

On the Road to Better Health: Diversifying Diets in the West Ward



Lafayette College Technology Clinic ♦ Final Report Fall 2013



Executive Summary

Objectives:

- Determine economical, convenient, and sustainable ways to increase access of produce to West Ward residents

Areas of Consideration:

- Evaluate effectiveness of summer 2013 vegetable distribution program
- How to sustain Vegetables in the Community (VIC) model for future summers
- Explore resources including Lafayette College's community service, academic and dining departments
- Economics

Table of Contents

Introduction	6
Vegetables in the West Ward	14
The Challenge	17
Methodology	22
Launching VIC	25
Sustainable Solution	40
Proposal	57
Additional Logistics	62
Appendices	67
Acknowledgements	95

The Technology Clinic:

The Technology Clinic, founded in 1986, is an interdisciplinary course at Lafayette College in Easton, PA, which provides students with practical experience for novel uses. Since its inception in 1986, Tech Clinic has provided opportunities for small groups of highly motivated students (usually five or six members) to work closely with professors and other professional mentors to solve real-world problems. These students and professionals bring a variety of experiences, skills and perspectives that contribute to the authentically interdisciplinary nature of the course.

Technology Clinic Team

Audrey DaDalt (Class of 2015) is from Newton, MA. She is a government and law major and a history minor. She is involved in many organizations on campus as a member of the Landis Community Outreach Center and the philanthropy chair of Delta Delta Delta sorority. She is excited to be working with the Tech Clinic to increase awareness about the benefits of healthy eating and local sustainable farming.

Allie Nagurney (Class of 2016) is from Amherst, Massachusetts. She is a geology major and art minor. Outside of the classroom, Allie is a coxswain on the crew team, involved in Lafayette Environmental Awareness and Protection Club, and next year will be an Orientation Leader. A lifelong lover of vegetables, Allie became interested in this Tech Clinic project because she believes that everyone should have access to affordable produce. She enjoyed working on this project over the summer.

Devon Palermo (Class of 2014) is from Mays Landing, NJ where there are lots of farms and lots of veggies! She is currently pursuing a major in Neuroscience and a minor in Anthropology and Sociology. On campus, Devon is heavily involved with the Landis Community Outreach Center as a Team Leader, a Program Coordinator for Kids in the Community, and is the KIC Camp Director for Lafayette's Pre-Orientation Service Program. She works for the College Writing Program as a Writing Associate. All of these activities have cultivated Devon with a strong passion for Easton, which is why she is so excited to be a part of this Technology Clinic!

Technology Clinic Team

Drew Williams (Class of 2014) is a Geology major with a minor in Anthropology & Sociology. Hailing from Collegeville, Pennsylvania, Drew is an EXCEL Scholar, an active member of the Lafayette Geology Club and the Lafayette Outdoors Society, and is the Philanthropy Chair of Delta Upsilon Fraternity. Drew thoroughly enjoyed being a part of this Technology Clinic because it was such a great opportunity to give back and make a positive impact on the city that he has chose to be his home and place of study for his undergraduate career.

Emily Zangla (Class of 2014) is a Biology major and History minor from Garnet Valley, PA. She is the president of the Wishmakers group on campus and Vice President of Member Development for Alpha Gamma Delta. Emily is also involved in the Newman Association and Adopt-A-Grandparent volunteering program. After her freshman year, Emily was an intern for the Easton Farmers' Market, working on community outreach. She is excited to work on getting vegetables onto the plates of the West Ward residents yet again.

Guanxiong(Joe) Zhou (Class of 2014) is an international student from China. He is an Economics and International Affairs double major. At Lafayette College, he is involved in Landis Center and helps coordinate the VITA program. By participating in the Tech Clinic program, he hopes to apply his in-class knowledge to community practice.

Advisors

Dan Bauer is a Professor Emeritus of Anthropology at Lafayette College and Associate Director/Founder of the Technology Clinic Program. His interests have ranged from engineering and technology to journalism and photography. Throughout his careers as an anthropologist, he has done research in Peru, Mexico and Ethiopia.

Lawrence Malinconico is a professor of Geology at Lafayette College and Director of the Technology Clinic program. He specializes in natural disasters, tectonics and applied geophysics. He has worked and studied in 20 different countries including Pakistan, Italy and Ecuador. He is a 25-year resident of Easton and currently lives on College Hill.



The West Ward Neighborhood Partnership is a program of the Community Action Committee of the Lehigh Valley, Inc. It was created in 2005 with the main goal of neighborhood revitalization in Easton's West Ward. The philosophy behind the WWNP is that change must be informed, shaped, and guided by the people living in the West Ward.

“The West Ward Neighborhood Partnership (WWNP) has harnessed multiple volunteer, institutional, government and corporate resources to optimize the varied assets and unique personalities of our 8 unique neighborhoods. We are successfully pioneering a creative, healthful, collaborative community through programs that support children and families, affordable housing, neighborhood enhancement and economic development...” <http://wwnp.caclv.org/>



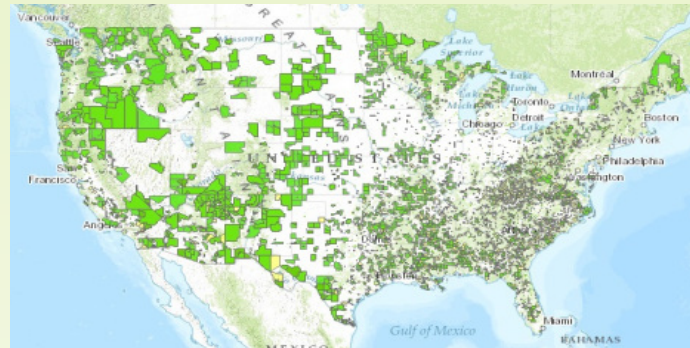
Food Deserts

- The official Census definition of food desert is a community with low-income (poverty rate of 20 % or greater) and low-access (at least 33% of population living more than 10 miles) to fresh, healthy, and affordable food.



A National Concern

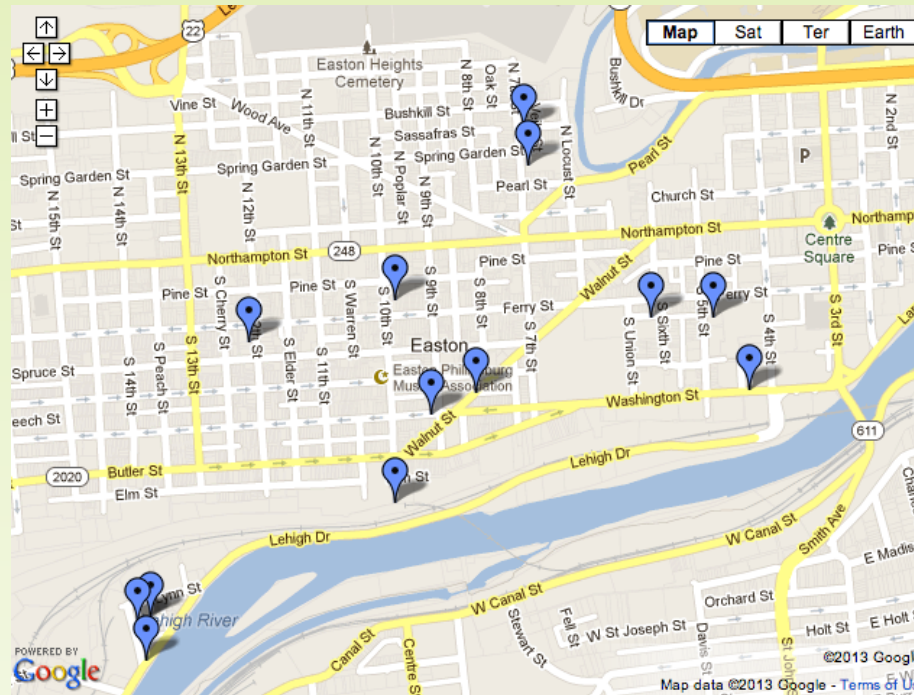
- The prevalence of food deserts is a national problem with all areas of the country affected.
- A 2009 report from the USDA found that 2.3 million (2.2%) of all U.S. households live more than a mile from a supermarket and do not have access to a vehicle
 - The West Ward shares many characteristics of a food desert.



<http://grist.org/list/this-sobering-map-shows-you-all-of-americas-food-deserts/>

Vegetables in the West Ward

- There are 13 community gardens in the neighborhood as well as an urban farm in South Side
- Gardening classes and youth programs have sought to increase awareness of sustainable produce and to foster community development



Community Gardens

- Garden efforts are coordinated by Sophia Feller
 - Host different events ranging from gardening demonstrations to educational programs for children



What is the Urban Farm?



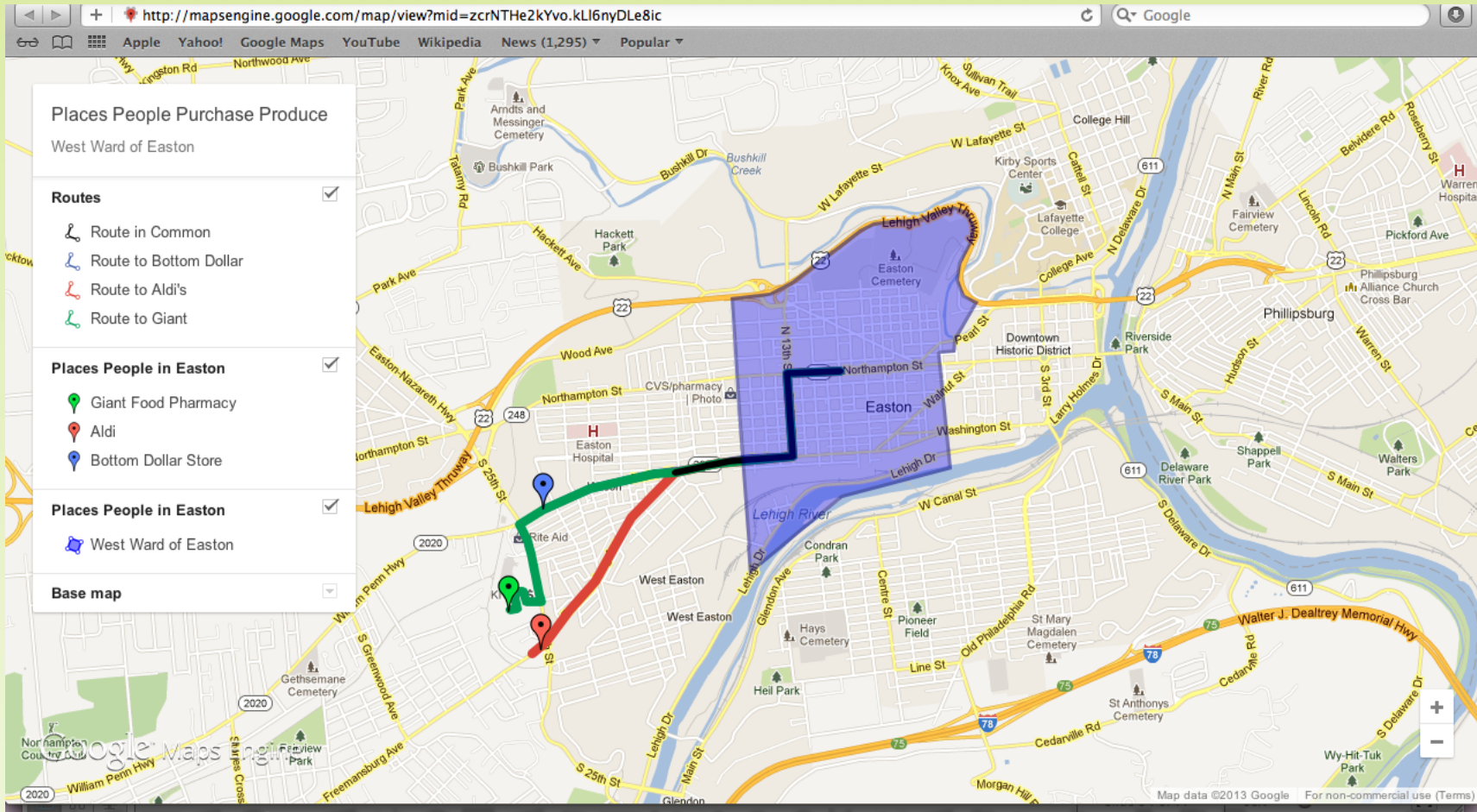
- Larger than all plots in the West Ward
 - 2012, made the transition from community garden to urban farm
 - Ability to grow larger crops like eggplants, squash, sunflowers, etc.
- Programs for children
 - Spring Garden Children's center farmed twice a week in the summer of 2012

http://www.lehighvalleylive.com/easton/index.ssf/2012/08/easton_gets_greener_with_urban.html

The Challenge

- Many residents of the West Ward are deterred from purchasing fresh/organic produce due to:
 - High costs of fresh produce
 - Short shelf-life
 - No refrigeration in current stores
 - Limited experience with the uses and benefits of cooking with produce
 - Unawareness of the health benefits of eating a produce-rich diet
 - Uncertainty of what to do with fresh vegetables
 - Inconvenience associated with buying and preparing vegetables
 - Carrying heavy grocery bags
 - Long cooking time of vegetables
 - Lack of positive association of vegetables

Grocery Store Access



<http://mapsengine.google.com/map/view?mid=zcrNThe2kYvo.kLI6nyDLe8ic>

From the West Ward's Center, it is 1.9 miles to the nearest grocery store

Volume of Produce Needed

- Recommended Daily Produce Consumption: 2 cups of fruit and 2.5 cups of veggies per person
- One 4 oz. serving of vegetables for each of the 12,000 West Ward residents equals about 3,000 lbs



<http://www.cookinglight.com/healthy-living/healthy-habits/how-much-serving-fruits-vegetables-00412000069526/>

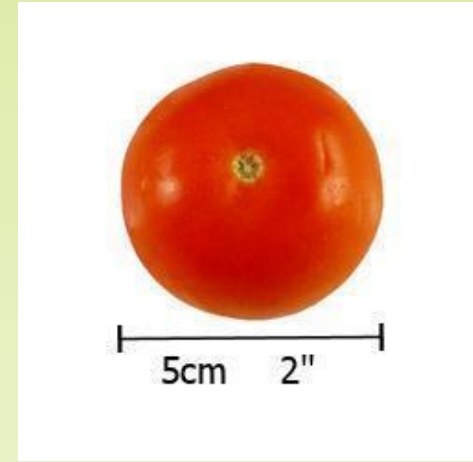
Volume of Produce Grown

2012 Harvest Estimates

- 1) Easton Urban Farm- 3,000 lbs
- 2) 823 Walnut Street- 1,000 lbs
- 3) 1340 Lynn Street- 500 lbs
- 4) South 10th and Pine- 500 lbs
- 5) All others combined ~500 lbs

TOTAL: 5500 lbs

- 1) The total yield is substantial for the urban setting, but of course, cannot be the only source providing vegetables to West Ward residents



[http://oneserving.com/
oneserving/whole-raw-tomato/](http://oneserving.com/oneserving/whole-raw-tomato/)

Bucket Gardens

- Last year, the Tech Clinic instituted a bucket gardening program to provide a way for families to grow produce at home and to promote youth interest in vegetables .



<http://www.volunteerflorida.org/BEST/>

Methodology

We studied two methods to increase access to vegetables and promote healthier diets in the West Ward.

1. Deliver food to residents
 - Veggie truck
2. Bring residents to the food
 - Community garden
 - Vegetable stands
 - Corner and full service food store

Veggie Stands

- Two stands can be setup using community vegetables
 - South Side near the urban farm
 - West Ward
- Local vegetables can be obtained more conveniently without going into the gardens or farm to hand-pick vegetables



A food truck would....

- Provide a convenient way for people in the West Ward to purchase vegetables.
- Promote vegetable consumption.
- Raise awareness about the importance of healthy eating.
- Be visibly appealing and exciting.



Launching the VIC Veggie Stand Model

- Least difficult startup and logistics + lowest cost + availability of local produce = VIC (Vegetables in the Community) Model
- Preliminary test in June 2013



<http://www.atlantasart.com/2013/08/veggie-stand.html>

VIC Logistics

- Monday nights
- Community Gardens at 10th and Pine St.
- 5:30 -7:30 PM
- Seven weeks of distributions over summer



Preparation

- Sophia, Lynne, Lexi, and Allie went to the Urban Farm at 7 AM to pick produce.
- They picked, cleaned, bundled, and organized the produce.
- After returning to Lafayette, Allie picked up the coolers that had been dropped off at LaFarm the previous night.



LaFarm

- Combination of farm for Lafayette dining services and community plots
 - Located at Metzger Fields in Forks Township
 - Donated approximately 2 coolers to VIC per week during summer 2013



- That afternoon, Allie would contact Anita at the Easton Area Community Center (EACC) for potential produce donations.
 - The EACC receives donations from Crayola Gardens.
- Sophia asked for additional donations from community gardeners.
 - Community gardeners are required to donate a portion of harvest to VIC program.
- Allie printed recipes in English and Spanish that correlated to that week's vegetables.



Procedure at the Stand

- Arrived 30 minutes before stand opened at 5:30 PM.
- Customers completed survey and/or donated money to receive produce.
- Produce was distributed.



- Encouraged people to try new vegetables.
- Handed out recipes.
- Customers used their own reusable shopping bags or received plastic bags.
- In general, about 35 families came each week.



Produce

- Collected from:
 - Easton Urban Farm
 - West Ward Community Gardens
 - LaFarm
 - EACC/Crayola Garden



Produce Totals (lbs)								
	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	Totals
Zucchini	100	40	10	80	15.5			245.5
Cucumbers	78	8	60	12	3.5	7	6	174.5
Tomatoes		5	30	50	66	56	35	242
Cherry Tomatoes				5	6	9	12	32
Squash	40		25			6	56	127
Swiss Chard	5	8	15	3			8.5	39.5
Collard Greens	10		10				18	38
Peppers	3	7	25	12	14	22.5	21	104.5
Okra				5	5	7	5.5	22.5
Carrots	13		7	10	10	12	28	67
Beets	20	12	8	6	6			52
Eggplant				17	4	13.5	12	46.5
Beans	6	10				14	16	46
Cabbage	4			7		4	16	31
Potatoes	32		30					62
Rutabaga	20							20
Onions	20	25.25				3.5	6	54.75
Kale							13	13
Spinach						2.5	1.5	4
Arugula							1.5	1.5
Melon							50	50
Lettuce		0.5						0.5
Basil			0.5	0.25				0.75
Sage			0.5					0.5
Oregano							1	1
Totals	261	115.8	221	207.3	70	157	306	1338

Possible Revenue Generated from Produce Sales?

- Not possible to charge for produce without vendor's license
- Instead, organized donation basket
 - Many people donated \$1 or more each week.



Feedback from LAFarm Community Gardeners

- Some community gardeners at LAFarm donated produce to our stand
- Main reasons for not donating:
 - the pick up was at an inconvenient day/time
 - vegetables were either ready before the stand started or after the stand ended
- Some gardeners were interested in donating in the future
- The ones that were not interested in donating stated that they grew only for their families

Feedback: Surveys

Willing to pay for vegetables?	Yes-86.67%	No-0%	Unsure-13.33%
Liked the truck at the same place each week?	Yes-100%	No-0%	Unsure-0%
Want the truck more than once per week?	Yes-66.67%	No-33.33%	Unsure-0%
How much would you pay per bag?	\$2- 26.67%	\$3- 13.33%	Other-60%
Other produce you would like offered?	Fruit- 46.67%	Potatoes-6.67%	Unsure-46.67%

Produce that Residents Would Like to be Offered at the Veggie Van

Tomatoes	90%
Cucumbers	73%
Swiss Chard	30%
Kale	23%
Peppers	76%
Collard Greens	23%



Feedback from Residents

- Enjoyed the ability to get fresh and local produce when they cannot get to Giant easily and when price of organic food is very high.
- Expressed disappointment when the stand ended for the summer; would return next year





Feedback con't.

- Used the recipe cards to make meals for their families with the produce they got at the distribution
 - ex: Swiss chard with ham, turkey, and chicken broth; zucchini and Italian sauce
- Liked making donations

Feedback con't.

- Many residents still do not know about the stand, however, would likely go if they knew about it.
- Often disproportional balance between the volume of produce and the number of people at the stand
 - People who came at the end often did not get as much produce as people at the beginning



Accomplishments



- Increased access for fresh, affordable, and local produce in the West Ward.
- Developed a consistent client base that came back week after week.
- Encouraged people to try new vegetables.

Steps to a Sustainable VIC Veggie Stand

- Re-evaluate the success of VIC in terms of increasing access to produce in the West Ward
 - WWNP and resident satisfaction
- Determine an operation plan to keep the VIC thriving

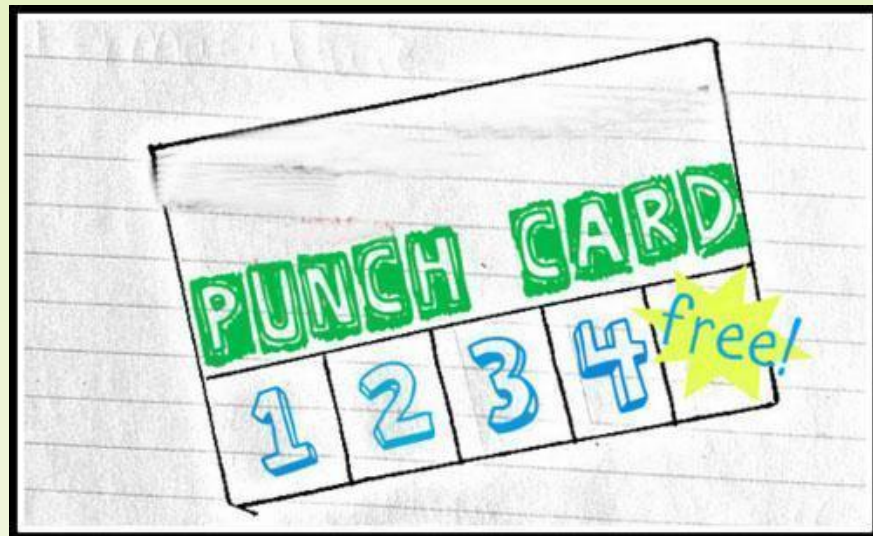
For-profit Model

- Hire a manager to run the program
- Achieve self-sustainability by selling vegetables
- Three major challenges



1) Lack of “selling point”

- Free distribution serves as a good incentive
- Use rewarding system as a replacement
 - ❑ Punch card
 - ❑ Reference card



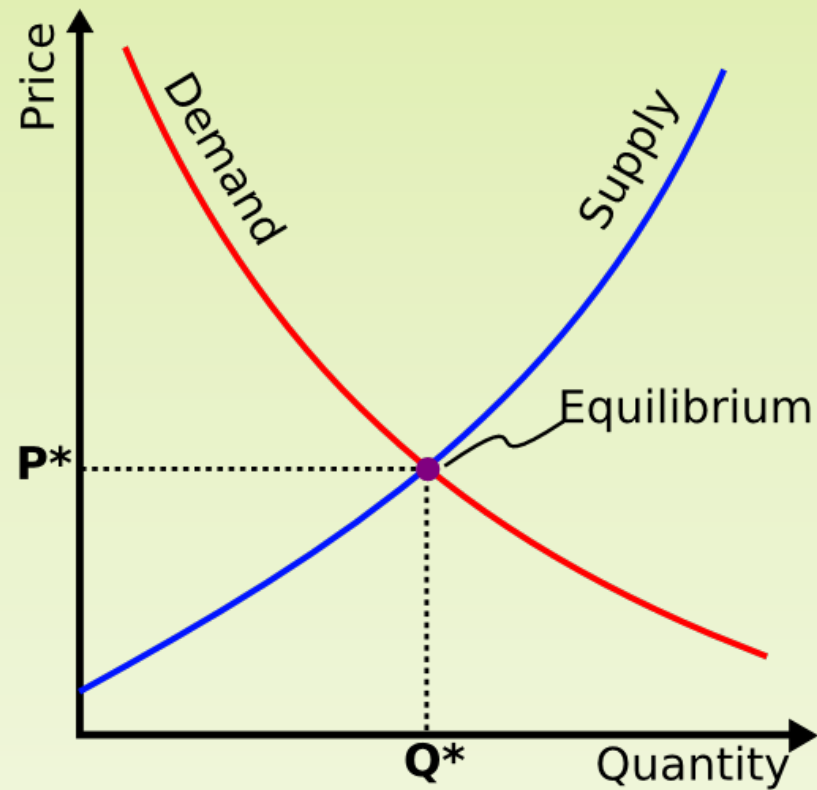
2) Significant costs to cover

- Major costs involve:
 - ❑ Labor
 - ❑ Vehicle expenses
 - ❑ Gasoline
 - ❑ Truck Rental
 - ❑ Storage
 - ❑ Insurance
- Expand economy of scale



3) Shortage of supply

- Rationing?
- Higher price?



Benefits of Non-Profit Model

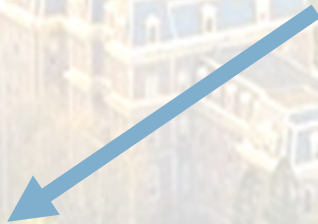
- For-profit model unsustainable as a business that tries to pursue both social mission and profit
- Benefits of non-profit model
 - ❑ *A good off-campus experience for students*
 - ❑ *A effective channel to build up good relationship with local community*
 - ❑ *Allows vegetables to be distributed at low price*

...New Idea Needed

Need ownership of the project without the funding for a salary



Lafayette College Students



Academic Project



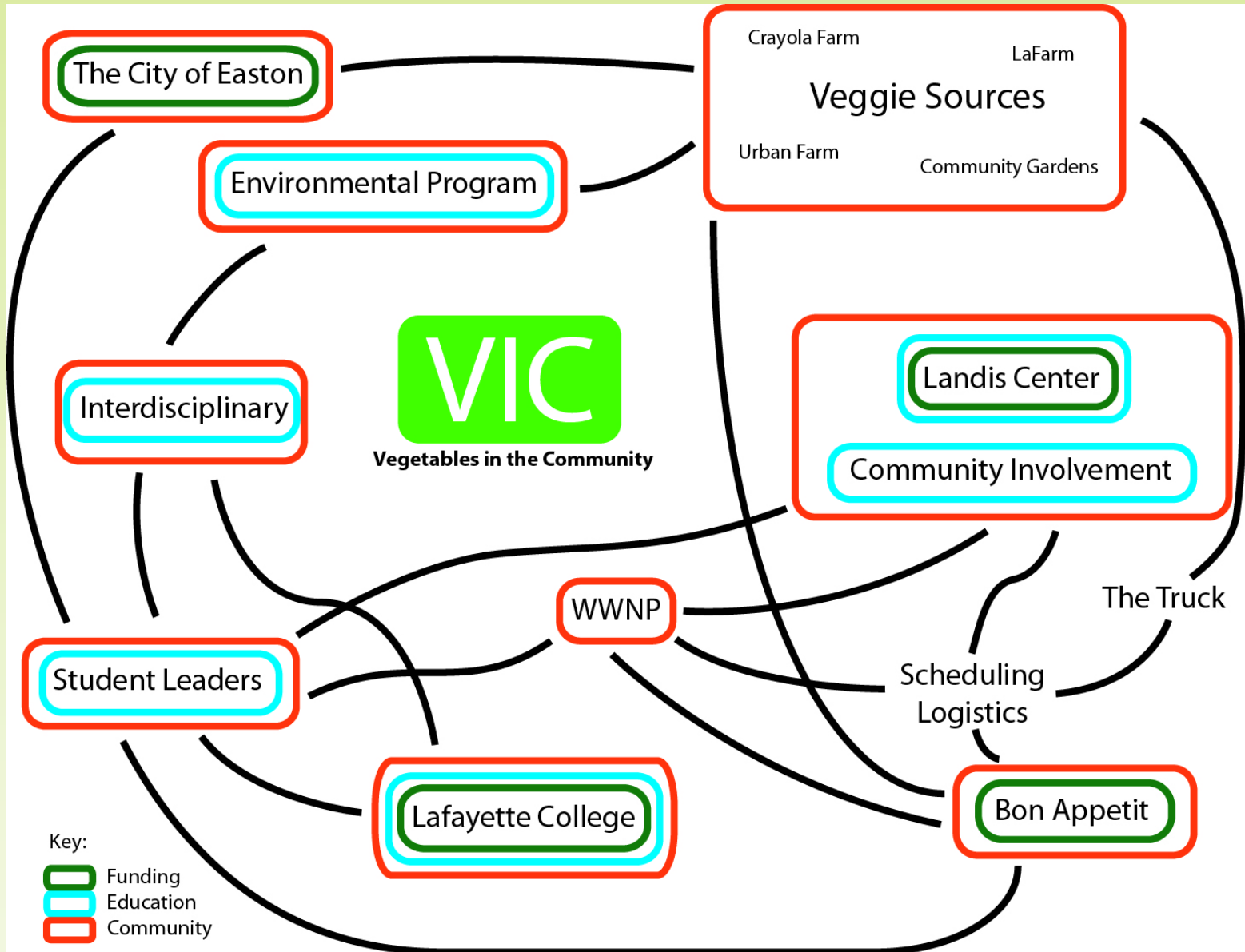
Community Service Opportunity



Summer Internship

OR

A Combination?



Lafayette College Resources

- Landis Center
 - Seasonal volunteering program
 - Leadership opportunities
- Excel Scholars
 - President's support
 - Interdisciplinary, academically-focused project with professor guidance
 - Environmental Studies Department
- Bon Appétit Dining Services
 - Fellows program
 - Help with distribution
 - Source of produce and refrigeration



The Center's mission is twofold:

- Cultivate personal, civic and intellectual growth for students through meaningful and effective service experiences
- Foster college-community partnerships that contribute to the well-being of the community, both locally and globally

Currently, there are 24 Landis & America Reads Programs

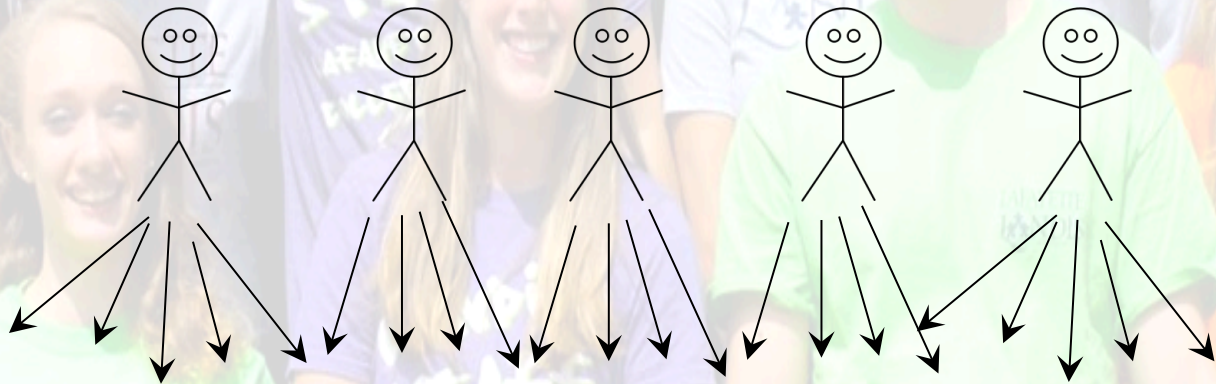
Organizational Hierarchy

Professional Staff

Bonnie Winfield, Amber Zuber, Christine Cohen



Team Leaders



24 Program Coordinators

Landis Programs focus on the following social issues...

- Adult Education
- Hunger & Homelessness
- Mentoring
- Reentry and Prison Issues
- Senior Citizens
- Tutoring



Looking ahead:

The Landis Center would like to begin implementing more programs surrounding the environment and sustainability.



Our VIC Program would fit into this new programming. It would utilize the current Landis hierarchy and models.

Lafayette Program in Environmental Science and Environmental Studies



uvmbored.com

- The mission of the Environmental Studies Program is to provide students with:
 - the capacity to understand the scientific, social, economic, ethical, and political dimensions of environmental system
 - the opportunities to explore the environment through the creative imagination as inspired by the literary, visual, and performing arts
 - the ability to influence environmental policy decisions and social change

ENVIRONMENTAL SCIENCE LEARNING OUTCOMES

- Demonstrate an understanding of the fundamental physical and biological principles that govern natural processes.
- Collect and interpret scientific data in both field and laboratory settings.
- Integrate information from across the scientific disciplines and apply these concepts to complex environmental problems.
- **Identify the complex relationships between scientific approaches to environmental issues and political, social, economic, and ethical perspectives on the environment.**

Learning Benefits for Students

- Interdisciplinary:
 - Community Social Structures
 - Food Systems/Food Justice
 - Business Management Skills/Entrepreneurship
 - Community Service/Outreach
 - Leadership
 - Gardening

Potential Community Partners

- Easton Hospital
 - Community Wellness program
 - Free speakers on health/wellness for local businesses
 - Wellness brochures
 - Support for a student potentially
 - Opportunity for advertising in conjunction with the van



goodshepherdrehab.org

Proposal

- Continue VIC program piloted during summer 2013
- Vegetable Distribution
 - Eventual expansion to bi-weekly distribution at two locations to increase exposure to greater number of residents
 - Maintain affordability of produce for residents (donation based)
- Issues to Overcome
 - Increased volume of produce
 - Urban Farm
 - Community gardens (West Ward)
 - LaFarm
 - Dedicated plots at Lafayette Community Gardens

Operation

- 3 Students divided over 14 week period
 - Always 2 students at a time
- Overseen by Professor Malinconico and Dr. Winfield
- Student responsibilities
 - “How to Manual” available for students to amend as necessary



Tentative Budget for West Ward Vegetable Distribution

	Expenses	Revenue
One Time Costs (coolers, ice packs, printing, shopping bags)	\$200	N/A
Excel Students Three over the summer, 35hrs/week, 10 weeks	\$9,450	N/A
Van Operating Costs	\$1,400	N/A
Easton Vendor's License	\$50	
Possible Revenue (each produce bag sold at \$2.50)	N/A	\$300
TOTALS	\$11,100	\$300

Proposed Allotted Support

- Landis Sustainability Program – committed: \$3,000
- Lafayette President's Office Through EXCEL- committed: \$3,000
- Potential other Supporters~ \$5,000 (as well as non-monetary support)
 - Bon Appétit Dining Services
 - Committed refrigeration space in the summer
 - Easton Hospital
 - LVAIC
 - Blue Cross Blue Shield

Bon Appétit

- Fellows Program
 - 3 recent college graduates dedicated to promoting sustainability
 - Engage with college students about social and environmental food issues
 - Conduct research and develop partnerships to promote Bon Appetit's commitment to social and environmental awareness in local communities
- Potential Support for VIC
 - Refrigeration at Lafayette College

Additional Logistics

Location

- Where should the stand be located?
 - 10th and Pine: centrality, has parking lot, within walking distance for most residents
 - Should there be an additional stand in a different part of the neighborhood?
 - Volume of produce
 - Interest level



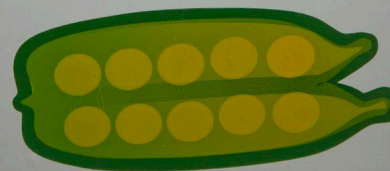
Days and Times

- What day of the week should we run the distribution?
 - Coordination with other community programs: Kellyn Foundation cooking lessons
 - When is the best time for farmers to donate produce?
 - Possibility of multiple days of the week
- What time should we run the distribution?
 - 5:30: people off from work, kids home from school, before dinner

Advertisements

- 1) Increase Awareness of Distribution among other West Ward Residents
- 2) Recognition of donors
- Possible approaches
 - Reusable shopping bags with information about time, place, hours of stand and logos of donors
 - Incorporate distribution into other community events
 - Memorial Day Parade
 - Cooking Lessons
 - Summer Nights

**Give Peas
A Chance!**



Vendor's License

- Need to obtain vendor's license to sell produce- \$25
- Who will be responsible for the license?
 - West Ward Neighborhood Partnership
 - VIC LLC



<http://www.superstock.com/stock-photos-images/1566-413919>



http://www.123rf.com/photo_2571131_fresh-vegetables-for-sale-in-a-basket-on-a-open-air-market-stand.html

Adding Fruit

- Where would the fruit come from?
 - Donations from local businesses: Wegmans <https://wegmans.versaic.com/Login.aspx>
 - The Farmers' Market
- Other Considerations
 - Local and Organic are ideal, however, may not be realistic



http://www.123rf.com/photo_1641123_variety-of-fruits-and-vegetables-at-fruit-stand-at-thai-weekend-market.html

Appendices

Community Gardens Information & Programs

WWNP Community Gardens Directory

2011 Community Gardens Vegetable Variety

2012 Easton Urban Farm Data

Allentown Veggie Truck

Summary of Solutions

Easton Food Store Profiles

Potential Store Locations Map

VIC Manual- “How to Run a Veggie Stand”

VIC Proposal Outline

Appendices

Community Gardens Info & Programs	69
WWNP Community Gardens Directory	75
2011 Community Gardens Directory	77
2012 Easton Urban Farm Data	78
Allentown Veggie Truck	79
Summary of Solutions	80
Easton Food Stores Profiles	89
Potential Store Locations Map	92
VIC Manual: “How to Run a Veggie Stand”	93
VIC Proposal Outline	94

Local Community Gardens

Strengths	Challenges
Supporting locally grown produce	What happens in the off season?
Lower cost	Is there enough?
Distributing what is already available	Does this take away from people who currently use the community gardens?
Engaging community members, especially youth	Is it profitable enough to sustain itself?
Convenient, easy access	



Gardening Classes

The West Ward Neighborhood Partnership offers gardening classes to teach residents of all levels the basics of growing produce. Previous class topics have included:

- Planning and Design
- Seeds and Transplants
- Insects: the Good the Bad and the Ugly
- Organic Gardening



<http://rosatherabbit.posterous.com/>



<http://fortworthtexas.gov/citynews/default.aspx?id=107760>

Gardening Classes

- In addition to increasing awareness about sustainable farming, the gardening program also promotes community development



<https://www.facebook.com/rosatherabbit?fref=ts>



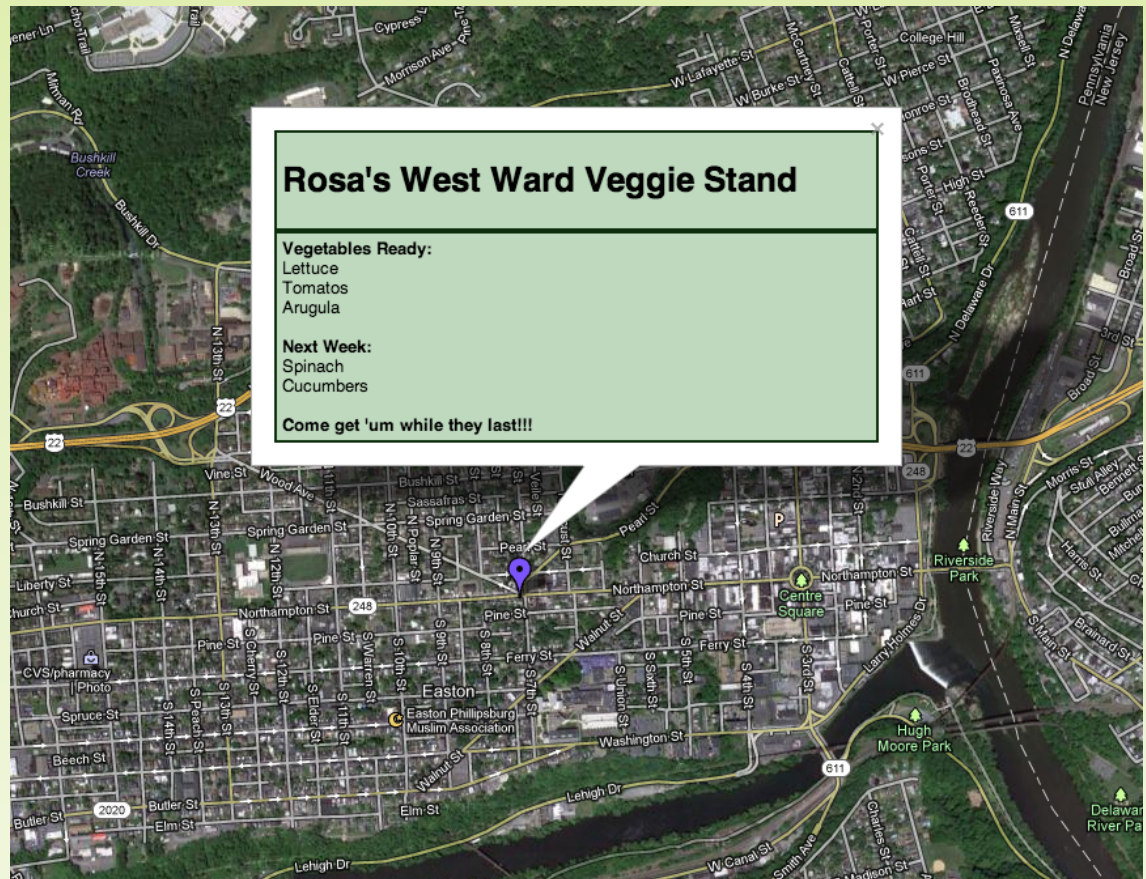
Overview of the Bucket Gardens

- The Tech Clinic launched a successful pilot program during the summer of 2012 aimed at teaching youth about gardening and allowing them to take ownership of their own mini gardens.
- Buckets planted with tomatoes were distributed to the EACC, the community gardens, and the urban farm.
- The buckets were convenient and portable allowing kids to take them home and share them with their families.



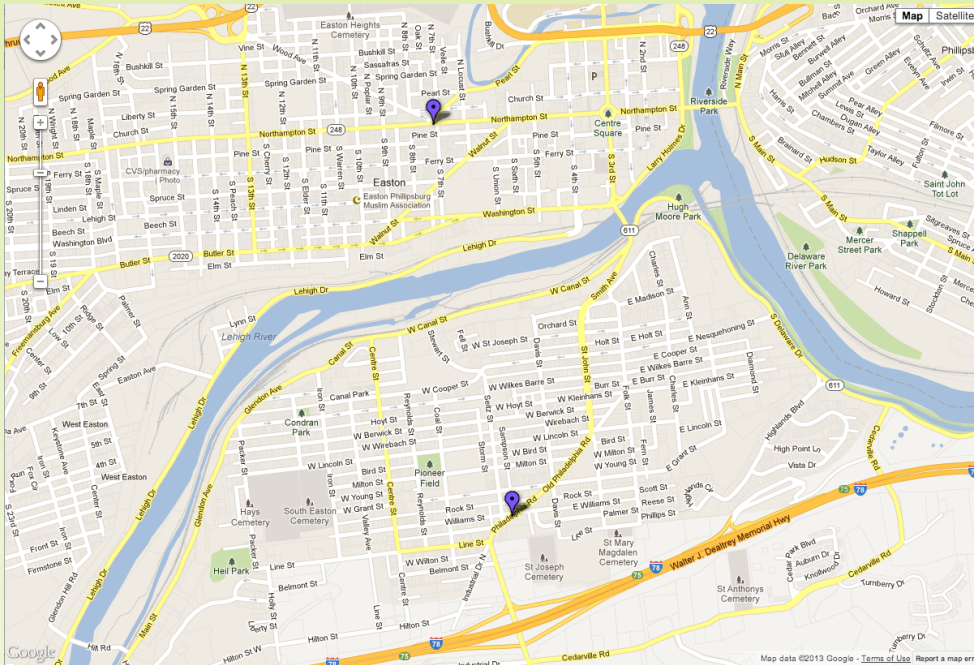
Google Fusion Website

- It's a map!
- Displays what types of fresh veggies are available each week
- Available on the web for public access



Google Fusion Website

Easy to use interface



- Just click one click on the location marker to get your local Veggie Stand's inventory.
- Easy to send out link over email.

[Click here to check out today's delicious selection!](#)

=

<https://www.google.com/fusiontables/embedviz?viz=MAP&q=select+col2+from+1YA8jGgXKfoZqGye1b6gphNoUXhbWX6frw-8W0dg&h=false&lat=40.69133428954184&lng=-75.21591532537843&z=15&t=1&l=col2&y=2&tmplt=3>

WWNP Neighborhood Community Gardens in Easton

All gardens are supported by the West Ward Neighborhood Partnership and supported with funds from the Wachovia Foundation and an Elm Street grant.

South 10th and Pine

Twelve - 8 X 4 foot raised beds planted communally, three large flower beds, and a wildflower garden– Currently taking applications for gardeners.

823 Walnut Street

In ground vegetable patch – volunteers welcome.

South 5th and Ferry

Four large raised beds and several small beds along fence are planted communally – volunteers welcome.

Sunflower Garden at the end of South 10th Street

Three raised beds with annual flowers and herbs and a perennial flower bed

This garden was completed in July 2010 as a joint effort by the City of Easton, Weed and Seed, and The West Ward Neighborhood Partnership. What was once a dump site is now a garden. Volunteers Welcome.

The Easton Area Community Center - 901 Washington Street

Three raised vegetable beds used by Community Center children. Penn State Master Gardeners run a weekly garden program there in the summer. WWNP Greenhouse is also located at EACC

Walter House Community Garden located at Washington and Michael Koury Place

Situated at high rise apartments for senior and disabled housing, this community garden is run by the Resident Association and sponsored by Easton Public Housing Authority, with assistance from the West Ward Neighborhood Partnership.

Bushkill House Community Garden 66 North Locust Street

Situated at high rise apartments for senior and disabled housing, this community garden is run by the Resident Association and sponsored by Easton Public Housing Authority, with assistance from the West Ward Neighborhood Partnership.

North 7th and Bushkill

This garden consists of three raised beds that were made for the children who live nearby in Public Housing.

WWNP Neighborhood Community Gardens in Easton (cont'd)

1426 Lynn Street

The Lynn Street garden is leased from the City of Easton; a group of dedicated gardeners are using this garden to grow vegetables and flowers. There are no open spaces at this time.

1340 Lynn Street

This “walled” garden will be used for growing herbs for teas and for quiet meditation.

1075 Lehigh Drive

This garden has raised beds for gardeners and space for “overflow” plants such as winter squash. Volunteers Welcome.

Ferry Street Apartments

Two raised beds are for residents to enjoy.

Centennial Park South 12th and Ferry Streets

WWNP collaborates with Weed and Seed to support volunteers who take care of raised beds at the Park. Volunteers Welcome.

Easton Urban Farm Pilot Project 902 Philadelphia Road

In partnership with the Easton Area Neighborhood Center and the City of Easton, WWNP is working with a volunteer coordinator to transform the underutilized Southside community garden into an Urban Farm with community garden plots. Volunteers are Welcome.

If you are interested in starting a community garden in your neighborhood, please contact the WWNP at 610-515-0891.

2011 Community Gardens Vegetable Variety

Early Season

Lettuce
Arugula
Spinach
Kohlrabi
Broccoli
Kale
Collards
Pak Choy
Beets
Carrots
Onions
Peas
Potatoes

Main Season

Tomatoes
Eggplant
Peppers
Summer Squash
Zucchini
Beans
Cucumbers
Okra
Celery
Garlic

Late Season

Lettuce
Bok Choy
Collard greens
Mustard greens
Spinach
Arugula
Beets
Carrots
Parsnips
Winter Squash

All of the gardens do not grow all of these vegetables but all of these vegetables are grown at the gardens.

An example of a week's late season harvest:

Garden Harvest at 10th and Pine

August 11 2011

2 Butter Stick hybrid summer squash
1 dark green zucchini
2 pale green zucchini
2 cucumbers
4 quarts small yellow cherry tomatoes
1 pint large red cherry
3 Vintage Wine heirloom tomatoes large
2 Marglobe large red tomatoes
6 okra
1 Casper white eggplant
2 bell peppers
1 Hungarian wax pepper
Basil

Herbs

Basil
Dill
Cilantro
Rosemary
Mint
Lemon Balm
Lavender
Oregano
Thyme
Rue

Flowers

Marigolds
Hollyhocks
Zinnias
Sunflowers
Calendula
Echinacea
Cosmos
Daisies
Black Eyed Susans
Spring Bulbs
Phlox
And much more!

2012 Easton Urban Farm Data

Vegetables Harvested from the Urban Farm during the 2012 growing season.

These amounts lean toward the conservative. There was animal damage to several of the crops such as cabbage, kale, and lettuces, and severe cucumber and squash bug and borer problems with cucumber and melon crops. Also, there is no way to estimate how much of the crop “walked away”, but we feel sure that it found a good home!

Arugula,	3 lbs		
Lettuce		3 lbs	
Radishes	7 lbs		
Zucchini		145 lbs	20 plants
Summer Squash	150 lbs		15 plants
Patty Pan	5 lbs		05 plants
Cucumbers	40 lbs		25 plants
Eggplants	70 lbs		37 plants
Potatoes	170 lbs		75 lbs seed
Tomatoes	350 lbs		125 plants
Sweet Peppers	150 lbs		55 plants
Butternut Squash	300 lbs		28 plants
Okra		10 lbs	15 plants
Carrots		10 lbs	
Green onions	10 lbs		2lb sets
Beets		20 lbs	
beans		10 Lbs	
hot peppers	<u>25 lbs</u>		14 plants
Total harvested:	1, 478 pounds		

Several pepper plants are still producing.

Addendum

Peppers, eggplants, and green tomatoes picked on 10-12-12

Assorted sweet peppers	45 lbs	
Assorted hot peppers	12 lbs	
Eggplants	5 lbs	
Green tomatoes	<u>25 lbs</u>	
Total		87 lbs

Allentown Veggie Truck

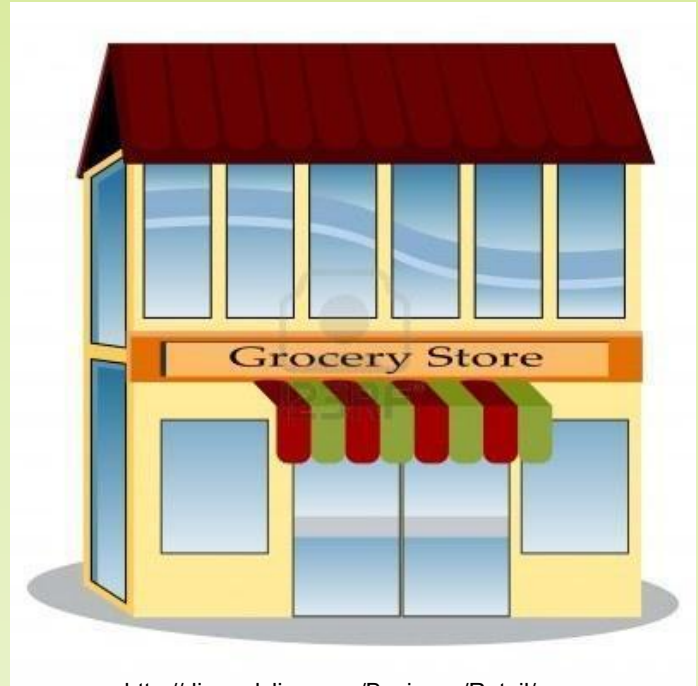
- Goal- to raise awareness and generate excitement for healthy eating
- \$120,000 grant from US Conference of Mayors
- Trucks goes to parks and recreation facilities in the summer
- Gives fruits and veggies away for free to children
- Volunteers heavily involved in process

*See Appendix for other delivery models

Summary of Solutions



http://theaccessator.com/assets_c/2009/07/IMG_2046-thumb-450x337-313.jpg



[http://dir.coolclips.com/Business/Retail/
Retail_Food_Sales_Grocery/
Grocery_Store_Items/
Bakery_store_front_vc001538.html](http://dir.coolclips.com/Business/Retail/Retail_Food_Sales_Grocery/Grocery_Store_Items/Bakery_store_front_vc001538.html)

Community Gardens

Strengths

- Promotion of community development as well as youth engagement and employment
- Low-cost
- Productive use of available space
- Supporting local sustainable farming

Community Gardens

Challenges

- Difficulty of distribution
 - Residents' limited knowledge of the gardens
 - Time necessary for picking and cultivation
- Limited yield of produce
 - Not enough production for the whole West Ward
- Potential for substantial waste
 - Peak season excess
- Lack of produce during winter months

Website for West Ward Gardens

Strengths

- Weekly emails alert West Ward residents to availability of vegetables
- Can be linked on Rosa the Rabbit's Facebook page

Website for West Ward Gardens

Challenges

- Needs to be updated weekly
- Public may not have email access

Food Truck

Strengths

- Feasibility of immediate implementation
- Increased opportunities for youth employment and local entrepreneurship
- Reduced burdens for consumer: allows people to remain in their homes and have vegetables brought to them

Food Truck

Challenges

- Difficulty of long-term sustainability
- Lack of funding due to limited potential for profitable return on investments
- Difficulty finding a grower to provide produce

Full Service Food Store

Strengths

- Decreased inconvenience of purchasing veggies as residents can buy all grocery items in one store
- Long-term sustainability
- Emphasis on ethnical cooking increases incentives to purchase vegetables
- Increased opportunities for youth employment and local entrepreneurship
- Potential for high-profitability

Full Service Food Store

Challenges

- Need for grants due to high start-up costs and high risks
- Slow implementation due to substantial planning
- Difficulty finding a local entrepreneur or chain store to run the business
- Difficulty finding a location due to licensing restrictions

Aldi

2510 Freemansburg Ave
Easton, PA

- Produce section in the back corner of the store
- Minimal produce selection



- No produce refrigeration
- No frozen vegetables

Bottom Dollar

2431 Bulter Street
Easton, PA

- Separate produce section meant to look like a farmstand
- Abundance of canned and frozen vegetables
- Inexpensive food



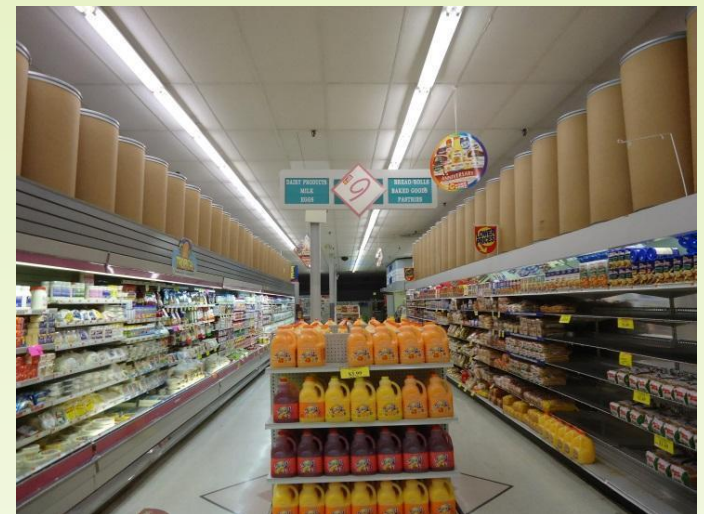
C-Town

250 Line Street
South Side of Easton, PA

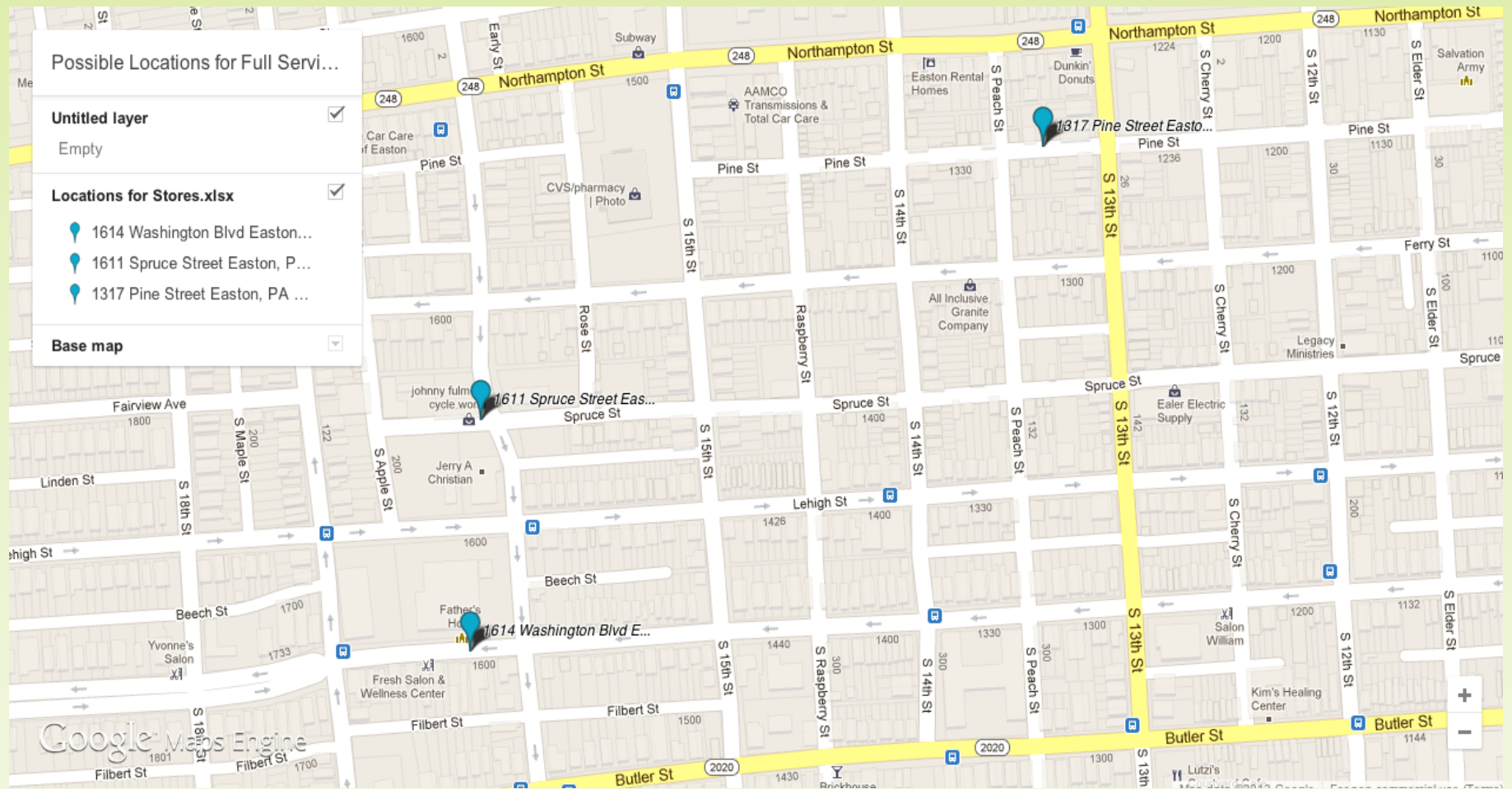


- Latino-influenced full service grocery store
- Carrier of many Goya® products, tomatillos, Mexican cheeses, etc.

- Includes a counter-service restaurant
- Carries a wide range of frozen and fresh produce, some in refrigerated cases
- Accepts EBT cards and WIC checks
- Offers free home-to-store shuttle service



Potential Locations in the West Ward for a Full-Service Store



<http://mapsengine.google.com/map/view?mid=zcrNThe2kYvo.kaDv6QmhKWEY>

Manual: How to Run a Veggie Stand!

Before the Stand

- Gather vegetables from all locations using the vehicle
 - LAFarm
 - Easton Urban Farm
 - Crayola (EACC)
 - Community Gardens
- Pick whatever is ready that week
- Put into coolers
- Record quantities collected from each place by type
- Bring to centralized refrigeration location (Bon Appetit walk in fridge, Farinon Student Center)
- Make recipes sheets and have them translated into Spanish

The Day Of the Stand

- Organize produce based on type
- Bundle if necessary (twist ties)
 - Carrots
 - Onions
 - Swiss chard (and other greens)
- Place tomatoes, peppers, etc. into containers (mostly organizational and for portion sizes)
- Put everything into the vehicle

At the Stand

- Arrive about 30 minutes early
- Set up tables, signs, tent, West Ward Neighborhood Partnership banner
- Arrange produce on tables
- Put signs in road

When People Come!

- Have them pay the set amount per bag
- Let people pick out produce to fill their bag
- Be aware of how much people take

Afterwards

- Clean up stand
- Bring extra produce back to Lafayette and refrigerate it for the next stand

Lafayette Technology Clinic



38 Pardee Hall
Lafayette College
Easton, PA 18042
610 330-5195
malincol@lafayette.edu

Vegetables in the Community (VIC)

A Sustainable Effort to Bring Fresh Produce into the West Ward of Easton

Objective:

Provide fresh vegetables at a nominal cost for residents of the West Ward of Easton

Possible Community Partners:

West Ward Neighborhood Partnership	Easton Hospital
Lafayette College	Blue Cross
Bon Appétit	

Possible Program:

- Bi-weekly distribution of vegetables at two locations in the West Ward for nominal cost to the residents
- Vegetables provided from several different community sources
 - South Side Urban Farm
 - West Ward community gardens
 - LaFarm
 - Farm
 - Two dedicated plots managed by students
- Management
 - Overseen by Professor Malinconico with Dr. Bonnie Winfield
 - Daily responsibilities completed by three Lafayette students supported as Excel scholars
 - Developed hierarchy - one experienced student “in charge” using a Landis Center program model
 - Develops management skills
- Estimated annual expenses (see next page): approximately \$11,000

Educational and Community Benefits

- Continued relationship with WWNP and the City of Easton
- Student learning through community service (CBLR), possibly with a report obligation
- Leadership experience for the students

Possible Student and Program Support:

- Lafayette College (Excel and Landis)
- Bon Appétit (Fellowship Program?)
- Easton Hospital Community Wellness Program
- Blue Cross

Contacts: Audry DaDalt; dadalta@lafayette.edu
Lawrence Malinconico, malincol@lafayette.edu; 610-330-5195

Acknowledgements

The Tech Clinic would like to thank the following people for their contributions to our project:

- Esther Guzman, Sophia Feller and Lynne Holden of the WWNP
- Mayor Sal Panto Jr.
- Megan McBride and Brittany Vokoun of the Easton Farmers' Market
- Lynn Prior of Buy Fresh Buy Local
- Vicky Kistler of Allentown Health Bureau
- C-Town Supermarkets
- Dr. Meagan Grega and Eric Ruth of the Kellyn Foundation
- Dr. Benjamin Cohen of Lafayette's Engineering department
- President Byerly
- Dr. Bonnie Winfield & the Landis Center
- Leslie Muhlefelder, Lafayette College
- Mr. Joel Blice of Bon Appétit