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
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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. Haling 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 difference 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.

http://1.bp.blogspot.com/-HsprG0Oqksg/ThXmYTgzeFI/AAAAAAAAA-M/UuxuvJbYieo/s400/10th+St+Garden.jpg
http://wwnp.caclv.org/
“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

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
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

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/
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

<table>
<thead>
<tr>
<th>Produce Totals (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zucchini</td>
</tr>
<tr>
<td>Cucumbers</td>
</tr>
<tr>
<td>Tomatoes</td>
</tr>
<tr>
<td>Cherry Tomatoes</td>
</tr>
<tr>
<td>Squash</td>
</tr>
<tr>
<td>Swiss Chard</td>
</tr>
<tr>
<td>Collard Greens</td>
</tr>
<tr>
<td>Peppers</td>
</tr>
<tr>
<td>Okra</td>
</tr>
<tr>
<td>Carrots</td>
</tr>
<tr>
<td>Beets</td>
</tr>
<tr>
<td>Eggplant</td>
</tr>
<tr>
<td>Beans</td>
</tr>
<tr>
<td>Cabbage</td>
</tr>
<tr>
<td>Potatoes</td>
</tr>
<tr>
<td>Rutabaga</td>
</tr>
<tr>
<td>Onions</td>
</tr>
<tr>
<td>Kale</td>
</tr>
<tr>
<td>Spinach</td>
</tr>
<tr>
<td>Arugula</td>
</tr>
<tr>
<td>Melon</td>
</tr>
<tr>
<td>Lettuce</td>
</tr>
<tr>
<td>Basil</td>
</tr>
<tr>
<td>Sage</td>
</tr>
<tr>
<td>Oregano</td>
</tr>
<tr>
<td>Totals</td>
</tr>
</tbody>
</table>
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 the grew only for their families
# Feedback: Surveys

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

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

<table>
<thead>
<tr>
<th>Produce</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomatoes</td>
<td>90%</td>
</tr>
<tr>
<td>Cucumbers</td>
<td>73%</td>
</tr>
<tr>
<td>Swiss Chard</td>
<td>30%</td>
</tr>
<tr>
<td>Kale</td>
<td>23%</td>
</tr>
<tr>
<td>Peppers</td>
<td>76%</td>
</tr>
<tr>
<td>Collard Greens</td>
<td>23%</td>
</tr>
</tbody>
</table>
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?
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.
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

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Revenue</th>
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</thead>
<tbody>
<tr>
<td><strong>One Time Costs</strong> (coolers, ice packs, printing, shopping bags)</td>
<td>$200</td>
</tr>
<tr>
<td><strong>Excel Students</strong> Three over the summer, 35hrs/week, 10 weeks</td>
<td>$9,450</td>
</tr>
<tr>
<td><strong>Van Operating Costs</strong></td>
<td>$1,400</td>
</tr>
<tr>
<td><strong>Easton Vendor’s License</strong></td>
<td>$50</td>
</tr>
<tr>
<td><strong>Possible Revenue</strong> (each produce bag sold at $2.50)</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>$11,100</td>
</tr>
</tbody>
</table>
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 addition 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
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
Adding Fruit

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

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
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VIC Manual- “How to Run a Veggie Stand”
VIC Proposal Outline
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## Local Community Gardens

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

[https://www.facebook.com/rosatherabbit](https://www.facebook.com/rosatherabbit)
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
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+%7E1YA8jGqXKfoZgGye1b6qphNoUXhbWX6frw-8W0dq&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.
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 mediation.

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

<table>
<thead>
<tr>
<th>Early Season</th>
<th>Late Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lettuce</td>
<td>Lettuce</td>
</tr>
<tr>
<td>Arugula</td>
<td>Bok Choy</td>
</tr>
<tr>
<td>Spinach</td>
<td>Collard greens</td>
</tr>
<tr>
<td>Kohlrabi</td>
<td>Mustard greens</td>
</tr>
<tr>
<td>Broccoli</td>
<td>Spinach</td>
</tr>
<tr>
<td>Kale</td>
<td>Arugula</td>
</tr>
<tr>
<td>Collards</td>
<td>Beets</td>
</tr>
<tr>
<td>Pak Choy</td>
<td>Carrots</td>
</tr>
<tr>
<td>Beets</td>
<td>Onions</td>
</tr>
<tr>
<td>Carrots</td>
<td>Peas</td>
</tr>
<tr>
<td>Onions</td>
<td>Potatoes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Main Season</th>
<th>Herbs</th>
<th>Flowers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomatoes</td>
<td>Basil</td>
<td>Marigolds</td>
</tr>
<tr>
<td>Eggplant</td>
<td>Basil</td>
<td>Hollyhocks</td>
</tr>
<tr>
<td>Peppers</td>
<td>Dill</td>
<td>Zinnias</td>
</tr>
<tr>
<td>Summer Squash</td>
<td>Cilantro</td>
<td>Sunflowers</td>
</tr>
<tr>
<td>Zucchini</td>
<td>Rosemary</td>
<td>Calendula</td>
</tr>
<tr>
<td>Beans</td>
<td>Mint</td>
<td>Echinacea</td>
</tr>
<tr>
<td>Cucumbers</td>
<td>Lemon Balm</td>
<td>Cosmos</td>
</tr>
<tr>
<td>Okra</td>
<td>Lavender</td>
<td>Daisies</td>
</tr>
<tr>
<td>Celery</td>
<td>Oregano</td>
<td>Black Eyed Susans</td>
</tr>
<tr>
<td>Garlic</td>
<td>Thyme</td>
<td>Spring Bulbs</td>
</tr>
<tr>
<td></td>
<td>Rue</td>
<td>Phlox</td>
</tr>
</tbody>
</table>

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 tomatos large
2 Marglobe large red tomatos
6 okra
1 Casper white eggplant
2 bell peppers
1 Hungarian wax pepper
Basil

Herbs

Flowers

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

<table>
<thead>
<tr>
<th>Vegetables</th>
<th>Weight</th>
<th>Plants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arugula,</td>
<td>3 lbs</td>
<td></td>
</tr>
<tr>
<td>Lettuce</td>
<td>3 lbs</td>
<td></td>
</tr>
<tr>
<td>Radishes</td>
<td>7 lbs</td>
<td></td>
</tr>
<tr>
<td>Zucchini</td>
<td>145 lbs</td>
<td>20 plants</td>
</tr>
<tr>
<td>Summer Squash</td>
<td>150 lbs</td>
<td>15 plants</td>
</tr>
<tr>
<td>Patty Pan</td>
<td>5 lbs</td>
<td>05 plants</td>
</tr>
<tr>
<td>Cucumbers</td>
<td>40 lbs</td>
<td>25 plants</td>
</tr>
<tr>
<td>Eggplants</td>
<td>70 lbs</td>
<td>37 plants</td>
</tr>
<tr>
<td>Potatoes</td>
<td>170 lbs</td>
<td>75 lbs seed</td>
</tr>
<tr>
<td>Tomatoes</td>
<td>350 lbs</td>
<td>125 plants</td>
</tr>
<tr>
<td>Sweet Peppers</td>
<td>150 lbs</td>
<td>55 plants</td>
</tr>
<tr>
<td>Butternut Squash</td>
<td>300 lbs</td>
<td>28 plants</td>
</tr>
<tr>
<td>Okra</td>
<td>10 lbs</td>
<td>15 plants</td>
</tr>
<tr>
<td>Carrots</td>
<td>10 lbs</td>
<td></td>
</tr>
<tr>
<td>Green onions</td>
<td>10 lbs</td>
<td>2lb sets</td>
</tr>
<tr>
<td>Beans</td>
<td>20 lbs</td>
<td></td>
</tr>
<tr>
<td>hot peppers</td>
<td>25 lbs</td>
<td>14 plants</td>
</tr>
<tr>
<td>Total harvested</td>
<td>1, 478 pounds</td>
<td></td>
</tr>
</tbody>
</table>

Several pepper plants are still producing.

**Addendum**

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

<table>
<thead>
<tr>
<th>Vegetables</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assorted sweet peppers</td>
<td>45 lbs</td>
</tr>
<tr>
<td>Assorted hot peppers</td>
<td>12 lbs</td>
</tr>
<tr>
<td>Eggplants</td>
<td>5 lbs</td>
</tr>
<tr>
<td>Green tomatoes</td>
<td>25 lbs</td>
</tr>
<tr>
<td>Total</td>
<td>87 lbs</td>
</tr>
</tbody>
</table>
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

http://vhpharmacyrx.com/posts/the-case-for-vegetables/
Summary of Solutions
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

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

- No produce refrigeration
- No frozen vegetables

2510 Freemansburg Ave
Easton, PA
Bottom Dollar

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

2431 Bulter Street
Easton, PA
C-Town

- 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

250 Line Street
South Side of Easton, PA
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
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
- Lafayette College
- Easton Hospital
- Bon Appétit
- Blue Cross

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

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          Lawrence Malinconico, malincol@lafayette.edu; 610-330-5195
Acknowledgements

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- Esther Guzman, Sophia Feller and Lynne Holden of the WWNP
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- 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 Appètit