**Funding Criteria**

**A. General Rules**

1. Students, faculty, and staff are encouraged to submit requests for funding. Student-led projects require a faculty or staff sponsor in order to have funds awarded.
2. Funding can only go to university-affiliated projects from students, faculty, staff, and departments.
3. All SSC projects must make a substantial impact on students. This may be a direct impact or an impact through education and engagement. All SSC funding is 100% from student green fees, so the projects funded by the students must benefit them.
4. SSC encourages innovation and new technologies – creative projects are encouraged to apply.
5. Unless a type of expense is specifically listed below as having restrictions, SSC can generally fund it. The items referenced below should not be taken as comprehensive list.

**B. Things SSC Can Fund, On A Case-By-Case Basis**

1. SSC can fund feasibility studies and design work; however, it must work toward ultimately addressing a sustainability need on campus.
2. SSC can fund staff positions that are related to improving campus sustainability. Strong preference will be given to proposals receiving matching funding from departments and/or plans for maintaining continuity of the position after the end of the initial grant.
3. SSC can fund outreach events with a central theme of sustainability, provided their primary audience is the general campus community.
4. SSC discourages funding requests for food and prizes but will consider proposals on a case by case basis that prove significant reasoning.
5. SSC can fund repairs and improvements to existing building systems as long as it works toward the goal of improving campus sustainability; however, a preference is shown to projects utilizing new or innovative ideas.
6. SSC can provide departments with loans for projects with a distinct payback on a case by case base. Loans will require a separate memorandum of understanding between SSC and departmental leadership pledging to repay the award in full and detailing the payback plan.

**C. Things SSC Will Not Fund:**

1. SSC will not fund projects with a primary end goal of generating revenue for non-University entities.
2. SSC will not fund personal lodging, food, beverage, and other travel expenses.
3. SSC will not fund any travel expenses.
4. SSC will not fund tuition or other forms of personal financial assistance for students beyond standard student employee wages.

**Your Step 2 funding application should include this application, the supplemental budget form, and any letters of support.**

*Please submit this completed application and any relevant supporting documentation to* *Sustainability-Committee@Illinois.edu**. The Working Group Chairs will be in contact with you regarding any questions about the application. If you have any questions about the application process, please contact the Student Sustainability Committee at* *sustainability-committee@illinois.edu.*

**General & Contact Information**

**Project Name:** AgroForestry for Food – Irrigation Initiative

**Total Amount Requested from SSC:** $60,513

**Project Topic Areas:** [ ]  Land & Water [ ]  Education [ ]  Energy

[ ]  Transportation [x]  Food & Waste

**Applicant Name:** Bruce Branham

**Campus Affiliation (Unit/Department or RSO/Organization):** Department of Crop Sciences

**Email Address:** bbranham@illinois.edu

**Check one:**

 [ ]  This project is solely my own ***OR***

 [x]  This project is proposed on behalf of (name of student org., campus dept., etc.): Multi-functional Woody Perennial Polyculture Research project and Housing and Food Services

**Project Team Members**

|  |  |  |
| --- | --- | --- |
| **Name** | **Department** | **Email** |
| Michael Douglas | Department of Crop Sciences | bbranham@illinois.edu |
| Tim Mies | Department of Crop Sciences | tmies@illinois.edu |
| Brian Jacobson | Food Science and Human Nutrition | Bjacobs3@illinois.edu |
| Jedi Brown | Housing and Dining Services | jsbrown6@illinois.edu |

**Student-Led Projects (Mandatory):**

Name of Faculty or Staff Project Advisor:
Advisor’s Email Address:

**Financial Contact *(Must be a full-time University of Illinois staff member)***

Contact Name: Shawna Graddy

Unit/Department: Department of Crop Sciences

Email Address: sgraddy@illinois.edu

**Project Information**

*Please review the proposal materials and online content carefully. It is highly recommended you visit a working group meeting sometime during the proposal submission process.*

**Please provide a brief background of the project, its goals, and the desired outcomes:**

Midwest agriculture is dominated by annual row crops such as corn and soybeans. These crops are highly productive, but have a number of negative environmental impacts including soil erosion, loss of soil carbon, nitrate leaching, greenhouse gas production, etc. These crops receive abundant inputs of fertilizers, pesticides, and energy while producing little in terms of ecosystem services. As an alternative, we established a long-term trial termed “Agroforestry for Food’. This system uses multiple, perennial crops to produce food with environmental benefits and improved ecosystem services compared to annual cropping systems. This nearly 12-hectare experimental plot will produce significant amount of food while providing critical insights into the development of stable, productive cropping systems. The field site was initially planted in 2015 and is entering its fifth growing season. We have not efficiently irrigated this trial to date, which has significantly slowed the development of the plants due to a lack of timely irrigation. Our goal is to install irrigation to improve crop growth and development, produce earlier and more robust harvests, mimic what a typical grower would do, and speed the development of the trial, which will improve our understanding of how these different species interact and produce.

**Where will the project be located? Are special permissions required for this project site?**

The site for this research trial is the Energy Farm on South Race St. The site is a 12 ha (30 acre) trial with 6500 currant bushes, 1300 hazelnut trees, 700 chestnut trees, and 400 apples trees along with smaller quantities of aronia, elderberry, persimmon, pawpaw, serviceberry, pecan, and plums. All of the food produced at this site will be sold to Housing and Dining Services for consumption in the U of I Dining system. No special permissions are required for this project. The Farm Manager, Tim Mies, is a participant in the project.

**Other than the project team, who will have a stake in the project? Please list other individuals, groups, or departments affiliated directly or indirectly by the project. This includes any entity providing funding (immediate, future, ongoing, matching, in-kind, etc.) and any entities that benefit from this project.**

While this a research project designed to gain insights into environmentally beneficial food production systems, the project will produce a significant amount of food annually. When maximum yields are reached, the currants alone will produce between 15,000 to 30,000 lbs of berries each year. With the juicing equipment purchased by the Pilot Lab (with SSC funding), juice can be produced for direct consumption or use in smoothies and other juice products. We produced a small harvest in 2018 of about 500 pounds of berries. These plants are well behind where they should be after 4 years of growth. Beginning with the 2019 harvest, we expect yields to begin to approach the 15,000-30,000 lbs listed above. Other trees crops such as hazelnut, chestnut, and apples are still several years away from producing significant harvests. This trial will expose our students to food products that are not commonly part of the US diet but pack much nutrition and flavor.

**How will this project involve and/or benefit students?**

This is a large project covering over 30 acres of land that will require a significant amount of student labor. In 2019, we’ll employ three full-time students in the summer plus part-time positions in the spring and fall. These work experiences are often life and career altering as students are exposed to career opportunities that they didn’t know even existed (as an aside, that is how my career got started, from a summer employment opportunity at the U of I). Beyond this relatively limited opportunity for direct involvement, students will benefit from the unique food production coming from this site; it is truly unique with its diversity and focus on specialty crops.

**How will you bring awareness and publicize the project on campus? In addition to SSC, where will information about this project be reported?**

We will continue to use Dining Services as a means to bring awareness to students about the SSC and its support for campus projects. Foods served in the Dining Halls will be labeled to indicate that they came from the Department of Crop Sciences and the Sustainable Student Farm, projects supported by the SSC. The Crop Sciences Department does not permit the sale of crops grown on its farms. Only the Student Farm is allowed to sell crops produced on Department property, so all of these sales will be credited to the Student Farm accounts. We will use some of these proceeds to hire students to work on this project, but the excess funds will support the Student Farm and our project.

# Financial Information

*In addition to the below questions, please submit the supplemental budget spreadsheet available on the Student Sustainability Committee* [*website*](http://ssc.sustainability.illinois.edu/?page_id=2087)*. Submission of both documents by the submission deadline is required for consideration of your project.*

**Have you applied for funding from SSC before? If so, for what project?**

I have applied for funding on several occasions.

 The initial grant to start the Sustainable Student Farm was submitted in 2009 and entitled “A Student Farm at the University of Illinois”.

 A second proposal was submitted in 2011 to request additional funding for the farm as we had not reached our goal of growing enough food to support our operation. This proposal was entitled “Ensuring the Future of the Sustainable Student Farm”.

 In 2012, I submitted a proposal with Kevin Wolz, Ron Revord, Michelle Wander, and jim Dalling entitled “Perennial Polyculture Production Research Site”. This proposal helped launch research on alternative cropping systems at the U of I.

 In 2017, I was part of a proposal, along with Matthew Turino and Jeremy Shafer, to fund the purchase of a tractor that had the capacity needed for a small vegetable farm that is the Student Farm. This proposal was entitled “Increased SSF Food Production”.

**If this project is implemented, will you require any ongoing funding required? What is the strategy for supporting the project in order to cover replacement, operation, or renewal costs?**I do not anticipate needing any additional funding for this project. Once irrigation is installed, there will be yearly expenditures to replace equipment that fails or is damaged by heavy equipment, animals, etc*.* Funds from the sale of produce will cover these annual repair costs along with any operational costs associated with irrigation. Any costs above these expenditures will be relatively minor and borne by our research project.

**Please include any other obtained sources of funding. Have you applied for funding elsewhere?**

This project was supported with an initial grant from the Institute for Sustainability, Energy, and Environment that was awarded in 2014. This was multi-disciplinary project with faculty from three different colleges across campus. Other grants have been received by various subsets of the faculty on this project to support further work on this site.

# Environmental, Economic, and Awareness Impacts

**How will the project improve environmental sustainability at the Urbana-Champaign campus? If applicable, how does this project fit within any of the** [**Illinois Climate Action Plan**](https://icap.sustainability.illinois.edu/) **(iCAP) goals?**

This project will help increase the campus use and consumption of locally-grown foods. When the plants in this project are all in food production, the quantity of locally-grown food coming from the Student Farm and this project will be substantial. The 30-acre site also contributes to campus sustainability since over 1000 trees have been planted on the site, and the entire site is in perennial crops. The soil is no longer being tilled annually, and the site has gone from a net greenhouse gas emitter to net greenhouse gas storage. One of the iCAPs goals is to convert 50 acres of U of I farmland into perennial tree crops. With this site, we are 60% of the way to meeting this ICAP goal.

**How will you monitor and evaluate the project’s progress and environmental outcomes? What short-term and long-term environmental impacts do you expect?**

We will record harvest quantities each year and document the amount of food going to the University Dining system. We have estimated the impact on greenhouse gas emissions by the conversion of this land to multifunctional polyculture system. These data will be updated yearly.

**What are your specific outreach goals? How will this project inspire change at UIUC?**

This project will be a part of our Agronomy Day program (perhaps every other year). This field day attracts farmers and growers from around Illinois and we will present our pitch on how this system can make this type of farming profitable.

 We also believe that this project can encourage U of I students to eat more locally and more healthfully. Currants are a true superfood with more vitamin C than oranges and more antioxidants than blueberries.

**If applicable, how does this project impact environmental injustice or social injustice?**

Eating locally encourages the economic development of regional, smaller-scale farms that should employ more just employment practices than many of the mega-farms that function in the US. These mega-farms often operate on the backs of illegal, migrant workers who are exploited by this system and have no way to fight the poor working and living conditions they accept to make low wages so that Americans have access to healthy food.