

Progress Report - Campus Sustainability Fund

March 2023 – Sustainable Citrus Plus

Email:

huntbenjamin02@arizona.edu

Project Manager Name:

who is submitting this project?

Benjamin Hunt

Project Name:

Sustainable Citrus Plus

Project Subaccount Number:

23.02

Project Summary Snapshot:

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

Response

Grow smart, eat smart! The Citrus+ Sustainability Project brings fresh citrus and other fruits to campus pantry using sustainable growing techniques and recycling nutrient-dense water and biosolids from our aquaponics farm.

Requested Metrics:

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

Response

We have collected about 80 gallons of rainwater so far.

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

Over the winter break, we set up 73 feet of gutters to collect rainwater. Since then, we have set up the 1500 gallon tank and connected it via two 5 foot by 3 inch PVC pipes with two elbows and a bulkhead. The 811 group came out and marked the sewage, gas, and electrical lines. We have uncovered the sewage line so that we can input the biosolids into the sump. We dug a 3 foot hole to bury the sump so as to maintain a relatively constant water temperature and prevent overflow back into our sewer line.

On the 25 of February we had 6 people including two others a part of the internship and some friends to help dig. That day we dug six 3 foot deep and 4 foot wide holes with dirt piled up around the rim to hold water. This is where the trees will be planted. That day a 100 foot trench was dug to bury the irrigation line sometime before planting. There have been a couple meetings with Dr. Rex, Gracie, and Ben organize the project as well. Currently, we are collecting rainwater, have all the holes dug and the sump ready.

Next Steps:

Response

1. The next step is to set up the irrigation. This will require cutting into the sewer line to connect it to the sump and connecting the rain harvesting cistern to the sump via a hose and float valve. Then from the sump tank we will put out the 100 foot irrigation line via the trench mentioned previously. From the irrigation line we will go to each tree, making a circle of tubing around each to irrigate and thus hold even more water in the trench around each tree.
2. We will then plant. The goal is to plant the week after spring break as soon as we complete the irrigation.
3. Then we will do any troubleshooting, put in place any sensors to track metrics and automate irrigation, and write up instructions for harvest, donation, and maintenance.
4. We will look into doing any tours and writing up information about the project to show at campus pantry and for any interested parties.

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:

In any project, you would love to work quicker than you can in reality. There are problems that arise. Thankfully, we have not run into any problems to derail our timeline, but we have run into things that have taken longer than expected. The biggest delay was in the delivery of the 1500 gallon cistern which delayed the connecting of the cistern to the gutter and the collection of rainwater. There were many rainy days that were lamented for lack of collection! Another problem we ran into was the sewer line. It turned out to be in an awkward position and required a "T" pipe and a gate valve to connect to the sump. This could potentially pose more issues but that remains to be seen. The sump itself we had to bury much more than we expected which took some ingenuity to dig that deep. It involved a plastic pitcher to get the last bits of dirt out of the bottom where the spade was not sufficient. The last challenge when digging was in choosing good spots. We had the 811 people come out and mark the gas and electrical and sewage lines to ensure that we were planting plenty of distance from them; however, one of the spots we originally planned to dig there was an unmarked electrical line. So we in turn had to make our ditch and irrigation line longer to accommodate for a different hole placement.

Project Support:

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

Response:

We are doing well right now. We will definitely require some help in setting up any tours for interested parties when the trees are planted.

Photo Upload:

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

Response:

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Photo Link:

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

Response:

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Media/Links:

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

Response:

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