



LaFarm Annual Report 2014

Growing Impact for a Sustainable Future



SUMMER LAFARM STAFF SELL VEGGIES AT OUR NEW ON-CAMPUS MARKET

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Table of Contents:

| | |
|--|---------------------------------------|
| Growing Identity: LaFarm Mission | 3 |
| Growing Identity: Local to Global | 4 |
| Growing Identity: The Sustainable Food Loop | 5 |
| Growing Impact: LaFarm by the Numbers.. | 6-Error! Bookmark not defined. |
| Growing Impact: On LaFarm | 11 |
| Growing Impact: On Campus | 12-17 |
| Growing Impact: In Our Region | 17-19 |
| Growing Impact: Globally | 20-21 |
| Growing LaFarm's Future: We Can Get There From Here | 22-25 |
| Growing Impact: THANK YOU! | 26 |



Growing Identity: LaFarm Mission



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.



PROGRAMS IN ENVIRONMENTAL SCIENCE AND STUDIES FARM-TO-TABLE PICNIC AT LAFARM

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.



JEN ROUCCO, KELLY CARPENY AND JOSEPH INGRAO TEND TO SUMMER VEGGIES

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



DELTA Upsilon PLANTS GARLIC

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

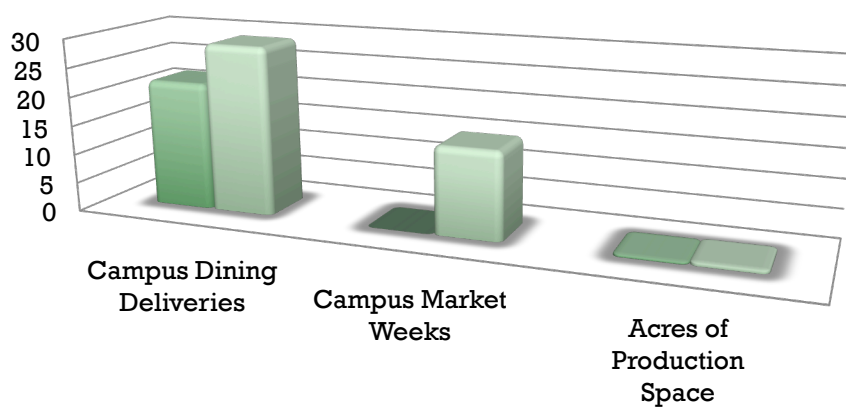
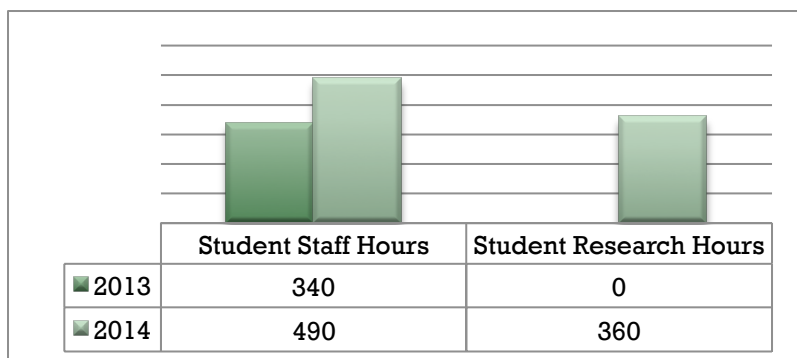


SUMMER STAFF MEMBER KELVIN SEREM PLANTS PERENNIALS AT COMMUNITY GARDEN



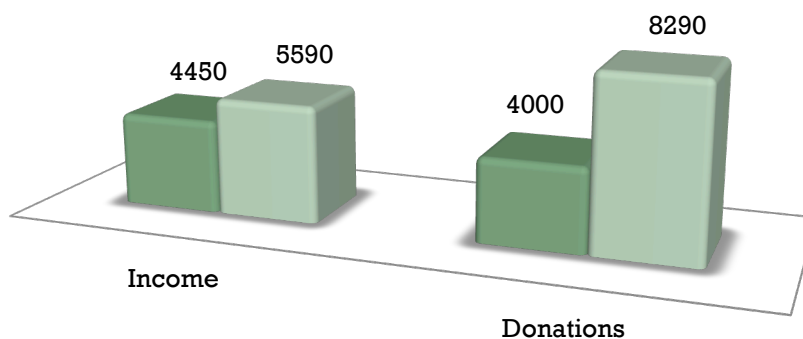
Growing Impact: LaFarm by the Numbers

Some comparison metrics from 2013 and 2014.



| | Campus Dining Deliveries | Campus Market Weeks | Acres of Production Space |
|------|--------------------------|---------------------|---------------------------|
| 2013 | 22 | 0 | 0.45 |
| 2014 | 29 | 15 | 0.64 |

2013 2014



Growing Impact: LaFarm by the Numbers



PROFESSOR LAWRENCE AND PROFESSOR HEJNY CARVE SUSTAINABLY GROWN PUMPKINS WITH ENVIRONMENTAL STUDIES AND SCIENCE MAJORS AT LaFARM



PROFESSOR COHEN DISCUSSES FOOD PRODUCTION MODELS IN HIS FYS: TEN WAYS TO KNOW NATURE CLASS



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.



Sunn Hemp

- Fixes Nitrogen
- Attracts Pollinators
- Creates Habitat



Oats

- Winter Killed
- Smothers Weeds
- Prevents Erosion



Buckwheat

- Smothers Weeds
- Fast Growing & Economical
- Attracts Pollinators

Some Cover Crop Highlights from 2014



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.



PRISCA RATSIMBAZAFY AT



HA VU, ERIC GIOVANNETTI AND BENJAMIN NITKIN SET-UP MARKET STAND



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!



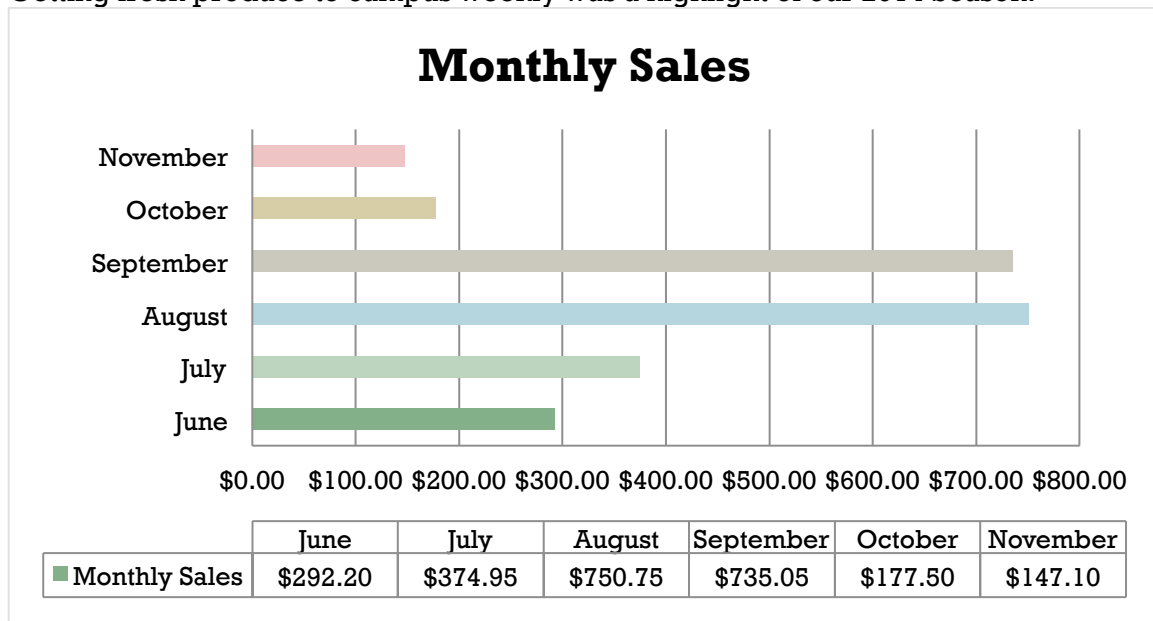
Growing Impact: On Campus



JOSEPH INGRAO, KEVIN JACKSON, CHEF JOHN SODER AND KELLY CARPENY PAUSE DURING A HARVEST WALK AT LaFARM

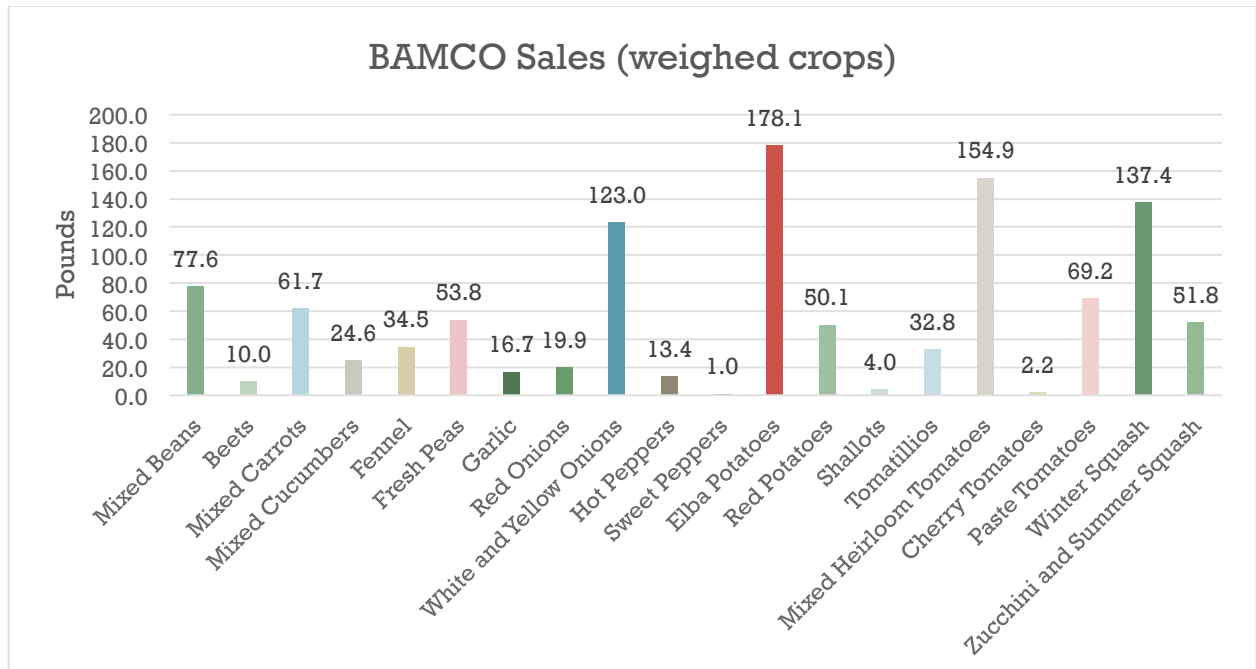
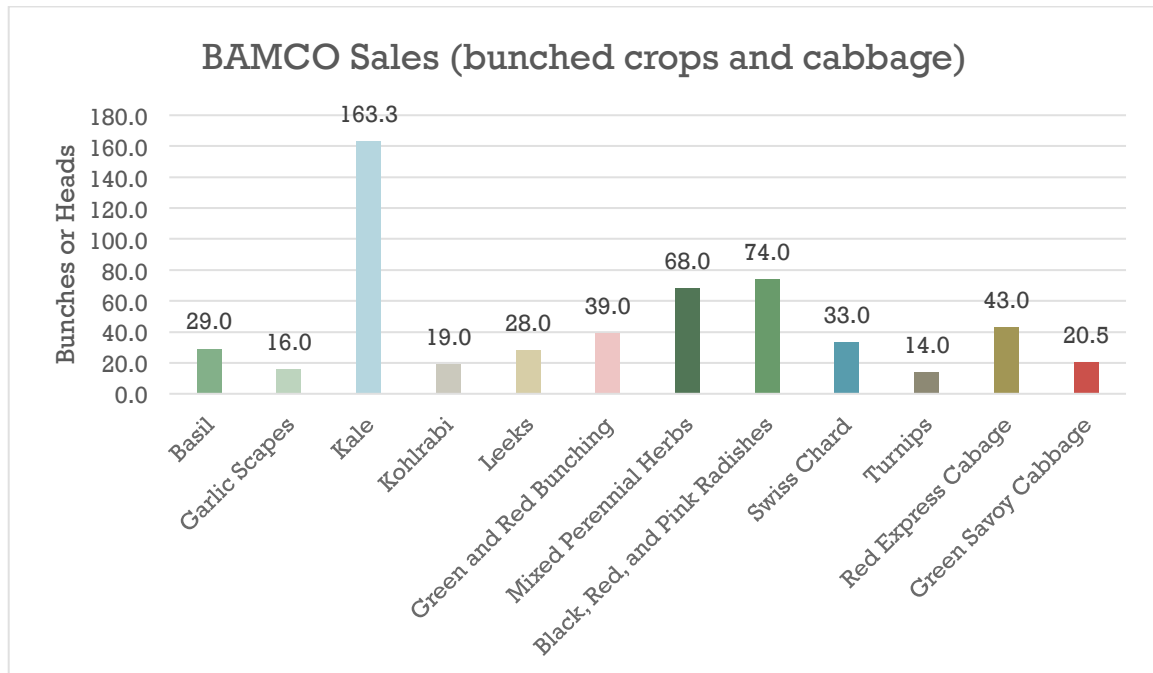
Campus Dining Hall Vegetable Delivery

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



Growing Impact: On Campus

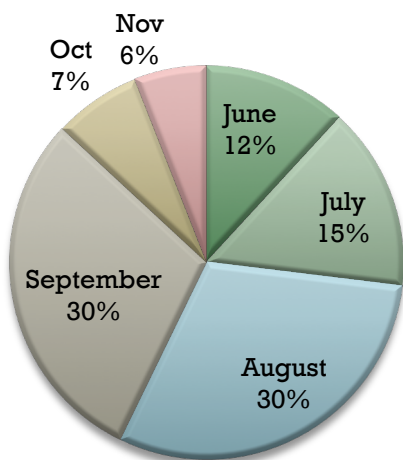
These are the vegetables harvested for Bon Appétit Management Company (BAMCO) in 2014.



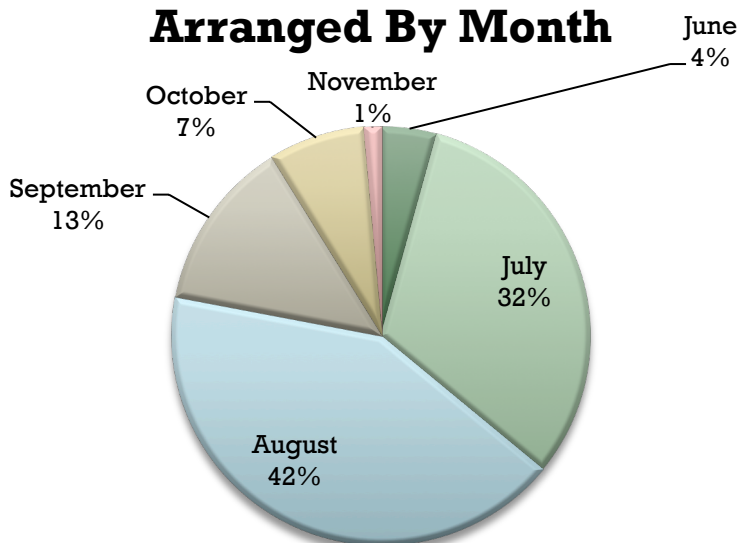
Growing Impact: On Campus

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.

Bon Appétit Sales % 2014 Arranged By Month



Bon Appétit Sales % 2013 Arranged By Month



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!



Menus
created with
Campus
Executive
Chef John
Soder



Fresh Flowers



Seasonal
Produce
& Herbs



Hyper
Local
Food

Campus Activities Fair 2014

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



GARY PAUL NABHAN VISIT



STUDENTS TURN EARTH TUB COMPOST

- 🍅 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



LaFARM MANAGER MEETS WITH LIBRARY AMBASSADORS 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 through 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

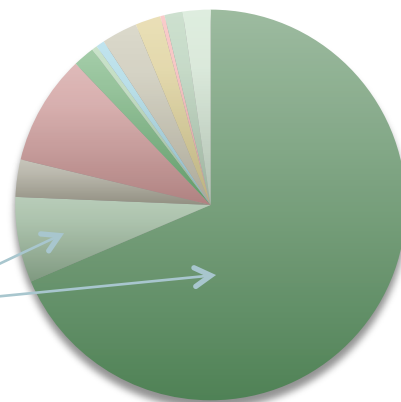


Growing LaFarm's Future: We Can Get There From Here

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.

| LaFarm End of Academic Year Financial Review | | | |
|--|-----------------|--------------------|-------------------|
| Categories | Projected | Actual | Balance |
| Farm Labor Needs | | | |
| Labor | \$38,800.00 | \$38,800.00 | \$0.00 |
| Sustainability Funds from Office of Finance and Administration | \$4,000.00 | \$4,000.00 | \$0.00 |
| Seeds and Plants | \$1,800.00 | \$1,749.03 | \$50.97 |
| Supplies | | | |
| Equipment & Hardware | \$5,200.00 | \$5,157.17 | \$42.83 |
| Pest & Weed Control | \$1,000.00 | \$1,006.61 | (\$6.61) |
| Greenhouse & Soil | \$500.00 | \$248.58 | \$251.42 |
| Harvest and Delivery | \$400.00 | \$398.80 | \$1.20 |
| Vehicle | \$2,200.00 | \$1,675.00 | \$525.00 |
| Market | \$1,300.00 | \$1,190.59 | \$109.41 |
| Service and Postage | \$200.00 | \$197.20 | \$2.80 |
| Membership/Education | \$1,000.00 | \$855.68 | \$144.32 |
| Events | \$2,000.00 | \$1,292.00 | \$708.00 |
| Infrastructure | \$50.00 | \$0.00 | \$50.00 |
| Community Garden | \$50.00 | \$0.00 | \$50.00 |
| Total | 58500.00 | \$56,570.66 | \$1,929.34 |

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

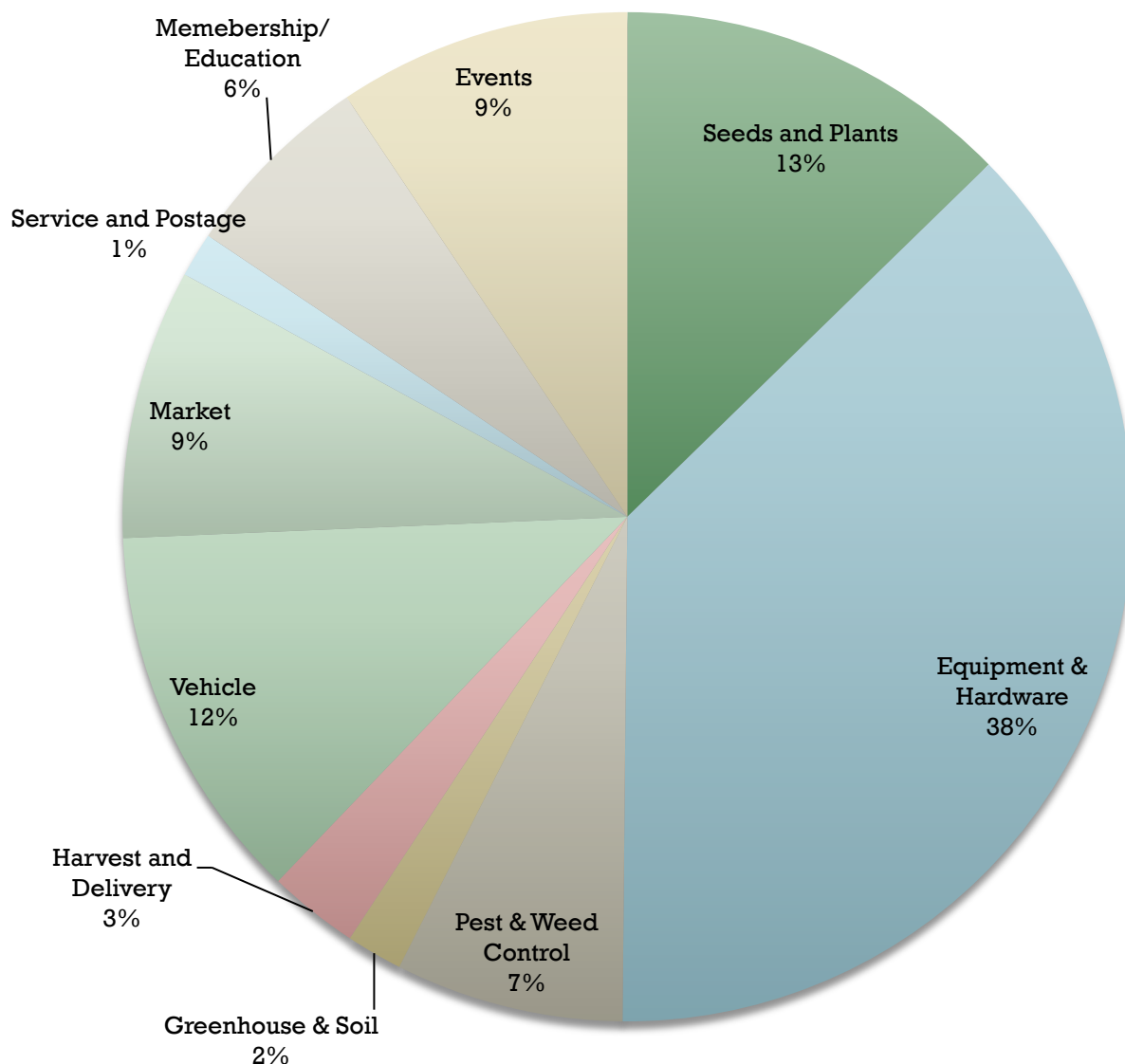


- Ludwick Manager
- Sustainability Funds
- Seeds and Plants
- Supplies
- Equipment & Hardware
- Pest & Weed Control
- Greenhouse & Soil
- Harvest and Delivery
- Vehicle
- Market
- Service and Postage
- Membership/Education
- Events

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



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