# *Thank you for your commitment to green initiatives at the University of Illinois. One of the final steps in completing the terms of the funding agreement for your project is the submission of a Final Report with key information about your project. You will also need to submit a detailed report of expenses (if you don't list it within this document) as well as supporting photos to showcase your project.*

# *Please be as accurate as possible in describing the project (including possible setbacks or challenges in meeting the initial goals of the project). Not fully meeting your project's goals will not disqualify you from making future funding requests as long as your reports are as complete and accurate as possible. If you have any questions, please contact the Student Sustainability Committee, at* [*sustainability-committee@illinois.edu*](mailto:sustainability-committee@illinois.edu)*.*

**Project Name:** Fermenting Foods for Education and Waste Reduction

**Date of Report Submission:** Fall 2017 Final Report

**Project Purpose:**

The idea for this project grew as a result of the ongoing relationship between the Department of Crop Sciences Sustainable Student Farm, the Food Science and Human Nutrition Pilot Processing Plant, and University Dining Services. It was made aware to us that many of the hot peppers/ chilies that are grown at the Student Farm are just composted, as there is not a high demand for unprocessed peppers from Dining Services. As a result, a plan was devised to take the excess hot peppers/ chilies that were not purchased by dining for use in the creation of a fermented hot sauce that could be served in the various University Dining Halls, as well as other University-run eateries such as the Bevier Café. A test batch was created in the spring of 2016, which was quite successful. As a result of the successful test, a final plan was put in place to move forward with the project. The hot sauce represents a healthy and delicious product that also reduces food waste and provides hands on experience for students to better understand the fermentation process as well as food processing as a whole. Goals for the project include reduction of food waste, preservation of fresh produce that is grown by the Student Sustainable Farm, and providing hands-on educational experience for students.

**Project Summary:**

Over the summer of 2017, we received over 2200 lbs. of peppers from Crop Sciences’ Sustainable Student Farm. These are peppers that Dining Services would have had difficulty using raw, but after processing, were very valuable.. The peppers were diced by students, working at the FSHN Pilot Plant, into small pieces and then combined with salt, acid, and starter culture and left to ferment for almost 90 days. When the peppers were done they were blended and heated to make the sauce. The whole process was completed and tested by students. Students have met with chefs from UIUC Dining services to discuss options and adjusting taste to best match what the students of the residence halls might look for.

**Summary of Project Expenditures:**

The project required us to purchase a wide range in sizes of stainless steel fermenters which can be used repeatedly, giving us around 1600 liters of capacity. These fermenters house the peppers over a period of 30-90 days and then are washed and reused on future batches. Also acquired, towards the beginning of the project, were fermentation jars and starter culture for small batches to help the students understand the fermentation concept and develop recipes for the best flavor profiles.

**Problems/Challenges Encountered**

When starting the large batches of peppers, we ran into difficulty obtaining a large quantity of bacteria culture to start the lactic acid fermentation. Following the completion of these primary batches, a small amount of the mash can be used to replace the culture in kick-starting the fermentation, helping keep the sauce U of I based with ingredients grown or manufactured on campus. It will also reduce cost, keeping us from needing ton continually buy starter.

**Student Involvement and Outreach to Date:**

Students have been involved in all facets of the project. Students volunteering at the Student Sustainable Farm assisted in the planting, cultivation, and harvesting of the hot peppers. Students in Food Science and Human Nutrition have been helpful in recipe development as well as testing all batches of the hot sauce for overall quality and taste of the product as well as providing suggestions on how to improve the product. Student workers at the Food Science Pilot Plant have been active in all stages of the production of the product. This includes receiving and checking quality of the peppers, producing and bottling the hot sauce itself, as well as distributing hot sauce for tasting samples. They have also assisted with recipe development as well as critiques for the recipe to create the most desirable hot sauce we can.

**Marketing and Promotion Efforts to Date:**

Currently, most marketing is being done by UIUC Dining team. The first smaller batches have been taste tested by Dining Chefs and featured at local food events hosted by UIUC Dining to much success. The FSHN-PPP has created a 7 foot tall banner advertising the project, along with handouts, and several Powerpoint presentations.

**Additional Comments:**

N/A

In addition to the above fields, please provide a detailed accounting of how the funding was spent as well as pictures of the final project in an email to [sustainability-committee@illinois.edu](mailto:sustainability-committee@illinois.edu). Thank you again for your commitment to sustainability.