

## The Richard Stockton College of New Jersey Annual Report for 2020 Initiatives Project

<b>PROJECT LEADER(S):</b>	Patrick Hossay
<b>PROJECT TITLE:</b>	On-Campus Sustainable Farm
<b>DATE:</b>	
<b>CC:</b>	

*Email a copy of this completed form to Peter Baratta in the Office of the Provost at: [peter.baratta@stockton.edu](mailto:peter.baratta@stockton.edu)*

*The boxes below expand as needed to accommodate your summary notes.  
You may also submit appendices or attachments, if needed.*

### **Please provide a summary of the project and your experience.**

In its second year of operation, the campus farm has experienced growth in yield, infrastructure, student involvement, and community relations. After completion of basic infrastructure in the first year, we have focused this year on establishing ongoing farm operations, training procedures, and leadership. A strong fall crop and the successful transition to a new group of student leaders also marked this year. The farm has not only allowed for student service opportunities and the enrichment of food-related curricula, it has also provided a vital opportunity for students to take on leadership roles, as the student farm managers and interns are responsible for daily farm operations and defining creative strategies for growing crops sustainably and organically while providing enrichment opportunities for their fellow students.

At the end of the summer in 2013, the farm produced a bounty of green beans, tomatoes, peppers, eggplants, summer squash, zucchini, okra, and cantaloupe. In the fall, we had a crop of butternut, acorn, and patty pan squash and spring yielded a modest crop of radishes and mesclun lettuce mix. We are currently preparing for our summer harvest.

The farm has become a vital node of both service and communality for Stockton College. Five interns and two paid student managers are now operating the farm on a daily basis. Over 65 faculty and staff members shared in our harvests last summer and fall. This not only provided healthy and exciting food to the Stockton community, it also strengthens the communal ties within the student body, staff and faculty. We believe our greatest achievement is the opportunity for engagement provided by the farm; students have dedicated 725 hours to the running of the farm, three students served in key leadership roles as paid employees, and six faculty members included the farm in their curricula through service learning. Six students completed internship projects at the farm, and five more projects are in progress. Tours have

been given to classes and faculty upon request and this will be continued and be built upon.

**Please attach a copy of your original proposal or list your stated objectives and expected outcomes.**

The stated objectives for this fiscal year were defined to be the following:

Main Goals:

1. Continuation, implementation, and expansion of first year's goals
2. Integration of academic courses
3. Community Outreach
4. Developing an on campus CSA program

Each of these are addressed in turn:

Measures:

1. Continuation, implementation, and expansion of first year's goals

First Year's Goals:

1. Develop farm's main infrastructure
  - The farm completed the construction of a high tunnel hoop house and began operations in that facility and adjacent cold frames, allowing for expanded winter activities at the farm and thus greater opportunities for student involvement during the academic year.
  - We also expanded the farm's capacity to store water by adding an additional 1000 gallon cistern. This will improved summer farm operations significantly.
2. Develop a system for training and involving volunteers
  - The farm successfully increased the number of volunteer hours from the previous year by integrating more academic classes, farm tours, and campus outreach to increase volunteer hours by approximately 20%.
  - This year also marked a significant effort to increase year-round activities to facilitate student involvement and expand student training in sustainable agriculture techniques, through the use of a hoop house, cold frame, and winter

planting techniques.

3. Yield an early spring harvest

- While this initiative may still be improved upon the farm did produce a limited but successful early spring harvest of short season crops such as radishes, beets, carrots, and spinach. All crops will be grown following organic practices.

2. Integration of academic courses

- The farm continues to provide an opportunity for service learning., with six faculty members incorporating farm service projects into their curricula.
- In addition, ten students completed all or a portion of a special project, independent study, or internship at the farm in order to fulfill GNM, SUST, ENVL, and BIOL course requirements.

3. Community Outreach

- The farm worked with volunteers through the South Jersey Beekeeper's Association Beginner Beekeeping course to allow eleven students to become certified in caring for Stockton's apiary.
- The SJ Beekeeper's Association will also be utilizing a portion of the farm for wildflower bee research. Allowing farm interns and certified students beekeepers an opportunity to take part in a cooperative research project with an active community organization.
- In addition, farm interns have begun working with several community gardens in Atlantic City, in a program operated in cooperation with the Stockton Center for Community Engagement. It is hoped this project might help integrate farm volunteers with further service opportunities in the greater community, and connect these community gardens more closely to the Stockton community.

4. Developing an on campus CSA program

- While the farm is not yet prepared for a complete Community Supported Agriculture model, it has taken steps to develop the community ties and procedures necessary for such a model in the future. As previously mentioned, dozens of Stockton faculty and staff participate in a crop-share program that has become very popular.

**Please describe the results of your project and compare them to your original expectations.**

**Elaborate on how well your objectives were met and how they might have changed. Note any particular obstacles that may have prevented your achieving full satisfaction on desired outcomes.**

**Farm Operations:**

As mentioned, with the infrastructure completed, this year focused primarily on the development of farm operations, including the elaboration of safety protocols, orientation procedures, and student leadership duties. This process has gone well and we have experienced no major obstacles.

The bee project is run jointly by the farm and S.A.V.E and currently has ten certified members. These members were certified through the South Jersey Beekeepers Association, the group which has given us seven beehives and is also developing a wildflower research plot on the premises. This forged connection is exciting and will serve to expand and diversify all that the farm has to offer in terms of student involvement and experiential learning.

**Farm infrastructure:**

As previously mentioned, farm volunteers completed the construction of a hoop house and cold frames. This addition to the farm will allow us to expand crop production well into the colder months and provides a jumpstart into the spring season. Spring crops may now be planted as early as February.

The covering of this hoop house came together much like an Amish barn raising. Not only did it provide an opportunity for students to learn hands-on carpentry skills, but it was also an exercise in the importance of patience and teamwork. Since completion, students were able to learn which crops grow best under hoop house conditions in different seasons.

The farm's water storage capacity increased with the addition of a 1000 gallon water tank. The farm now has the capacity to store 2750 gallons of irrigation water. This addition will be able to support the farm in expanding cultivation.

**Student Participation**

The farm has remained a student-centered project. The importance of being student-run cannot be overemphasized; the farm was designed, constructed, managed, and operated by students.

As such, the farm's ability to provide opportunities for student engagement are paramount. The farm was utilized by student clubs for multiple projects and service opportunities. Students from classes such as Politics of Food, The Science of Gardening, Sustainability: Food and Agriculture, the Honors Program, Environmental Issues, and Environmental Citizenship volunteered their time. Nine students associated with the farm attended the annual Northeast Organic Farm Associate Conference in New York in Fall 2013. Eight students participated in the Just Foods conference in Spring 2014. Four internships were completed at the end of the calendar year of 2013. Five students are now completing summer internships or special projects at the farm, exploring topics such as composting, deer and small mammal management, fruit cultivation, and integrated pest management.

### **Harvest**

The farm was able to produce a modest spring harvest of radishes and mesclun lettuce. The upcoming Summer/Fall harvest is expected to be significant, as we are preparing for great yields of tomatoes, eggplant, peppers, cucumbers, etc. At this point, the farm has over 300 tomato plants under cultivation.

The ongoing challenge with the above activities is integration of the farm with the general campus community. Out of necessity, the farm and the main academic complex are physically separate, and so a significant amount of student effort must be spent on raising awareness of the farm among the general campus community.

**Please list any follow-up actions (publications, presentation venues, etc.)**

**Are you recommending the continuation of this project? If so, please answer the following:**

- **What are the next action steps you foresee or recommend?**
- **What are the anticipated budget requirements going forward?**

**Please identify the program, department, or division to which the continuation proposal should be forwarded.**

*[Note: any continuation proposal will need to be reviewed, approved and incorporated into the appropriate budget process.]*

The continuation of the campus farm is strongly recommended. The current budget of \$7500 is the absolute minimum required for continued basic operations, does not adequately cover the unavoidable need for replacement equipment and repair, and requires that NAMS provide significant additional financial support to allow for the farm's academic activities. A budget of \$9500 would allow the farm to meet its cost and allow for enhanced activities during the academic year by providing adequate funds for the student farm managers to operate an agricultural greenhouse in winter months.

Our goals for the forthcoming year are fourfold:

- 1, enhancement of the farm's 'presence' on campus;
- 2, continue integration of the farm into the academic curriculum;
- 3, expand farm cultivation.
4. enhance wintertime farm activities and cultivation

Each of these is discussed in turn.

With the completion of the Sustainability laboratory facility near Parking Lot 7 sometime in the Fall, the farm will be able to have a more defined physical presence nearer the main campus. The sustainability lab will be used for volunteer orientation and training, seed starting, and general farm activities and recruitment. Moreover, a greenhouse at this site, purchased with Sustainability laboratory funding, will allow for a portion of farm-related activities to take place nearer the main campus, allowing volunteers a more accessible initial 'entry way' to the farm community. We are also exploring the possibility of a small farm stand near this facility, to allow faculty and staff to pick up farm produce more conveniently, and once again more closely link the farm with the rest of the campus community.

It is hoped that the development of a new concentration in Agroecology within the sustainability major will facilitate closer links between the farm and the academic curriculum. The Sustainability program has experienced a notable increase in student interest in food and agriculture and as a result has defined a new concentration to serve this interest and prepare these students for careers in sustainable food professions. The farm will provide a vital opportunity to link the courses in this concentration with real world experience and service; and it is hoped that the new concentration will stimulate course development in the field of sustainable agriculture that may be linked to farm activities. In addition, we hope to continue

to expand service, learning, and research opportunities for courses across the curriculum through greater outreach to faculty members in every school of the college.

Thirdly, the farm will endeavor to expand both the volume and variety of crops it produces by exploring the possibility of cultivation outside the deer fence. Students will experiment this summer with various crops and pest management techniques to determine how this might best be done. The fence encloses roughly a third of an acre, or less than on quarter of the area available to the farm. By expanding cultivation outside the fence, we hope to increase farm production and the opportunities for student research and engagement.

Lastly, with the completion of the hoop house, it is now more feasible to expand winter activities on the farm and yield an early spring harvest. As mentioned, a greenhouse at the new sustainability facility will also enhance winter opportunities, allowing students to produce crops year-round.

In a similar vein, we also plan to investigate the expansion of production in other ways with the marketing of canned, pickled, and preserved vegetables. It is hoped that the development of value-added produce activities might provide greater learning opportunities for the students.

**Once again, in order for basic farm activities to take place, and the farm or continue to operate, the current allocation of \$7500 annually is a bare minimum operating budget. This year, several needed pieced of farm equipment were purchased only by virtue of individual donations. This is not a funding source we can or should rely upon. In addition, a full \$1200 in student wages for farm work were paid by NAMS general laboratory funds. A budget of \$9500 annually would allow the farm to continue operations, and expand winter-time operations including the year-round operation of an agricultural greenhouse that will facilitate greater links to the campus community and the academic curriculum.**

<b>FINANCES: Based on your proposal, please outline below how the award has been spent.</b>			
	<b>Amount</b>	<b>Notes/Comments</b>	
<b>Beginning Budget Balance as of:</b>	<b>\$</b>		
Salary Expenditures			
· Stipends	\$ 5750		Student farm manager stipend
· Full-time staff salaries	\$		
· Full-time faculty salaries	\$		
· TES salaries	\$		
· Fringe Benefits	\$		
<b>Total Salary and Fringe Expenditures</b>	<b>\$</b>		
Non-Salary Expenditures <i>(supplies, travel, etc.)</i>			
· Irrigation System	\$ 450		
· Hoop House Materials	\$ 800		
· General Tools and Equipment	\$ 500		
<b>Total Non-Salary Expenditures</b>	<b>\$</b>		
<b>Total Salary + Non-Salary Expenditures</b>	<b>\$ 7500</b>		
<b>Ending Budget Balance as of:</b>	<b>\$ 0</b>		

<i>If there are remaining expenditures required to complete the project, please itemize them with expected amounts and timing for payment.</i>		
<b>IMPORTANT: Unused funds will revert to the general 2020 Initiative Fund at the end of the fiscal year if not encumbered for project costs.</b>		
<b>Item</b>	<b>Expected Amount</b>	<b>Expected Timing for Payment</b>

<b>Total</b>		