

# LaFarm 2015 Annual Report

Growing Lafayette College's Sustainable Food Loop



Presented by Sarah Edmonds

LaFarm Manager & Metzgar Environmental Projects Coordinator



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This project would not be possible without the generous support of:

- Summer 2015 Student Employees
- Professor Lawrence Malinconico
  - Professor Kira Lawrence
  - Professor Dru Germanoski
  - Professor David Brandes
  - Professor Benjamin Cohen
  - Office of the President
    - Ludwick Foundation
- Lafayette Sustainability Committee
- Lafayette Food and Farm Cooperative (LaFFCO)
  - Facilities Operations
- Excel Scholars- Joseph Ingraio '16, Alexa Gatti '16, Rachel Young '18
  - Environmental Science & Environmental Studies
    - Engineering Studies
    - Community Garden Members
    - Civil & Environmental Engineering
- Chef John Soder & Bon Appétit Management Company
  - Bruce Ferretti and Physical Planning

***THANK YOU!***

# LaFarm 2015 Annual Report

Join us as we reflect on our growing Sustainable Food Loop from 2008 to the present. As we cultivate our program it is our pleasure to share with you our strengths, our lessons learned and LaFarm's strategic plan for a bright, green future at Lafayette College.



## Mission

LaFarm is a sustainability initiative at Lafayette College, and the cornerstone of the Sustainable Food Loop. Our mission is to integrate curriculum and practice in sustainable food and agriculture for the campus community. We grow produce for the dining halls, recycle nutrients from composted food back to the soil, and serve as a laboratory for collaborative student-faculty education and research.

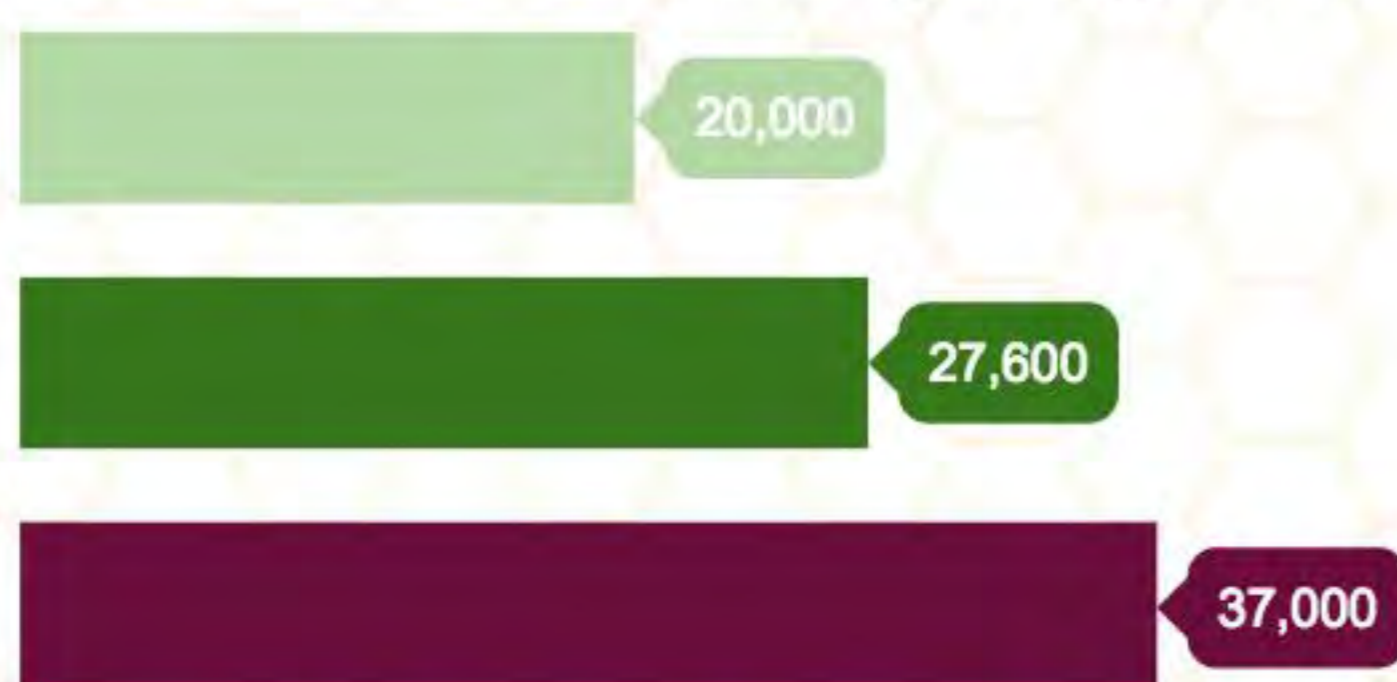


## Evolution

LaFarm germinated in 2008 with a 'Corn on the Quad' garden project, where students read Michael Pollan's "Omnivore's Dilemma" and worked with faculty to examine the ever-changing role of food in our lives, and on our campus. A student initiative, coupled with Mellon and Clinton Foundation grants grew the farm in the following years. In 2012 Lafayette's Ludwick Foundation supported Jenn Bell ('11) as LaFarm's first farm manager. Bell established the college farm, organized the community garden and hosted volunteers.

In 2013 LaFarm entered a new era when three years of Ludwick Foundation funding provided for a full-time farm manager. From 2013-2015 LaFarm, under the leadership of Sarah Edmonds, expanded production, built solar irrigation, implemented Good Agricultural Practices, managed soil fertility, worked with students, faculty, staff and community to fortify the burgeoning Sustainable Food Loop of farming, dining and compost.

Square Footage Production Increase



2013 2014 2015

Each year since 2013 LaFarm has increased programming, staff, events, outreach and production. In 2015 we maximized our perennial, cover crop and annual vegetable production space at our farm, located 3 miles from campus at the Metzgar Fields Athletic Complex.

Over the years we have cultivated many students, and even more land:

20,000 square feet in 2013  
27,600 square feet in 2014  
2015 increased to 37,000 square feet



Prisca Ratsimbazafy '17 Sells Cabbage At Fall Market



Senior Capstone Course In Environmental Studies And Science Presents Greening Lafayette



Leslie Tintle '16, Joseph Ingrao '16 & Farm Manager Edmonds Cultivate



Miranda Wilcha '16 Sows Radishes At LaFarm



Haley Mauriello '18 Rallies For Sustainability On Campus



# Farm & Food

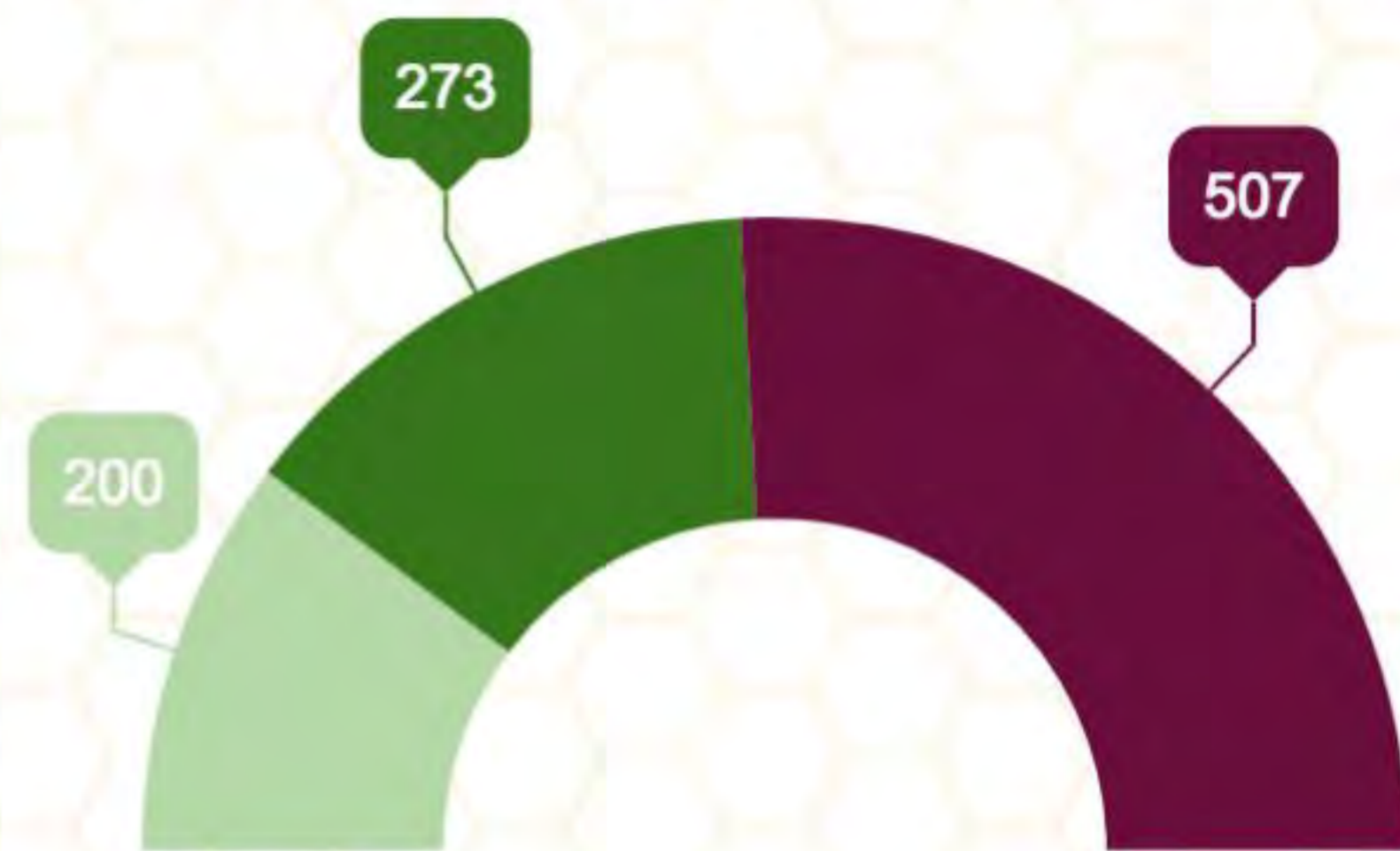
*In 2013 LaFarm moved into a new phase: as we grew from student initiative to working farm we began to focus the practice of growing food on campus as a means to educate the whole student. We increased student on farm work and research hours, expanded outreach to the community, made more friends and grew more food.*

*"Now I see the secret of making the best persons, it is to grow in the open air and to eat...with the earth."  
Walt Whitman*



## Momentum

What began as a student initiative has grown to a full fledged college program. LaFarm is now housed within Lafayette College's Programs in Environmental Science and Studies and has grown row-by-row since 2009. We now operate with an annual budget, a Faculty Advisory Board (LaFAB), one full-time farm manager, an active student organization The Lafayette College Food and Farm Cooperative (LaFFCo), an average of three excel scholars, 100's of volunteer hours and over ten part-time student staff annually.

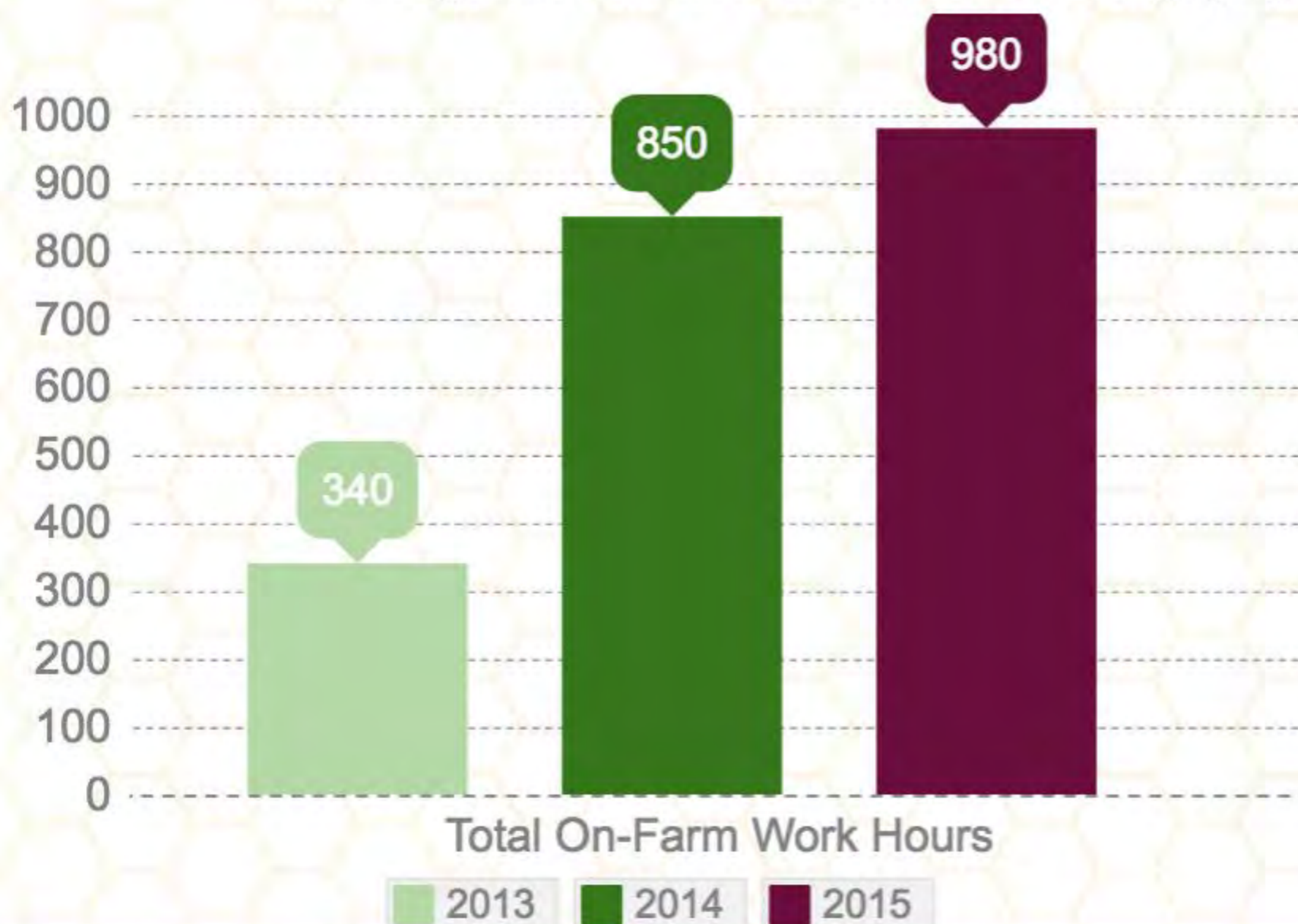


Total 2015 On-Farm Work Hours {980}



## Growth

As our program expands LaFarm is increasing its capacity for programs, students and production. Our paid staff and student research hours have nearly tripled in as many years. That's more hours of hands-on learning, more days integrating classroom knowledge into field work and more hours engaging in real world food and farm practices.



LaFarm is a year round operation, and a three season farm. We cultivate the fields from March thru November. In those nine months we start seeds, maintain tools, weed, manage pests and disease naturally fertilize, harvest and deliver produce.



• LaFarm Solar Powered Irrigation System- Thanks To The Generosity Of Alum Art Hendrickson '51 & His Wife Ginny, & A Team Of Students In CE 421 Hydrology & Prof. Brandes



• Joseph Ingrao '16, Leads Off-Campus Volunteers Through A Day Of Harvesting & Washing Vegetables



• Colorful Carrots At Market



• Members Of Delta Upsilon Spread Compost On Spring Planting Beds

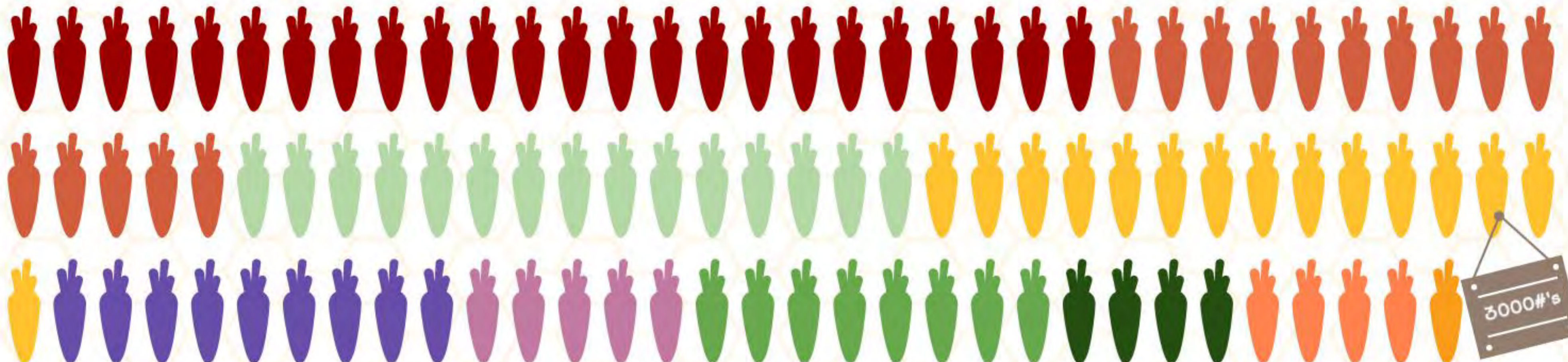


• Professor Rothenberger Leads Her BIOL 110 Edible Ethics Course In A Workday At LaFarm



# Improvement

My how we have grown! 2015 was LaFarm's most productive year to date. Even in a summer where we lost whole crops and many hours of production work to an early summer hail storm we managed to cultivate and harvest over 3000 pounds of all-natural vegetables.



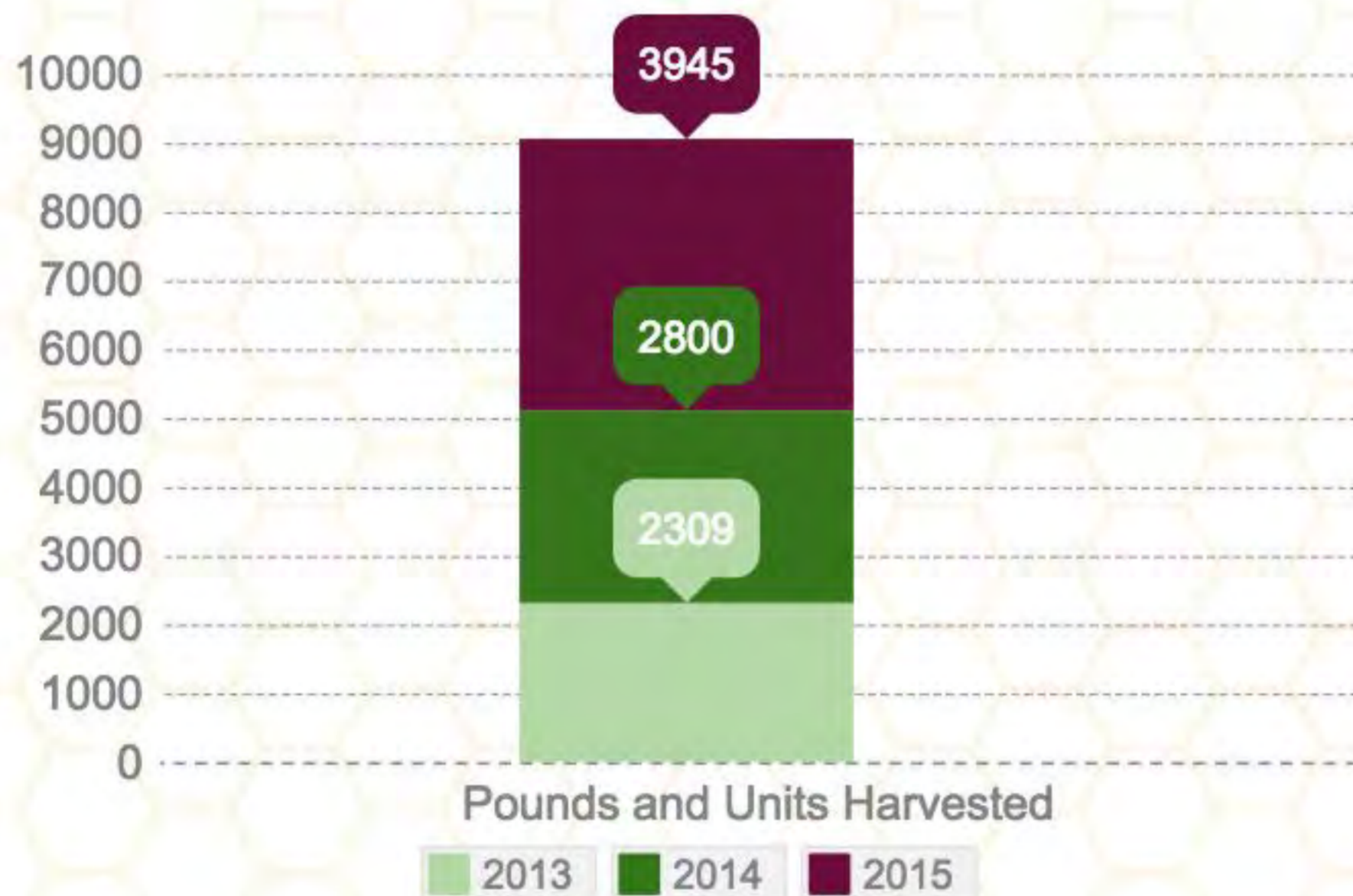
- Tomatoes 650 lbs (24%)
- Potatoes 408 lbs (15%)
- Cucumbers 400 lbs (15%)
- Squash 395 lbs (15%)
- Eggplant 240 lbs (9%)
- Onions 127 lbs (5%)
- Beans 210 lbs (8%)
- Peppers 105 lbs (4%)
- Carrots 110 lbs (4%)
- Sunchokes 35 lbs (1%)

3000#'s



# Advancement

Take a look at our production over three years. As of December 2015, LaFarm has harvested over 7,300 pounds of produce, and an additional 1660 units of specialty herbs and crops. It all adds up...



Delta Upsilon Shows Up To Do The Most Thankless Jobs On The Farm...Fall & Spring Clean Up!



Patrice Gonzalez '19 Joins In Carving Pumpkins On The Quad A Picnic Hosted By The Environmental Science & Studies Programs & Featuring Produce Grown At LaFarm



Alexa Gatti '16, Miranda Wilcha '16 & Rachel Young '18 Harvest On A Gorgeous Day



LaFarm Salsa, Selling Out Since 2015



Rachel Young '18, Karolina Vera '17, & Prisca Ratsimbazafy '17 Great Patrons At LaFarm's Holiday Farm Market



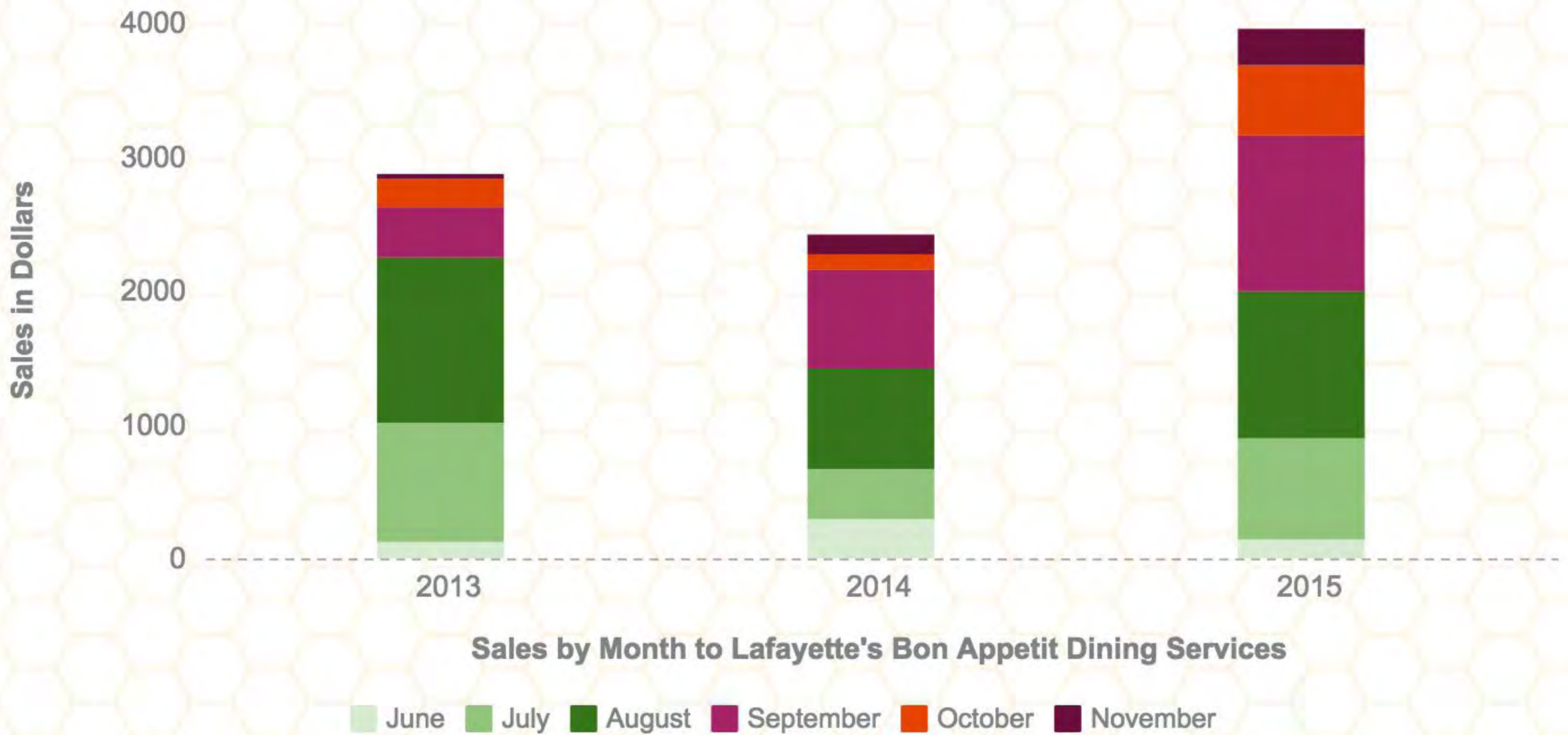
Peter Todaro '17, Brynn Fuller-Becker '19, Emily Maj '19 & Monica Wentz '17 Attend A LaFFCo Meeting





# Expansion

Your farm, your food! Each year more students are engaged with food and farm activities on campus. We have worked hard to plan our planting and harvests to contribute to the overall sustainable food miles of the food that we eat at Lafayette. Shifting our harvest focus to fall has enabled us to provide a longer season for fresh food and increased the months we grow food for Marquis, Farinon and Gilbert's dining facilities.



# Contribution

Your farm, your donations! As of December 2015, LaFarm has donated over 1100 pounds of produce to Easton area residents who are food insecure.

# 1100



Rachel Young '18 Helps Distribute Vegetables In Collaboration with LaFarm, Lafayette College Technology Clinic & The West Ward Neighborhood Partnership In An Effort To Bring Fresh Produce Into Easton



Professor Lawrence & EVST 290 Class Visits LaFarm



Members Of The Lafayette College Community Enjoy A Seasonal Meal After A Day Of Service Spring Cleaning At LaFarm Or Bushkill Creek



LaFarm Food Graced The Tables At The FYS 059 Feed The World: The Grand Challenge Of Global Hunger Presentation



Taha Rohan '19, Fatima Haidari '19 Join In Carving Pumpkins On The Quad



# Dining

*LaFarm produces vegetables for our college dining services in addition to what we grow for local food donation and our on-campus farm market. Our work with campus dining has expanded and has gone from an insurmountable challenge to a flourishing opportunity over the course of five years.*

*"Teaching kids how to feed themselves and how to live in a community responsibly is the center of an education."  
Alice Waters*



# Providing

The Sustainable Food Loop builds and connects viable parts of the college food system. Food and Farm, Dining Services and Compost production are the anchors of this loop. LaFarm aims to strengthen the food loop and increase campus sustainability by reclaiming some aspects of food production. Lafayette Dining Services currently purchases all of the vegetables we grow for them. LaFarm works with Lafayette's head chef to chose vegetable varieties, establish prices and ensure both the quality and quantity of LaFarm grown vegetables.



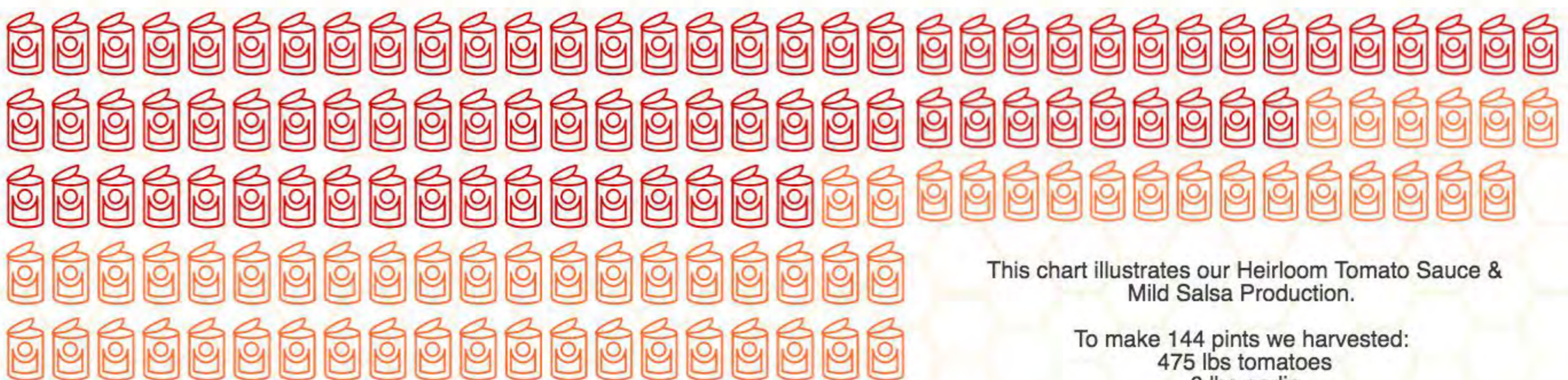
- Employee Wellness Fair
- LaFarm Garden Spring Picnic
- Earth Day Food & Farm Events
- FYS: Feed the World
- Eat Local Challenge
- Board of Trustees Dinner
- New Student Orientation Picnic
- EVST Picnic on the Quad

## 2015 Dining and LaFarm Special Events



# Sustaining

In 2014 LaFarm began visiting campus to offer faculty, staff and students the opportunity to purchase hyper-local, student-grown food at a fair price. Over the last two years we have brought vegetables to campus and sold those to supplement our budget and build our program. We have also added organic merchandise, value added Heirloom Tomato Sauce and Mild LaFarm Salsa to the table. This helps us preserve our harvest and extend our market season.



- Heirloom Tomato Sauce
- Mild LaFarm Grown Salsa

This chart illustrates our Heirloom Tomato Sauce & Mild Salsa Production.

To make 144 pints we harvested:  
475 lbs tomatoes  
6 lbs garlic  
18 lbs onions  
18 lbs bell peppers  
1 tote oregano, cilantro & rosemary  
2 totes basil

## LaFarm Preserved 144 Pints of All Farm Grown Sauce and Salsa



Peter Todaro '17 & Leslie Tintle '16  
Harvest Vegetables At LaFarm



Peter Todaro '17 & Miranda Wilcha '16 Present Making An Android App & Web-Based Map Of Food Providers & Producers In The Easton Community So That Residents Have Access To Fresh Local Produce As Part Of The Digital Humanities Internship Program



# Compost

*We grow LaFarm produce with natural and intensive crop rotation methods as we focus on healthy soil, nutritious vegetables and Good Agricultural Practices. Campus made compost is returned to LaFarm, and is the key to our fertility and healthy soil biome. In a calendar year we use all of the compost that is delivered to Metzgar Fields on our working farm fields, and on our pollinator and native plant gardens.*



## Replenishing

Amending LaFarm soil with compost is a tenant of our production plan, which currently focuses on balancing soil PH, reducing weeds and rebuilding damaged soil biology. The estimated pounds of compost applied annually since 2014 is 15,000 pounds, or about 15 cubic yards. This is roughly 150 wheelbarrows worth yearly. With these actions we believe Lafayette College can close the loop on energy loss and benefit from increased sustainability.



150 Wheelbarrows of College Made Compost Applied in 2015



## Reevaluation

After much passion and dedication a student compost initiative was institutionalized at Lafayette in 2010. Campus wide composting was handed over to be overseen by Plant Operations (renamed Facilities Operations in October of 2015) and has produced high quality compost periodically since its inception. However, the current system is in need of reevaluation because of systemic issues.

These issues are explored in more depth and assigned specific recommendations in a 2015 State of Compost Report, but can be summarized as; irregular starting and stopping of the Earth Tub system, repeated broken and undersized/overworked pulpers in the colleges largest dining halls, lack of data collection on total food waste, the use of only post consumer compostable food waste, inconsistent food collection from dining locations and partial collection campus wide. In addition we have un-codified finished compost harvesting and informal systems of compost delivery, and lack of labor and proper tools for efficient use of compost at LaFarm. Record keeping of food pickup, temperature recording and total hours devoted to compost specific work on campus seems to be inconclusive or at least not transparent.

In order for the Sustainable Food Loop to be an effective initiative we need to explore and close some of these gaps. In addition to increasing benefits and efficiency of the SFL, identifying and closing these gaps has the potential to provide the college rich and varied research opportunities, fertile data sets and the potential to build a model system with local, regional and global influence.



• Potatoes In High Summer At LaFarm •



• Mr. Zhu '17 Joins In Carving Pumpkins On The Quad •



• Wheelbarrows Ready To Load Campus Made Compost At LaFarm •

# Looking Back & Moving Forward



*"For the true measure of agriculture is not the sophistication of its equipment the size of its income or even the statistics of its productivity but the good health of the land."  
Wendell Berry*



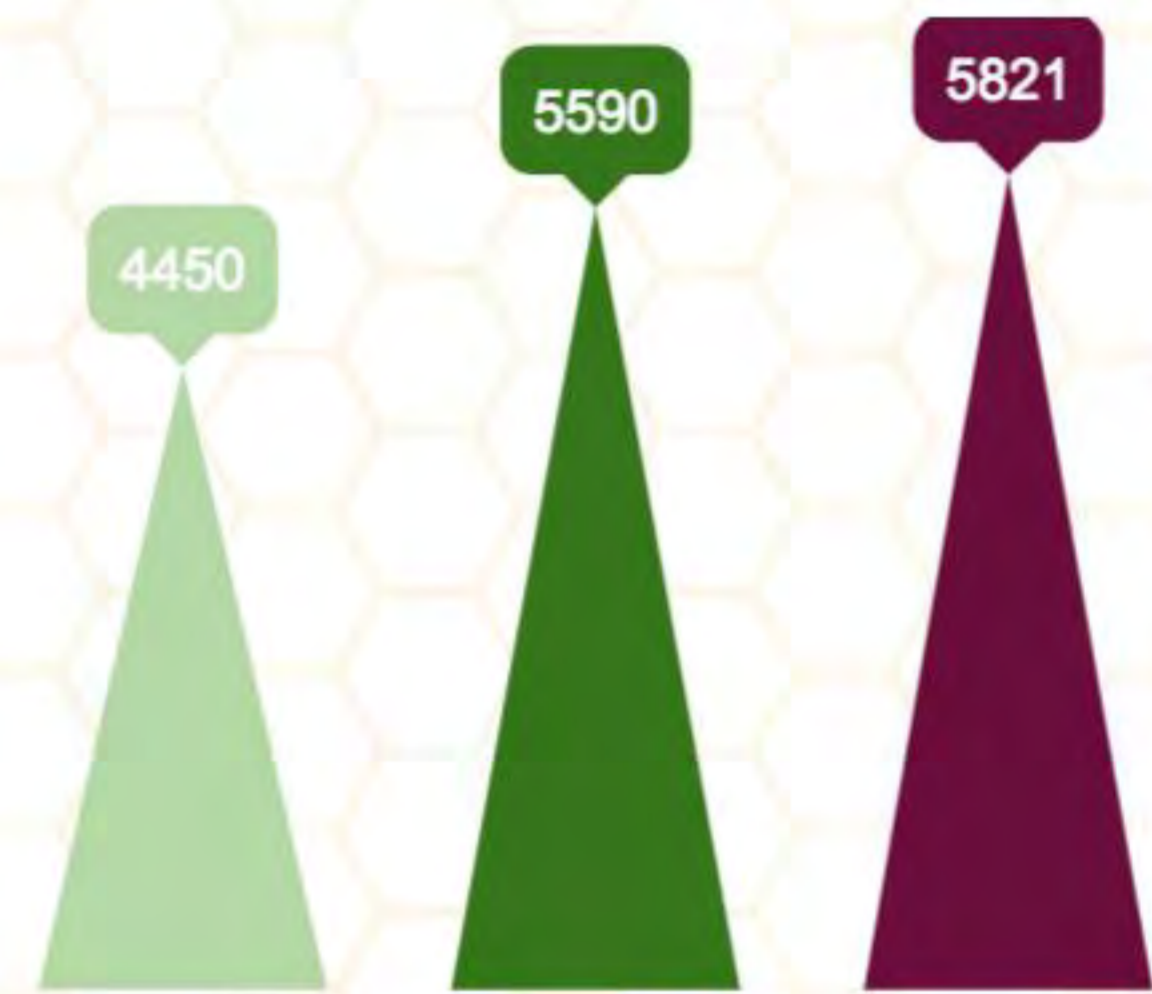
## Progression

In the last three years LaFarm has increased our reach at every level. Let's talk about progress!

Acres in Production

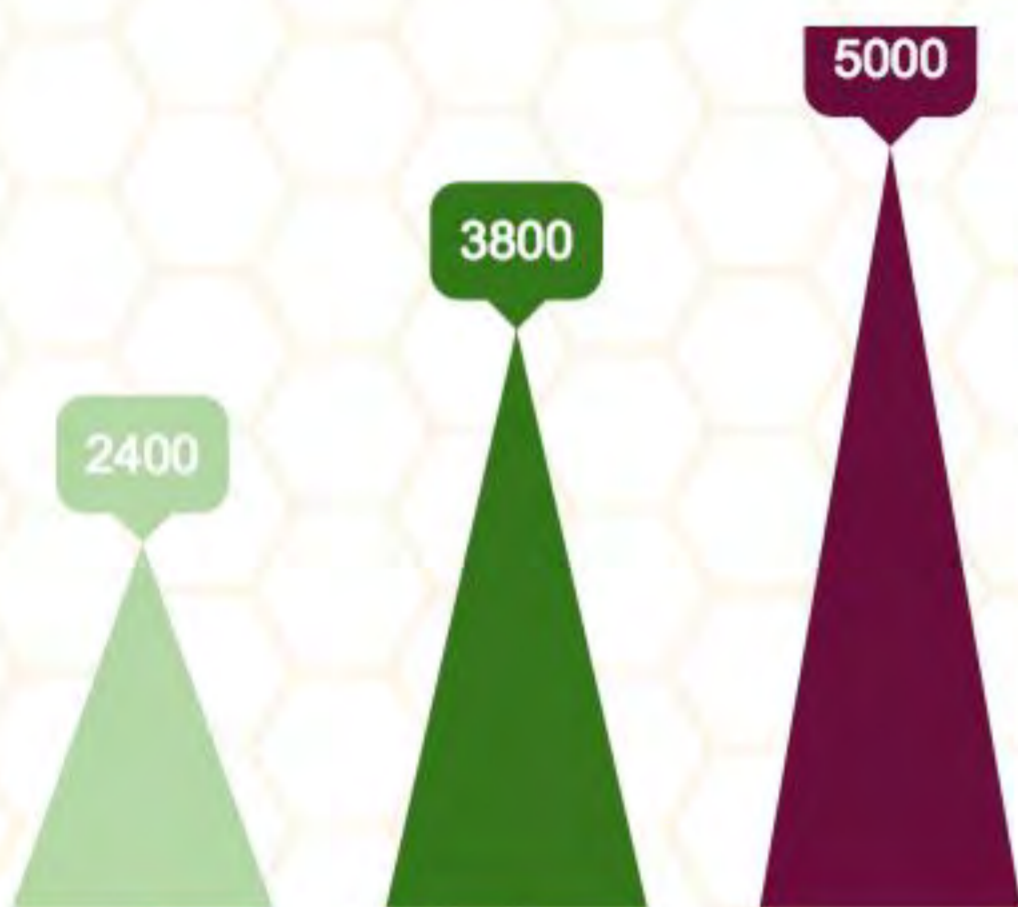


2013 2014 2015



Revenue by Year

2013 2014 2015



Drip Irrigation Feet by Year

2013 2014 2015



Number of Campus Dining Deliveries

2013 2014 2015



Four Row Seeding at LaFarm Is Efficient & Sustainable



Rachel Young '18 & Alexa Gatti '16 Harvest Eggplant



Heirloom Tomatoes At Market



Alexa Gatti '16 Sows New Seed Flats On A Rainy Farm Day



Our Green Mountain Earth Tub Is A Fully Enclosed Composting Vessel Featuring Power Mixing, Compost Aeration, & Biofiltration Of All Processed Air



# Integration

Over the last six years LaFarm has built capacity on our land and in our programs. As a living laboratory we naturally integrate science, engineering and liberal arts in our hands-on work.

*"The ultimate goal of farming is not the growing of crops, but the cultivation and perfection of human beings."  
Masanobu Fukuoka*

## Synthesis

In a typical year we will host students from most majors at LaFarm. Our most productive projects have integrated students and classes from multiple programs such as: Art, Biology, Capstone Classes, Civil Engineering, Engineering Studies, Environmental Science, Environmental Studies, Geology and Environmental Geosciences, Excel Research Scholars, First Year Seminar & History.





Fletcher Horowitz '16 & Leslie Tintle '16 Trellis Early Summer Tomatoes



Adam Gerhart & Kelly Elsenbaumer Gerhart, Meet With Student Alexa Gatti '16 & Professor Cohen To Discuss The Easton Hunger Coalition With Nancy Walters At LaFarm





# Generative

We have been doing good work, and it is nice to see the fruits of our labor. Since 2013 LaFarm has been featured in over eighteen print articles and many more conferences and online publications.

"Equal Footing"  
Grid Magazine  
February 2015



"Food For Thought"  
Lafayette Magazine  
Fall 2015

"Food, Art Are Topics  
Talks at Lafayette  
College This Week"  
The Easton Eccentric  
October 2013

"Groups work to make  
produce plentiful in cities"  
The Morning Call  
May 2014

"Lafayette's Food Loop:  
LaFarm Allows Students to  
Learn and Grow Together"  
Lafayette Communications  
September 2014

"The Seed Farm Grows Next  
Generation of Farmers"  
Cornell Small Farms Program  
January 2015



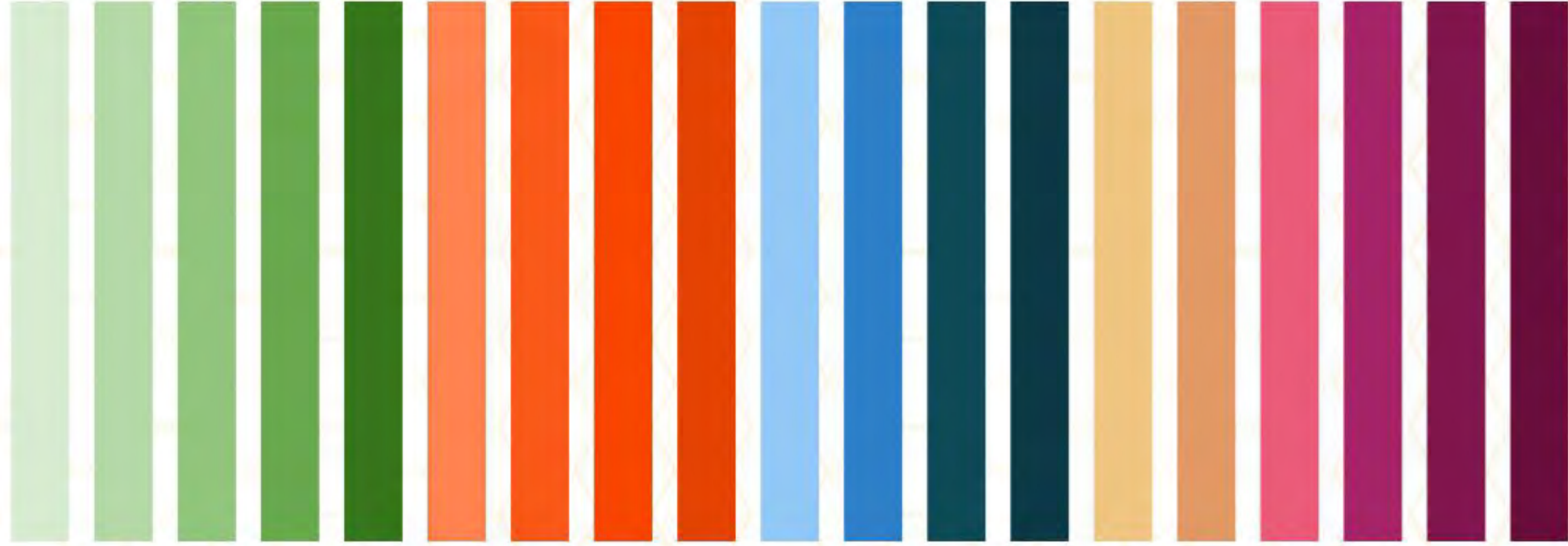
"From Seed, To Farm, To  
Market, You Might Not  
Recognize The New Face  
Of Farming In The Valley"  
Lehigh Valley Style  
April 2015

"Inside the  
Flourishing World  
of College Farm  
Programs"  
Hometalk  
April 2015



# Improvement

We have worked with many classes and student groups over the years.



- Art
- Biology
- Capstone
- Civil Engineering
- Engineering Studies
- Environmental Science
- Environmental Studies
- Excel Research
- First Year Seminar
- History
- LEAP
- SEES
- LaFFCo
- Veggies in Communities
- RES Life
- ECOreps
- Green Building Club
- Delta Upsilon
- Pan Hellenic Council





• Early Plants Germinate At The Seed Farm Greenhouse, A Non-Profit That Helps LaFarm Gain Greenhouse Access •



• Leslie Tintle '16, Rachel Young '18 & Alexa Gatti '16 Run The Summer Campus Farm Market At Gilbert's Café •



• Professor Cohen Visits LaFarm With FYS 018 Ten Ways To Know Nature Class •





# Enhancement

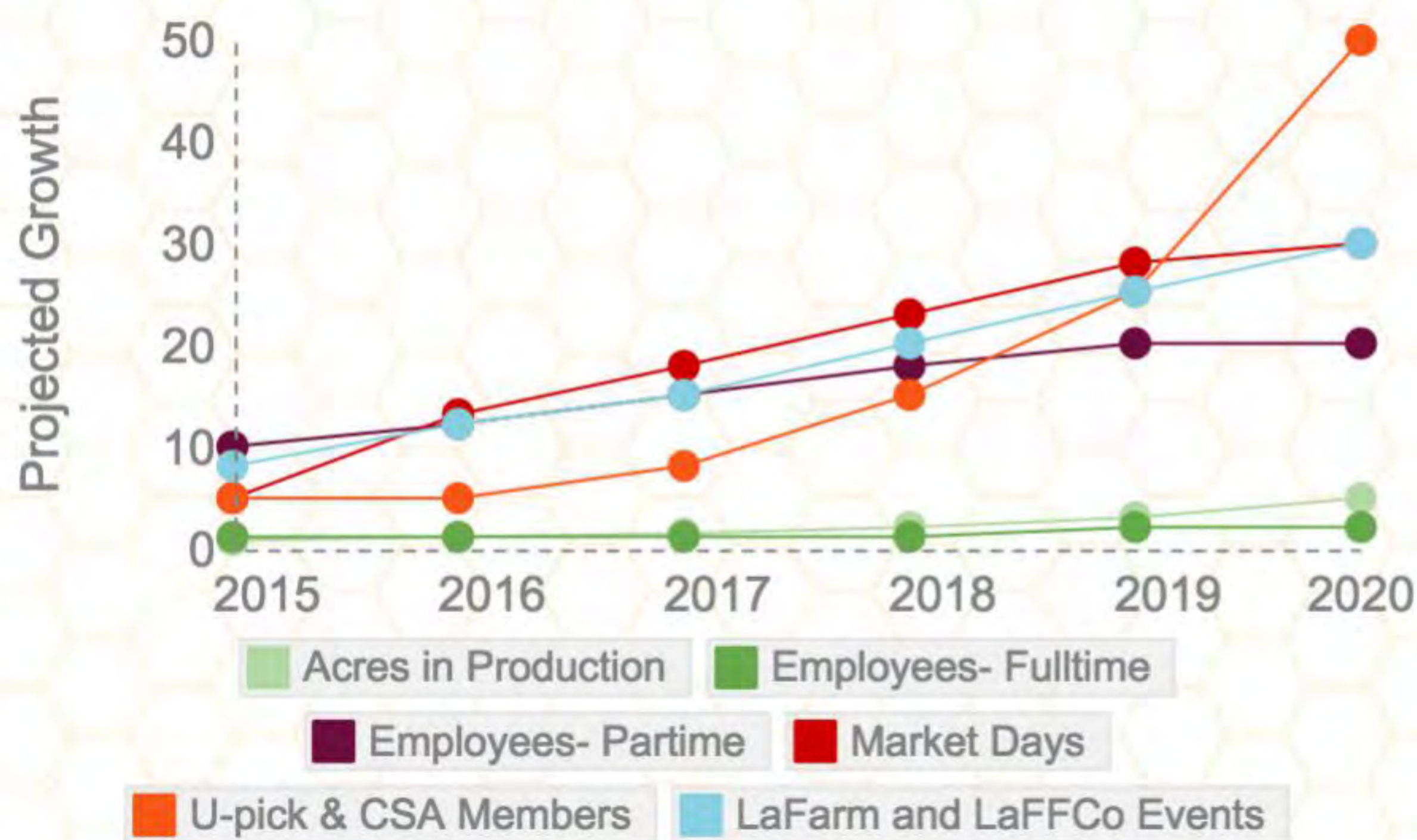
LaFarm, The Lafayette College Community Garden & Working Farm is entering into an exciting new phase of its evolution. Through the collaborative work of college faculty, administration, dining services and student support LaFarm has met and in many cases surpassed our Phase One goals. As we advance from cotyledon to a full flowering program we look forward to a bright future. One with expanding possibilities for food and farm programming on campus, integrated regional outreach, a more rigorous Sustainable Food Loop and improved integration with all academic departments.

As we grow we understand that flexibility, readiness and agility are now more important than ever. The LaFarm Advisory Board is designing a strategic plan to guide our college farm in to a multiphase period of growth. This growth is inspired and inline with the core values of Lafayette College; diversity and inclusion, community engagement and sustainability. As we work to strengthen our program we point specifically to Lafayette College's pledge "to cut global warming emissions, integrate sustainability into the curriculum, and cultivate solutions to ensure a healthier environmental future."



# Row-by-Row

This report celebrates the end of Phase One as LaFarm commences with our strategic three, five and ten year plan to build a Sustainable Food Loop Center. Lafayette College is committed to building an office of sustainability in 2016, and with that dedication we turn the corner to grow our way to a greener future.



Professor Lawrence & EVST 290 Class Visit LaFarm