



The Dickinson College Farm

2022 ANNUAL REPORT

Dickinson 

COLLEGE FARM

“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.”



Table of Contents

Farm Production Highlights	2
CSA	2
Livestock & Meat	3
Farm Finances	4
Research and Partnerships	4
Academic Collaborations	5
Education and Outreach	5
Farm Initiatives	7
Farm Staff	8

The staff at the College Farm invite you to review some of our accomplishments over the 2022 calendar year.

2022 FIELD PRODUCTION HIGHLIGHTS		
CROP	UNIT	TOTAL HARVESTED
BROCCOLI	LB.	1,150
CABBAGE	EACH	1,210
CARROTS	LB.	4,840
CORN, SWEET	EAR	1,350
CUCUMBERS	LB.	2,000
KALE	BU.	1,340
LETTUCE MIX	LB.	1,560
MELONS	EACH	1,470
PEPPERS, BELL	LB.	1,970
POTATOES	LB.	5,000
SWEET POTATOES	LB.	5,000



Farm Production Highlights

The 2022 season at Dickinson College Farm was quite productive. Will Nelson, the Farm’s Vegetable Production Manager worked with Dickinson students, recent graduates, and seasonal staff to grow 10 acres of certified organic produce. Fresh vegetables supported the Farm’s Campus Supported Agriculture program, sales to the Dining Hall and local farmers, as well as to help populate the farm stand at Farmers on the Square. In addition to fresh produce sales, vegetable harvests were made into value added product like pickles, salsa and jams. We also donated 618 pounds of produce to our local foodbank, Project SHARE. New in 2022 was the launch of Farm Works, a campus-based farm store supplying the campus and local community with farm-raised goods, in addition to a daily menu featuring vegan and gluten-free farm-to-table lunch options. More on Farm Works [on page 8!](#)

We continue to be inspired by the hard work accomplished by the College Farm staff, from full-time summer student employees and six-month apprentices to our full-time staff members who ensure the program thrives. An impressive farm staff statistic to highlight is that Cheri Getty, the Packing House Coordinator, produced over 1000 jars of jams, sauces, and pickles in 2022—no small feat!

CSA

Our CSA program has been strong again this year matching last year’s membership numbers with 143 people participating. We continued with the pre-bagged shares at both pickup locations, the Farm and Project S.H.A.R.E. The shares can be customized each week by the customer through Harvie. Working with Harvie continues to benefit the college farm and CSA members by increasing customer service and farm-based efficiencies This year, in addition to select cuts of beef, we added eggs for our customers to buy as “extras”. We sold 237 dozen of eggs yielding additional revenue. Our CSA revenue for 2022 was \$48,095.

Livestock and Meat

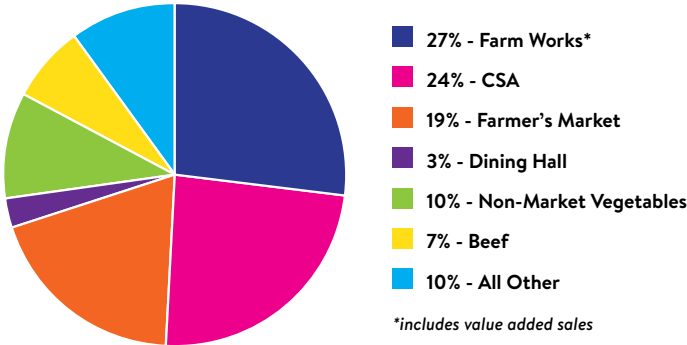
We had another steady season with livestock and meat production with able assistance from Ava Sonnett (livestock crew leader) and Johannes Ali '22 (livestock apprentice). Ava and Johannes made a great team and eagerly handled daily chores, seasonal maintenance as well as veterinary care needs as they arose. A total of nine calves and 30 lambs were born in 2022, and happily there were no mortalities. Meat sales were steady through the online farm store as well as the CSA Harvie portal. Grilled beef hot dogs, sausages and burgers were shared with the campus community through the popular Octoberfest event. We also rebooted our egg laying program by bringing in 60 laying hens, with eggs being sold to students, farm crew, and through the CSA program. Our sheep returned to the campus solar farm in 2022 after Ava and Johannes spent many hours installing protective covers on sharp edges of the panel racking to prevent injuries to the animals that had plagued us in 2021.

In the fall, the management team made a long-coming decision to aggressively downsize the livestock herds in order to reduce labor demands, logistics headaches, and supplies costs while continuing to provide the educational experience of live animals on the farm. To that end we are transitioning the beef herd to a feeder operation by selling off our breeding cows. While we will lose the joys of caring for newborn calves each year, we will reduce risk by eliminating a bull from the herd and reduce feed costs substantially (mother cows are the biggest consumers of hay in the group). We have plenty of calves on hand from 2022 for the next growing season. In 2024 we will buy new young stock from other local farms that follow similar grass-fed practices. We also elected not to breed the ewes in the fall of 2022. This will enable us to move the sheep to the solar farm earlier in 2023 and lighten the labor load in what we predict will be a very busy spring due to all of the transitions underway. We will resume breeding the ewes this coming fall for 2024 lambs.



Farm Finances

YEARLY TOTAL REVENUE	
YEAR	TOTAL REVENUE
2018	\$153,322
2019	\$190,427
2020	\$160,757
2021	\$172,626
2022	\$198,993



Research and Partnerships

CROP PRODUCTION FIELD TRIALS Jenn Halpin continues to work closely with scientists and researchers at the Rodale Institute to partner on field-based research endeavors at the College Farm. This partnership and associated field trials will provide our farm, as well as the regional food system with valuable scientific-based information capable of influencing farming practices and systems for improving soil, plant, and ultimately human health. In 2022, the farm supported Rodale through field trials to explore the impact of using mycorrhizal inoculation on sweet corn seed and to compare those with non-inoculated seeds. Data is still be processed and we look forward to sharing the findings! Additionally, the College Farm is participating in a multi-year field trial aimed at determining the link between soil and human health through plant protein, protein quality, and the nutraceutical amino acid ergothioneine. The College Farm seeded one acre to spelt and einkorn last fall. These varieties of heirloom and ancient wheat varieties are known to have a symbiotic relationship with ergothioneine. More to come!

BIOGAS Matt Steiman continued to lead the multi-year study on co-digestion of brewers spent grain with dairy manure. Working with Professor Sarah St. Angelo (Chemistry) and a team of students including Sarah Manderbach '22, Caitlin Lauritzen '22 and Uyen Nguyen '24, the farm team completed a second season of data collection to document increases in biogas generation when brewers grain is added to dairy manure digesters. The 2022 effort involved adding food waste as a co-substrate along with the grain and manure to replicate the expected conditions in the future commercial digester to be built at the farm. This work provided valuable hands-on research experience for several students as well as widespread visibility for the Dickinson College Biogas program. Matt presented results of the study at a national Ag & Energy Extension conference and a regional biomass energy conference (both held at Penn State University Park) in 2022, and will present the work at the International Biomass Energy Conference in Atlanta in February 2023. Uyen Nguyen '24 presented a poster on this work at the Pennsylvania Environmental Resources Consortium green colleges gathering in October of 2022.

HOME GARDENING INITIATIVE Funded through the Burpee Foundation, Jenn Halpin's home gardening project continues to grow with help from student researchers and community partners like Project SHARE. In 2022, Genesis Whitlock '24 assisted Jenn to work with borough resident home gardeners, in addition to designing and conducting theme-based surveys, maintaining a research home garden on campus, and working to recruit more borough residents to work with on the cultivation of home gardens. Gen's efforts aided the growth and number of home gardens in the borough. Data collected indicates the positive impact of home gardening on increased food security, increased dietary diversity and biodiversity. For more information on this initiative, please go to: <https://tinyurl.com/burpeefellowship>.

A full report documenting the goals of this initiative and associated research can be found at: tinyurl.com/HomeGardenManual.

Academic Collaborations

Over the course of the spring and fall semesters in 2022, the College Farm staff supported academic goals of faculty and students across all three academic divisions. We estimate that close to 250 students enrolled in fifteen distinct classes in departments like INBM, Computer Science, Health Studies, Religion, and First Year Seminars engaged in farm-based topics as they related to academic themes being covered in class. In addition, Jenn Halpin taught the Introduction to Food Studies course this semester. There were eleven students enrolled in her class.

FARM WORKS INTERNSHIPS In collaboration with the Advising, Internships & Career Center, Farm Works started offering academic internship opportunities for INBM and Food Studies students. During the fall semester, students Ellie Parker and Brody McGuinn assisted with store marketing

strategies and creating systems of accounting to track return on investment of key products.

COMPUTER SCIENCE The farm continues to collaborate with Professors Grant Braught, Farhan Siddiqui, and John MacCormack on the Farmdata project. This open-source online database system for vegetable farmers was used as a teaching tool for several CS sections in 2022 as well as summer work by students working with Professor Braught. Farm staff helped Professor Braught secure sabbatical funding through Pasa Sustainable Agriculture, the premier organization for regenerative farming in the mid-Atlantic region. During his sabbatical year, Professor Braught will dedicate research time to expanding farmdata capability to meet the data logging needs of a long-term, multi-farm soil health benchmark study run by PASA.

Education and Outreach

Spring 2022 proved to be a great semester for cooking classes and Edible Excursion tours. Around 15-17 students attended each event. Spring offerings also included Pizza on the Plaza, an *Around the World through Dumplings* event, and the farm's first virtual career panel, *Careers in Academia and Sustainability*, featuring Dickinson farm alumni Sharon Perrone '11 Ph.D., Sam Bogan '16, Lizzie Grabowski '17, Margaret McGuirk '18, and Riz Carthins '19.

Additionally, Audree Khalishah '21, the farm's 2021-2022 Education and Outreach Coordinator, and Julie Korgen '22, the farm's '21-'22 Student Youth Educator, were engaging with the community through Sustainable Earth Education (SEED). In addition to working with past collaborators, new partnerships with groups such as Project SHARE's Kids in the Kitchen were made.



with groups like the Harrisburg Area Homeschool Association (HAHA) as well as various Girls and Cub Scout troops.

Biogas continues to be a great vehicle for education and outreach. The biogas project produced several videos on topics including “build your own research digester”, “the science of biogas”, “food waste for compost and biogas”, and a virtual tour of a commercial dairy farm digester with interview. These Dickinson-branded videos have attracted a wide international audience with over 50,000 total discreet views to date. The videos can be found by searching Youtube for “Dickinson College Farm Biogas”. The biogas project also supported local math teacher Machele Lynch (St. Patrick’s School) through a summer research internship. Following the successful summer program, the farm built a prototype biogas experiment station for use in Ms. Lynch’s school science program. The biogas experiment station is still in use at the time of this report, inspiring young learners to see the potential of energy from food and agricultural wastes. Matt Steiman also presented on the biogas program to Senator Bob Casey and the Board of Trustees in 2022.

Education and outreach programming did not stop in the summer. Audree organized events such as cooking classes, potlucks, and farm volunteer times targeted at students living on campus over the summer. Additionally, Audree led workshops for CONNECT camp and Go Local as part of Dickinson’s Discover Dickinson first-year orientation program.

Audree filled the 2022 fall semester with Pizza on the Plaza events, cooking classes led by faculty, staff, and students, and Edible Excursion tours to local food and beverage businesses within walking distance of campus. Campus events like Pizza on the Plaza were well attended with foot traffic from well over 500 students, faculty, and staff.

SEED continues gaining traction in the area. Anna Burke ’23, the farm’s 2022–2023 Student Youth Educator has done a great job carrying the torch, establishing new partnerships

PLACE-BASED RETREAT In collaboration with the Center for Sustainability Education, Center for Spirituality & Social Justice, and the Office for LGBTQ+ Services, the College Farm hosted an overnight retreat to promote self-care, self-discovery, and groundedness during the 2022 spring semester. The retreat involved a variety of sessions including guided movement, meditation, ecology and accessibility discussions, and craft-making. Sessions were led by faculty, staff, and students. Attendees included members of the Dickinson and Carlisle communities. The College Farm hopes to continue this program moving forward based on positive responses from participants and collaborators.

Farm Initiatives

COMMERCIAL DIGESTER DEVELOPMENT Matt Steiman has been heavily engaged with grant writing and project planning for the expanded anaerobic digestion project at the farm. When complete this project will consist of a commercial scale biodigester located between the college farm and the Triple L dairy on land rented from Dickinson. We will combine food waste from the College and other local sources with cow manure from the dairy. The digester will convert the wastes to biogas and liquid fertilizer. Gas will be used to power a utility interactive generator to produce approximately 250,000 kWh of renewable energy per year. Additional environmental benefits include reduced manure and sediment pollution to the Yellow Breeches creek and diversion of food waste from the landfill resulting in reduced greenhouse gas emissions.

2022 into 2023 involved heavy administrative effort to bring the digester project into fruition. This work included some arduous permitting steps with state and local agencies, continued efforts at fundraising, and several rounds of plan revision for the complex equipment systems. We are poised to finally begin construction of the digester project in the spring of 2023 with completion expected by this coming fall.

FOOD WASTE DIVERSION The farm continues to ramp up food waste diversion to prepare for the commercial digester project. In 2022 we added Amish Country Bakehouse and One 13 Social as commercial food waste clients and continue to receive waste weekly from Molly Pitcher Brewing Company, Project SHARE, and the Carlisle Area School District. The farm is also collecting residential food waste from the public at the Farmers on the Square market downtown. Total food waste diversion from landfills to the farm's compost and biogas program stands at about one ton of per day. We plan to expand this further once the commercial digester system is permitted and operational.

FARM LAB The FARM Lab initiative successfully raised 90% of the funds needed to cover architect work with Re:Vision. The source of funds comes from generous alumni, as well as \$150,000 from the Berks County Community Foundation in collaboration with the Metropolitan Edison Company Endowed Sustainable Energy Fund. In late 2022, the FARM Lab Advisory Committee met with Re:Vision both in person and to begin work on design schematic, which will include a three-part biophilic workshop. Re:Vision has also selected the project's civil engineers and landscape architects who will be actively engaged with farm staff throughout 2023. Speaking of 2023, the schematic design process is underway and we look forward to summarizing our efforts in future annual reports.



FARM WORKS After a seven-week trial in the spring of 2022, this campus-based farm store officially opened for business with the start of the 2022 fall semester. Each day (M-F), the store offers freshly made grab-n-go lunch options for the campus community. Students oversee the store operation on a day-to-day basis and support kitchen needs throughout the week. The Farm Works Kitchen Manager, Joe Rosas is based out of the Stern Kitchen for the foreseeable future. Work in the kitchen is focused on preparing daily ready-to-eat soups, salads, and breads plus small batch items as time permits. Farm Works accepts student meal plan points. Meals prepared for Farm Works aim to integrate dietary restrictions like dairy, nut, and gluten intolerances.

Since it opened for business at the start of the fall semester in 2022, Farm Works has generated \$42,000 in revenue with 5067 total sales. The average sale is \$8.35 with the top purchases being soups and salads paid with meal plan points. To ensure the farm's commitment to a farm-to-table menu through Farm Works, 2500 pounds of vegetables were process and frozen during the 2022 growing season.

For more information on Farm Works, please go to: dickinson.edu/farmworks.



Farm Staff

The College Farm reflects a diverse range of individuals and skillsets. As a small, yet mighty team, full-time staff members of the College Farm demonstrate an admirable capacity for achieving impressive goals. Staff members Mary Silva, Cheri Getty, Joe Rosas, Audree Khalishah, Matt Steiman, and Jenn Halpin are integral to the success of the College Farm.

After four years as the Vegetable Production Manager, Will Nelson left the College Farm for an exciting new opportunity in upstate New York at the end of January. The timing of Will's departure presented a unique opportunity for Dickinson graduate, Alex Smith '10 who started as the farm's new Vegetable Production Manager at the start of 2023. As a former student farmer and farm apprentice, Alex is quite familiar with the College Farm operation. He brings 10 years of diverse experience in production, agriculture, facilities management, and construction to his new role, and we are thrilled to have him!

Dickinson students continue to be the backbone of the College Farm program. Over the course of 2022, the College Farm employed 28 students representing a diverse range of interests and academic studies. In addition to our Student Farmers, the College Farm employed six seasonal workers as the farm's Crew Leader and Six-Month Apprentices.



COLLEGE FARM STAFF

Jenn Halpin, *Director of the College Farm*

Matt Steiman, *College Farm Special Projects Manager*

Will Nelson, *Vegetable Production Manager*

Cheri Getty, *Packing House Coordinator*

Audree Khalishah, *Farm Education/Outreach Coordinator*

Mary Silva, *Farm Administrative Assistant*

We welcome any questions or requests for additional information and encourage you to stay updated on farm events and happenings by following our blog, liking our page on Facebook, or following our Instagram account.

FOLLOW US:  

[BLOGS.DICKINSON.EDU/FARM](https://blogs.dickinson.edu/farm)

Dickinson 
COLLEGE FARM