbook. They envisioned a booklet that helped students with basic kitchen skills and meal planning while also addressing issues such as the water and carbon footprint of food, food waste and fair trade. 2017 Global Food Initiative Fellow, Gracie Wong (UC Irvine '19), took up the project, polishing the content, designing the layout and staging photographs. Along the way, the student authors kept inclusivity in mind, making sure recipes and tips were accessible and student budget-friendly. In the spring of 2021, UCI Irvine's The Green Initiative Fund (TIGF) supported the printing of 6,000 copies provided free to students. The cookbook launch is accompanied by hall programming as well as social media and video resources.



Conclusions

Through various outreach events and activities in multiple departments, UCI was able to reach a large population, from freshmen to graduate students. It is important to address food waste, both at the homes of students, where they can continue their habits off-campus, and in the dining areas that provide more waste sorting options. Cooking programs provide a social and hands-on approach to educating students, increasing their confidence in cooking for themselves. At the same time students learn about how waste can be sorted on campus.

More work can be done to increase the use of compostable plates and containers in retail areas as opposed to plastic containers, that will go to landfill. In order for this shift to be effective, students also need to be educated about composting and the importance of zero waste.

Future Goals

- Focus on cooking demos in a variety of themed houses to outreach to a wide variety of students.
- Increase efficiency and frequency of waste audits
- Increase effectiveness and frequency of educational booting and outreach to a wider audience.
- Create a second, updated version of the sustainability cookbook by including targeted information and more vegan recipes.

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