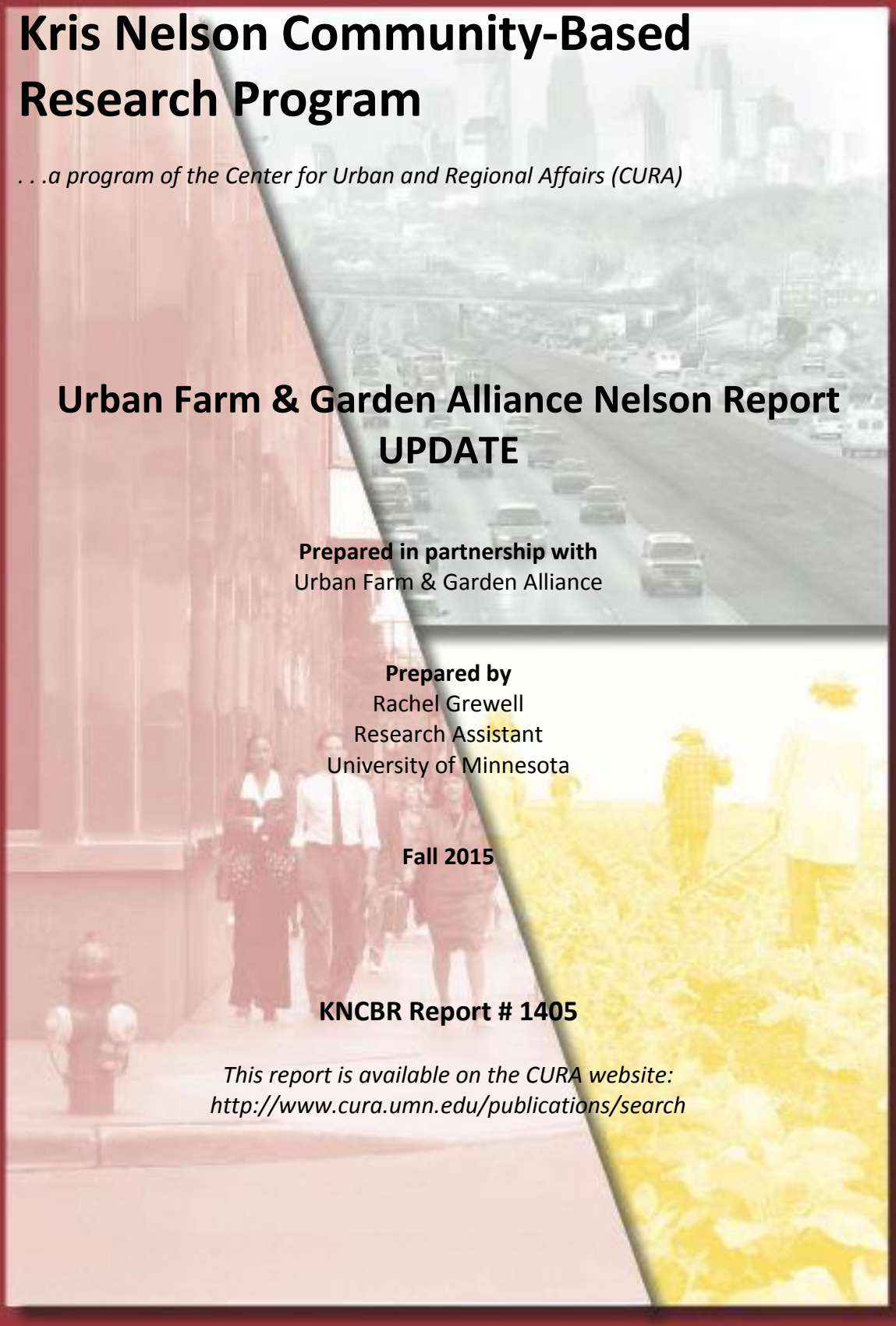
Kris Nelson Community-Based Research Program

. . .a program of the Center for Urban and Regional Affairs (CURA)



Urban Farm & Garden Alliance Nelson Report UPDATE

Prepared in partnership with
Urban Farm & Garden Alliance

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Center for Urban and Regional Affairs (CURA)
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In 2014 the Urban Farm and Garden Alliance (UFGA) brought together the members of 6 unique community garden plots in the Aurora/St. Anthony and Frogtown Neighborhoods: Lexington Commons, Pilgrim Baptist Church, Morning Star Baptist Church, Victoria Community, CDC Greenhouse Garden, and Aurora/St. Anthony Peace Sanctuary Garden. The Alliance of these six gardens serves to share ideas and resources and to co-host educational workshops, summer activities, and events through partnerships with other organizations and institutions including Bethel University, Community Stabilization Project, U of M Extension Master Gardeners/Land Connectors, Gardening Matters, and AfroEco. These partnerships and relationships have been important for improving access to parks and healthy nutritious foods for residents in neighborhoods that have suffered the consequences of predatory loans, high levels of unemployment, and a complicated history of Hwy 94 severing the historic Rondo neighborhood. Named Ramsey County Farm Family of the Year for 2015, the Urban Farm and Garden Alliance family of backyard gardeners, community members, and community gardeners that work and live in the Aurora/St. Anthony and Frogtown Neighborhoods of St. Paul have become a vital community building and food justice organization.

The organization's primary goals include promoting peace and social and racial justice within the neighborhood, growing food in community gardens with neighbors and educating all, from youth to elders, about the benefits of gardening. These goals have expanded through their collaboration with the Center for Urban and Regional Affairs to include practicing and documenting a collaborative process for measurement of social and vegetative yield from the gardens. The result of this partnership has been the creation of community friendly measurement guides and disseminating the results of the work they do by reaching a wider audience through their newly created website.

CURA's support has allowed the Urban Farm and Garden Alliance to embark on a measurement project for their gardens. The goal was to collaboratively design a system for measuring multiple yields and use the results from that process to create community friendly guides that will be accessible to anyone interested in doing this type of measurement. The objectives of this CURA project included a pilot growing season from the summer through the fall of 2015 in which the UFGA gardens and backyard gardeners weighed and measured their produce. In addition to the vegetative yield, the UFGA created a community survey about the social impacts (what we are calling "social yield") of gardening. Based on the results from both measurement yields we have designed community friendly guides to help community members and other urban agriculture organizations appropriately collect data on both the social and vegetative yield of their own gardens as well as disseminate those results in a way that brings their information back into the community.

While in agriculture circles "yield" is typically considered a measurement of vegetative harvest, the UFGA sought to redefine yield to include the social benefits of community gardening, or "social yield". The primary goal in determining the how to measure both vegetative and social yield in the community has been listening to all of the voices involved about the most appropriate ways to measure our yields as well as the most important yields to measure. We have been able to make this a collaborative process for everything from designing survey questions to determining what to put in our measurement kits. Because we choose to honor everyone's input, the process of developing the methods took a significant portion of the first half of the summer. The Alliance met twice a month throughout the summer and fall and the core "research team" met many more times to develop the methods we tested into the fall. Our presence at the Rondo Day Peace Celebration, the Rondo Parade, National Afternoon Out, and

the monthly Reconciliation Lunch Groups not to mention at the weekly Children's Garden workshops gave us the opportunity to speak with community members about their experiences gardening and what they might want to get from the research.

Vegetative Yield

Three of the six UFGA community garden sites and ten backyard box gardeners participated in the vegetative yield measurement. We found that coordinating gardeners can be difficult, but we feel we can learn from the challenges we've experienced this summer to refine the process. People are busy, and for many, gardening is not a consistent daily practice. In addition, we have found it difficult to maintain close contact with all of the gardeners in this project. Our primary form of contact is by email, just catching people in the gardens was not typically a successful strategy during the growing season. We deliberately chose to make this a flexible project that puts as few demands as possible on community members that already feel the strain of family and work responsibilities. Because of these challenges and limitations to our study we will have to be conservative about generalizing our findings beyond the sites that participated. However the data we collected is sufficient to illustrate bountiful results from the work of the UFGA.

Our findings from the pilot season of growing, harvesting and measurement surpassed our expectations. From our measurements we have documented over 635 pounds of produce harvested from two of the UFGA community gardens and 8 backyard gardeners, the conversion to pounds per acre means that collectively, across all garden sites together, the yield was 7,134 lbs/acre! This measure is quite remarkable given the constraints we experienced in this process. The key findings of the vegetative yield measurement include the conversion of our total pounds harvested into these important fruit and vegetable servings harvested across all the gardens. This summer and fall the gardens and gardeners that participated harvested:

- 96 servings of fruit (7 different kinds of fruit)
- 3,121 servings of vegetables (52 different kinds of vegetables)
- In total 3,217 serving-equivalents of fruits and vegetables!

These findings are important for a number of reasons, primarily they show a direct correlation between the gardens and access to fresh, healthy, nutritious food in the Rondo neighborhood. Time and again we were encouraged by residents at community meetings and events to make these numbers relatable to community members who would appreciate seeing the economic value of their gardening efforts.

By combining all the measurements we recorded we were able to convert harvest weight to serving size for each crop (based on USDA's Economic Research Service's standards conversions), which allowed us to estimate the number of servings that came from our gardens. We also examined the contributions of the gardens to each of the vegetable subgroups identified in the USDA's MyPlate recommendations (e.g. dark leafy greens, starchy, etc.) While USDA recommendations may be critically evaluated for many reasons, we chose to follow their standard to give a rough sense of the nutritional value of the vegetative yields we measured and the contribution to healthy diets.

Using the ERS's harvest weight to serving conversions was quite straightforward for most crops, but it also had limitations. For example, ERS doesn't include conversion standards for crops such as basil, rhubarb, garlic scapes, and beets, which accounted for nearly 60 lbs of recorded harvest. Our serving estimates do not include these crops. In many cases, the crops, and

herbs in particular, are an important part of what makes a meal a meal, and we regret not being able to include this in our a serving estimate.

It is difficult to compare our yield of roughly 7,000 lbs/acre to typical conventional farm yields in Minnesota, because our yield measure is combined for multiple crops rather than for individual crops. For example, according to Purdue Extension estimates of expected yields for conventional farms are 4,000 lbs/acre for snap beans, 12,000 lbs/acre for cucumbers, 22,000 lbs/acre for tomatoes. Our yield estimate which includes a rich diversity of crops appears to be within the expected yields even when compared with large-scale conventional farms. In the future, we'd like to collect data on the area devoted to each crop in each garden so we can calculate yields for individual crops.

We used Plangarden.com an additional resource to roughly estimate the economic value of some of the UFGA crops. For example, 156 lbs of tomatoes were harvested and measured in UFGA gardens, and Plangarden.com estimates that the market price for tomatoes is $2.67 per pound. At this price, the tomato harvests we measured in 2015 were worth more than $400! We were unable to confirm how Plangarden.com determines its price estimates for the market value of each crop, which can vary by region and by season, so this should be treated as a rough estimate only.

Future recommendations for similar research and work include recording the costs of specific crops during harvest and collecting local price information from nearby organic produce retailers (e.g. Mississippi Market on Selby & Dale) for the crops in our gardens. In that way the measurements could help estimate the net economic savings that gardeners receive from the gardens. In the future, asking participants to estimate how many hours they spent in the garden each week may also become an important part of considering the investment that gardens require. Because this kind of analysis can be time intensive, we would suggest choosing key crops (such as tomatoes, collards, lettuce, cucumbers, zucchini/summer squash, green beans, strawberries, and raspberries) for which to calculate the value.

Thinking forward to streamline the process for next year we are considering spreadsheet templates and using the website as an easy way to enter measurement data online. Farming Concrete (https://farmingconcrete.org) has a website that may allow the UFGA to create one account for each garden or one for the organization as a whole making data entry a less centralized task.

We have a few important caveats to these findings.

1. The first being that these serving-equivalent numbers are most certainly underestimates for two reasons: (1) We were unable to calculate serving-equivalents for a few crops (e.g. beets and rhubarb) because the USDA Economic Research Service[1] (ERS) doesn't have those. (2) Several gardeners reported that they ate some of their harvests in the garden before it was measured and recorded.
2. When people included counts or number of leaves or volume for some crops, we did our best to determine reasonable equivalents. Some estimates seemed more reliable than others. In cases where we were unable to determine a reasonable equivalent, we excluded it from the data.
3. For the Pilgrim Garden, there were a few data sheets where gardeners other than the garden leader collected data making it difficult to tell if those gardeners were measuring/recording harvests from their own plots or if they were helping on the larger

[1] http://www.ers.usda.gov/data-products/fruit-and-vegetable-prices.aspx

community plot. We chose to include them on the larger garden list as the harvest recorded were relatively small.

Social Yield

In the process of developing social yield measurement tools we found that deciding what to measure and how to measure it was challenging. We ultimately chose survey research as the most time and cost effective solution to gathering information. Thinking long term about the resources of the UFGA we found trying to do qualitative in-depth interviews was a huge time commitment and ultimately unsustainable. Surveys are less resource dependent however they don't provide the same nuances as an in-depth interview would. While we were not able to get at much in-depth information about the individual relationships that were formed, we have learned a lot about the relationships formed throughout this process.

The key findings of our social yield measurement (survey) indicate participation in the UFGA has led to new:

- Acquaintances-13
- Relationships with someone from an older or younger generation- 13
- Relationships with someone from a different race or ethnicity-12
- Friendships-11
- Garden mentors-10
- Close friendships-3
- Relationships with people that help in other activities that I'm involved in- 1

We have found from our survey results that relationships have been formed within the gardens that connect community members across generations and racial and ethnicity classifications. 43% of our gardeners had less than 1 year of experience in the garden and 10% have more than 10 years' experience gardening. This shows that the efforts of the UFGA reach a wide demographic of experience gardeners and brand new gardeners. It is important to note that the survey response was too small to have statistical significance. Because of these challenges and limitations to our study we are intentionally being conservative about generalizing our findings beyond the sites we have now.

At the close of the summer months we collected qualitative data through in-depth interviews with participants and the information we collected seemed to support the findings of the survey that the gardens are a place where people build and strengthen relationships across age and racial lines. These spaces are where people share knowledge around gardening and cooking. The in-depth interviews with five community members about their histories and experiences gardening as well as dozens of stories with community members on topics like peace in the neighborhood, gardening, and safe and friendly streets show that participation in gardening brings pride and connection with neighbors and friends:

"I'm just getting some self-satisfaction. Feeling real proud. Put some pictures of my little garden on Facebook" – community gardener

"I'm getting to meet my neighbors, I'm taking a little pride in the community. I like it when my friends see me out, I wave, "Yeah, I got a garden!" I had one friend ask me

"Ooo, you got any green tomatoes?" …So hopefully if they turn out okay, I can share some with my friends" – community gardener

"I like the challenge. And that's how I got into it, and these last couple years, since I've really gotten into it, and been successful, what I find is that I have food that I can share with neighbors and that opens up a conversation, which has been wonderful." –community gardener

As previously mentioned relationship building has been the primary focus of our work this summer and the rewards and yield we've seen in the development of the UFGA and its relationships with partners has been tremendous. The St. Paul Almanac's Storymobile has generously donated their equipment and expertise to the UFGA for collecting stories at community events. Gardening Matters regularly attends our Alliance meetings and contributed to our research and development of the methods. They are currently working on their own measurement project and we continue to work together on best practices. They have also been very generous to offer "Hubs Memberships" as an incentive to community members participating in the research. Next spring community members will receive plants, seeds, and compost from Gardening Matters free of charge. We see this partnership as an awesome way to make gardening a sustainable practice in the Rondo/Summit U neighborhoods. We have also received generous university support from Valentine Cadieux, PhD to help create the measurement kits we've distributed into the community (see appendix below for images of the kits). Valentine has also offered to incorporate a community learning piece which will assist the measurement project in the course she will be teaching this fall at Bethel. The Community Stabilization Project has been a huge supporter and important contributor to the summer research project as well. The list goes on and on of community and organizational partners that have come together to assist in the development and ongoing work of this project and the Alliance.

A very positive side effect of this research work has been greater visibility of the UFGA. They were recently named "Ramsey County Farm Family of the Year" and August 18th was forever named "Urban Farm and Garden Alliance Day" in Ramsey County. Beyond the recognition by Governor Dayton, we have also started to see community members come to recognize the existence of the Alliance. Through surveys, interviews, workshops and community events we've been able to spread the word about who the Alliance is and what it does. We hope that over time this greater visibility both in the community and beyond will help bring resources into the gardens to continue the important work of the UFGA. As a part of the CURA funding a website has been developed for the UFGA (www.urbanfarmandgardenalliance.org). We hope the website will launch the UFGA forward in its legitimacy and visibility to community members as well as future funders.

Our biggest hope is to continue the rich partnerships that have been developed from this project and distribute the results of our work in numerous outlets. A successful end of the year celebration allowed us to share our findings with similar urban agriculture groups that may be interested in measuring their own yields but haven't had the time or resources to pilot a project like ours. We also plan to host many garden barbeques and cook outs to share our findings with community members. National Community Gardening day, the Rondo Jazz Festival, Frogtown Farm's events, and the Growing Food Justice conference are just a few events and opportunities coming up in 2016 where we will continue to share the work we are doing. Social media, local community newsletters, and academic journal publications are all spaces where we hope to make these findings public and available. Ideally this type of measurement will continue in a

sustainable and useful way for the Urban Farm and Garden Alliance to find funding and resources that will help continue their important work into the future.

Some questions we still have that might spark future work in this area include doing research about the impact gardening had on the children involved. Specifically what difference participating in the children's garden might mean for science education, connecting to nature, healthy eating, exposure to different foods, and "feeling like a maker"- being able to produce something and being able to share it. We imagine these are all fulfilling and rewarding activities for the children involved that were not a significant focus of our 2015 research. Future survey questions or short interviews might include questions like: How does participating in the garden relate to how you see the neighborhood, to the connections you have to the neighborhood, and/or having a civic- shared space?

Resources:

Yield and Value Calculations:
Expected Vegetative Yields, Purdue Midwest Ag report:
https://ag.purdue.edu/btny/midwest-vegetable-guide/PublishingImages/Pdf/ID-56.pdf

USDA serving size conversions from Economic Research Service's Food Availability Data service:
http://www.ers.usda.gov/data-products/food-availability-(per-capita)-data-system/loss-adjusted-food-availability-documentation.aspx

Plangarden.com calculator
http://www.plangarden.com/app/vegetable_value/

Measurement Guide Creation:
Farming Concrete:
https://farmingconcrete.org

Gardening Matters – Community Garden Social Impact Assessment Toolkit:
http://www.cura.umn.edu/publications/catalog/npcr-1349

Gardening Matters – 2015 Measurement project
www.gardeningmatters.org

Appendix A: Recruitment letter to potential gardeners with specs on the kits and guidelines for measurement

Hello Gardeners,

Have you ever wondered just how much your garden produces? This summer we're partnering with the Urban Farm and Garden Alliance (a group of community gardens in the Rondo/Summit-U/Frogtown neighborhoods) to try out different ways to measure the vegetative yields and the health and social impacts of community gardens, and we cannot do it without you.

Who: We're looking for gardeners who are willing to measure and record what they harvest from their gardens each week, and then have a couple conversations with us about your perspective on gardening. We expect the measuring will take about 5-10 minutes each time you harvest, and the interviews will last about 30-45 minutes each.

Here we are weighing produce and recording the weight during the children's program at the Aurora/St. Anthony Peace Garden. We got almost 2 pounds of lettuce!

Why: We want to learn more about the contribution gardens can make to healthy diets, to families' food budgets, and to building relationships and well-being in neighborhoods. The information we gather will help show community members, policy-makers, and funders the value of community gardens, and can help the Urban Farm and Garden Alliance learn how it can support gardens.

Benefits to you: Aside from being able to track your own bountiful harvest, if you participate **Gardening Matters will give you a free Local Food Resource Hub membership in 2016 --** which includes, seeds, plant starts, compost, containers, and gardening classes and events next season (usual price is $25, but the retail value is $50!)

Next steps: Call Rachel at 612-460-5064, email rachelgrewell@gmail.com, or talk to Nate Galloway at Pilgrim. We can set you up to try out a kit in the garden. We have enough kits for anyone interested in participating this year. We want to get started as soon as possible!

See you in the garden,

Rachel, Hannah, and the whole Urban Farm and Garden Alliance team!

How to Measurement Guide and FAQ

We have a lot of options for measuring – choose one that works well for you (and makes sense for the crop) see the guide below for help with deciding.

Pounds ➔ use the scale and canvas bag// Gallons ➔ use the plastic bag

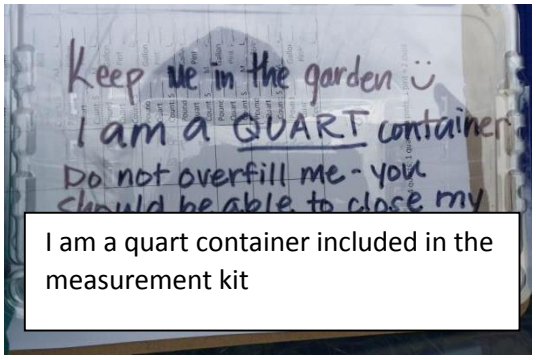
Pints ➔ use the pint container// Quarts ➔ use the quart container // Count ➔ count the leaves

Make a note if some veggies disappear or there's a big pest problem or extreme weather or something else that reduces the yield that you expected on the datasheet included in your measurement kit (see below)

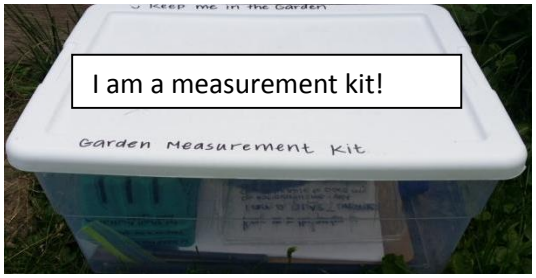
CROP	**DATE**	**UNIT** (CHECK ONE)	**AMOUNT**
		Pound ____ Gallon____ Quart ____ Pint ____ Count: S__ M__ L__	
		Pound ____ Gallon____ Quart ____ Pint ____ Count: S__ M__ L__	

I am a scale included in the measurement kit

I am a pint container included in the measurement kit



I am a quart container included in the measurement kit



I am a measurement kit!

Frequently Asked Questions (FAQ)

1. How often should I measure and record?
   Every time you harvest/pick something! If you miss recording a harvest at the time, try estimating (just make a note that it's an estimate!)
2. What should I do with my data sheet?
   We will collect it at the end of the summer
3. What if something breaks or gets lost? Or what if I have a question?
   Contact Rachel at rachelgrewell@gmail.com or call her at 612-460-5064

Vegetative Yield Measurement Guide

Veggies	Measure	1 pound ≈	USDA Serving Equivalents*
		Servings	Cups
Amaranth	Pounds or Quarts or Gallons	7.5	1 cup
Asian Greens (Pac Choi, Tatsoi, Gunsho, etc)	Pounds or Quarts or Gallons	7.5	1 cup
Beans, fresh/string (green, purple, etc)	Pounds or Quarts or Gallons	4	1 cup
Beans, dry (black, kidney, etc)	Pounds or Quarts or Gallons	6.5	1 cup
Beets	Pounds or Count (S/M/L)	3	1 cup
Broccoli	Pounds or Count (S/M/L)	5	1 cup
Broccoli Raab	Pounds or Quarts or Gallons	6.5	1 cup
Brussels Sprouts	Pounds or Quarts or Gallons	5	1 cup
Cabbage (regular or Napa)	Pounds or Count (S/M/L)	5	1 cup
Carrots	Pounds or Count (S/M/L)	3.5	1 cup
Cauliflower	Pounds or Count (S/M/L)	4.5	1 cup
Chard	Pounds or Count (S/M/L)	12.5	1 cup
Collard Greens	Pounds or Count (S/M/L)	12.5	1 cup
Corn	Pounds or Count (S/M/L)	3	1 cup
Cucumber	Pounds or Count	4	1 cup

	(S/M/L)		
Eggplant	Pounds or Count (S/M/L)	5.5	1 cup
Kale	Pounds or Count (S/M/L)	6.5	1 cup
Lettuce, leaf	Pounds or Quarts or Gallons	5.5	2 cups
Lettuce, head	Pounds or Count (S/M/L)	4	2 cups
Mustard Greens (mizuna, Ethiopian kale)	Pounds or Quarts or Gallons	8.5	1 cup
Onions, green or scallions	Pounds or Count (S/M/L)	3	1 cup
Parsnips	Pounds or Count (S/M/L)	4	1 cup
Peas, snow or sugar snap	Pounds or Quarts or Gallons	3	1 cup
Peppers, sweet/bell or hot	Pounds or Count (S/M/L)	3	1 cup
Potatoes	Pounds or Count (S/M/L)	3	1 medium potato
Pumpkin	Pounds or Count (S/M/L)	4	1 cup
Radish (daikon, Easter egg, watermelon, etc)	Pounds or Count (S/M/L)	4	1 cup
Spinach	Pounds or Quarts or Gallons	7.5	1.5 cups
Squash, winter (acorn, butternut, delicata)	Pounds or Count (S/M/L)	4	1 cup
Squash, summer (yellow, crookneck, etc)	Pounds or Count (S/M/L)	4	1 cup
Tomatillo	Pounds or Count (S/M/L)	3.5	1 cup
Tomatoes	Pounds or Count (S/M/L)	2.5	1 cup
Tomatoes, cherry	Pounds or Quarts or Gallons	2.5	1 cup
Turnip	Pounds or Count (S/M/L)	3	1 cup
Zucchini	Pounds or Count (S/M/L)	4	1 cup
Fruits			
Cantaloupe	Pounds or Count (S/M/L)	4	1 cup
Raspberries	Pounds or Quarts or Gallons	4	1 cup

Strawberries	Pounds or Quarts or Gallons	3	1 cup
Watermelon	Pounds or Count (S/M/L)	3	1 cup
Herbs			
Basil	Pounds or Quarts or Gallons	NA	NA
Cilantro	Pounds or Quarts or Gallons	NA	NA
Dill	Pounds or Quarts or Gallons	NA	NA
Parsley	Pounds or Quarts or Gallons	NA	NA
Shiso	Pounds or Quarts or Gallons	NA	NA

* The USDA recommends that adults eat about 2-3 servings of vegetables, and 1.5-2 servings of fruit each day. However, there are lots of different ways to eat healthy, and you and your family may have a different definition of what a "serving" size is. We'd love to hear about what a serving means to you.

Appendix B: Photos from our summer accomplishments

Appendix C:

Gardener Survey - 2015
Urban Farm and Garden Alliance

Which garden are you connected with? (Select all that apply)

- Victoria Community Garden
- Pilgrim Garden
- Aurora/St. Anthony Peace Garden
- Backyard box garden
- Lexington Commons, Garden
- Morning Star Garden

- Greenhouse Garden

How many years have you been gardening there?
(Select one)

- Less than 1 year
- 1-2 years
- 3-4 years
- 5-10 years
- more than 10 years

Alternative option: Please indicate any of the following other ways you are or have been involved in the community, or would like to be in the future. (Check all that apply)

	I participated in these before I started gardening	I started/did more of these after I started gardening	I would like to participate in these in the future
Reconciliation Lunch Group Meetings			
Community Stabilization Project			
Children's Garden Time at the Aurora/St. Anthony Peace Garden			
CREATE: Community Meal			
A cookout at one of the gardens			
Donating food to a food shelf			
Frogtown Garden Tour			
Rondo Circle of Peace & community meal			
Master Gardener training or events			
Neighborhood Night/Afternoon Out			
Volunteering at a school /			

mentoring youth			
Rondo Days			
Selby Jazz Festival			
Alliance Meetings			
The Peace Celebration			
Other:			

If you're a community gardener, do you feel it is easier to garden at a site with other people?

- Yes
- No
- Why or why not (optional)

If you're a backyard box gardener, do you feel it would be easier to garden at a site with other people?

- Yes
- No
- Why or why not (optional)

What kinds of relationships have you formed with other members of the garden or neighborhood? (Check all that apply)

- None
- Acquaintances
- Friendships
- Close friendships
- Garden mentors
- Relationship with someone from an older or younger generation
- Relationship with someone from a different race or ethnicity.
- Other _____

What or who do you know now that you didn't know before?

What gender do you identify as?

- Male
- Female

What race do you identify as? (Check all that apply)
- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White
- Other

What ethnicity do you identify as?
- Hispanic or Latino
- Non-Hispanic or Latino

How old are you?
- 18-25
- 26-35
- 36-45
- 46-55
- 56-65
- 65+

Would you be willing to help another gardener next year? (Select all that apply)
_____ Garden Mentor
_____Garden organization/management:
_____Other

If so, please provide your contact information:

Name: _____

The best way to reach you (phone and/or email): _____

Appendix D: Website screenshot and Guides

The website screenshots and guides in Appendix D include selective data from the research as well as anecdotal stories and information about our experience measuring both the social and vegetative yield. We also include a process guide for communicating and planning ahead as well as a checklist for the materials needed to measure yield. The idea of creating community friendly guides came from UFGA meetings conversation. The guides were developed from conversations between UFGA members about what we learned over the summer and fall of 2015 and what we felt about our experience testing these methods that community members might benefit.

Urban Farm and Garden Alliance

Measurement Project

In the spring of 2015 the Urban Farm and Garden Alliance started planning and developing a measurement project for both the social and vegetative yield of their gardens. Below you will find:

1. An article by the Center for Urban and Rural Affairs about the project

2. Pictures and statistics from our 2015 growing season of measurement

3. A guide that may help you or someone you know interested in quantifying what is coming out of your garden.

Rachel Grewell and CURA: Measuring the vegetative and social yields of the Urban Farm and Garden Alliance

Rachel Grewell (second from right) – "One thing that makes our project different is that we actually want to bond with the community to make sure it is a success. They said to come to the events, the dinners, the gardens and so I did. And it has been so much more rewarding."

The local impact of urban farming, breaking down the boundaries between communities and academia, and #CURAStudents are the topics for today's #CURAisUrbanAg installment. We'd like to introduce you to Rachel Grewell: she is a graduate student working with CURA and the Urban Farm and Garden Alliance (a great local urban agriculture group profiled in previous posts). Rachel is helping them quantify just how powerful their work is–she is using her degree in sociology to measure both the vegetative and social yield of the local gardens of the Alliance. Are you #CURAious? Read on.

Rachel began her work with the Alliance in September 2014 but she says much of the challenges presented by her project were unexpected. "We have to work with the community, build relationships and become a real part of the place before we just dive in and start writing our papers. It's different from what I'm used to…but it fits with my values and myself much more."

Her CURA funded project with the Alliance will show how much food their local gardens are giving to the community by the end of this harvest season. "We intentionally tried to create research practices that can be continued on by the community members. Even if they don't have a CURA grant or CURA's help in the future. The Alliance is made of community members. No one is doing this as a full-time job. So the research methods need to be low cost, not time consuming, resource efficient and easy to use."

Interestingly, Rachel is also showing how the gardens are increasing people's comfort with each other, pride in their neighborhood and social well-being. The guide she creates will be used to continue the process for years to come.

The Alliance is not the only local organization that this study could highlight. How much social and food capital are they all yielding right in our areas? That is what we call food for thought! #badpuns

CURA is proud to be part of such a community oriented and fueled project. Rachel emphasized how much she appreciates the spirit of the project: talk with the community, work with the community, and ask more at the start so that you benefit the community in the long run.

Pictures and statistics from our 2015 growing season of measurement

This summer and fall the gardens and gardeners that participated harvested:

3,121 servings of veggies

96 servings of fruit

In total 3,217 serving-equivalents of fruits and vegetables!

Measuring "yield"

STORIES & DATA

Brought to you by the Urban Farm and Garden Alliance in partnership with the Center for Urban and Regional Affairs.

- Acquaintances
- Relationships from an older/younger generation
- Relationships from a different race or ethnicity
- Friendships
- Garden mentors
- Close friendships
- Relationships that help in other activities

SOCIAL YIELD- The relationships we formed in the garden

FEEDING OURSELVES

Serving-equivalents from our harvests

96 servings of fruit

3,121 servings of veggies

In total 3,217 servings!

VEGETATIVE YIELD- produce in serving-equivalents of fruits and vegetables

Participating Garden Plots' Harvest

Average Harvested Produce across our measurement sites

7,134 lbs/acre!

CHECKLIST FOR MEASUREMENT

PLANTS

Seeds, soil and water are the building blocks of your future harvest. Contact your local plant sales, seed distribution center or seed library to start planting today! In the twin cities Gardening Matters is a great resource for getting your garden going!

PEOPLE

Make sure you have a team committed to not only gardening but also measuring the harvests. This can be one of the most difficult parts. Talk early and talk often about expectations and needs. Make it easy and fun to participate and offer incentives for helping out!

TIME

Time can be a scarce commoditiy. Be honest about your time commitment and set aside daily or weekly times in the garden to measure and check in with your team.

FOOD

Not only is food the end result of your gardening efforts it is also a community building tool that keeps folks together and motivated to keep going. Share your food with others, have BBQs, potlucks, and picnics with your harvests!

TOOLS

You will need a clipboard with paper and a pencil to record your harvests. A small digital scale works well with a lightweight bag for weighing produce. Put it all in a waterproof bin and you can keep it in the garden so you never forget to measure!

COMPUTER

A computer, tablet or smartphone will help you transfer your handnotes into data that can then be put into spreadsheets. Equations can be used for you to calculate the fruit and vegetable servings you grew as well as the cost savings from your harvests!

PLANNING AHEAD

003. WAYS TO COLLABORATIVELY MEASURE VEGETATIVE YIELDS

001.

COMMUNICATION

CHECK IN OFTEN

Keeping detailed records of contact information and garden plot sizes and locations allows you to check in regularly. If email is not the best option, pick up the phone and call. Planning events with your team is also a great idea; it builds community and enthusiasm for the project

002.

TRAINING AND MATERIALS

PLAN YOUR PROCESS BEFORE YOU BEGIN

Planning and training ahead of time can save you the stress of potential confusion along the way. Keep clear documentation of materials and plan at least one in-person training session for how to measure the harvests. Send out an email to your team with clear instructions and guidelines..

003.

HARVESTING TOGETHER

"IF YOU WANT TO GO FAR, GO TOGETHER"

Reap the rewards of a collaborative project by planning a harvest celebration to share the success of the season and discuss the future of gardening in your area! Put all of the yield numbers into a spreadsheet and calculate as a team how many fruit and vegetable servings came from your gardens!