# **DICKINSON COLLEGE FARM**

2016 Annual Report

The staff at the College Farm invite you to review some of our accomplishments over the 2016 calendar year. We welcome any questions or requests for additional information and encourage you to stay updated through the College Farm blog at:

blogs.dickinson.edu/farm

# News from Jenn Halpin

#### Production

2016 marked the 9th year of the College Farm which raised 10 acres of certified organic vegetables this season. 2016 production provided fresh vegetable and egg subscriptions to the farm's 135 member CSA program. The farm strives to increase sales and production to match Dining Hall needs. Click here for a snapshot of production versus sales to Dining Services in 2016.

Farm staff continue to implement a 5-year rotation for vegetable and soil building production. We implemented several "no-till" experimentations with variable results (though no crop failures!) and fine-tuned our soil amendment protocols to focus in on

singular soil amendments versus pre-made fertilizer blends. Interested in seeing what our team produced last year? Click here for a running total of key crops plus canned and prepared foods outputs in 2016. Our Packing House Coordinator, Kevin Harper-McCombs deserves full credit for the tremendous work involved with the production of the Farm's value-added items. Along with seasonal help from Duane Miller, a record number of canned goods were made in 2016.



# **Employees**

The work of the farm is accomplished through the hard work of many helping hands. Full and part-time staff along with a team student workers and seasonal apprentices help to ensure a bountiful season each year. The farm team maintains an annual staff of five full-time and one part-time employees. Student worker numbers fluctuate between 16 (during the academic calendar) and 6 during the summer months. Four six-month apprentices join the ranks from May until November. These young leaders assist with overseeing all aspects of production at the College Farm.



# **OUR MISSION**

"To inspire
responsible land
stewardship through
the study of the
earth's natural
processes and
demonstrate the
science, practice and
culture of sustainable
food production."

#### **Academic Connections**

The College Farm reaches across academic divisions to create opportunities for students and faculty to engage in field-based learning. A list of class visits to the College Farm in 2016 can be found <a href="here">here</a>. Additional opportunities for students to gain academic credit through farm-based research and internships in 2016 included topics like:

- \* Carbon emissions of the farm's grass fed cattle herd
- \* Construction of a new biogas digester
- Design and construction of a solar air heating component to the biogas system, with the intent of keeping the digester functional through the winter months
- Collaboration with Bucknell University environmental engineers to study the performance, efficiency, and potential of the new biogas system operating on campus food waste.

## **News from Matt Steiman**

#### Livestock

We had a productive year in the pastures thanks in no small part to the stewardship of our second year apprentice Kenze Burkhart, who focused on animal care and pasture management. We successfully improved the quality and productivity of forage in most of our paddocks through a grazing plan and improved record keeping. We



had nine healthy calves and 25 lambs born this season.



Apart from 13 male lambs who were butchered for meat in the fall, the rest of the newcomers are staying on the farm to increase our herd size for a planned pasture expansion in 2017. Five beef cattle were also butchered this year, keeping our freezers well stocked for retail sales of steaks, and bulk sales of burger patties, stew cubes and roasts to the dining hall. 2016 was the first year we were also able to supply farmraised burger patties for the annual fall harvest fest.

#### **Energy Projects**

The spring kicked off with presentation of the farm's climate action plan to a campus audience. The report can be found **here**. Work to meet established goals of reducing our carbon footprint is ongoing.

We had a busy year of development, production and education through the new biogas pilot plant. The first 1000-gallon tube digester was completed in April with the help of many student workers, interns and volunteers, and construction of a second digester began in the fall. Over the 2016 season we generated over 200 cubic meters of methane which was used as renewable cooking fuel, replacing propane. In July we hosted a regional biogas field day for farmers, and gave presentations on biogas at the AASHE national conference and at Virginia Tech University. A detailed report of 2016 biogas

activities is linked <u>here</u>. Biodiesel production at the new farm shop is also ongoing, and we began a new project converting surplus firewood into "biochar", a biologically active charcoal used for soil enhancement and suppression of livestock odors.



### **Database Systems**

The farm continues to work with Professor Tim Wahls from Mathematics and Computer Science on development of smartphone accessible database

systems for farm records management. This fall we embarked on a new package called AnimalData which contains a full suite of interactive tables for recording livestock health, productivity, and economic records. For a sneak peak at AnimalData click <a href="http://">http://</a>

<u>farmdata.dickinson.edu/animal/guest.php</u> This project will soon be released to open source farming community, to join the highly popular FARMDATA project for vegetable records.



### Irrigation

2016 was a busy irrigation year due to the "heat dome" phenomenon experienced in mid summer. The long dry period coupled with high temperatures required extra hustle and some long nights to keep the fields moist. This was also the first year that our demand for water in the field threatened to exceed the supply from our well. Hard decisions were made (we stopped watering potatoes at the height of the dry spell, resulting in lower yields) but we were also inspired to make conservation and efficiency improvements. We purchased a second travelling gun sprinkler system (for improved labor and water use efficiency) and upgraded our pump controller to a more energy efficient model. We also began experimenting with soil moisture sensors that should help us make more accurate decisions about the duration and frequency of irrigation of specific crops. As we look to the likely future of continued extreme weather patterns, we are making water conservation and efficiency planning more central to our overall farm operation.



Watering Potato Fields 2016

# News from Cheryl Lusk

# Finances

The College Farm closed out FY16 with our highest revenue numbers to date at nearly \$172,000 with a net surplus over non-labor operating expenses of \$17,000. **Click here** for a snapshot of our fiscal year revenue sources and percentage breakdown in each category.

In addition to our 135 member CSA program, sales to the Dining Hall, and bustling market stand at Farmers on the Square, we are continually exploring creative revenue sources. A few examples are our holiday gift boxes filled with delicious canned goods, sales of farm-raised, grass-fed beef and lamb, monthly pop-up GATHER dinners and weekly egg CSA shares. Year after year we are able to streamline processes and identify areas to cut expenses and run the farm more efficiently.

### News from Lizzie Wilford

#### **Education and Outreach**

2016 has been a busy year in the world of education and outreach programming for the College Farm. Programs have ranged from visiting local food venues, to exploring cultural cuisine through cooking classes with college community members on campus, to learning new trades from local professionals. Community-



based youth education programs are also going strong. Farm Cook Eat remains a popular program offered at Le Tort Elementary School, and SEED is continuously drawing attention from new community members. Social media and the College Farm's Blog are the best way to keep up with events happening on campus, so be sure to check us out on Facebook, Instagram and read our blog for updates on all things farm, including alumni spotlights!

The farm continues to offer wide-reaching campus programming aimed at connecting with the diverse student population at Dickinson. Monthly campus events hosted by the farm like Pizza on the Plaza and **GATHER**, the farm's pop-up restaurant, are continuously met with enthusiasm by students, faculty and staff. Annual farm events like the Local Food Dinner, Farm Frolics and Harvest Fest also maintain a successful reception, with record turnouts for each one. Cross-campus collaborations through liaison work by farm staff sustain opportunities for events like the annual Whole Womens' Retreat, Alumni Weekend events, Homecoming activities, Bike To Farm, plus new ideas like the Bread & Puppet Theater performance in the fall!



2016 reflects a year of great accomplishments for the College Farm. We are confident that the farm will continue to mature and strengthen each year and look forward to sharing yearly snapshots with you through our Annual Reports.

**CLICK HERE** for a collection of our favorite farm photos from 2016