LaFarm Annual Report 2014
Growing Impact for a Sustainable Future

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LaFarm is the cornerstone of the Lafayette College 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 student-faculty collaborative research.
Growing Identity: Local to Global

LaFarm serves as a living laboratory that educates the whole student. LaFarm teaches our students to be hands-on, lifelong learners who care about their local ecosystem and are committed to making a positive impact beyond the campus.

Every day that vegetables are planted, tended to, harvested or served in the campus-dining hall our students are playing an active role in becoming more sustainable humans. Each batch of compost that is created is a metric that shows our students are reducing their environmental footprint.

As a living laboratory, LaFarm is the perfect complement to the Lafayette College liberal arts education.
**Growing Identity: The Sustainable Food Loop**

The Sustainable Food Loop (SFL) makes our campus more sustainable by building and connecting viable parts of the college food system. We address and implement sustainable solutions in food production, consumption and food waste on campus.

LaFarm aims to close the food loop and increase campus sustainability by reclaiming some aspects of food production, providing produce to the dining halls and composting food waste from the dining halls back into nutrients for the college farm. LaFarm, the cornerstone of the SFL, is a two-acre working farm and community garden where we grow produce for campus dining services. In addition to our one-acre working farm, the Lafayette College faculty, staff, students and alumni manage their own community garden plots. Community gardeners grow a variety of edible and beneficial plants for donation, research and private consumption. LaFarm provides a place for our community to come together and practice healthy living. We are an irresistible and vibrant resource for all things sustainable and agricultural on our campus.
Growing Impact: LaFarm by the Numbers

Located three miles from campus, we are the hub of food and farm at Lafayette College. 2014 was our sixth year in operation and was our biggest & best yet.

LaFarm Hosted Classes Throughout 2014

- Art
- Biology
- Civil Engineering
- Engineering Studies
- Environmental Science
- Environmental Studies
- Excel Research
- History

& Campus Groups

- LEAP - Lafayette Environmental Awareness and Protection
- SEES - Society of Environmental Engineers and Scientists
- Tech Clinic – Veggies in the Community
- Office of Residence Life
- Eco Reps
- Green Building Club
- Delta Upsilon
- & All Members of the Pan Hellenic Council

Dining Services sets up for campus wide farm-to-table picnic
Growing Impact: LaFarm by the Numbers
2014 By the numbers.

- **2000 pounds** of weighed produce
- **800** additional units of herbs, onions and cabbages harvested and sold
- **2 acres** maintained
- **20,000 square feet** of production space
- **360 hours** of student research
- **490** student employee hours

- **12** special groups
  - 1st ever on-site sustainable wood fired pizza event

- **1st environmental science and studies** majors picnic
- **20** garden plots rented
- **3 monarch butterfly** way stations installed
- **4 new perennial** beds planted
- **25 hours** of solar powered irrigation
- **280 pounds** of tomatoes processed into sauce

**SUMMER STAFF MEMBER KELVIN SEREM PLANTS PERENNIALS AT COMMUNITY GARDEN**
Growing Impact: LaFarm by the Numbers
Some comparison metrics from 2013 and 2014.

<table>
<thead>
<tr>
<th></th>
<th>Student Staff Hours</th>
<th>Student Research Hours</th>
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<tbody>
<tr>
<td>2013</td>
<td>340</td>
<td>0</td>
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<tr>
<td>2014</td>
<td>490</td>
<td>360</td>
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- **Campus Dining Deliveries**
- **Campus Market Weeks**
- **Acres of Production Space**

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
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</thead>
<tbody>
<tr>
<td>Campus Dining Deliveries</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>Campus Market Weeks</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Acres of Production Space</td>
<td>0.45</td>
<td>0.64</td>
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</table>

- **Income**
- **Donations**

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>4450</td>
<td>5590</td>
</tr>
<tr>
<td>Donations</td>
<td>4000</td>
<td>8290</td>
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</tbody>
</table>
Growing Impact: LaFarm by the Numbers

Professor Cohen Discusses Food Production Models in his FYS: Ten Ways to Know Nature Class

Professor Lawrence and Professor Hejny carve sustainably grown pumpkins with Environmental Studies and Science Majors at LaFarm
Growing Impact: LaFarm by the Numbers

LaFarm in 2014: Efficient Work, Academic Integration, Special Events & Bountiful Harvests

JOSEPH INGRAO, ERIC GIOVANNETTI AND KELLY CARPENCY TILL BEDS AND HARVEST SQUASH, CUCUMBERS AND MIXED BEANS
Growing Impact: On LaFarm
We grow all natural produce from scratch at LaFarm. This means each plant is sown from certified organic seed into soil that has been amended with Lafayette made compost. The plants are irrigated with our solar powered well system, weeded, treated for pests and disease and given daily care. In addition we have added cover crops to our rotation. Cover crops feed the soil, help prevent erosion and manage weed seed banks. The investment we make by planting cover crops is underground, but using them to keep organic systems healthy is priceless.

Some Cover Crop Highlights from 2014

Sunn Hemp
- Fixes Nitrogen
- Attracts Pollinators
- Creates Habitat

Oats
- Winter Killed
- Smothers Weeds
- Prevents Erosion

Buckwheat
- Smothers Weeds
- Fast Growing & Economical
- Attracts Pollinators

More Cover Crops

Cover crops thrive in this stellar Lafayette Community Garden plot
¼ of our community gardeners grow cover crops voluntarily
In addition LaFarm had 7600 square feet of cover crop growing in 2014

Sunn Hemp Fact: Via atmospheric nitrogen fixation, sunn hemp may accumulate as much as 180 pounds of nitrogen per acre. This crop also adds 2.5 to 11 tons of organic matter when incorporated into the soil. *U.S. Department of Agriculture, UF/IFAS Extension Service, University of Florida
Growing Impact: On Campus

Campus Market
In 2014 LaFarm was on campus in big ways. The Gilbert’s Campus Market started in July and was a huge success. For 15 consecutive weeks students rose early, in all weather, to harvest and set up veggies and manage the market. We made friends, shared recipes & sold LOTS of produce & flowers.

Holiday Market
LaFarm hosted our first ever holiday market at the end of harvest season in December 2014. Features included farm-grown tomato sauce, dried herbs, herb oil, shallots, winter squash, leeks, onions, beets and more. Happy Holidays, indeed!
Campus Dining Hall Vegetable Delivery

Getting fresh produce to campus weekly was a highlight of our 2014 Season.

<table>
<thead>
<tr>
<th>Monthly Sales</th>
</tr>
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<tbody>
<tr>
<td>November</td>
</tr>
<tr>
<td>October</td>
</tr>
<tr>
<td>September</td>
</tr>
<tr>
<td>August</td>
</tr>
<tr>
<td>July</td>
</tr>
<tr>
<td>June</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Month</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$292.20</td>
<td>$374.95</td>
<td>$750.75</td>
<td>$735.05</td>
<td>$177.50</td>
<td>$147.10</td>
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</table>
Growing Impact: On Campus

These are the vegetables harvested for Bon Appétit Management Company (BAMCO) in 2014.

BAMCO Sales (bunched crops and cabbage)

BAMCO Sales (weighed crops)
Growing Impact: On Campus
LaFarm is in operation year round, with a three-season production schedule. As we refined our growing practices and infrastructure we increased vegetable sales to campus in the months when more students are on campus to enjoy them. These charts illustrate a shift in our planning to make sure we have plentiful vegetables all summer and through the fall semester.
Growing Impact: On Campus
In 2014 Campus Dining Services featured LaFarm vegetables for special events. You can’t get more local than harvested here, on the day of the event!

Campus Activities Fair 2014

Menus created with Campus Executive Chef John Soder

Fresh Flowers

Seasonal Produce & Herbs

Hyper Local Food
Growing Impact: On Campus
LaFarm works with campus groups, clubs and classes year round. This year we advised, met, built community and raised awareness with these fine folks.

- Gary Paul Nabhan & Earth Month activities
- Campus Sustainability Committee
- Our Beloved Communities admissions event
- Living Learning’s Monroe Street/Foodie House compost system
- Student initiated on-campus pollinator garden
- Campus wide composting coordination with BAMCO and Plant Operations
- SEES (The Society of Environmental Engineers
- Food History class with Professor Pite
- Technology and Nature class with Professor Cohen
- Library Ambassadors Club
- Co-advising with Excel Scholars
- Co-Advising with LaFFCo, the new Lafayette Food and Farming Cooperative student club
Growing Impact: In Our Region
Growing where you are planted is one thing, but LaFarm made a huge effort in 2014 to do good work outside of our two acres and beyond our campus gates. Here are just a few of our adventures.

- LaFarm summer staff learns horse powered vegetable production at Good Work Farm
- Community garden building at Nurture Nature Center
- Presented at the Women in Agriculture Network Annual Conference
- Worked in the greenhouse and harvested medicinal oats at The Seed Farm
- Exchanged farm tours and work days with Northampton County Community Gardeners and Lehigh University students
Growing Impact: In Our Region

- Attended Good Agricultural Practice workshops
- Partnered with Buy Fresh Buy Local and Easton Area Schools for five ‘Farm to School’ programs about the importance of food and farming
- Attended Organic Growers Intensive training
- Presented at nutrition class at Steel Fitness
- Participated in Envision Lehigh Valley Food Economy and Farmland Preservation events
- Continued our education on water and soil testing with Penn State
Growing Impact: Globally

In response to growing global environmental issues LaFarm is making change locally to reduce our footprint as we grow the Sustainable Food Loop. In 2014, thanks to the family of Bryan Hendrickson ’10, Lafayette College engineers and Professor Brandes’s advanced Hydrology course, LaFarm implemented a sustainable solution by irrigating our crops with a solar water pump, storage tank and gravity fed irrigation. Being off the grid is one way we are living our mission at LaFarm.

Our crops need an inch of water a week for maximum production. That water is applied though efficient drip irrigation that brings the needed water directly to plant roots, reduces plant pathogens and cuts back on water wasted through evaporation. In 2014 we used 25 hours of solar powered irrigation.
Growing Impact: Globally
How does a grass roots, student initiated college farm make a dent in the global industrial food system? A few ways we make global change:

Create Habitat

Develop Monarch Way Stations

Reduce the Use of Fuel Powered Tools

Plant to Attract Beneficial Insects and Pollinators
Growing LaFarm’s Future: We Can Get There From Here

Successful farming depends on many factors, managing resources is at the top of that list. Our financials from 2014 show where we use our resources and how we are growing our program. These financials illustrate that we are self-sustaining.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Projected</th>
<th>Actual</th>
<th>Balance</th>
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<tbody>
<tr>
<td>Farm Labor Needs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor</td>
<td>$38,800.00</td>
<td>$38,800.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Sustainability Funds from Office of Finance and Administration</td>
<td>$4,000.00</td>
<td>$4,000.00</td>
<td>$0.00</td>
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<tr>
<td>Seeds and Plants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment &amp; Hardware</td>
<td>$5,200.00</td>
<td>$5,157.17</td>
<td>$42.83</td>
</tr>
<tr>
<td>Pest &amp; Weed Control</td>
<td>$1,000.00</td>
<td>$1,006.61</td>
<td>($6.61)</td>
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<tr>
<td>Greenhouse &amp; Soil</td>
<td>$500.00</td>
<td>$248.58</td>
<td>$251.42</td>
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<tr>
<td>Harvest and Delivery</td>
<td>$400.00</td>
<td>$398.80</td>
<td>$1.20</td>
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<tr>
<td>Vehicle</td>
<td>$2,200.00</td>
<td>$1,675.00</td>
<td>$525.00</td>
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<td>Market</td>
<td>$1,300.00</td>
<td>$1,190.59</td>
<td>$109.41</td>
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<tr>
<td>Service and Postage</td>
<td>$200.00</td>
<td>$197.20</td>
<td>$2.80</td>
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<tr>
<td>Membership/Education</td>
<td>$1,000.00</td>
<td>$855.68</td>
<td>$144.32</td>
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<tr>
<td>Events</td>
<td>$2,000.00</td>
<td>$1,292.00</td>
<td>$708.00</td>
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<td>Infrastructure</td>
<td>$50.00</td>
<td>$0.00</td>
<td>$50.00</td>
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<tr>
<td>Community Garden</td>
<td>$50.00</td>
<td>$0.00</td>
<td>$50.00</td>
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<tr>
<td>Total</td>
<td>$58,500.00</td>
<td>$56,570.66</td>
<td>$1,929.34</td>
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</table>

Nearly 75% of LaFarm Expenses are for Personnel; A Figure In-Line with National Farm Labor Statistics

- Ludwick Manager
- Sustainability Funds
- Seeds and Plants
- Supplies
- Equipment & Hardware
- Pest & Weed Control
- Greenhouse & Soil
- Harvest and Delivery
- Vehicle
- Market
- Service and Postage
- Membership/Education
- Events
Growing LaFarm’s Future: We Can Get There From Here
What we purchased and how it was spent.

Academic Year Spending by Percent
Jan-Dec 2014

- Seeds and Plants 13%
- Equipment & Hardware 38%
- Membership/Education 6%
- Events 9%
- Vehicle 12%
- Pest & Weed Control 7%
- Greenhouse & Soil 2%
- Harvest and Delivery 3%
- Market 9%
- Service and Postage 1%
- Market 9%

Seeds and Plants 13%
Growing LaFarm’s Future: We Can Get There From Here
We turned problems into successful initiatives in 2014. Here are some highlights.

- Completed solar well and holding tank for irrigation
- Started weekly on-campus farmers market
- Built temporary wash station
- Acquired vehicle for programing and vegetable delivery
- Developed written food safety plan
- Established LaFFCo, The Lafayette Food and Farm Co-Op
- Accepted as BAMCO Farm to Fork vendor
- Ran and passed irrigation water quality tests
- Established ¼ acre conservation buffer
- Continued to uphold high vegetable production standards
- Coordinated efforts with Tech Clinic’s Veggies in the Community
- Implemented Good Agricultural Practices
- Expanded coordination with campus groups at LaFarm
- Received a multi-year grant to plant buffer with native plants and grow a native perennial edible garden from Landscapes for Communities and Wildlife and Lehigh Gap Nature Center
Growing LaFarm’s Future: We Can Get There From Here
Steps we need to take as LaFarm continues to create impact.

- Annual operating budget for student employees, program
development and day to day farm operations

- Strategic three, five and ten year plan developed working
closely with solidified LaFarm Advisory Board

- Vegetable delivery, pack and wash needs require infrastructure
improvements such as permanent pack house with concrete pad,
electric and food safe wash facilities

- Potable water closer to production fields is needed for produce
quality, food safety and efficiency

- Improve communication and coordination with BAMCO
management

- Put LaFarm on the campus map

- Better coordination of budgets and invoices with Student Dining
Services and Environmental Studies and Sciences administration

- Pest and weed management plan, LaFarm Community Garden pest
and weed report card and LaFarm Community Garden Handbook

- Build onsite, all-weather storage for seeds, seed starting equipment,
specialized production equipment, and season extending supplies

- Publish written food safety plan

- Perform Good Agricultural Practices audit

- Continue to build connections with on and off campus community
Growing Impact: THANK YOU!
LaFarm creates impact both at the farm and beyond its borders. As we venture we’d be lost without the help of these folks:

- Katie Schimpf
- Professor David Brandes
- Professor Dru Germanoski
- Excel Scholar Joseph Ingrao
- Professor Kira Lawrence
- Professor Benjamin Cohen

- Bruce Ferretti and George Xiques
- Mary Wilford-Hunt and Facilities Planning
- Bon Appétit Management Company
- Community Garden Members
- Plant Operations
- Engineering Machine Shop

- Office of Finance & Administration
- Ludwick Foundation
- Environmental Science & Environmental Studies
- Civil & Environmental Engineering
- Engineering Studies
- Summer 2014 Student Employees