

2017 Progress Report

The Center for Sustainable Agricultural
Excellence & Conservation



2017 Annual Report



The Center for Sustainable Agricultural Excellence & Conservation worked diligently and with great joy in 2017 to establish and accomplish goals and to adhere to our mission statement. While some of our work is ongoing, we have been able to reach key milestones. In addition, we continue to strengthen our relationships in the local agricultural community and school systems as well as reaching out to other concerned parties whose work complements ours.

Our Mission

- To enhance people's knowledge of processes and infrastructure capabilities that support profitable growth using sustainable agriculture practices and techniques.
- Develop an institute for education and outreach for individuals to learn about sustainable agriculture practices/techniques and resource conservation.
- Development of sustainable agricultural systems using aquaponics that serves as a replicable model to be deployed throughout Northeast Florida as well as on a national basis.
- Design a sustainable primary ecosystem model for agronomy and agro ecology that has low or no impact on the community and the environment.
- Support farmers in the deployment and ongoing operation of aquaponics and related farming systems.

Quarter 1

Goals/Outcomes

1. **Develop an institute for education and outreach so individuals can learn about sustainable agriculture practices and techniques and resource conservation.**

We intended to develop our own program in collaboration with schools, businesses, colleges, and farmers. To accomplish this, we met with FSCJ Administrators to discuss an inclusive plan with options such as sustainability, local cuisine, and grow options to include hydroponics, aquaponics, aeroponics, and sustainable ground farming.

2. **Develop sustainable agricultural systems using aquaponics that serve as a replicable model to be deployed throughout the Southeast.**

We wanted to develop a more comprehensive plan for use of curricula and programs created during prior years' relationships. We worked with the Duval County Schools (GRASP Academy, River City Science Academy, and Mayport Middle to develop intra-

curriculum sharing). We then shared the work from the Nassau County Schools (West Nassau High School) with the GRASP schools for a ramp-up approach. We also served as trainers in the Train the Trainer program for a living facility at the GRASP Academy. Four hundred students participated in the program.

3. **Design a sustainable primary ecosystem model for agronomy that has low or no impact on the community and environment.**

The Center continued to work on improving tools for non-energy use by farmers. The Center also provided a grant to commission work for a seeder machine. We submitted the problem to the Engineers Without Borders program that allows young people to get involved in real work experiences to solve a real-world problem. The students presented their work on March 13, 2017 at FSCJ's Kent Campus to a group of interested parties. The metal parts were machined by a CNC machine and many of the parts can be purchased economically at a local hardware store. The students spent a half day building and demonstrating the machine and were awarded \$6000.00 for their score. In addition, the LOCALS Scholarship Program paid \$770 for housing on Feb. 27, 2017.

Quarter 2

Goals/Outcomes

- 1. Develop an institute for education and outreach so individuals can learn about sustainable agriculture practices and techniques and resource conservation.**

We intended to develop our own program in collaboration with schools, businesses, colleges, and farmers. To accomplish this, we planned to hire a Grant Writer to work on grants for collaborations. We also developed a school-to-farm program that will allow farmers to enter the sustainable farming profession. This is in collaboration with regional schools, colleges, and universities.

We met with FSCJ stakeholders twice and planned to meet again in July. These meeting included the distance education/continuing education departments. We discussed plans for food safety, sustainable agriculture, and business plan courses to be delivered in Q 1 2018. These classes will be developed using an online interactive/distance learning program currently in place at FSCJ. The program will be self-paced and will offer a series of certifications for the students.

We also developed a meeting structure to be rolled out in Q4 for a monthly meeting of urban, suburban, and rural farmers to learn about grants, cost share opportunities, collaborations, and new techniques. We accepted applications from grant writer candidates and worked with team members to direct the grant writing.

- 2. Development of sustainable agricultural systems using aquaponics that serve as a replicable model to be deployed throughout the Southeast.**

We continue developing a more comprehensive plan for use of curricula and programs created during prior years' relationships. We connected with regional schools to develop more curricula, programs, and programming for school-age students. The Center continued to work with the Duval County Schools (GRASP Academy, River City Science Academy, and Mayport Middle to develop intra-curriculum sharing). We shared the work from the Nassau County Schools (West Nassau High School) with the GRASP schools for a ramp-up approach.

The teachers submitted lesson plans to a shared Dropbox. The Center met with the teachers at West Nassau on to begin development of a full-campus approach to sustainable agriculture. We plan for an MOU to be in place by Q4 for the collaboration between these programs at West Nassau High School.

The Center met with GRASP academy teachers to continue Training the Trainers at the GRASP Academy.



- 3. Design a sustainable primary ecosystem model for agronomy that has low or no impact on the community and environment.**

The Center will continue to work on improving tools for use by farmers. We formed a partnership with Georgia Tech, Emory University, the University of Georgia, and Morehouse College to develop better tools for sustainable agriculture techniques. The partnership will use controlled environment greenhouses (hoop houses) utilizing the automation of harvesting out of deep water culture (DWC) grow beds, as well as designing water systems for better membrane filtration and wastewater treatment. A grant has been submitted for these programs. Awards will be announced in October 2017.

- 4. Support farmers in the deployment and ongoing operation of aquaponics and other farm-related systems.**

Our strategy is to help develop more farmer training in the areas of food safety and awareness of sustainable practices. This includes safety training classes for regional farmers and farmers to be; continuing to develop BMPs for farmers to gain SQF and HACCP certifications; and white papers on BMP for fish varieties.

We developed a partnership with UGA and Georgia Tech to meet these goals. A SARE grant is being submitted by Dr. Gary Burtle at UGA. The Center is assisting in the BMPs standardization core requirements for commercial aquaponics producers. The grant has been submitted. We continue to have regular meetings and phone conferences.

Quarter 3

Goals/Outcomes

- 1. Develop an institute for education and outreach so individuals can learn about sustainable agriculture practices and techniques and resource conservation.**

We continued to develop our own program in collaboration with schools, businesses, colleges, and farmers. To accomplish this, we planned to hire a Grant Writer to work on grants for collaborations. We also developed

a school-to-farm program that will allow farmers to enter the sustainable farming profession. This is in collaboration with regional schools, colleges, and universities.

We met with a grant writer to develop a grant proposal for The Center to address plans for food safety, sustainable agriculture, and business plan courses to be delivered in Q 1 2018. These classes will be developed using an online interactive/distance learning program currently in place at FSCJ and filmed/used West Nassau High School. The program will be self-paced and will



offer a series of certifications for the students.

In addition, we developed and implemented an online structure via email and social media for Q4 for a monthly opportunity for urban, suburban, and rural farmers to learn about grants, cost share opportunities, collaborations, and new techniques. The Center has developed a relationship with the Nassau County Public Schools to implement adult education (night) classes. There will be a parallel course for individuals who are in farming jobs to participant in an apprenticeship program. This is a collaboration between the US DOE, Nassau County Public School, and The Center.

2. Development of a sustainable agricultural systems using aquaponics that serves a replicable model to be deployed throughout the Southeast.

We continue developing a more comprehensive plan for use of curricula and programs created during prior years' relationships. The Center continued to build relationships with regional schools to develop more curricula, programs, and programming for school-age students.

The Center continued to work with the Duval County Schools (GRASP Academy, River City Science Academy, and Mayport Middle to develop intra-curriculum sharing). We shared the work from the Nassau County

Schools (West Nassau High School) with the GRASP schools for a ramp-up approach. Teachers continue to submit lesson plans to a shared Dropbox. The Center met with the teachers at West Nassau High School to begin the development of a full-campus approach to sustainable agriculture. We plan to have an MOU in place by Q4 for the collaboration between these programs at West Nassau High School.

The Center met with GRASP academy teachers to continue the Training the Trainers with the teachers at GRASP Academy. Unfortunately, during the July 4th holiday, someone broke into the facility and destroyed portions of the lab. The lab was cleaned and returned to order by the students, teachers, and the Center staff.

3. Design a sustainable primary ecosystem model for agronomy that has low or no impact on the community and environment.

The Center will continue to work on improving tools for use by farmers. We formed a partnership with Georgia Tech, Emory University, the University of Georgia, and Morehouse College to develop better tools for sustainable agriculture techniques. The partnership will use controlled environment greenhouses (hoop houses) utilizing the automation of harvesting out of deep water culture (DWC) grow beds, as well as designing water systems for better membrane filtration and wastewater treatment. A grant has been submitted for these programs. Awards will be announced in October 2017. The Center's Director is expected to speak to the students at Georgia Tech in Q4.

4. Support farmers in the deployment and ongoing operation of aquaponics and other farm-related systems.

Our strategy is to help develop more farmer training in the areas of food safety and awareness of sustainable practices. This includes safety training classes for regional farmers and farmers to be; continuing to develop BMPs for farmers to gain SQF and HACCP certifications; and white papers on BMP for different fish varieties.

We developed a partnership with UGA and Georgia Tech to meet these goals. A SARE grant was submitted by Dr. Gary Burtle at UGA. The Center is assisting in the BMPs standardization core requirements for commercial aquaponics producers. The grant was awarded and is titled, "Sustainable Aquaponics Systems for Vegetable Food Safety." We continue to have regular phone conferences as needed.

5. Develop a more robust donor list and plan fundraising events.

We are planning a February or March 2018 event for Farm to Future to involve students in the region. The Center is working with the Nassau County Public Schools to take on the Farm to Future fundraising event. Restaurants will sponsor a table where the students can compete. The format will still use local items

and offer a prize to the top “chef,” but this will be a school-based competition. We anticipate that it will be better attended since the parents will want to see their children compete.

The Center is actively seeking other donors and ways to attract donors. We have meeting with the Nonprofit Center and attending workshops to learn how to attract more sponsors. The Center is also working on grants that to continue the work of educating local farmers and future farmers.

Quarter 4

Goals/Outcomes

1. **Develop an institute for education and outreach so individuals can learn about sustainable agriculture practices and techniques and resource conservation.**

We continued to develop our own program in collaboration with schools, businesses, colleges, and farmers. To accomplish this, we hired a Grant Writer to work on grants and reports for collaborations. We also continued our school-to-farm program that will allow farmers to enter the sustainable farming profession. This is in collaboration with regional schools, colleges, and universities.

2. **Develop a communications plan and increase community awareness of programs.**

We intend to launch regular online newsletter for person who are interested in The Center's programs, activities, volunteer opportunities, and fundraising ef-

The Center for Sustainable Agricultural Excellence & Conservation

CEO – Angela TenBroeck

Board of Directors

Bruce Nappi

Alyn Airaghi

Advisory Board (For projects, the Institute (farm school), and community outreach)

Brent Lemond – Nassau County Public Schools

Sel Buyuksarac – River City Science Academy

Karen Zobel – West Nassau High School

Ellen Sauer – GRASP Academy

Judith De Maggio – Community Liaison

William Wickenden – UNF student

Jane Mild LaRoque – Community Liaison

Candace Tschirki – Community Liaison

forts. The newsletter will contain pictures of current projects and farming technology and techniques. In addition, The Center's Director was the featured speaker at the Aquaponics Association meeting in Portland, OR.

3. **Develop a more robust donor list and plan fundraising events.**

The Center continues to seek other donors and new ways to attract donors. We are partnering with the Foundation Search service to identify potential funders who fund programs related to agriculture and sustainability. We will send letters of inquiry as required to prospective funders. In addition, The Center staff will participate in local community groups whose objectives are related to agriculture and sustainability.

4. **Development of a sustainable agricultural systems using aquaponics that serves a replicable model to be deployed throughout the Southeast.**

We continue developing a more comprehensive plan for use of curricula and programs created during prior years' relationships. The Center continues to build relationships with regional schools to create more curricula, programs, and programming for school-age students. The Center continued to work with the local school system. We built an additional grow modality called the "Dutch bucket" at West Nassau High School for the students' use.

The Center also provided a scholarship for a student to attend Southern Illinois University to pursue agricultural studies.

Contact Us

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Learn More

Explore our work at www.csaec.org.

Donate to The Center

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