

FIVE BOROUGH FARM DATA COLLECTION TOOLKIT

Protocols for measuring the outcomes and impacts of community gardens and urban farms

Developed in collaboration with Farming Concrete

May 2014

Five Borough Farm is a project of:

DESIGN TRUST FOR PUBLIC SPACE



TABLE OF CONTENTS

	pduction	1 5
0.	Food Production Data	9
0.1	Crop Count	11
0.2	Harvest Count	17
1.	Environmental Data	23
1.1	Landfill Waste Diversion by Weight or Volume	25
1.2	Compost Production by Weight or Volume	35
1.3	Rainwater Harvesting by Volume	45
2.	Social Data	53
2.1	Participation by Geography	55
2.2	Participation by Task	61
2.3	Participation by Project	85
2.4	Skills & Knowledge in the Garden	101
2.5	Reach of Programs	107
3.	Health Data	117
3.1	Changes in Attitude: Yum & Yuck	119
3.2	Good Moods in the Garden	127
3.3	Healthy Eating	155
3.4	Beauty of the Garden	163
4.	Economic Data	169
4.1	Market Value	171
4.2	Donations of Food	177
Ack	nowledgements	183

BACKGROUND

Design Trust for Public Space and the *Five Borough Farm* project

The Design Trust for Public Space is a nonprofit organization dedicated to the future of public space in New York City. Our projects bring together city agencies, community groups, and private sector experts to make a lasting impact—through design—on how New Yorkers live, work, and play. The Design Trust was founded in 1995 to unlock the potential of NYC's shared spaces. Today, we are a nationally-recognized incubator that transforms and evolves the city's landscape with our collaborators. Our work can be seen, felt, and experienced throughout all five boroughs—from parks and plazas to streets and public buildings.

In 2009, the Design Trust issued an open call for projects to improve public space in New York City, receiving twenty proposals from organizations citywide. The nonprofit organization Added Value submitted a proposal to demonstrate the value of urban agriculture and influence policy to encourage the creation of new farms in all five boroughs. An independent jury of architects, policy experts, and open-space advocates selected the proposal to become a Design Trust project. In 2012, the findings were compiled into a 169-page book, *Five Borough Farm: Seeding the Future of Urban Agriculture in New York City*.

Following the public launch of *Five Borough Farm*, the Design Trust established a partnership with NYC Department of Parks & Recreation to conduct Phase II, facilitating the implementation of several project policy recommendations and developing tools and methods for data collection to further the Phase I metrics work in collaboration with Farming Concrete. In 2014, the Design Trust published a 147-page book *Five Borough Farm II: Growing the Benefits of Urban Agriculture in New York City* and launched a third and final phase of work with Farming Concrete.

Farming Concrete

Launched in 2009, Farming Concrete is an open, community-based research project started by gardeners to measure how much food is grown in New York City's community gardens and school gardens. Farming Concrete is fiscally sponsored by the Open Space Institute, Inc. as part of their Citizen Action Program.

Farming Concrete has provided free scales, record keeping materials, training, and customized reports to gardeners, who recorded their harvests through an online platform during 2009 - 2012. Farming Concrete's Harvest Report has been made available to the public annually. The 2012 report included the data of 106 gardeners from across the city, whose yield represented more than 195 crop varieties.

The Five Borough Farm Data Collection Toolkit and Farming Concrete Website

As part of *Five Borough Farm II*, the Design Trust co-developed this data collection toolkit with farmers and gardeners to fill the need for urban agriculture data nationwide. Outreach Fellows Philip Silva and Liz Barry recruited over 30 participants for a day-long workshop called *Making the Measure* to identify topics they would like to measure and track at their farms or gardens. The farmers and gardeners brainstormed new ways of generating and collecting data about the things that mattered most at each garden to refine strategies for measurement that were simple, realistic, and achievable. Following the workshop, the Fellows refined the draft methods into a data collection toolkit that farmers and gardeners field-tested throughout the growing season. At the close of the harvest season, the Design Trust convened the participants who field-tested

the toolkit to report on their efforts and discuss what worked and what did not work. Farmers and gardeners provided insights for revising and expanding the set of methods and tools. Since then, the Fellows finalized the toolkit to include a total of sixteen protocols organized into five categories: Food Production Data, Environmental Data, Social Data, Health Data, and Economic Data.

The Design Trust established a collaboration with Farming Concrete to develop its online data platform at www.farmingconcrete.org/barm to track the other meaningful contributions farms and gardens make to residents, communities, and the city at large. Building on Farming Concrete's existing web architecture and reporting structure, the organizations created a more robust database that mirrors the hard copy of the Toolkit, providing online forms for each of the sixteen protocols. Using the website, farmers and gardeners can generate custom reports to support their goals.

The Design Trust and Farming Concrete's collaboration is also leading to a new public portal to access the data at www.farmingconcrete.org/
mill, which will launch in the fall of 2014. At the "mill" researchers, policy makers, and funders will be able to download unidentified raw data and view visualizations of the available data that has been aggregated by type or other options such as type of garden and geography.

Together, the *Five Borough Farm* Data Collection Toolkit and Farming Concrete website provide an enhanced resource to support farmers and gardeners in strengthening and expanding their work.

INTRODUCTION

Community gardens and urban farms come in all shapes and sizes. Some gardens squeeze into narrow vacant lots once occupied by stately brownstones. Some farms sprawl across industrial rooftops the size of city blocks. Some grow dense with fruits and vegetables while others focus on giving neighbors a quiet open space where they can relax and get to know each other. Some defy categorization altogether, serving as performance spaces, apothecaries, outdoor art galleries, makeshift schools, and places to watch epic weekend tournaments of dominoes or backgammon.

Each farm and garden plays a vital role in making our city a healthier and more socially connected, economically secure and environmentally sustainable city. Each contributes in its own way, with big impacts, small interventions, and every other kind of positive outcome you can imagine inbetween.

Why collect data?

By gathering and tracking information about your farm or garden's activities, you may see new opportunities to refine your garden work to better accomplish or expand goals.

Currently there is very little data to substantiate the benefits of urban agriculture. Having more concrete information will help you make the case for the value of your activities so you can advocate to achieve your farm or garden's goals.

Collecting data that describes your farm or garden's activities and output may also help you raise funds to support your ongoing work and future projects.

How to use the Toolkit and related components

The Five Borough Farm Data Collection Toolkit

This Toolkit is designed to help you measure and track the activities and outputs in your farm and garden according to five categories: Food Production Data, Environmental Data, Social Data, Health Data, and Economic Data. Each of these sections contains specific methods of measurement and recording procedures—including reproducible forms for 16 types of data, such as compost production or participation by geography. See the table of contents for the full list.

Download or share the pdf of the Toolkit at

www.farmingconcrete.org/barn

The Farming Concrete Website

The online data platform at www.farmingconcrete.org/barn will assist you in tracking, aggregating, analyzing, formatting, and sharing the information you gather about what you are doing and producing in your farm or garden. When you input your data into the user-friendly forms, the website will help you by storing, calculating, and organizing the data into graphs and charts. This will allow you to interpret and reflect on how the numbers could inform your farm or garden's future goals. You can also easily generate custom garden reports to share with your fellow gardeners, funders, and policymakers, among others.

Create a garden login and profile at

www.farmingconcrete.org/barn

How Measuring Works Instructional Video Series

Filmed as a visual "how to," the *How Measuring Works* video series walks you through various methods of measuring your farm or garden's activities and output, how to use the hardcopy forms included in the *Five Borough Farm* Data Collection Toolkit, and how to input data into the Farming Concrete website to generate custom reports. The series is broken down into 6 topical videos, 5-7 minutes each in length following the organization of the *Five Borough Farm* Data Collection Toolkit. Participants include farmers and gardeners from sites across the city, *Five Borough Farm III* Fellows Liz Barry, Philip Silva, and Sheryll Durrant, and Mara Gittleman from Farming Concrete.

Access the videos at

www.farmingconcrete.org/barn (Available July 2014)

7

0. FOOD PRODUCTION DATA

0.1 CROP COUNT

Background

Community gardens and urban farms grow a wide variety of fruits and vegetables every year. Keeping track of "Crop Counts" can help gardeners get a handle on their annual productivity—especially if they also measure the pounds of fruit and vegetables harvested from their crops (see section 0.2). Counting up the number of edible plants cultivated in a garden can also help gardeners explain the value of their work to funders and local politicians.

Goals & Objectives

Some community gardens and urban farms have general goals and specific objectives for the number of plants they hope to cultivate each year. Some gardens will want to do Crop Count once a year during peak growing season, while others might want to see what's growing in the spring, summer, and fall as they do their crop rotations. Some will simply want a fallback record of their productivity if their Harvest Counts are not consistently kept (see section 0.2). Before getting started with counting your crops this season, your gardening community may find it useful to reflect on its goals and objectives for the year ahead. Invite your fellow gardeners to have a conversation and use the following spaces to record your thoughts.

	What Are Our Harvest Goals?
A goal is a general description of what you hope to achieve in the future.	
	What Are Our Harvest Objectives?
An objective makes your goal more specific, giving it a concrete	
number that can be measured.	

What You'll Need

- A measuring tape for measuring the dimensions of raised beds or growing areas
- Enough copies of the **Crop Count form** to cover all of your garden's raised beds

Instructions

Assign numbers to the raised beds, if they don't exist already, and note the dimensions in feet. For each raised bed or growing area in the garden, count the number of plants per crop and record it on the form. For example, record the number of cherry tomato plants, the number of cucumber plants, the number of summer squash (zucchini) plants, etc. For some crops, like strawberries, it may be impossible to identify a number of plants. For these crops only, estimate the area in square feet.

Example:

At their June garden meeting, Green Acres Community Garden decided to take inventory of their crops. Gardeners split up into pairs and each took a section of the garden. Martha and Tricia took the row of beds in the front, which were assigned numbers 5-20. Martha, a seasoned gardener who can identify a tomato plant even before it's laden with summer fruit, counted the number of plants per crop and announced them to Tricia, a new gardener, who wrote them down on the form.

"Bed 7—this one is 8 feet by 4 feet, just like the other two," Martha noted. "It has four lettuce plants, 10 radishes, two square feet of strawberries, and five hot pepper plants." As she spoke, Tricia added the crops to the Crop Count form.

When they were done, they handed the Crop Count forms to Beatrice, the data coordinator for the garden, who took the forms home and entered the data into Barn.

What To Do With Your Results

Enter the data into Barn (<u>www.farmingconcrete.org/barn</u>). Barn will tally up the number of plants in each of your garden's crops so you can share the results with the gardening community. You may want to write a letter to your local politicians, letting them know about your productivity throughout the season. You may also want to share your findings with any funders or other sources of support for your garden.

0.1

CROP COUNT

				A S S S S S S S S S S S S S S S S S S S
Garden:	Gardener Name:	Phone/Email:		
		Bed #:	Bed #:	Bed #:
		Dimensions:	Dimensions:	Dimensions:
CROP NAME	VARIETY NAME	# of plants or row feet	# of plants or row feet	# of plants or row feet

0.2 HARVEST COUNT

Background

Community gardens and urban farms grow a wealth of fruits and vegetables every year. Keeping track of all that produce may help your garden grow in a number of ways. Knowing how much of any fruit or vegetable you harvest each year can help you discover what thrives in different areas and under different conditions. Weighing the amount of produce you grow can also help funders and local politicians understand the value of gardening in your neighborhood.

Goals & Objectives

Some community gardens and urban farms have general goals and specific objectives for their harvests each year. Some simply know that they want to grow more food than the previous year. Others know that they want to grow 20 more pounds of tomatoes to donate to a local food pantry. Before getting started with measuring your harvest this season, your gardening community may find it useful to reflect on its goals and objectives for the year ahead. Invite your fellow gardeners to have a conversation and use the spaces below to record your thoughts.

	What Are Our Harvest Goals?
A goal is a general description of what you hope to achieve in the future.	
	What Are Our Harvest Objectives?
An objective makes your goal more specific, giving it a concrete	
number that can be measured.	

What You'll Need

- A basic countertop **kitchen scale**—the old fashioned kind will do nicely, though you can also use a digital scale or a hanging basket scale if those are available
- Copies of the **Harvest Count form** to distribute to every participating gardener, plus extra to have on hand



Instructions

Each participating gardener who would like to record their harvest should get their own copies of the Harvest Count. Make sure there are multiple blank forms in the binder in case gardeners need more, and always keep at least one blank copy on hand for future photocopies. Every time a gardener harvests produce from their plot, they use a kitchen scale to weigh the number of pounds they harvested for each fruit or vegetable. In their personal Harvest Count, they will note the crop name, the total number of plants they have in their plot of each crop (even if they didn't harvest from all of them), the date of the harvest, and the number of pounds they harvested for each crop. Gardeners should be as specific as possible with crop names: hot peppers or sweet peppers? Summer squash (zucchini, etc.) or winter squash (pumpkins, butternut squash, etc.)?

Example:

On August 15th, Susan harvested tomatoes, pole beans, and summer squash from her plot at the Smith Street Community Garden. Before heading home to cook dinner with her harvest, Susan used a kitchen scale stored in the garden's shed to weigh each harvest separately. Susan

found that she had harvested 2 pounds of cherry tomatoes, a half-pound of pole beans, and a three-pound summer squash.

She recorded the data in the garden's Harvest Count like this:

		Date: 8/15	Date:	Date:	Date:	Date:
CROP NAME	# of plants	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS
TOMATOES	3	2				
POLE BEANS	5	0.5				
SUMMER SQUASH	1 1	3				

What To Do With Your Results

Enter the data into Barn (www.farmingconcrete.org/barn). Barn will tally up all of the pounds of produce harvested and so you can share the results with the gardening community. You may want to write a letter to your local politicians, letting them know about your productivity throughout the season. You may also want to share your findings with any funders or other sources of support for your garden.

0.2

HARVEST COUNT

Garden:	Contact:	Phone/Email:	

		Date:	Date:	Date:	Date:	Date:
CROP NAME	# of plants	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS

1. ENVIRONMENTAL DATA

1.1 LANDFILL WASTE DIVERSION

Background

Many community gardens and urban farms invite neighbors to drop off kitchen scraps, dead leaves, yard clippings, and other materials for composting on-site. These compost drop-off programs help reduce the amount of trash that makes its way into landfills. Tallying up the amount of compostable trash diverted from the waste stream can help your garden better manage its composting program. It can also help your garden better understand its environmental impact.

Some gardens may find it easier to measure the *volume* of waste that goes into making compost. Others may find it easier to measure in terms of *weight*. Luckily, it's easy to convert from one measure to another (see page 32). Feel free to use whichever method works best for your garden.

Goals & Objectives

Some community gardens and urban farms have general goals and specific objectives for their compost waste diversion each year. Some simply want to know that they helped divert more waste than the previous year. Others know that they want to divert 20 more pounds or gallons of waste in order to broaden their environmental impact. Before getting started with measuring the amount of waste diverted by your composting program this season, your gardening community may find it useful to reflect on its goals and objectives for the year ahead. Invite your fellow gardeners to have a conversation and use the following spaces to record your thoughts.

	What Are Our Landfill Waste Diversion Goals?
A goal is a general description of what you hope to achieve in the	
uture.	
	What Are Our Landfill Waste Diversion Objectives?
An objective makes your goal more specific,	
giving it a concrete number that can be measured.	

MEASURING THE WEIGHT OF WASTE DIVERTED

What You'll Need

- A basic **bathroom scale**—the old fashioned kind will work well, though you can also use a digital scale if one is readily available
- A **32-gallon garbage pail** or 5-gallon bucket to collect waste for weighing before it gets incorporated into the composting system
- A copy of the Landfill Waste Diversion by Weight form



Instructions

Before filling the garbage pail, weigh it on the bathroom scale. Note its tare weight in your Measuring Landfill Waste Diversion by Weight form. Throughout the season, use the garbage pail to collect kitchen scraps or any other waste that makes its way into the compost pile that would otherwise end up in a landfill. This includes "browns" such as leaves, wood shavings, and sawdust. Keep a tight lid on the container to prevent smells and deter pests. Every time you empty the pail into the compost system, weigh it using the bathroom scale. Record the date and weight in your data worksheet.

Example:

On June 14th, Jake incorporated a half-full pail of kitchen scraps and a full pail of dead leaves into the composting system at Jones Street Community Garden. He weighed each pail and tallied the results in the garden's data form, like this:

WEIGHT
20 LBS
15.5 LBS

What To Do With Your Results

Enter the data into Barn (<u>www.farmingconcrete.org/barn</u>). Barn will factor in your tare weight and tally up all of the pounds of waste diverted from landfills into the composting system so you can share the results with the gardening community. You may want to write a letter to your local politicians, letting them know about your productivity throughout the season. You may also want to share your findings with any funders or other sources of support for your garden.

1.1

LANDFILL WASTE DIVERSION BY WEIGHT

Garden:	Contact:	Phone/Email:	
		<u> </u>	

Container Tare		
Weight (lbs):		

DATE	WEIGHT	DATE	_l WEIGHT

MEASURING THE VOLUME OF WASTE DIVERTED

What You'll Need

- A 32-gallon garbage pail to collect waste before it gets incorporated into the composting system
- A roll of duct tape or masking tape
- A copy of the Landfill Waste Diversion by Volume form



Instructions

Using masking tape or duct tape, mark off the approximate 1/4, 1/2, and 3/4 volumes of the pail on its side. Throughout the season, use the garbage pail to collect kitchen scraps or any other waste that makes its way into the compost pile that would otherwise end up in a landfill. This includes "browns" such as leaves, wood shavings, and sawdust. Keep a tight lid on the container to prevent smells and deter pests. Every time you empty the pail into the compost system, record the approximate volume of waste it contained to the nearest fourth of the pail.

Example:

On June 14th, Frances incorporated a half-full pail of kitchen scraps and a full pail of dead leaves into the composting system at the East Side Community Garden. She noted the volume of waste in each pail and tallied the results in the garden's data worksheet like this:

DATE	1/4	1/2	3/4	Full	TOTAL
6/14		×			16
6/14				×	32

What To Do With Your Results

Enter the data into Barn (<u>www.farmingconcrete.org/barn</u>). Barn will tally up all of the gallons of waste diverted from landfills into the composting system so you can share the results with the gardening community. You may want to write a letter to your local politicians, letting them know about your productivity throughout the season. You may also want to share your findings with any funders or other sources of support for your garden.

Converting Compost Weights and Volumes

The US Environmental Protection Agency has put together a handy table for converting measures of the volume of different kinds of waste into measures of weight. The table below focuses on the types of waste that go into making compost. You can see the whole table by visiting the following website:

http://www.epa.gov/smm/wastewise/pubs/conversions.pdf

WASTE TYPE	VOLUME	WEIGHT
Grass	1 cubic yard	280 pounds
Dried leaves	1 cubic yard	344 pounds
Produce waste	1 cubic yard	1,443 pounds
Wood chips	1 cubic yard	329 pounds
•••••••••••	· · · · · · · · · · · · · · · · · · ·	••••••

1.1

LANDFILL WASTE DIVERSION BY VOLUME

|--|

Garden:	Contact:	Phone/Email:	

Container Tare	
Weight (lbs):	

DATE	1/4	1/2	3/4	Full	TOTAL
			•••••		

1.2 COMPOST PRODUCTION

Background

Composting programs come in all shapes and sizes, from simple heaps to carefully designed windrows. Some make compost quickly through labor-intensive processes, while others just let things decompose at their own pace. Knowing how much compost your garden produces can be handy for evaluating how well the program works and whether or not it needs to be tweaked. Compost data can also help your garden plan for regular soil improvements throughout the course of a year, or from season to season.

Some gardens may find that it's easier to measure the volume of compost they produce. Others may find that it's easier to measure in terms of weight. Luckily, it's easy to convert from one measure to another (see page 42). Feel free to use whatever works best for your garden.

Goals & Objectives

Some community gardens and urban farms have general goals and specific objectives for their compost waste diversions each year. Some simply want to know that they helped divert more waste than the previous year. Others know that they want to divert 20 more pounds or gallons of waste in order to broaden their environmental impacts. Before getting started with measuring the amount of waste diverted by your composting program this season, your gardening community may find it useful to reflect on its goals and objectives for the year ahead. Invite your fellow gardeners to have a conversation and use the following spaces to record your thoughts.

	What Are Our Compost Production Goals?
A goal is a general description of what you hope to achieve in the	
uture.	
	What Are Our Compost Production Objectives?
An objective makes your goal	
more specific, giving it a concrete	
number that can be measured.	

MEASURING THE WEIGHT OF COMPOST PRODUCED

What You'll Need

- A basic bathroom scale—the old fashioned kind will do nicely,
 though you can also use a digital scale if one is readily available
- A **32-gallon garbage pail** or 5-gallon bucket to collect waste for weighing before it gets incorporated into the composting system
- A copy of the Compost Production by Weight form



Instructions

Before filling the garbage pail with compost, weigh it on the bathroom scale. Note its tare weight in your Measuring Compost Production by Weight form. The tare weight is the weight of an empty pail. Throughout the season, use the garbage pail to collect finished compost. Before using the compost in the container, place it on the bathroom scale and measure its weight. Note the date and weight in your data worksheet.

Example:

On June 14th, Maureen and Tracy used the finished compost stored in a 32-gallon garbage pail to amend the soil at Franklin Street Neighborhood Garden. The garbage pail was only about two-thirds full. They placed the pail on a bathroom scale and found that it weighed 21 pounds. They tallied the results in the garden's Compost Production by Weight form, like this:

DATE	WEIGHT
6/14	21 LBS
6/18	12.5 LBS

By October, the garden had logged compost 14 times. Maureen and Tracy added up all of the weights. The total was 300 pounds. The garbage pail they used to collect compost had a tare weight of 3 pounds, which means it weighed 3 pounds when it was empty. The total tare weight for the season was 3 pounds multiplied by 14 measures [3 lbs x 14 measures = 42 lbs]. Maureen and Tracey subtracted the total tare weight from the total weight to find the actual amount of compost their garden produced that season [$300 \, \text{lbs} - 42 \, \text{lbs} = 258 \, \text{lbs}$].

What To Do With Your Results

Enter the data into Barn (<u>www.farmingconcrete.org/barn</u>). Barn will factor in your tare weight and tally up all of the pounds of compost produced at your farm or garden so you can share results with the gardening community. You may want to write a letter to your local politicians, letting them know about your productivity throughout the season. You may also want to share your findings with any funders or other sources of support for your garden.

1.2

COMPOST PRODUCTION BY WEIGHT

Garden:	Contact:	Phone/Email:	
Container Tare Weight (lbs):			
DATE	WEIGHT	DATE	WEIGHT

473			
Tarming Concrete	FIVE BOROUGH FARM, a project of th	e Design Trust for Public Space	

MEASURING THE VOLUME OF COMPOST PRODUCED

What You'll Need

- A **32-gallon garbage pail** to collect waste for weighing before it gets incorporated into the composting system
- A roll of duct tape or masking tape
- A copy of the Compost Production by Volume form



Instructions

Using masking tape or duct tape, mark off the approximate 1/4, 1/2, and 3/4 volumes of the garbage pail on its side. Throughout the season, use the garbage pail to collect finished compost. Before using the compost in the container, place it on the bathroom scale and measure its weight. Note the date and weight in your Measuring Compost Production by Volume data form.

Example:

On July 1st, the compost team at Victory Urban Farm filled half of a 32-gallon garbage pail with finished compost. They noted the volume of compost in their Compost Production by Volume form, like this:

DATE	1/4	1/2	3/4	Full	TOTAL
7/1		×			16

What To Do With Your Results

Enter the data into Barn (<u>www.farmingconcrete.org/barn</u>). Barn will tally up all of the gallons of compost produced at your farm or garden so you can share the results with the gardening community. You may want to write a letter to your local politicians, letting them know about your productivity throughout the season. You may also want to share your findings with any funders or other sources of support for your garden.

Converting Compost Weights and Volumes

The US Environmental Protection Agency has put together a handy table for converting measures of the volume of different kinds of waste into measures of weight. The table below focuses on finished compost. You can see the whole table by visiting the following website:

http://www.epa.gov/smm/wastewise/pubs/conversions.pdf

WASTE TYPE	VOLUME	WEIGHT
Compost	1 cubic foot	30-40 pounds
Loose compost	1 cubic yard	463 pounds

1.2

Garden:	Contact:		Phone/Email:			
Container Tare Weight (lbs):						
DATE	1/4	1/2	3/4	Full	TOTAL	



1.3 RAINWATER HARVESTING

Background

Water makes every garden grow. Some urban garden and farm locations "luck out" and have city drinking water pipes right on site, while others are forced to tap into nearby fire hydrants. In some gardens, water has to be manually hauled in. Given these challenges, capturing and storing rain water is appealing to any garden—and in some cases it is essential. Many gardens have installed rooftop rainwater harvesting systems that collect runoff from the top of a nearby building and store it in large tanks or cisterns.

Goals & Objectives

When setting out to capture water with a rainwater harvesting system, some community gardens and urban farms might be solely focused on providing adequate water for watering plants and other tasks. In other instances, there might be broader environmental goals of reducing or slowing stormwater runoff. This protocol is useful for measuring toward either goal. Before you begin measuring the amount of stormwater you harvest in your garden, take a few minutes to jot down your goals and objectives.

	What Are Our Rainwater Harvesting Goals?
A goal is a general description of what you hope to achieve in the	
iuture.	
	What Are Our Rainwater Harvesting Objectives?
An objective makes your goal more specific,	
giving it a concrete number that can be measured.	

What You'll Need

- A **basic tape measure**—25' long should be enough for most roofs, but if you are using a large building, perhaps you'll want to consider finding a 100' long tape.
- In the case that you can't gain access to the roof at all, consider using a computer with Google Earth to draw a line for length and a line for width over the satellite imagery of the roof.
 Or, you could ask the building superintendent for a drawing of the roof with dimensions.
- A copy of the Rainwater Harvesting by Volume form

Instructions

The first step is to figure out which part of the roof is draining into your collection tank. Note that this protocol will not work for buildings with pitched roofs. Once you have determined that the roof is flat, you can figure out if your tank is collecting rainwater from all or part of the roof by several methods, including counting the number of downspouts or asking the gardener that set up your harvesting system.

The next step is to measure the length and width of the rooftop, either physically or on the computer, and record on the first two columns on the Rainwater Harvesting by Volume form.

Write down the "start date". If at any point in the season, so much rain falls that your containers are completely full, record that as an "end date". When the containers have emptied a bit and are ready to take in more water, record a second "start date".

Barn does all the work for you to measure how many gallons of rainwater your garden harvests. Record your roof dimensions and stop and start dates in **www.farmingconcrete.org/barn**, and the system will automatically calculate the gallons of rainwater your garden harvested over the course of the season using rainfall data from local weather stations.

Example:

The West Side Community Garden installed a rooftop rainwater harvesting system with help from a local volunteer group. The system was designed to hold up to 600 gallons of water in a large plastic tank. Julia, a long time garden member, wanted to measure the number of gallons of water the system collected during its first full season. With some help from the garden's neighbors, she gained access to the roof and measured the drainage area that fed into the rainwater collection system: 12 feet in length by 6 feet in width. She then made a copy of the Rainwater Harvesting by Volume form and recorded these dimensions in the spaces provided.

On the same form, Julia recorded the date of the first day the spigot on the rainwater harvesting system was opened: April 2nd. She placed the copy of this form on a clipboard in a central area so others could record start and end dates.

A few days later, it began to rain. Within a month, the big plastic tank was full of water and the gardeners shut off the spigot. Julia noted the first "end date": May 3rd. After a few weeks, the spring rains stopped and the gardeners started using water from the tank. Within a few days, the water level began to drop and the gardeners re-opened the spigot that connected the big plastic tank to the roof. Julia noted the new "start date": June 6. After that point, the system stayed "open" to collect rainwater throughout the dry summer. When the gardeners drained the system at the end of the season, Julia noted the final "end-date" of September 20:

END DATE
MAY 3
SEPT. 20

Julia entered the numbers on her form in <u>www.farmingconcrete.org/barn</u> and the system calculated that West Side Community Garden harvested 1,300 gallons of rainwater throughout its first season.

What To Do With Your Results

At the end of the season, enter in all your start dates and end dates into **www.farmingconcrete.org/barn** and marvel at how much water you collected. Share the results with the gardening community. You may want to write a letter to your local politicians, letting them know about your productivity throughout the season. You may also want to share your findings with any funders or other sources of support for your garden.

1.3

RAINWATER HARVESTING BY VOLUME

RAINWATE	ER HARVEST	ING B	Y VOLUME	
arden: Contact:		Pho	one/Email:	
Roof length:			Roof width:	
START DATE	END DATE	-	START DATE	END DATE
		•		

2. SOCIAL DATA

2.1 PARTICIPATION BY GEOGRAPHY

Background

Many community gardens are created, maintained, and managed by local volunteers who trade hours of service for access to the garden. Some gardens struggle to know just how many hours of volunteer time are donated each year and where those efforts come from within the community. More and more, funders and policymakers want to know how many people are involved in a garden before lending their support. Gardeners need some means of tracking how people donate their time within a particular neighborhood.

Goals & Objectives

Some community gardens and urban farms have general goals and specific objectives for the number of volunteer hours they receive each year. Some simply know that they want more people to get involved from within the community. Others know that they have to generate 50 more hours of volunteer time in order to qualify for a particular grant. Before getting started with measuring volunteer hours this season, you may find it useful to explore your own garden's goals and objectives. Invite your fellow gardeners to have a conversation and use the following spaces to record your thoughts.

What Are Our Participation Goals?

What You'll Need

- A large laminated map of the garden's neighborhood. You can print out a poster-size map from mapping websites like Google Maps for under \$10 at a local office supply store
- A large piece of foam core (if used inside a shed or casita)
 or a bulletin board
- Two boxes of **pushpins**, one color for each box (for example, a box of red pushpins and a box of yellow pushpins)
- A copy of the Participation by Geography form

Instructions

Mount the garden neighborhood map on foam core or a bulletin board and display it in a prominent place within the garden. Talk with your fellow gardeners about how you define the geographic boundaries of your neighborhood (natural or built borders, particular street names, 10-minute walk, etc). Mark these the boundary lines on the map so you can determine participation occurring within and outside the neighborhood. Place the two boxes of pushpins nearby. Alongside the map, post the following instructions:

Welcome to the garden!

A lot of different people work to make this garden possible, and we want to know where you come from. For every half-hour of work you do here today, stick a RED pin on the block where you live. For every hour of work you do, stick a YELLOW pin on your block. At the end of every week,* we will tally the results and reset the board to make room for tracking more work.

Assign a garden member to take an inventory of hours worked in the garden each week or for a time range of your choosing. Take a photo of the map to capture the geographic spread of participation and count up the hours and half-hours contributed to the garden by volunteers that are inside and outside of the neighborhood. Log these hours in the Participation by Geography form.

Example:

On Monday, July 3rd, Bob set up a neighborhood map just inside the gate at the Live and Learn Community Garden. During the course of the week, members dropped by to water the garden's ornamental beds, tidy up the mulch pile, and turn some compost. They each used colored pushpins to track the number of hours they worked. By the end of the week, the map had a scattering of red and yellow pushpins, with a clustering of pins in the northwest corner of the neighborhood. Bob snapped a picture of the map with his phone and logged the 16.5 volunteer hours indicated by all the pins in a data worksheet, like this:

START DATE	END DATE	1/2 hour	1 hour	TOTAL
7/3	7/9	In: 13 Out:	In: 10 Out:	16.5

After logging the results, Bob pulled out all of the pushpins to start again the following week.

What To Do With Your Results

Enter the data into Barn (www.farmingconcrete.org/barn). Barn will tally up all of the volunteer hours donated to the garden so you can share the results with the gardening community. You may want to write a letter to your local politicians, letting them know about how much effort was given by volunteers to supporting the garden throughout the season. You may also want to share your findings with any funders or other sources of support for your garden.

\sim	
')	_
/	

PARTICIPATION BY GEOGRAPHY

Garden:	Contact:	Phone/Email:	Bingla.

Tally up the 1/2 hour and 1 hour pushpins for the time spent by volunteers from "in" and "out" of your garden neighborhood.

START DATE	END DATE	1	/2 hour	1 hour		TOTAL
		ln:	Out:	ln:	Out:	
		In:	Out:	In:	Out:	
		ln:	Out:	In:	Out:	
		In:	Out:	In:	Out:	
		In:	Out:	In:	Out:	
		In:	Out:	In:	Out:	
		In:	Out:	In:	Out:	
		ln:	Out:	In:	Out:	
		ln:	Out:	In:	Out:	
		In:	Out:	In:	Out:	
		ln:	Out:	In:	Out:	
	Subtotal:					
I took a photo of m	y man to unload		ı	1	1	

to www.farmingconcrete.org/barn

2.2 PARTICIPATION BY TASK

Background

Every garden and farm has an ongoing list of tasks that need to be completed—weeding, maintaining open hours, planting, making repairs, keeping things tidy, and more. Sometimes participants are well aware of what needs to get done and simply launch into the work. Other times, participants need a reminder of the tasks at hand. For gardens and farms that require participants to donate a certain amount of time to garden upkeep each season, managing and tracking this work can be a challenge.

Goals & Objectives

Some community gardens and urban farms have general goals and specific objectives for the tasks they hope to accomplish each year. Some simply know that more time needs to be spent weeding and watering through the summer months. Others know that they have to generate 50 more hours of volunteer time across all tasks in order to qualify for a particular grant. Before getting started with measuring volunteer hours according to tasks this season, you may find it useful to explore your own garden's goals and objectives. Invite your fellow gardeners to have a conversation and use the following spaces to record your thoughts.

	What Are Our Participation Goals?
A goal is a general description of what you hope to achieve in the future.	
	What Are Our Participation Objectives?
An objective makes your goal more specific, giving it a concrete	
number that can be measured.	

What You'll Need

- A deck of garden task cards
- A small **mailbox** to collect cards
- A copy of the Participation by Task form

Instructions

Leave a deck of garden task cards in a dry, easy-to-access place in the garden. Train participants to fill out a card each time they engage in a task. Create a small mailbox, using a shoebox or large tin can, with a large slit at the top where participants can drop the completed cards before leaving the garden. At the end of each week, collect the cards and tally up participant-hours by task, using a Participation by Task form. For gardens that track time donated by participants for membership requirements, note the participant name on each card as well.

Example:

All of the members of Beagle Street Farms donate volunteer service hours to keep the garden running smoothly. On Tuesday, Jonathan stopped by after work and spent an hour watering the garden's communal beds. On Wednesday, Samantha spent a half-hour turning compost and another half-hour tidying up the garden's shed. Both Jonathan and Samantha filled out garden task cards before leaving, dropping them in a mailbox in the shed to log the hours they'd donated to the garden that week. On Sunday morning, José gathered up all of the cards in the mailbox and tallied up the hours spent on each task, logging them in the Participation by Task form.

What To Do With Your Results

Enter the data into Barn (<u>www.farmingconcrete.org/barn</u>). Barn will tally up all of the volunteer hours donated to the garden so you can share the results with the gardening community. You may want to write a letter to your local politicians, letting them know about how much effort was given over to supporting the garden throughout the season. You may also want to share your findings with any funders or other sources of support for your garden.

PARTICIPATION BY TASK

Garden: Contact: Phone/Email:



Tally up the time spent on each task, based on the cards in your mailbox.

Start date:

End date:

TIDYING UP

Hours:

COMPOSTING

Hours:

WATERING

Hours:







BUILDING / **FIXING**

Hours:

WEEDING / **PRUNING**

Hours:

PLANTING / SEEDING

Hours:







COORDINATING Hours:

.....

OPEN HOURS

Hours:

.....

OTHER TASKS

Hours:







Total hours:

TIDYING UP





Name:	
Date:	
Start time:	End time:

Name:

Date:

Start time: End time:

TIDYING UP

TIDYING UP



indicate Marie .
Till Materia

Name:	
Date:	
Start time:	End time:

Name:	
Date:	
Start time:	End time:

COMPOSTING

COMPOSTING



Name:		Name:	
Date:		Date:	
Start time:	End time:	Start time:	End time:
			'

COMPOSTING

COMPOSTING



lame:	
Date:	
Start time:	End time:

Name:	
Date:	
Start tima:	Fnd time:

WATERING

WATERING



Name:		Name:	
Date:		Date:	
Start time:	End time:	Start time:	End time:

WATERING



Start time:



Name:	
Date:	
Start time:	End time:

Name:	
7 - L	•••••
Date:	
	•••••

End time:

BUILDING / FIXING



Name: Date: Start time: End time: BUILDING / FIXING

Name:	
Date:	
Start time:	End time:

BUILDING / FIXING



Name:	
Date:	
Start time:	End time:

BUILDING / FIXING



Name:	
Date:	
Start time:	Fnd time:

WEEDING / PRUNING

WEEDING / PRUNING





Name: Date:		Name: Date:		
Start time:	End time:	Start time:	End time:	
WEEDING	/ PRIMING	WEEDIN	IG / PRIMING	





Name:	
Date:	
Start time:	End time:

•••••	•••••
Name:	
Date:	
Start time:	End time:

PLANTING / SEEDING

PLANTING / SEEDING



Name:	•••••
Date:	•••••

Name:	
Date:	
Start time:	End time:

Date:

Start time: End time:

PLANTING / SEEDING

PLANTING / SEEDING



Name:	
Date:	
Start time:	End time:

Name:	
Date:	
Date.	
Start time:	End time:

COORDINATING

COORDINATING



Name:		 	Name:		
Date:		 	Date:	••••••	
Start time:	End time:	 	Start time:		End time:
		1			

COORDINATING

COORDINATING



	I		
Name:		Name:	
Date:		Date:	
Start time: End time:		Start time:	End time:

OPEN HOURS



Name: Date: Start time: End time: OPEN HOURS

End time:

Name:

Date:

Start time:

OPEN HOURS



Name:	
Date:	
Start time:	End time:

OPEN HOURS



Name:	
Date:	
Start time:	End time:

OTHER TASKS

Name:

Start time:

End time:





Name:		 Name:	
Date: Start time:	End time:	 Date: Start time:	End time:
OTHER TA	SKS	OTHER 1	ASKS

Name:	
Date:	
Start time:	End time:

2.3 PARTICIPATION BY PROJECT

Background

Sometimes, gardens take on a special project that has a clear beginning, middle, and end. These projects differ from ongoing tasks, such as weeding or watering. These projects may include building a new fence, laying down new walkways, painting a mural, cutting down damaged trees, or constructing a new shed. They are often created and prioritized from one season to another, and they offer valuable opportunities for participation each year.

Goals & Objectives

Some community gardens and urban farms have specific objectives for the projects they hope to complete each year, such as repairing a garden gate or replacing old compost bins. Before getting started with measuring volunteer hours according to projects this season, you may find it useful to explore your own garden's priorities for what needs to get done. Invite your fellow gardeners to have a conversation and use the following spaces to record your thoughts.

	What Are Our Participation Goals?
A goal is a general description of what you hope to achieve in the future.	
	What Are Our Participation Objectives?
An objective makes your goal more specific, giving it a concrete	
number that can be measured.	

What Are The Top Three Projects We Aim To Complete in The Garden This Year?

1 2 3

What You'll Need

• A Participation by Project form

Instructions

Garden members should begin each season reviewing project opportunities and prioritizing the projects they want to get done in the months ahead. Each garden has its own leadership process for making these kinds of decisions. Regardless of how the decisions are made, each project should end up with at least one point-person or project coordinator to keep the ball rolling.

Each project coordinator will need to take responsibility for tracking the number of hours worked by each participant. Coordinators can use a Participation by Project form to have volunteers sign in and sign out each time they convene to work on a project. Taking photos of participants at the start of the work session, the end of the work session, and at moments in between can help ensure that everyone is included.

Example:

Members of the Jones Avenue Community Garden came together in March to begin planning for the spring and summer. During the meeting, the membership voted to install a rainwater harvesting system in the garden. Frank took responsibility for leading the project, and by May 2nd, fifteen members pitched in to build the rainwater harvesting system. At the start of the day, Frank passed around a clipboard with a fresh Participation by Project form attached. He asked all of the members to sign in. Throughout the course of the day, as new members came to help and others left early, Frank reminded them to sign in and sign out. At the end of the day, he tallied all of the time spent by garden members installing the rainwater harvesting system.

What To Do With Your Results

Enter the data into Barn (<u>www.farmingconcrete.org/barn</u>). Barn will tally up all of the volunteer hours of time donated to completing special projects so you can share the results with the gardening community. You may want to write a letter to your local politicians, letting them know about how much effort was given over to supporting the garden throughout the season. You may also want to share your findings with any funders or other sources of support for your garden.

2.3

PARTICIPATION BY PROJECT

Garden:	Contact:	Phone/E	mail:	Y
Project title:				Work date:
				Work date.
PARTICIPANT NA	ME	TIME IN	TIME OUT	HOURS
			Totalh	ouro.

2.4 SKILLS & KNOWLEDGE IN THE GARDEN

Background

Community gardens and urban farms bring together people with a wealth of both technical and conceptual knowledge about horticulture, community organizing, carpentry, program management, and much more. Sometimes gardeners share their skills and knowledge through their work together, both within their own garden and with other gardens throughout the city. Though gardens sometimes need financial support from outside donors to make ends meet, they typically rely on the resources that come from within their own membership to thrive from year to year. Discovering all of the skills and knowledge within a gardening community can help individual gardeners make connections with each other and take on projects that make the garden stronger. It can also help prove to policymakers and funders that gardens are a worthy investment.

Goals & Objectives

Some community gardens and urban farms have general goals and specific objectives for the skills and knowledge they hope to grow and share during the course of a season. Some simply know that more of their members need to learn the basics of sustainable horticulture, a topic that some gardeners are well poised to teach. Others know that they want to create more opportunities for gardeners to connect and learn from each other. Before getting started with measuring the skills and knowledge in your garden this season, you may find it useful to explore your garden's goals and objectives in this area. Invite your fellow gardeners to have a conversation and use the spaces below to record your thoughts.

	What Are Our Goals for Skills & Knowledge in the Garden?
A goal is a general description of what you hope to achieve in the future.	
	What Are Our Objectives for Skills & Knowledge in the Garden?
An objective makes your goal more specific,	
giving it a concrete number that can pe measured.	

What You'll Need

- Four large poster boards or flip charts
- Stacks of sticky notes
- Markers
- A deck of "We Connected" cards
- A copy of the Skills & Knowledge in the Garden form

Instructions

Invite your gardening community to a special skill-share meeting, either indoors or at the garden. Using poster board or large sheets of flipchart paper, create four posters with the following titles written across the top:

Skills I Can Share and Teach
Concepts I Can Share and Teach
Skills and Concepts I Want To Learn
Projects I Want To Collaborate On

Display the four posters in different corners of the meeting room or in different parts of the garden.

Invite participants to spend 10 or 15 minutes writing responses to each of the poster prompts, using one sticky note per idea. Participants should write their names on the back of each sticky note and post their results on each poster when they are done. At the end of 15 minutes, invite all of the

participants to explore the results and begin to connect with each other. They can use the names written on the back of each sticky note to find its author and begin a conversation. Participants should begin to think about how they'll share knowledge and work on projects, scheduling meetings for training sessions, brainstorming sessions, and strategy conversations.

Ask participants to keep track of the connections they make and their intentions to collaborate, using "We Connected" cards. The cards ask participants to note their names, phone numbers, and emails, and make a quick note about the topic that connected them. The cards can be torn in thirds, allowing participants to follow up with each other after the event. Take photos of the resulting posters and log the skills and conceptual knowledge to share with the garden throughout the season to generate new ideas for collaboration. You may want to write a letter to your local politicians, letting them know about how much effort was given over to supporting the garden throughout the season. You may also want to share your findings with any funders or other sources of support for your garden.

Example:

Water Street Community Garden has more than 25 active members. On April 3rd, the garden's members came together for a skill-share meeting. Jane, the garden's vice president, planned the event. She booked a community meeting room at the local library, purchased markers, posters, and sticky notes, and arrived early to set everything up for the meeting. As members arrived, she invited them to take a seat, handing them a few "We Connected" cards and a handful of sticky notes as they walked inside. When everyone was settled, Jane invited the members to write answers to each of the prompts on the four posters pinned around the room, using one sticky note for each idea.

After 15 minutes, Jane invited participants to put down their pens and pin up their sticky notes on the posters. Once all the sticky notes were up,

she asked the members to walk around and see what others had written, looking for opportunities to connect and collaborate by sharing new skills and knowledge with each other. For the next half hour, members walked around and discovered new things about the gifts and talents they each brought to the garden. The sticky notes inspired a lot of new conversations and connections between gardeners. Some came up with new ideas for projects to work on together. Others promised to teach each other how to grow more bountiful tomato harvests or how to build raised vegetable beds. They noted their new links on "We Connected" cards, traded contact information, and provided Jane with a piece of the "We Connected" card that noted each of their names.

After the event was over, Jane tallied up all of the new connections and took photos of the poster boards. She emailed the photos to other members of the garden and printed a few copies to distribute in the garden shed. Using a Skills & Knowledge in the Garden form, she recorded the event date, the number of participants, the number of skills shared, the number of concepts shared, the number of projects proposed, and the number of ideas to learn that week generated during the meeting.

What To Do With Your Results

Enter the data into Barn (<u>www.farmingconcrete.org/barn</u>). Barn will record the outcomes of the skill-share meeting and any sharing that results between gardeners. Write up some of the more interesting stories you hear. You may want to write a letter to your local politicians, letting them know about how valuable your garden is in terms of bringing together so many resources. You may also want to share your findings with any funders or other sources of support for your garden.

2.4

SKILLS & KNOWLEDGE IN THE GARDEN

Garden:	Contact:	Phone/Email:	AIL

Event date:

of participants:

OF SKILLS SHARED

OF IDEAS SHARED

OF PROJECTS **PROPOSED**









OF IDEAS TO LEARN

#INTENTIONS **TO COLLABORATE** SUBMITTED





Name:	Name:
Let's reconnect about:	Let's reconnect about:
Name:	Name:
Phone #:	Phone #:
Email:	Email:
WE CONNECTED ab	
Name:	oout:
Name:	oout: Name:
Name: Let's reconnect about:	oout: Name:
WE CONNECTED ab Name: Let's reconnect about: Name: Phone #:	Name: Let's reconnect about:

SKILLS & KNOWLEDGE SHARING WITH OTHER GARDENS

The skill-share exercise may also lead you and your fellow gardeners to think of ways of assisting other gardens in your neighborhood. For example, you might arrange a "skill swap" with another garden, offering to teach their members to build raised planting beds in exchange for their knowledge about growing shade-tolerant crops. By sharing your expertise you will build networks of support in your local community, and improve your garden work.

What You'll Need

• A Skills & Knowledge Sharing with Other Gardens form

Instructions

Ask your fellow gardeners if they have the interest and time to share some of their skills and knowledge they have acquired with other gardeners in your community—or beyond. If the answer is yes, then advertise your collective skills and knowledge by reaching out directly to neighboring gardens or by working with garden advocacy groups to get the word out through email listservs, newsletters, and even word-of-mouth.

Keep a Skills & Knowledge Sharing with Other Gardens form in the shed for gardeners to track the time they spend helping other gardens, and the particular projects or programs they help realize. You can also log into Barn and make a record of your interaction as you go. At the end of the season, Barn will tally up all of the times you helped out another garden with your local expertise.

Example:

Westervelt Community Garden used the Skills & Knowledge in the Garden exercise to determine the expertise of its members. They thought it would be a good way to connect newer members with more experienced gardeners living in the St. George neighborhood of Staten Island. After holding a skill-sharing event at the garden, Sally—a new member and resident—arranged several compost training sessions with Dan, a master composter and 25-year member of the garden. Sally learned quite a bit from Dan and developed a deep enthusiasm for composting.

One day, while working in the garden, she came across the Toolkit and the Skills & Knowledge Sharing with Other Gardens form. What a great idea, she thought.

Sally went home and looked up all the community gardens in her area. She compared these to a map of gardens she found that participated in composting. Two of the gardens within a mile of the Westervelt Community Garden did not appear to have active compost programs. She looked up their open hours and scheduled time to meet with gardeners the next week. The first garden she visited was well established but really small. They decided not to have a compost bin because it would take up too much space. The second garden, Jersey Street Grows, was more recently established and was still setting up its space and activities—and its membership. They were interested in composting but did not have any members with related experience.

Sally offered to help them set up a three-bin system if they could find the materials. She also offered to give compost tutorials. A month later, the garden's composting program was well-underway, with 12 gardeners participating. Sally agreed to visit the garden regularly and help with other projects as they needed. They also offered to return the favor.

Back at Westervelt Community Garden, Sally noted the time she spent with gardeners at Jersey Street Grows on the garden's "Sharing With Other Gardens" worksheet and made a mental note to talk to her fellow gardeners about sharing some of their skills.

What To Do With Your Results

Enter the data into Barn (<u>www.farmingconcrete.org/barn</u>). Barn will track the ways you assisted other gardens so you can share the results with the gardening community. You may want to write a letter to your local politicians, letting them know about the volunteer time and services your garden contributes to the neighborhood. You may also want to share your findings with any funders or other sources of support for your garden.

***************************************	DGE SHARING WITH		
Garden:	Contact:	Phone/Email:	

DATE	GARDENER/S	SHARED WITH	PROJECT / PROGRAM DESCRIPTION

2.5 REACH OF PROGRAMS

Background

Many community gardens and urban farms host programs and special events on a wide variety of topics, serving a great diversity of audiences. From hour-long cooking demonstrations to weekend-long performances to summer youth internships, these programs usually share some common features. Most programs:

- Have a beginning, middle, and end
- Rely on staff or other volunteers to plan and coordinate the experience
- Enhance or strengthen various tasks or projects underway in the garden

So, for example, a cooking demonstration begins at 6:00pm and ends at 8:00pm. It has a beginning, middle, and end. The staff at an urban farm design and oversee a high school internship program during the summer months. They plan and coordinate the experience. A 1-day clean-up event brings corporate volunteers to help at a garden for a few hours. Their work supports the ongoing tasks and projects already in the garden.

Though not all programs will have these features, these rules-of-thumb may be useful for differentiating a program from ongoing tasks and occasional projects at a farm or garden.

Goals & Objectives

Some community gardens and urban farms have general goals and specific objectives for the seasonal programs they develop for their garden. Some gardens may organize programs around social or age groups, like aging populations or children, while others may offer technical or skill development like training members in a new composting method. Before getting started with measuring the reach of your garden programs this season, you may find it useful to explore your garden's goals and objectives in this area. Invite your fellow gardeners to have a conversation and use the following spaces to record your thoughts.

	What Is the Name of the Program?
	What Is the Goal of the Program?
A goal is a general description of what you hope to achieve in the	
future.	

What You'll Need

- Several copies of the Thanks for Attending Our Program! survey
- A program leader
- One copy of the **Reach of Programs form**

Instructions

Every time your garden or farm hosts a program, collect basic data on your participants. Use a simple survey or show-of-hands to find out their ages. If the program is geared toward youth, ask parents to fill out a basic questionnaire beforehand that notes the participant's age and zip code.

Track the type and the reach of each of your programs using the form on the next page.

If a program happens more than once in a year, create a new form each time it happens. For example, if you host the same internship programs three times per summer, create a new form for each time you host the program.

Example:

Daniel's Garden offers programs in the summer for the surrounding community to learn how to compost at home and in the garden, and parties for picking up trash on the blocks surrounding the garden. Over the past two growing seasons, Jen, the leader of the composting program at Daniel's Garden, has noticed that many more people have started to come to the 2-hour training sessions she holds each month on how to use a three-bin composting system. In order to make her composting training

sessions the best they can be, Jen would like to know more about who attends these events and how they heard about them.

Before her May compost training session, Jen reached out to Dave, the Outreach Director of the Montrose Senior Citizens Center next to Daniel's Garden, to see if any of his visitors would like attend. Jen also hung flyers advertising the session around the center. On the day of her event, Jen took the Reach of Programs form out of her Toolkit, and made several copies of the surveys. Jen greeted each attendee at the garden gate with a copy of the survey, and invited them to gather by the compost bin. Before beginning the session, Jen explained that she'd like to know more about the folks attending her program in order to make it better for them. She asked them to write their age, zip code and gender on the survey sheet. She also asked everyone to turn their survey sheet over and write down how they heard about the program. Another member of Daniel's Garden collected they survey sheets while Jen answered questions from the group, and put them in the garden shed.

After the event was over, Jen looked through all the survey responses and began filling out the Reach of Programs form. She counted the program start and end as the day's date, noting that the program lasted 2 hours. She checked 'Yes' to both the questions about collaborating with another organization for the garden program, noting that the organization was Montrose Senior Citizens Center. As Jen was tallying up the ages of attendees, she noticed that the majority were 25-34 or 65+, and that older attendees all lived within the same zip code as Daniel's Garden while the younger attendees did not. Jen marked that the program included Garden Education training, and noted that the program also covered compost. Jen looked at the back of each completed survey to see how attendees found out about the program, and noticed that the majority of them found out "from a friend." When Jen entered the data she collected into www.farmingconcrete.org/barn, she noted this information in the "Comments" section of the web form. Jen thought of all the possible things she

could find out from this survey form, and decided that she'd ask attendees of her June compost training session to write down one skill they'd like to learn from attending the program on the back of the survey forms.

Jen filled out a Reach of Programs form for each composting program she held this growing season, and at the beginning of the fall to be able to see the demographics of her attendees, and know more about successful ways for recruiting participants. By collecting this data, Jen found out that she taught 250 people to compost this summer from all five boroughs. After quantifying the number of people her program reached, Jen used this information to secure an in-kind donation from her local hardware store for equipment. Jen also shared the reach of her program to the owners of two of her favorite neighborhood restaurants, and convinced them to donate their food waste to Daniel's Garden as a way of contributing to the resiliency of their community.

What To Do With Your Results

Enter the data into Barn (www.farmingconcrete.org/barn). Barn will record and tally the program information and demographics so you can share the results with the gardening community. You may want to write a letter to your local politicians, letting them know about the reach of your programs and within and beyond the neighborhood. You may also want to share your findings with any funders or other sources of support for your garden.

2.5

REACH OF PROGRAMS

Garden:	Contact:	Phone/Email:	X X TAND
Program name:			Hours each day:
Start date:	End date:	Did you collaborate with another organization to host this program? ☐ No ☐ Yes → Was this the first ☐ Yes time you worked ☐ No	
			gether?
YOUTH AGES	ADULT AGES	GENDER	LOCATION
Under 10:	25-34:	Male:	In garden zip code:
 11–14:	35–44:	Female:	Outside garden zip code:
15–19:	45-54:	Other:	
20–24:	55-64:		
	65 & older:		
THIS PROGRAM INCLUI	DES	Check all that apply.	
☐ Cooking Demos☐ Workforce Training	☐ Fundraisers ☐ Markets or Sales	☐ Neighborhood Cleanups	
☐ Science Education	☐ Art Projects	☐ Exercise & Training	
☐ Performances	☐ Holiday Events	☐ Health Education	
☐ Festivals	☐ Social Gatherings	☐ Garden Education	
☐ Community Meetings	☐ School Visits	☐ Political Events☐ Volunteer Events	

THANKS FOR ATTENDING OUR PROGRAM!

Help us learn about the reach of One Survey per Participant	our programming by filling out thi	s short survey.
Your age:	Zip code:	Gender:
THANKS FOR A	ATTENDING OUR	PROGRAM!
Help us learn about the reach of One Survey per Participant	our programming by filling out thi	s short survey.
Your age:	Zip code:	Gender:
THANKS FOR A	ATTENDING OUR	PROGRAM!
Help us learn about the reach of One Survey per Participant	our programming by filling out thi	s short survey.
Your age:	Zip code:	Gender:
THANKS FOR A	ATTENDING OUR	PROGRAM!
Help us learn about the reach of One Survey per Participant	our programming by filling out thi	s short survey.
Your age:	Zip code:	Gender:

3. HEALTH DATA

3.1 CHANGES IN ATTITUDE: YUM & YUCK

Background

Many children discover that they love the taste of fresh fruits and vegetables after trying them for the first time in a community garden or urban farm. Some don't. Either way, a number of gardens—particularly those that feature programs for young people—encourage kids to try new foods grown from their local soil. Gardeners and educators often hope that a little taste will go a long way toward changing attitudes about what is yummy—and what isn't. Adults can use this protocol to see how attitudes about the flavor of fresh fruits and vegetables change when kids do a taste-test in the garden.

Goals & Objectives

Some community gardens and urban farms—particularly those that feature programs for school-age youth—have some sense of how they want to change attitudes about eating fresh fruits and vegetables. What goals does your garden have for changing attitudes in the year ahead? How many changes are you hoping to see as you give kids a chance to taste new foods grown in the garden?

What Are Our Goals for Changing Attitudes

120

What You'll Need

- Index-card sized pictures or drawings of crops in your garden (seed packages may work nicely)
- Empty and clean tin cans or opaque jars and containers of similar size
- A bag of dry red beans and a bag of dry white beans
- Two large bowls
- Resealing (ziplock) plastic bags
- A Changes in Attitude: Yum & Yuck form

Instructions

Begin by taking note of any fresh vegetables or fruits that are ready to be picked in the farm or at the garden. Before children come to visit, choose two or three ripe crops for the day's harvest. Prepare a short table or picnic bench at the entrance to the garden. Lay out two large bowls; one filled with dry red beans and another filled with white beans. Use an index card or large sheet of paper to label one bowl of beans with the word YUM and the other with the word YUCK. For each vegetable or fruit you've chosen to harvest, set out a jar. Each jar should have a clear image of each vegetable glued or taped to the front. Two or three different fruits and vegetables should be enough for any given day.

As children enter the garden, invite them to spend a minute quietly thinking about each of the vegetables and fruits on display. One by one, invite them to pick a YUM bean or a YUCK bean to describe how they feel about each vegetable. Ask them to put their beans in the corresponding jars.

When all of the children have voted, move on with the day's planned activities—harvesting and tasting these fruits and vegetables.

While children are busy harvesting and tasting, have an adult empty the jars into individual resealable bags. Use a permanent marker to tag these bags with the word BEFORE. Seal the bags and set them aside. When the children are done harvesting and tasting, invite them to vote once again, in the same way, to register their attitudes about the fruits and vegetables they just ate.

At the end of the day, tally up the red and white beans in the resealable bags and the mason jars. Note the changes in attitude in a Changes in Attitude: Yum & Yuck form. Share the results with other gardeners, teachers, and funders who may be interested in learning more about your programs.

Example:

Jeanine is a Children's Workshop Leader at the little community garden in Memorial Park. Every summer, she works with fifth graders from a local summer day camp to plant rows of corn, green beans, and tomatoes. The children harvest the crops as they ripen throughout the season, tasting each harvest and bringing some of the produce home with them in little paper bags. The children always have a lot to say about what they've tasted, but Jeanine struggles to keep track of how their attitudes change as a result of growing and tasting the vegetables for themselves.

Last year, as the green beans and tomatoes started to ripen and harvest time approached, Jeanine got ready to track what the children thought about the taste of these two vegetables. She took two large tin cans out of her recycling bin, cleaned them, and taped a colorful drawing onto the front of each can: one of a big red tomato, the other of a bushel of green beans. She bought a bag of dry red beans and a bag of white beans at her local grocery, and poured each bag into separate bowls.

The next morning, Jeanine arranged the bowls and the jars on a picnic bench in the garden. After the children arrived and got settled, Jeanine

briefly taught them how to harvest the tomatoes and green beans. She then invited each one to step up to the picnic bench and pick a "Yum" bean or a "Yuck" bean to describe what they thought about tomatoes—a red bean for "Yum" and a white bean for "Yuck." Their choice made, they dropped their bean into the tin can labeled with the drawing of a tomato and then did the same thing again for the green beans.

While the children worked in the garden with Jeanine, another adult gardener poured the contents of each jar into separate plastic bags and set them aside for Jeanine to count out later. After the harvest was over, everyone tasted a tomato and a green bean—some for the first time. Jeanine then invited the children to step up to the picnic bench once more and register how they felt about tomatoes and green beans after harvesting and tasting them. When the children left for the day, Jeanine counted out the red beans and white beans in each of the plastic bags and compared them to the beans left in the jars. She found that there was an increase in "yum" opinions about tomatoes by the end of the day, and a small increase in "yuck" opinions about green beans. She logged the results and shared them with other gardeners and began thinking about other ways to make the next harvest more appealing to children in the garden.

What To Do With Your Results

Enter the data into Barn (<u>www.farmingconcrete.org/barn</u>). Barn will tally up the changes in attitudes regarding fresh vegetables of youth visiting your garden so you can share your results with the gardening community. You may want to distribute the results of each "Yum & Yuck" test to parents, teachers, and other people involved in caring for the young people visiting your garden. You may also want to share your findings with any funders or other sources of support.

3.1

CHANGES IN ATTITUDE: YUM & YUCK

Garden:	Contact:	Phone/Email:	

Event date:	# of participants:

	BEFORE TASTING		AFTER TA	ASTING
VEGETABLE NAME	YUM	YUCK	YUM	YUCK
			Change:	Change:
			Change:	 Change:
			Change:	 Change:
			 Change:	 Change:

Total changes:

3.2 GOOD MOODS IN THE GARDEN

Background

Some research suggests that spending time in community gardens and other green spaces can be good for the mind, reducing stress and increasing feelings of happiness and peacefulness. Does your garden make people feel better after a stressful day at work? Does your farm help people find a sense of calm after a hard day of horticultural work? Finding out how your green space influences emotional wellbeing can help you make a case for the value of gardening in your neighborhood. It can also help your gardening community take its own emotional temperature as a group, revealing how people generally feel about interacting with the garden. Your findings may jumpstart a conversation about making the garden a more welcoming space.

Goals & Objectives

Some gardens have a clear sense of how they want to impact the emotional wellbeing of the communities they serve. This is particularly true in communities working through hard times, where a garden offers a brief escape from life's daily stresses. What are your garden's goals for impacting the emotional wellbeing of the community? How does your gardening group want to make people feel when they interact with the garden on any given day?

		What Are Our Goals for Encouraging Good Moods in the Garden?
	A goal is a general description of what you hope	
	to achieve in the future.	
I		
3		

TAKING IT ONLINE

Participants with a Twitter account can take this protocol one step further. Invite them to tweet their moods walking into and out of the garden, using the hashtag **#5BF_GoodMood** along with the name of your garden.

What You'll Need

- A sheet of tear-off flyers tagged with "mood words" included on the following pages
- A small mailbox or waterproof envelope to collect mood word tags
- Two regular envelopes
- A copy of the Good Moods in the Garden form

Instructions

Print sheets of the mood word flyers (see pages after the Good Moods in the Garden form). Purchase a small mailbox or create one using a weatherproof plastic envelope. Inside the mailbox, insert two simple lettersized envelopes—one labeled "How I Feel Walking into the Garden" and the other labeled "How I Feel Walking out of the Garden." Post the flyers and the mailbox (or envelope) near the entrance to the garden, being careful to protect the paper from rain and wind.

Invite garden members to tear off a word from the flyer and drop it into the "How I Feel Walking into the Garden" envelope each time they enter. They should do the same as they leave the garden. At the end of each week, count the positive and negative words of each envelope in the mailbox and post a new set of flyers to start the process over again. Tally up the different good and bad moods going in and out of the garden, log them, and share the results with others in your community. Discuss ways to increase the number of good moods people feel as they leave the garden. You may find the data useful when discussing the value of community gardening with local elected officials and potential funders.

Example:

Jevon and his friend Samantha are regular volunteers at the Tenth Street Neighborhood Garden. The neighborhood went through some tough times in recent years, and residents looked to the garden as a refuge and a source of hope. Samantha wanted to get a better sense of how people felt after interacting with the garden in order to come up with ways to make the space even more of a resource for local residents. Jevon wanted some evidence that the garden had a positive impact on the neighborhood in order to apply for a \$500 grant that would cover the cost of a nicer garden gate.

Jevon and Samantha teamed up to measure the good moods coming out of the garden during the summer. They printed a sheet of mood words and clipped the tags to look like a tear-off flyer on a community bulletin board. They posted the flyer by the garden gate near a cheap mailbox they purchased at the local hardware store. At the first garden meeting of the season, they invited other participants to take a moment upon entering and leaving the garden to pause and choose one word that best described how they felt, tearing the word from the flyers and dropping them into the appropriate envelopes in the mailbox.

After a week, Jevon and Samantha opened the mailbox and counted up the number of words in each envelope. They found that a number of people walked into the garden feeling sad, anxious, or tired, and left feeling peaceful, calm, and rested. They posted fresh sheets at the garden gate, logged the results, and shared them at the next garden meeting. After a few weeks, Jevon had enough data to make the case that Tenth Street Neighborhood Garden had a positive impact on people that came through the gate. He discussed the findings in his grant application. Samantha used the findings to jumpstart a conversation with other gardeners that explored ways to make their green space even more welcoming, enriching, and relaxing for anyone who walked through the gate.

What To Do With Your Results

Enter the data into Barn (<u>www.farmingconcrete.org/barn</u>). Barn will tally up all of the good moods and bad moods people registered as they walked in and out of the garden so you can share the results with the gardening community. The outcomes could lead to a conversation with other gardeners about ways to make your space have even more of a positive impact on participants and visitors. You may want to write a letter to your local politicians, letting them know about the effect of your garden on the wellness of residents within the neighborhood. You may also want to share your findings with any funders or other sources of support for your garden.

3.2

COOD MOODS IN THE CAPDEN

Garden: Contact: Phone/Email:	^{3.2} GOOD MO	ODS IN THE	GARDEN	
	Garden:	1	1	1 N. V

Tally up the "mood words" for your time range.

Start date:

End date:

ATTITUDES WALKING IN	ATTITUDES WALKING OUT			
Нарру:	Нарру:			
Peaceful:	Peaceful:			
Excited:	Excited:			
Calm:	Calm:			
Rested:	Rested:			
Sad:	Sad:			
Anxious:	Anxious:			
Angry:	Angry:			
Tired:	Tired:			
Frustrated:	Frustrated:			

AS I WALK INTO THE GARDEN I FEEL...

Нарру	Peaceful	Excited	Calm	Rested	Sad	Anxious	Angry	Tired	
/ / /	/ / /		'		/ / /	1 1 1		77777	7

[REMOVE]

Нарру	Peaceful	Excited	Calm	Rested	Sad	Anxious	Angry	Tired	Frustrated
				[REM	IOVE]				

Нарру	Peaceful	Excited	Calm	Rested	Sad	Anxious	Angry	Tired	Frustrated
				[REM	IOVE]				

\rightarrow
\hat{O}
$\overline{\mathcal{L}}$
\leq
ω
\top

Peaceful

Excited

Calm

Rested

Sad

Anxious

Angry

Tired

[REMOVE]

Frustrated

Нарру

Peaceful

Excited

Calm

Rested

Sad

Anxious Angry

Tired

Frustrated

TODAY THE GARDEN MADE ME FEEL...

Нарру	Peaceful	Excited	Calm	Rested	Sad	Anxious	Angry	Tired	
				/ / /					

[REMOVE]

Нарру	Peaceful	Excited	Calm	Rested	Sad	Anxious	Angry	Tired	Frustrated
				[REM	IOVE]				

Нарру	Peaceful	Excited	Calm	Rested	Sad	Anxious	Angry	Tired	Frustrated
				[REM	IOVE]				

\rightarrow
\hat{O}
$\overline{\mathcal{L}}$
\leq
ω
\top

Peaceful

Excited

Calm

Rested

Sad

Anxious

Angry

Tired

[REMOVE]

Frustrated

Нарру

Peaceful

Excited

Calm

Rested

Sad

Anxious Angry

Tired

Frustrated

3.3 HEALTHY EATING

Background

Community gardens and urban farms make freshly picked produce accessible and affordable for city dwellers. Supporters of community gardens make the case that urban farms and gardens are sometimes the only source of nutritious vegetables for families on tight budgets. Discovering how people use garden-grown produce in their kitchens can influence what gets planted each year. It can also help gardeners make a case to policymakers and funders that gardens play an important role in public health and nutrition.

Goals & Objectives

Some community gardens and urban farms have clear goals for improving nutrition through access to locally grown fruits and vegetables. What are your gardens goals? How many healthy meals do you want to grow in your garden?

	What Are Our Goals for Healthy Eating Amongst Our Gardeners?
goal is a general escription of	
hat you hope achieve in the uture.	

TAKING IT ONLINE

Participants with a Twitter account can take this protocol one step further. Invite them to tweet photos of the meals they cook with produce from the garden, using the hashtag **#5BF_GoodFood** along with the name of your garden.

What You'll Need

- A stack of pre-stamped postcards with blank fronts—available for less than the cost of a First Class mail stamp at your local post-office. Or cardstock to print your own postcards from the template that follows
- A copy of the **Healthy Eating form**

Instructions

Pre-address a small stack of postcards, using your P.O. Box or home mailing address. You could also print blank recipe postcards using the template on the following page. Leave the stack in a prominent place in the garden and invite other garden members to take a postcard home each time they harvest a vegetable to cook in their kitchens. Instruct gardeners to write the recipe or a description of the meal on the back of the postcard and draw, paste, or tape an image of the vegetable—or the cooked meal itself—on the front. They can drop their finished postcards in the mail.

Example:

Javier loves to cook with the tomatoes he grows at La Quinta Community Garden down the street from his apartment. He picks about a pound of tomatoes each week during the harvest season, takes them back to his kitchen, and prepares a variety of things to eat. Each time he harvests tomatoes he grabs a blank post-card from the garden shed. After cooking his meal, he snaps a photo of the results with his phone and shares it on Twitter. When he's particularly proud of what he cooked, he'll write down the recipe on the postcard and sketch a tomato on the front, dropping the card in a corner mailbox on the way to work the next morning.

Ellen is the coordinator for La Quinta Community Garden. She receives recipe postcards from Javier and four or five other gardeners throughout the season. As she receives them, she keeps track of the number of meals made with produce from the garden. She eventually wants to make a recipe book to share with all of the gardeners.

What To Do With Your Results

Enter the data into Barn (<u>www.farmingconcrete.org/barn</u>). Barn will tally up all of the recipes made with produce from the garden so you can share the results with the gardening community. The outcomes could lead to a conversation with other gardeners about new vegetables to grow next season for a whole new collection of recipes. You may want to write a letter to your local politicians, letting them know about the healthy recipes created with fresh produce from the neighborhood. You may also want to share your findings with any funders or other sources of support for your garden.

\sim	\sim

HEALTHY EATING

				P
Garden:	Contact:	Phone/Email:	11	롈。

|--|--|

START DATE	END DATE	# OF RECIPES	
			Tally up the recipes for your time range.
			ioi your timo rango.

RECIPE	For:
INCOIL C	From the kitchen of:
Ingredients:	Directions:
RECIPE	For:
NLUIIL	From the kitchen of:
Ingredients:	Directions:

.....

.....

3.4 BEAUTY OF THE GARDEN

Background

Community gardens and urban farms add a bit of greenery to any neighborhood and can make city dwellers feel proud about the place where they live. Simply walking past a garden can brighten anyone's day. This may be why property values seem to be higher in neighborhoods with well-tended gardens, according to one study. Measuring a garden's impact on the mood of a whole neighborhood can be tricky, but not impossible. Neighbors are usually willing to share their opinions, and this protocol will help you discover what everyone living near the garden feels about its contributions to the community.

Goals & Objectives

Some gardens have a clear sense of how they want to impact the look and feel of a neighborhood. This is particularly true in communities where there is little green space to begin with. What are your garden's goals for changing the look and feel of the neighborhood? What are you hoping to accomplish?

What Are Our Goals for Improving the Look

TAKING IT ONLINE

Participants with a Twitter, Instagram or Facebook account can take this protocol one step further. Invite them to share photos of the things they like to see as they walk past the garden and tag them with the hashtag #5BF_GoodLooks along with the name of your garden.

What You'll Need

- · A box of chunky black markers
- A stack of extra-large price tags
- A **poster-size sign** that says "Tell Us What You Like About Our Garden"
- A copy of the Beauty of the Garden form

Instructions

Choose a weekend afternoon to set up a small table and chairs outside your garden gate. Lay out a stack of extra large price tags and markers. Invite garden visitors and passers-by to tag any part of the garden they see from the street that they find particularly beautiful or that they regularly appreciate. Invite them to write a few thoughts on the tag about how their "favorite thing" makes them feel.

After 2 or 3 hours—or as long as you like—take photos of all the tagged garden elements and log the results. Repeat this experiment as many times as you like in any given season to get different snapshots of what people appreciate as they walk past the garden.

Example:

Gloria is a founding member of the Franklin Street Garden. For years, Gloria's neighbors told her how much they appreciated having the garden nearby—even if they didn't always go past the gate. Some neighbors would occasionally suggest planting more of one thing, less of another. One day last spring, Gloria set out to learn more about local attitudes toward the garden. On

a sunny Saturday afternoon, she set up a card table and a few chairs just outside the garden gate. She laid out some markers, a stack of extra-large manila price tags she bought at the local office supply store, and a pitcher of lemonade with paper cups. She taped a large poster in front of the card table that read: "Tell Us What You Like About Our Garden—Free Lemonade!"

Gloria sat and waited for neighbors to walk past. One by one, people came up to the card table to see what was going on. Gloria invited them to take a price tag and write a few words about one thing they could see in the garden as they walked past that they found particularly beautiful, inspiring, or just worth mentioning. As her neighbors filled out the price tags, she urged them to walk inside the garden and tag the object they'd chosen to write about. Over the course of 3 hours, the front of the garden became decorated with price tags—a visual record of everything the neighborhood valued about the look of the garden as they walked past day by day.

When she was ready to leave, Gloria snapped photos of the garden covered in price tags. She removed all of the tags and saved them to share with other garden members later that week.

What To Do With Your Results

Enter the data into Barn (<u>www.farmingconcrete.org/barn</u>). Barn will record some of the qualitative data about the things people value in your garden, including photographs documenting the elements of the garden they found beautiful. Within your gardening group, consider what you might change about the look of the garden based on what you've learned. The results, aren't easy to quantify or summarize with numbers but consider sharing photos or stories about some of the most striking comments on the price tags with the rest of your gardening community. Write a letter to your local elected official and include some of quotes to show how much the garden is valued in your neighborhood. You may also want to share your findings with any funders or other sources of support for your garden.

3.4

BEAUTY OF THE GARDEN

Garden:	Contact:	Phone/Email:	
Event date:	# of participants:	Did you take phot in the garden to u	
# of tags:	# of items tagged:	www.farmingcon No Yes	<u>crete.org/barn</u> ?
WHAT WAS TAGGED			
WHAT DID SOME OF	THE TAGS SAY?		
Tagged item:	Tagged item:	Tagg	ed item:
Comment:	Comment:	Com	ment:

4. ECONOMIC DATA

4.1 MARKET SALES

Background

Making fresh, healthy vegetables accessible and affordable to city-dwellers is one of the joys of urban gardening. Some gardeners sell their produce from a folding table set up right outside the garden gate. Others haul their produce to a weekly farmers market. However you sell the fruits and vegetables grown in your garden, it's important to keep track of what's coming in and going out. Once money gets involved, it quickly becomes obvious that good record keeping is essential.

Goals & Objectives

A good place to start with this protocol is to think of your general goals and specific objectives for selling produce.

Your goals could include providing healthy food at a reasonably price to my community, getting the best price you can for the top quality produce grown, or providing a range of price points and options to serve a wide demographic of shoppers.

Your objectives could include things like obtaining a desired price per pound or bunch of particular vegetables, or setting an overall daily quota you'd like to reach.

Take some time to sit down and think about your market sales goals and objectives and note them below.

	What Are Our Market Sales Goals?
a goal is a general lescription of what you hope o achieve in the	
uture.	
	What Are Our Market Sales Objectives?
an objective nakes your goal nore specific,	
giving it a concrete number that can be measured.	

What You'll Need

• Enough copies of the **Market Sales form** to record an entry row for each sale

Instructions

Use a Market Sales form to list each of the vegetables and fruits you plan on selling and how much you will charge for each pound or bundle. Consider visiting a grocery store in your community to get a general idea of how much to charge.

Use your Market Sales form to track the number of items you sold and the appropriate unit of measurement and the price you listed each for, noting if you gave discounts or package deals. When you get home enter the data into www.farmingconcrete.org/barn.

Once you have the hang of tracking sales, and if you're handy with smart-phones, consider directly entering your sales into **www.farmingconcrete. org/barn**. The form on Barn is exactly the same as the Market Sales form, so this will save you time later so you don't have to write these records twice.

Example:

Dana is a member of the City Heights Community Garden. Every season, she grows tomatoes, radishes, and squash to sell at the Saturday farmer's market down the block from her apartment. She visits one or two local grocery stores each week to find out how much her neighbors are paying for tomatoes, radishes, and squash, and sets the prices for her farmers market sales appropriately.

When Saturday rolls around, Dana prints a new Sales Form and fills out the date and the list of vegetables she plans to sell at the farmers market.

AUGUST 3					
PRODUCT	UNIT	UNIT PRICE	TALLY UNITS SOLD	TOTAL UNITS SOLD	TOTAL\$
RADISHES	1 BUSHEL	1.50	2	2	\$ 3.00
TOMATOES	1 LB	3.00	1/2 1/4	4.75	\$ 14.25
SQUASH	1 LB	3.00	1/4	2.25	\$ 6.75

Dana uses the form to keep track of how many quantities of each product she sells throughout the day, using hash marks to note when someone buys half a pound of tomatoes or a quarter of a pound of radishes. If a customer buys two pounds of squash, she puts down two hash marks in the one-pound box. She rounds up or down on the pounds to keep things simple.

At the end of the day she adds up all of the units she sold and multiplies by the unit price to calculate the total value of her sales. She enters the results in **www.farmingconcrete.org/barn** to keep track of her sales throughout the season.

What To Do With Your Results

Sales results are a powerful source of information for adjusting what you choose to take to market each week. Reviewed over a whole year, your sales results can help you make adjustments in your planning for next season. Perhaps you share your results with your neighbors to entice them to help you with your market plans. Perhaps you show them to the garden's youth contingent to impress up on them that they can make money too!

4.1 MARKET SALES Garden: Contact: Phone/Email: Date: **TALLY TOTAL**

PRODUCT	UNIT	UNIT PRICE	UNITS SOLD	UNITS SOLD	TOTAL\$
	•••••				
	•••••				•••••

4.2 DONATIONS OF FOOD

Background

Many community gardeners are motivated to grow fresh and healthy vegetables for food banks, soup kitchens, and other charitable organizations. In fact, some gardens grow food with no other goal in mind. Tracking the amount of food you donate can help pantries better manage their weekly inventories. It can also help your garden talk about the important role it plays in creating a healthy community.

Goals & Objectives

Your goals for donating food may be ambitious—for example, keeping local food pantries and soup kitchens consistently well stocked with fresh fruits and vegetables. Or your goals may be relatively simple—for example, donating extra pounds of food from a bountiful harvest that would otherwise go uneaten. Setting a general goal can help your garden manage expectations for food donations.

Your objectives should be more concrete: specific weight targets for certain foods grown in your garden.

What Are Our Donation Goals?

What You'll Need

- Printed copies of the **Donations of Food form**, enough to record an entry row for each type/quantity of food.
- A basic **countertop kitchen scale** the old fashioned kind will do nicely, though you can also use a digital scale or hanging basket scale if those are available. (bold the words kitchen scale).

Instructions

Begin with a photocopied version of the Donation form to record the produce you donate by weight. Each time you harvest food for donation, use a kitchen scale to weigh the number of pounds you harvest for each fruit or vegetable. On the Donation form, note the name of the produce donated, and the number of pounds they harvested for each. Try to be as specific as possible with crop names: hot peppers or sweet peppers?

	Date: 8/15	Date:	Date:	Date:	Date:	Date:
PRODUCE NAME	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS
HOT PEPPERS	2					
NAPA CABBAGE	3					

Example:

Harold is a member of Green Acres garden. The food he grows will feed his neighbors and fellow members of his church congregation. For the decades he's lived in the Bronx, he's always given away food to anyone walking by the garden. It brings smiles to stony faces, it turns strangers into

friends, and it gathers the community together in times when it seems like nothing is for free anymore. He's never made a big deal about tracking the food he gives away, and it feels strange to "count pennies" on a gift from his heart.

But this season, Harold has a new motivation to track his generosity—financial support for his garden from city programs and some charitable foundations. All he has to do is document how much he's giving away and he will be eligible for a micro-grant from a local family foundation.

To get started, Harold prints out the Donations of Food form and brings it to his garden on a clipboard. He hangs a scale by the garden gate where he talks to most of his visitors. When Maria comes by, he happily bags up some tomatoes, then makes a point to hang it on the scale and jot down how much it weighs. With a smile Harold presents the bag to Maria. She says, "Thank you! But what is that new scale about?" He replies, "This is going to help me grow more food, and get some help doing it. Hopefully, you'll have extra tomatoes next year!"

What To Do With Your Results

Tracking your food donations can help you document the impact you are having on the lives of people in your neighborhood. Share these results with your church, the local food bank, and other organizations that receive your donations. Also, consider sharing with your legislator's office. Measuring the amount of food you donate is an opportunity to amplify your good work in the future.

4.2

DONATIONS OF FOOD

Garden:	Con	tact:	Phone	Phone/Email:		
	l		l			
		Date:	Date:	Date:	Date:	Date:
PRODUCE NAME		POUNDS DONATED	POUNDS DONATED	POUNDS DONATED	POUNDS DONATED	POUNDS DONATED

ACKNOWLEDGEMENTS

The Five Borough Farm Data Collection Toolkit is a project of the Design Trust for Public Space in collaboration with Farming Concrete.

Project Partner + Collaborator





Project Team

Liz Barry, Outreach Fellow Phil Silva, Outreach Fellow Mara Gittleman, Farming Concrete Eric Brelsford, Farming Concrete Agnieszka Gasparska, Kiss Me I'm Polish

Editors

Caroline Bauer, Design Trust for Public Space Rosamond Fletcher, Design Trust for Public Space 183

2013 Data Collection Team

George Axiotakis, Clay Avenue Garden Meera Bhat, Prospect Farm Jonathan Blumberg, PS 107 Sunshine Garden Dominique Bouillon, Leave it Better Kids Garden Kimberly Brown, Davidson Avenue Community Garden Teryl Chapel, Harlem Seeds Rooftop Garden Sheryll Durrant. Sustainable Flatbush Herb Garden Fred Etheridge, Victory Community Garden Jason Finder, The Doe Fund Urban Farm Wayne Fleshman, Temple of David Community Garden Petula Gay, Richard Hungerford School Garden Mara Gittleman, Kingsborough Community College Urban Farm Meredith Hill. Columbia Secondary School Community Garden Anita Keire, PS 133 Garden of Wonder Susannah Laskaris. PS 217, 152, 315 School Gardens Rebecca Levi, Brooklyn Bears Community Gardens Ofelia Mangen, Rockaway Conservancy Community Gardens Angela Maull, Chenchita's Group Community Garden Rosemarie Miner, 462 Halsey Community Garden Khemenec Pantin, 100 Quincy Community Garden Ann Pope, Sustainable Flatbush Fatima Prioleau, Highbridge Victory Garden Jeff Secor, Prospect Heights Community Farm Nick Storrs, Randall's Island Urban Farm Clare Sullivan, Feedback Farms David Vigil, East New York Farms! Eugenie Zynda, WHEDCo

Major support was provided by







William and Mary Greve Foundation



Florence V. Burden Foundation

Additional support of the Design Trust is provided by:



NYSCA

Additional funds for ongoing toolkit development were provided by: The USDA National Institute for Food and Agriculture and administered through Civic Ecology Lab at Cornell University. In addition, a Cornell University Land-Grant Fellowship, awarded to Outreach Fellow Philip Silva, helped to support this work. Special thanks to Dr. Marianne Krasny for her ongoing support.





185

Special Thanks:
Sachin Marwah and Jeff Rosenblum, Acumen Capital Partners
Trude Chandler, Hunter College
Open Space Institute

©2014 © creative commons

The Five Borough Farm Data Collection Toolkit is licensed under a Creative Commons Attribute-ShareAlike 3.0 United States License. You are free to share and adapt this material, as long as you give appropriate credit, provide a link to the license and indicate if any changes in content were made. If you adapt the material, you must distribute your contributions under the same license as the original.