

# Progress Report - Campus Sustainability Fund

## Email:

jadamsb2@arizona.edu

## Project Manager Name:

*who is submitting this project?*

John Adams

## Project Name:

Student led Design Next of Food Energy and Water

## Project Subaccount Number:

2234751 - 23.52

## Project Summary Snapshot:

*Please copy and paste the "Summary Snapshot" you provided in your project application.*

### Response

A multi-pronged approach is necessary if we are going to reduce the carbon emissions from agricultural production and its transport, improve the nutritional value of the crops, and increase the accessibility of the food to communities. Container grow environments provide a highly efficient and portable grow space that can be placed almost anywhere. The goal is to create "circular economic" structures, leveraging and integrating this new facility into existing programming to student/community engagement, alternative curriculum, and research & development. Biosphere 2, with its one-of-a-kind mesoscale structure, surpasses traditional laboratories in providing a place that enables this research.

## Requested Metrics:

*Please report your project's metrics and their most recent number or response in a list format.*

### Response

Production • To date the Freight Farm has produced 2601 pounds of produce that have been delivered to the Campus Pantry, Impact of Southern Arizona, and to Biosphere 2. • 26,285 plants have been grown and harvested. Production includes the following species with respective number of cultivars: Lettuce (22 cultivars) Mustard greens (6 cultivars) Kale (4 cultivars) Basil (3 cultivars) Arugula (1 cultivar) Bok Choi (1 cultivar) Collard greens (1 cultivar) Radicchio (1 cultivar) Swiss chard (1 cultivar) Sorrel (1 cultivar) Spinach (1 cultivar) Watercress (1 cultivar) Upland cress (1 cultivar) 3 UArizona Students work on average 10 hrs per week

## Project Accomplishments :

*Please describe what aspects of the project have been accomplished. Be as descriptive and specific as possible. Examples of accomplishments could include: Held 4 public meetings totaling 130 attendees; Transitioned 300 square feet of dirt into usable garden space and signed on 14 community garden volunteers. Other examples of accomplishments could include sharing a confirmed schedule of events, the connections/contacts that have been established, etc.*

### Response

This is a repeat of our prior report(Final) the summer was spent cleaning an and reset the farm to ensure that we are ready for the fall semester.

### **Next Steps:**

#### **Response**

We will continue to develop the plans for integration of the freight farm and agrivoltaics. We have procured the engineering service of M3 Engineering to produce construction documents.

### **Challenges Faced:**

*Please identify and describe any obstacles/roadblocks you or your team have experienced, and detail how you've managed them/ will manage them. Should your project already be completed, please note what challenges you faced and what you would do differently.*

#### **Response:**

This project has be very successful and there have been very few challenges faces. The one challenge is for the B2 team this is a new initiative and there was learning curve with the technology and operationally. We have successfully over come these challenges to have a program centered around the Freight Farms that is showcased to all visitor to B2. We recently has a site visit from freight farms they were very helpful in improving our operations.

### **Project Support:**

*Can the CSF support you in addressing any roadblocks you've encountered? How else can the CSF support your project?*

#### **Response:**

We great appreciate the opportunity and funding support to bring this new and innovative technology to Biosphere 2 and the University of Arizona students.

### **Photo Upload:**

*Please upload or provide links (below) to relevant photos.*

#### **Response:**

\* planting-aug-2023-2.jpg [[https://sustainability.arizona.edu/system/files/webform/csf\\_progress\\_report/365/planting-aug-2023-2.jpg](https://sustainability.arizona.edu/system/files/webform/csf_progress_report/365/planting-aug-2023-2.jpg)] \* planting-aug-2023-3.jpg [[https://sustainability.arizona.edu/system/files/webform/csf\\_progress\\_report/365/planting-aug-2023-3.jpg](https://sustainability.arizona.edu/system/files/webform/csf_progress_report/365/planting-aug-2023-3.jpg)] \* planting-aug-2023-4.jpg [[https://sustainability.arizona.edu/system/files/webform/csf\\_progress\\_report/365/planting-aug-2023-4.jpg](https://sustainability.arizona.edu/system/files/webform/csf_progress_report/365/planting-aug-2023-4.jpg)] \* planting-aug-2023-5.jpg [[https://sustainability.arizona.edu/system/files/webform/csf\\_progress\\_report/365/planting-aug-2023-5.jpg](https://sustainability.arizona.edu/system/files/webform/csf_progress_report/365/planting-aug-2023-5.jpg)] \* planting-aug-2023-6.jpg [[https://sustainability.arizona.edu/system/files/webform/csf\\_progress\\_report/365/planting-aug-2023-6.jpg](https://sustainability.arizona.edu/system/files/webform/csf_progress_report/365/planting-aug-2023-6.jpg)] \* planting-aug-2023-7.jpg [[https://sustainability.arizona.edu/system/files/webform/csf\\_progress\\_report/365/planting-aug-2023-7.jpg](https://sustainability.arizona.edu/system/files/webform/csf_progress_report/365/planting-aug-2023-7.jpg)] Photo Link Photo Link <https://arizona.box.com/s/79sz5f0se0pefnzyeji85765p8pInvxt>

### **Photo Link:**

*Please copy hyperlinks to photos here should you not be able to individually upload photos.*

#### **Response:**

### **Media/Links:**

*Please include links to any media coverage or events information (e.g. news, social media, websites, interviews, etc.)*

**Response:**

Here is a summary of media Links: • UA News Release: <https://news.arizona.edu/press-release/feeding-future-biosphere-2-delivers-first-lettuce-crop-campus-pantry-food-bank> • Story KVOA : [https://www.kvoa.com/video/1st-crop-of-lettuce-grown-in-container-farm-delivered-to-uarizona-campus-pantry/video\\_e143bb68-1409-5675-8a63-e9e391e65a17.html](https://www.kvoa.com/video/1st-crop-of-lettuce-grown-in-container-farm-delivered-to-uarizona-campus-pantry/video_e143bb68-1409-5675-8a63-e9e391e65a17.html) • Tweet From President Robbins: <https://twitter.com/UArizonaPres/status/1559627188185583616> • KOLD News 13(Biosphere 2's Freight Farm, UA Students Find New ways to Grow Food): <https://www.kold.com/2022/11/15/shipping-container-green-machine-uas-biosphere-2-finds-new-ways-grow-food/> • Biosphere 2 YouTube Channel: <https://www.youtube.com/watch?v=b-k8xtCMAb0> • Featured in Arizona Institute for Resilient Environments and Societies Newsletter The Dirt • Featured in Biosphere 2's Newsletter: Inside the Impact, October 2022 Issue • Featured in Freight Farm's recent Newsletter, went out to 37,000 subscribers