



Annual Report 2011





The *Duke Campus Farm* is a production farm and educational facility dedicated to providing the Duke community with fresh, sustainable produce and creating a living-learning laboratory around all things food and agriculture.

Mailing address

Duke Campus Farm
Box 90027
Durham, NC 27708
Phone: 919-660-1417

Physical address

4910 Friends School Rd
Durham, NC 27705

Interwebs address

www.farm.duke.edu
dukecampusfarm@gmail.com

Photo credit: Tawnee Milko, Anna Willoughby, and Noelle Wyman

One year, *One* acre page 3

5000 lbs. of produce page 5

700 volunteer hours page 6

19 community events page 7

13 media features page 8

6 academic classes page 9

5 student interns page 11

1 farm manager page 12

X years ahead page 13

Letter from the Farm Manager

One year

For the past year, we've rallied around the idea of "one year, one acre" as we breathed life into the dream of a farm at Duke University. The goal was simple enough: demonstrate that—in only one year and on only one acre—we could build a working farm that would irrefutably enrich the University experience. I am thrilled to share with you all the ways we are succeeding in the pages that follow.

To understand how far we've come, consider that in November 2010, the physical farm site was just an empty meadow. Today, as I write in early December 2011, the meadow has been transformed into row after row of lush greens, full of busy student workers.



Undergrads plant cover crop during the inaugural farm workday, November 2010.

One year ago, the 8-foot deer fence, greenhouse, picnic area, well, compost bins, irrigation system and hoop house were the restless dreams of our ambitious minds. Equally intangible were the student volunteers, institutional arrangements, and, of course, the plants themselves. One year ago, the Duke Campus Farm was an idea, born from the dream that students should have access to fresh, local produce and a basic understanding of how that food is produced.

Today, we are well on our way. The Farm has provided over 5000 pounds of fresh, organic produce to the Duke dining halls; we have attracted over 700 hours of volunteer work from across the University; and we have provided numerous experiential learning opportunities to students.

One year after breaking ground, the farm with a full half-acre in production, December 2011.



I thank all of you who have supported our work—this first Annual Report is dedicated to you, who have lent so much of your time and talents to the Farm. Together, we have nurtured an idea through its fragile infancy. With our roots firmly planted, we look forward to enriching this project and sharing an ever-greater bounty of food and educational opportunities with the Duke community.

See you all out on the Farm!

Peas and carrots,
Emily Sloss

One acre

The physical farm site rests on Duke Forest land consisting of one acre of production space, with a quarter to a half-acre in production at a time and the rest planted in cover crop. We're constantly amazed at how much food is produced in such a small space and plan to expand the growing space with each new season.

Our practices

We recognize that soil health represents our greatest challenge and our best opportunity. Healthy soils free us from the use of synthetic fertilizers or chemical pesticides. In August, we began experimenting with no-till practices that will build soil over time without interrupting the beneficial microbial community underground. After eight short months, our once-lifeless soil supports a growing earthworm population, proof that our labor-intensive efforts are bringing the soil back to life.

Closing the circle

We strive to minimize the use of off-farm inputs, and we wait patiently for our own compost to grow. In the meantime, we use compost made from food waste produced by the Duke dining halls, and processed by Brooks Contracting

Overcoming obstacles

While most of the 58 crop varieties we planted have exceeded our expectations, we've also learned that our little ecosystem doesn't support all crops well. Despite countless hours pinching bugs off of squash plants, we lost both our summer and fall squash crops to the voracious beetle. What did we learn? Farming is hard work, and risky. Managing risk requires growing a diversity of crops so that if one fails, there's still food to put on the table.

Winter growing

The asynchronous nature of the production season and the academic calendar offered another challenge. The farm is most productive in summer, precisely when student demand for food bottoms out. Our solution included building the infrastructure necessary to maintain food production throughout the winter months. This October we built our first hoop house and will expand capacity next year.

Honeybees

No farm works without the pollination services of insects. This summer, we welcomed five beehives to the Farm, which are tended by a local professional. The bees are hard at work pollinating our crops and storing honey for harvest come spring.



5000 lbs. of produce



Crop selection is one of the most exciting jobs on the farm. It's like bookbagging for next semester's classes, but more delicious. Like bookbagging, choosing what to grow involves careful scheduling, meeting University requirements, and a healthy portion of enriching electives.

Because everything we grow is served in the Duke dining halls, we meet with the Bon Appetit chefs at the beginning of each season to discuss how we can meet their needs. Then we pick some electives: purple bell peppers, heatless habaneros, white cantaloupe, orange watermelon, kohlrabi, red okra, purple sweet potatoes, edamame, and candy-cane beets.



From April to December of this year, we grew over 5000 pounds of produce, most of which ended up in students' daily meals. All dishes containing farm produce are clearly labeled in the Marketplace and Great Hall – so be sure to look for our logo!



Pictured above: Red and green okra, cherry tomatoes, peace watermelon, and Easter egg radishes.

700 volunteer hours

Without the hard work and enthusiasm of student, staff and faculty volunteers, there would be no Duke Farm. Despite the sweltering summer heat, frosty fall mornings, and the allure of the library during exams, students have shown up week after week to lend a hand.

Students pick green beans during weekly community workday, part of the 5000 lbs. harvested this year.

This fall volunteers contributed over 700 hours to harvest, plant and weed the rows. For many, it's their first time ever experiencing the joy of eating a carrot fresh out of the ground; for others, time spent at the farm reminds them of home or connects them to the lives of their grandparents' generation.



19 outreach events



Pictured clockwise from top-left: Farm manager gives a tour; CFS lower school students learn about soil; Alternative Spring Break; Pepper Jam Workshop; Fall Harvest Festival pumpkin carving.

Connecting with Duke, Durham, and Beyond

Our community engagement and outreach efforts focus on making connections between our farm and the vibrant local food system. The Duke Campus Farm is just one small piece of the big picture of the sustainable food movement and we believe our mission to create a truly diverse food education program would be incomplete without learning about the food system as a whole, sharing our experiences with others, and being good neighbors and active community members.

Highlights

Alternative Spring Break: Food and Farming in the Triangle

Twenty Duke and UNC students spent an intensive 4 days learning about local food systems. Each night students prepared dinner with local ingredients and shared their meals with guest speakers. Participants toured farm-to-fork restaurants, visited the Durham Farmers' Market, volunteered on local farms and at SEEDS, and got their hands dirty at the Duke Campus Farm.

Skill-building workshop: Pepper jam making

We believe that learning how to process and preserve produce is just as important as learning to grow it. In collaboration with Chapel Hill-based This & That Jam, we hosted our first skill-building workshop in November. Participants braved the soggy winter weather to learn basic canning skills and make a balsamic basil pepper jam with ingredients from the farm. Keep an eye out for details on our upcoming Spring 2012 workshop series.

Carolina Friends School

Building a strong relationship with our neighbors at the K-12 school across the street is important to us and has given us the opportunity to get to know many of their students. The 1st-4th graders came over once a week in May for lessons in soil science, the high school "Food Politics" class came over for a tour and discussion, and the middle school winter gardening class comes over once a week to learn how to apply our growing practices in their own garden.

"On Tour" in 2011

Homecoming Weekend:
Alumni Donors
Reception

Duke Endowment
Schools Sustainability
Summit

Kathy Rudy's "Food,
Farming and
Feminism" seminar
class

Carolina Friends
School, Upper School
"Food Politics" class

Annual Duke Forest
Research Tour

Trillium Workshop on
Sustainability Across
the Curriculum

Freshman Faculty
Outing, "Duke,
Durham, and Beyond"

Engineering 10: Pratt
Freshman small group
experience

"I Am What I Eat"
Duke Chronicle
Liz Bloomhardt, 11/19/10

"A Farm, For Starters"
Durham Herald-Sun
Neil Offen, 2/13/11

"Campus Farm to Provide Sustainable Food"
Duke Chronicle
Amanda Young, 3/1/11

"Duke Campus Farm Grows Relationships"
Working@Duke
Bryan Roth, 4/1/11

"Campus Farm: Students Bring Project Out of the Classroom to Put it on the Table at Duke"
Duke Environment
Tawnee Milko, 4/11

"On-campus farm draws interest from professors, students"
Duke Chronicle
Alejandro Bolivar, 4/19/11

"Enjoy Duke-Grown Greens at Eateries"
Duke Today
Bryan Roth, 5/5/11

"One-year, one-acre"
Duke Magazine
Ken Ilguanas, 7/11

"Eating for the Health of the World"
Towerview Magazine
Norman Wirzba, 7/1/11

"Emily Sloss manages Duke Campus Farm"
Duke Today
Bryan Roth, 10/29/11

"Duke Campus Farm has fruitful first year"
Duke Chronicle
Matt Barnett, 11/29/11

"New Farmers Confront Realities of Local Food Movement"
Voice of America
Steve Baragona 12/1/11

"Growing a Farm"
Duke on Demand, 12/8/11

13 media features

"Duke is not an agricultural school in the vein of public land grant universities, nor is this endeavor aiming in that direction. But, food is perhaps the most classic of interdisciplinary subjects. It has implications in health, environment, policy, economics, business and technology- related fields. In this sense, it fits the Duke model perfectly."

-Liz Bloomhardt

"The Duke Campus Farm is celebrating its first season in business. Many of its growing pains lie ahead. The same can be said for the movement it represents. These are exciting but difficult times for young farmers getting their first taste of farming life."

-Steve Baragona



Student volunteers harvest watermelons during summer workdays

6 academic classes

The Farm actively partners with students and professors to incorporate the farm into academic courses, independent studies and thesis projects. In the past year, six classes used the farm as their living-learning laboratory to conduct research projects related to the development of the farm. Formal (academic classes) and informal (workdays, workshops) learning experiences are equally important to our mission of education around all aspects of our food system.

Community Enterprise Law Clinic

Andrew Foster J.D., Jeff Ward J.D.

Third-year law students researched legality of selling produce through VAPs, CSAs and farmer's markets. Students drafted agreements that formalized and memorialized the farm's relationship with Duke.

ENV 302: Program Management

Prof. Dave Hinton, Ph.D.

Graduate students created a strategic plan to help the farm better integrate into the educational opportunities at Duke, through both formal and informal learning experiences.

ENV 298: Sustainable Agriculture

Prof. Chantal Reid, Ph.D.

Graduate students created a detailed agricultural management plan including crop and animal selection, crop rotations, and pest and fertilization practices.

ENV 298.31: Community Based Environmental Mgmt

Prof. Elizabeth Shapiro, Ph.D.

Graduate students researched what methods could be used to create and promote a sense of community around the farm in the undergraduate student population.

ENV 171: Food and Energy **Prof. Charlotte Clark, Ph.D.**

Undergraduates developed a marketing and communications plan in order to garner sustained student involvement in the Duke Campus Farm.

MMS 170: Integrated Markets Communication

Prof. Martha Reeves, Ph.D.

Students developed a print and media marketing plan for the farm, including a logo, commercial and website.

5 student interns



Summer brought the inauguration of our internship program. Student interns labored through the hottest summer months learning all aspects of sustainable agriculture production, from prepping the beds and planting the seeds to harvesting the crops for delivery.

Internships are critical to our mission, providing the farm with reliable and experienced labor while giving students opportunities to gain real-world skills and leadership experiences. This fall, more student interns joined the farm team, continuing to focus on crop production and with a renewed effort to expand campus outreach and education efforts.

A vital part of the student internship experience is learning what to do with the produce once harvested, whether it be cooking and eating together, or learning how to pickle, can and preserve the farm's bounty.

Another integral part of the internship experience is learning from other farms, both institutions and local farms. Throughout the year, students visited local farms and this summer the crew took a weekend trip to see Yale's farm, which provided many insights and inspirations to bring back to Durham.

Pictured above: Intern preps beds for planting; pickled snap peas from summer preserving; Duk interns at the Yale farm examining their trellised tomato plants.



1 farm manager

In August 2011, the University hired its first full-time Farm Manager, Emily Sloss. Emily (T '10) led the student team that conducted the original feasibility study for the Farm in Spring 2010. Emily spent the following year building the institutional and individual capacities to make the Farm both an agricultural and an educational success. Her official hiring in August represents a critical juncture for the Farm.

Having full-time staff provides stability in the midst of natural student turnover. More importantly, a full-time position demonstrates Duke's high-level support for the Farm and a continuing commitment to innovative ideas and sustainable initiatives. Without the support of the Sustainability Office and Duke Dining, who provide joint funding and management, the Farm would not be where it is today.



Farm manager, Emily Sloss, with the first-ever Duke Campus Farm vegetable harvested. April 2011

X years ahead

We've accomplished an incredible amount in our first year, and this is only the beginning. We still have a ways to go to make the Farm the world-class food education program we envision, one that influences the next generation of policymakers, CEOs, activists, engaged citizens, consumers, eaters and growers. Toward this goal, we look to 2012 as a year to solidify what we have already achieved and expand both our production and educational programs.

In the coming year we will launch a skill-building workshop series themed “How to Survive the Zombie Apocalypse”, start mushroom logs with Shitake and oyster mushrooms, and harvest our first strawberries and honey. We hope to reach more of the Duke community by selling our produce in CSA's, at the Duke Farmer's Market, or through value-added products like jam and pesto.



First time volunteers harvest beets. We grow red, golden and candy cane beets. Beet greens are also edible and delicious – tasting similar to spinach.

Thank you!

Without all of the support of dedicated individuals, departments, volunteers, and advocates, our dream could not have been realized. Thank you for all that you do.

**Office of the
Executive
Vice President:**

Dr. Trask
Sheila Alexander

Duke Forest:

Judd Edeburn
Sara Childs
Beverly Burgess

**University
supporters:**

President Brodhead
Larry Moneta
Duke Recycling and
Sanitation Department

**Community
partners:**

Carolina Friends
School
Brooks Contracting

Duke Dining:

Rick Johnson
Tammy Hope
Barbara Stokes

Bon Appetit:

Nate Peterson
Michael Moroni
Sarah McGowan
Emmanuel May
Curtis Wong
Ryan Sides
Nicole Tocco

Mentors:

Doug Jones
Mark Waller
Jeff Clark

Farm staff:

Lee Miller
Noelle Wyman
Scott Roth
Damon Cory-Watson
Anna Willoughby
Canon Brodar

Sustainability Office:

Casey Roe
Tavey Capps

**Our Board of
Advisors:**

Charlotte Clark
Norman Wirzba
Charlie Thompson
Franca Alphin
Larry Bohs
Hope Shand
Brenda Brodie
Michelle Nowlin
Casey Roe
Judd Edeburn
Tammy Hope
Sarah McGowan

Student leaders:

Michael Bernert
Emily Mendenhall
Darrow VW
Emily McGinty
Lauren Brucato