



The Dickinson College Farm

2024 ANNUAL REPORT

“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

Thank you.....	2
Farm Production Highlights.....	3
Waste-to-Energy Biodigester.....	5
Research and Partnerships.....	6
Academic Collaborations.....	7
Education and Outreach.....	9
Farm Initiatives.....	10
Farm Financials.....	11

The staff at the College Farm invite you to review some of our accomplishments over the 2024 calendar year.



Thank You

The College Farm is run through a team effort, and we are thankful to our staff, apprentices, student workers, and volunteers that make all of this possible. In 2024, we employed over 20 student workers on the farm, graduated four individuals from our Apprenticeship Program, employed over 15 student workers at Farm Works and in the kitchen, enjoyed countless volunteer workers on the farm, and welcomed two new staff members to the team. Our core team is led by Jenn Halpin (Director of the College Farm) and includes Matt Steiman (Assistant Director of the College Farm and Energy Projects Manager), Alex Smith (Vegetable Production Manager), Cheri Getty (Packing House Coordinator), Kelsey Horowitz (Crew Lead—new in February 2024), Joe Rosas (Farm Works Kitchen Manager), and Sarah Hart (Program Coordinator—new in June 2024).

We are thankful for the many supporters of the farm that come in various forms. Whether you are a loyal CSA member, a Farmers on the Square shopper, a Farm Works fanatic, a student in the Dickinson Dining Hall, a generous donor to our efforts, or simply a friend of the farm—we couldn't continue this without you! We are grateful for your support not only of the College Farm, but of choosing to source local foods grown sustainably. Your choices will continue to have a positive impact on our community's food systems.

Farm Production Highlights

The vegetable aspect of the College Farm has enjoyed a prosperous and productive 2024. The year is marked with steadfast commitment to excellent soil stewardship, impactful infrastructural improvements, dialing in systems for efficient production, and a handful of yield records despite some very unique weather and pest challenges. Our perseverance in the face of those challenges is a testament to the enthusiasm of our team and the strength of our model of diversified, climate change mitigated agriculture.

In spring, we had strong greenhouse and transplant production season. We utilized our greenhouses to supply Dining Services and Farm Works with fresh greens and other products for the spring semester. We also grew about 80,000 transplants that we later planted in our vegetable fields to become our crops. Getting them off to an optimal start was critical in final crop performance.

In April, in advance of the apprentices arriving, we removed the aging covers of the yurts and installed new insulation and new covers. Physics major and longtime Farm Student Worker Gavin Frueh '24 rebuilt the base to our root washer. The new set up includes a leveraged dumping feature that makes it much easier and safer to wash the tons of carrots we produce each year.

In May, we invested time to establish a new, perennial herb garden. We have found that herbs are a very low-cost product that adds valuable variety to the CSA and farmer's market offerings. The herbs planted there should produce for several years with little additional work.

June is typically a very busy month on the College Farm with onboarding, orienting, and training for the season. Usually, irrigation isn't too much of a concern, but this June, we found

ourselves irrigating nearly constantly in addition to our normal work. The severe drought in June was uniquely challenging across all of our late spring and summer crops. Spring broccoli, cauliflower, and cabbage suffered greatly from drought pressure and subsequent insect pressure. It was very difficult to establish our early summer lettuces and greens that usually flourish in June rains, as well as our marquee main season crops like tomatoes, peppers, and sweet potatoes.

The upside of a dry June was that the crew spent less time pulling weeds by hand than we normally do. This surplus labor was leveraged across the farm in several impactful ways. First, the vegetable growing team assisted the livestock team in fence row cleaning as well as the removal of debris and invasive plant species throughout the pastures. We also rehabilitated the greenhouse that formerly housed the biogas initiative's pilot project. This included removing the defunct infrastructure, re-grading the interior, and repurposing the house to more efficiently cure the firewood that heats the yurts and bakes the farm pizzas. Lastly, we redoubled commitment to our groundhog initiative.

Since the summer of 2023 the vegetable team at the College Farm has been engaged in a calculated effort to combat groundhog herbivory in production fields. Our focus has been to destroy long established groundhog habitat to discourage annual colonization of the farm. This includes trapping live hogs, collapsing the tunnel systems, filling those systems in, and reseeding the soil. The team spent several hot days with weedwhackers, shovels, picks, rakes, and tractors to destroy dozens of tunnel systems in a 12-acre perennial pasture adjacent to production fields.

VEGETABLE PRODUCTION

This year, we endeavored to grow eighty-three distinct fresh product lines. Despite the challenges of the season, we enjoyed record setting production in several key crops.

2024 YIELD HIGHLIGHTS		
CROP	HARVESTED	UNIT
BROCCOLI*†	1,346	LBS
BUTTERNUT SQUASH†	1,089	EACH
CABBAGE*	983	HEADS
CARROT	4,169	LBS
CAULIFLOWER**†	689	LBS
CHERRY TOMATOES*	1,196	PINTS
CUCUMBERS	2,482	LBS
GARLIC	17,900	HEADS
GREEN BEANS †	389	LBS
HERBS †	3,615	BUNCHES
KALE**†	1,728	BUNCHES
LETTUCE †	2,130	HEADS
LETTUCE MIX**†	1,691	LBS
NAPA CABBAGE**†	341	EACH
ONIONS†	5,896	EACH
POTATOES†	8,985	LBS.
SPINACH†	634	LBS.
STRAWBERRIES†	1,252	PINTS
SUMMER SQUASH	1,739	LBS.
SWEET CORN	2,555	EARS
SWEET POTATOES†	5,657	LBS.
TOMATOES	5,128	LBS.
WATERMELON†	1,194	EACH
ZUCCHINI	1,547	LBS.

* STILL HARVESTING AT TIME OF REPORT
† INCREASED FROM 2023 YIELD

We are proud of the yields outlined to the left, but are aware that they do not tell the whole story. Ever eager to improve performance and efficiency, we strive to collect important data and interpret that data to make informed planting and sales decisions. Learn more about these efforts on our [Farm Blog](#).

LIVESTOCK

This season we continued to streamline the livestock program with the goal of focusing our efforts on excelling at a smaller handful of projects that matter most to the students and farm community. When our egg laying hen flock aged out of their productive years, we decided not to replace them with another commercial flock. We may bring in a small group of hens next year for apprentices and farm residents but do not expect to be selling eggs in 2025. Additionally, after 16 years of raising sheep on the farm, we decided to sell our flock of ewes in the fall and will be taking an indefinite break from the woolly creatures. This was a tough decision given that we have enjoyed working with sheep 99% of the time and having them graze the campus solar farm was an interesting bonus. However, from a revenue standpoint sheep did not pencil out very well, and we did not have any clear path to serving lamb or mutton to the student body. In the end we decided the benefit of reduced complications and cost will outweigh the benefit that the sheep experience brought to the farm. There will be ten meat lambs for sale at yearend, then we'll hang up our shepherd's crook for a few years and see how much we miss them.

Our beef cattle have been doing great. This was the first year that we bought in calves rather than raising our own as we'd done in years past. The new animals purchased from trusted local sources have integrated nicely with our original herd and are sizing up quickly on our lush pastures. Beef sales have been steady through a variety of outlets, including the CSA membership, our online retail page through [Square](#) as well as frozen retail at Farm Works and the Devils Den. We have also been working more directly with Dickinson's Dining Services to increase integration of farm beef into regular menu items and some special dishes.



Waste-to-Energy Biodigester

The biodigester project is basically complete! While it would be fair to call the present situation “late-stage commissioning,” we are into daily operations of the mechanical and biological systems. We began feeding dairy manure and food waste to the digester in June and the microbes have been making a constant flow of high-quality biogas ever since. Our sophisticated combined heat and power engine that converts the biogas to electricity and heat is unique due to its small scale – enough to power the project plus an additional 20-30 homes in the area. We’re working out some final engineering and administrative details with the Met Ed utility and eagerly look forward to integrating our system’s renewable energy output with the local power grid.

Outreach for the digester project was very busy in 2024. In addition to frequent visits by local schools and farm-related groups, we hosted a variety of dignitaries, including Governor Josh Shapiro and Secretary of Agriculture Russell Redding. The project has been featured in videos produced by Penn State Extension and the National Center for Appropriate Technology. We also generated some NPR and newspaper content as part of the outreach campaign for *Life Waste: A Biogas Musical*. This original theatrical work was a collaboration of the farm and Valley Traction, a local community performing arts group. Several students were integral to the sold out two-night production at the farm this fall. The biogas project will continue to increase sustainability and visibility of the farm and campus as we dial in the energy operations and expand our outreach efforts.

Research and Partnerships

PASA

The College Farm continues to participate in the statewide soil health benchmark study, a citizen-science research project led by Pennsylvania Association for Sustainable Agriculture (PASA). The College Farm is one of fifty farms across the Commonwealth and tristate region participating in this long-term project aimed at tracking soil management practices relative to soil health over time.

We take soil health very seriously here. Under Alex's direction, our soil is managed through precise cover cropping, precise machine operation, and careful composting we believe we are building the soil structure and biology such that we can increase productivity, resilience, and capacity to deliver exceptionally vital products for years to come. In 2023 we produced about 400 cubic yards of high-quality compost made from cattle manure, municipal leaves, and food waste collected throughout Carlisle. Early this spring, we applied about five tons of that compost to each acre in vegetable production for 2024. This set the stage for a healthy, diverse soil biology for the year.

This soil biology, coupled with a very intentional tillage paradigm, enabled us to accelerate the rate at which we proceed from crop to crop. While we aspire to have zero days without living crop in the ground each year, our more realistic near-term goal, which we accomplished this year, is: two good cover crops, and one good cash crop. Nearly all our production acreage is already in well-established cover crop of rye, hairy vetch, and crimson clover. This cover crop mixture will grow slowly through the winter and rapidly next spring. As we harvest the last few crops from the fields over the next few weeks, we are poised to quickly transition that crop to cover.

To monitor the progress of our soil system we keep detailed records from annual soil assays and participate in a long-term soil health study through PASA.

RODALE INSTITUTE

2024 represented our final year of collaboration with the Rodale Institute on field research focused on "Exploring the link between soil and human health: Protein, Protein Quality, and Nutraceutical Amino Acid Ergothioneine". This season, the College Farm planted .39 acres of einkorn and spelt. Over the course of the 2024 season, staff conducted soil tests, leaf sampling, and sample grain harvests that were mailed to both Rodale and the Stroud Water Research Center for analysis. For more information on this project and findings, a full report from 2023–2024 can be found [here](#).



Academic Collaborations

THE COLLABORATIVE LEARNING SCHOOL

In June, the College Farm hosted The Collaborative Learning School which included early-career researchers from Africa, the U.S., and Europe, plus faculty and researchers from Penn State and Michigan State University for a one-week program. The objective of the program was to provide participants with insights and analytical tools on sustainable food systems in the Chesapeake Bay watershed based on the integrated water-energy-food nexus framework. Themes covered with support from College Farm staff along with Ben Edwards, Wande Benka-Coker, Maggie Douglas, and ALLARM included:

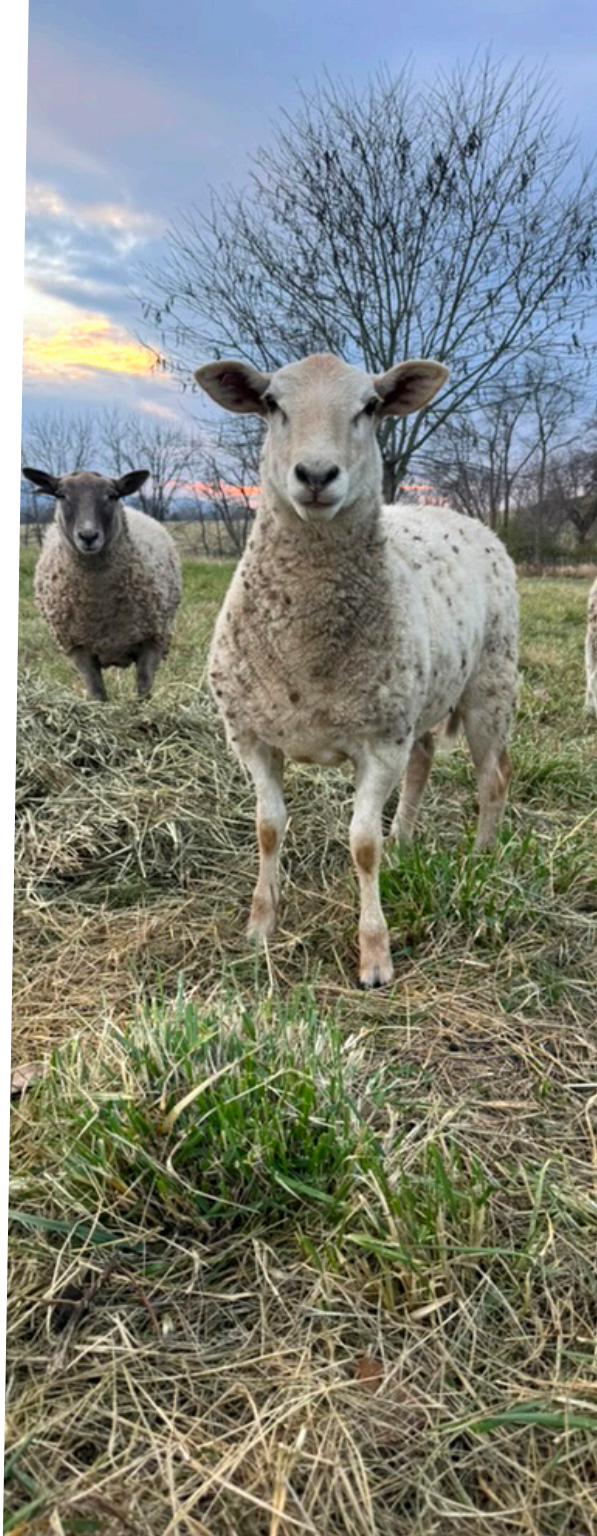
1. Waste Management and Agriculture
2. Impact of Agricultural Management Practices on Soil Health
3. Biogas Anaerobic Digestion for Livestock and Food Waste, and
4. Livestock Management and Water Quality

SUMMER RESEARCH AT THE COLLEGE FARM

- **BIOGAS AND AIR QUALITY:** Wande Benka-Coker conducted summer research with students Alex Jones '25 and Dinela Dedic focused on air quality in facilities that use biogas as a cooking fuel. On-farm monitors were placed in kitchen facilities to capture data. Additionally, this team also used stationary air monitoring equipment, as well as human-held monitors to capture data on overall air quality at the College Farm relative to proximity to the biodigester.
- **NORTH AMERICAN INSECT ABUNDANCE NETWORK:** Maggie Douglas constructed a malaise trap at the College Farm this summer to capture insects for her upcoming course on Applied Entomology. This course will contribute data to a national research project on insects and efforts to understand and document their decline in North America.

FARMDATA

The online farm records database system (FARMDATA) developed in conjunction with faculty and students of the Dept of Mathematics and



Computer Science continues to bear academic fruit. Professor William Groble is using FARMDATA as a case study semester project for his open-source software development course. Working with Matt, Professor Grant Braught secured supplemental funding for his sabbatical year to incorporate FARMDATA technology into a long-term soil health and climate monitoring database for the PA Association for Sustainable Agriculture. Grant also relies on the open-source development case study as a teaching tool and point of discussion for his collaborative work with faculty from other universities. LIS and Enterprise Systems staff worked with Matt to revise and reboot the original (active) version of FARMDATA after some security vulnerabilities were discovered.

INBM & CONSUMER BEHAVIOR COURSE

Jenn is working with faculty in INBM and Economics to design the INBM 300: Consumer Behavior course being offered next semester to integrate the College Farm program and Food Studies. A large part of this class will investigate the feasibility of developing and branding a pasta sauce line at the College Farm. This is an idea presented to the College Farm by alum, Mark Lehman and is supported by the Burgess Institute. In addition to the Consumer Behavior class, the farm and Burgess Institute will offer a paid student internship focused on developing, making, and testing pasta sauce recipes that will be integrated into the Consumer Behavior course goals.

CLASS VISITS/COLLABORATIONS

In just the fall semester, faculty from Studio Arts, Environmental Studies, Biology, German, Archeology, Computer Science, First Year Seminars, Geoscience, Food Studies, and Anthropology departments have utilized the College Farm and its staff to support learning outcomes. We estimate that well over 300 students engaged with the College Farm through academic visits over the 2024 spring and fall semesters.

FOOD SYSTEMS INTERNSHIP

The College Farm and Dickinson Dining Services are collaborating on a shared Food Systems Internship this semester. Student Ava Webb, '27 is working with both departments to better market and communicate the connection between the farm and dining services through creative marketing and programming. She is also surveying what students are most interested in learning about when it comes to the campus food system and developing strategies for conveying information that is useful to the student body.





Education and Outreach

CAMPUS-BASED

The College Farm has served as venue for many events and has hosted hundreds of students throughout 2024. We have continued annual traditions for events such as Harvest Fest on the College Farm and Oktoberfest with the German Club and German Department, while bringing in new events such as Sunset Farm Walks during Welcome Week for students and with the Wellness Center for staff. Our College Farm pizza events continue to be a fan-favorite, and this fall we expanded access to those pizzas by stocking the Devil's Den and Farm Works with frozen take and bake pizzas. We are always happy to support other groups on campus by joining in on their events or by serving as host for them, some which have included: the LGBTQ+ Center, the Asbell Center, the East Asian Studies department, the Center for Civic Learning & Action, the Center for Sustainability Education, the Library, the Mermaid Society, the Trout Gallery, the Italian Studies department, Greek Life and Athletics.

COMMUNITY-BASED

Aside from the visits discussed above directly related to biogas and our research and academic collaborations, we have hosted many visitors for tours of the College Farm. We always welcome self-guided visitors, and this fall we hosted almost 100 members of the public for a day of guided tours of the farm from our student workers. Additionally, this spring we offered Sustainable Earth Education (SEED) experiential learning programs to local schools and community groups in the Cumberland Valley. We paused this effort in the fall as we had staffing transitions taking place and we will reevaluate this form of this programming in 2025. Finally, the College Farm continues to serve as administrative support for the Dickinson College Community Garden, an active group made up of 25 local garden enthusiasts.



Farm Initiatives

FARM WORKS

Farm Works Kitchen Manager, Joe Rosas and our student team continue to exceed expectations at our on-campus farm store. Since the start of the fall semester, Farm Works has sold over 5,000 meals. Students can use meal plan points for lunch, as well as fresh vegetables, canned goods, frozen items, and fermented products.

New this semester is the introduction of small-batch ready-to-eat hummus featuring farm veggies, in addition to opening on Saturdays to pilot the sale of breakfast items. Donor funds support the Breakfast Team that consists of three students who prepare brunch items for sale each Saturday. While the small-batch items are proving to be a profitable addition to the Farm Works line up, farm staff are developing systems for better realizing the return on investment for the breakfast items.

Cheri Getty, the farm's Packing House Coordinator oversees all the farm's canned goods. So far, this calendar year, Cheri has produced over 1,363 canned goods which are supplied directly to the shelves at Farm Works—this includes our pickled beets, marinara and pizza sauces, dill pickles, salsa, jams

and shrubs, fermented products and more! In addition to canned goods, Cheri and our farm team have frozen close to 4,000 pounds of vegetables to ensure Farm Work's farm-to-table commitment. These frozen items will be the main ingredients in Farm Works soups and salads as we transition away from the main farming season. To accommodate the amount of frozen product, Farm Works invested in a new walk-in freezer. Funding for this key piece of equipment was provided through donor support.

For more information on the Farm Works store operation, please visit dickinson.edu/farmworks.

F.A.R.M LAB

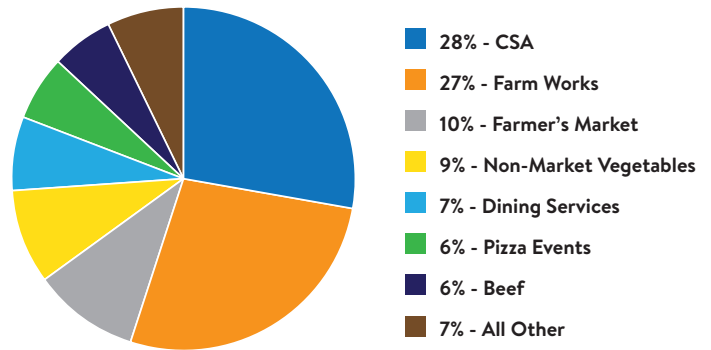
Based on the value redesign presented by Re:Vision and an inability to secure a lead donor despite concerted efforts, the College Farm was asked to pause efforts on F.A.R.M Lab. A lead donation would require \$3.5 million for this project to restart.

In the meantime, the College Farm staff with support from colleagues in Advancement have developed a Master Plan outlining current space needs at the farm, as well as concrete steps that can be taken toward ultimately realizing a year-round facility at the College Farm capable of supporting a wide range of needs and interest from our campus and local community.

Farm Financials

YEARLY TOTAL REVENUE	
YEAR	TOTAL REVENUE*
2020	\$160,757
2021	\$172,626
2022	\$198,993
2023	\$202,448
2024**	\$195,756

*INCLUDES FARM WORKS REVENUE BEGINNING IN 2022
 **AS OF NOVEMBER 22, 2024



The College Farm continues to have strong support as evidenced by our stable sales outlets. In 2024, we had over 140 CSA members that enjoyed weekly or bi-weekly shares of our certified-organic produce. Our CSA members represent Dickinson faculty, staff, students, alumni, and retirees, plus other interested members in the Carlisle area. We have continued to offer fresh vegetables at Farmers on the Square throughout 2024, forgoing our wood-fired pizza sales at the market. While this has led to a decrease in revenue, it has been valuable to streamline our operations at the market. A major component of our vegetable production is dedicated for sales to Dickinson Dining Services, supplying the dining hall with certified-organic produce and occasional College Farm beef specials. Our sales to Dining Services continue to outpace previous years as we have nurtured this partnership and planted accordingly. Other unique sales outlets include selling seed garlic and other vegetables to local farmers, plus facilitating online Farm Works, beef, and compost sales through our Square website [here](#).



COLLEGE FARM STAFF

Jenn Halpin, *Director of the College Farm*

Matt Steiman, *Assistant Director of the College Farm and Energy Projects Manager*

Alex Smith, *Vegetable Production Manager*

Cheri Getty, *Packing House Coordinator*

Sarah Hart, *Program Coordinator*

Joe Rosas, *Farm Works Kitchen Manager*

Kelsey Horowitz, *Crew Lead*

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