

FAMILY GARDEN DEMONSTRATION PROJECT EVALUATION

DALLAS
COALITION
for HUNGER
SOLUTIONS



Updated January 22, 2015

"The seed in the analogy is the Word of God, and as he says, his word does not come back empty, but rather, it accomplishes his purpose. So while my faith is shown by my works (watering the garden), it is God's design/purpose/power that makes it grow" - The Butler family



Photo taken at Wesley-Rankin Community Center



Photo taken at Brother Bill's Helping Hand

GardenSoxx Kit Contents

- 8 GardenSoxx Tubes
- GardenSoxx Care Guide
- Garden Fresh Recipe Book
- 9 Vegetable Seed Packets
- Watering Can

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Vickery Meadow Apartment Garden At Week 6

Introduction

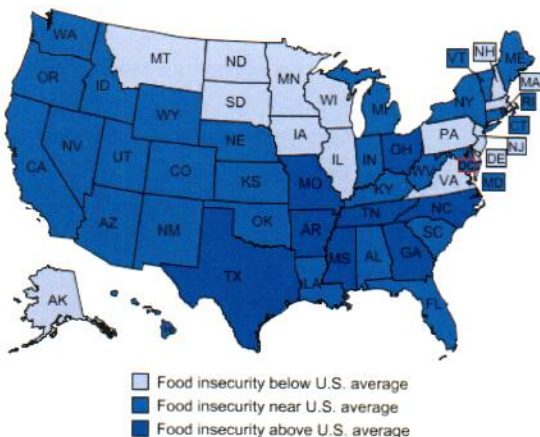
Collaboration: Family Garden Initiative & Faith Community Hunger Solutions Action Team of the Dallas Coalition for Hunger Solutions


On September 13, 2014, nine interfaith organizations and congregations came together to pilot the Family Garden Demonstration Project, a local effort to address food insecurity among low-income families in the greater Dallas area. The project uses GardenSoxx gardens to make vegetables more accessible to low-income families with limited access to healthy food. GardenSoxx gardens were developed by the Family Garden Initiative, a faith-driven organization based in Ohio, to supplement low-income families' food intake, equip them with gardening education and live out the Gospel of Christ through community outreach. The Family Garden Initiative has been successful in implementing the GardenSoxx gardens throughout Ohio and have expanded their programming nationwide and internationally. The Faith Community Hunger Solutions Action Team of the Dallas Coalition for Hunger Solutions, whose mission is to empower faith-based organizations and congregations to combat hunger within their communities, contacted the Family Garden Initiative to bring the GardenSoxx gardens to low-income families in Dallas. After months of project development and outreach, nine faith based organizations and congregations participated in the first GardenSoxx garden project in Texas. Participating organizations hoped to mimic the goals and successful results of previous GardenSoxx projects by empowering low-resourced families to improve their nutrition through gardening in their own homes.

The Issue: Food Insecurity in Texas and Dallas County

The creation of the Dallas Coalition for Hunger Solutions is a direct response to the mass food insecurity experienced among low-income Texans. According to the U.S. Department of Agriculture, Texas households experience food insecurity at a higher rate than the national average, which is 14.3%, and have the second highest rate of food insecurity in the nation. The U.S. Department of Agriculture defines food insecurity as limited or uncertain availability of nutritious foods or uncertain ability to access these foods due to the lack of resources.

Prevalence of food insecurity, average 2011-13



18.3% 
18.3% of Texans are food insecure.

1 in 4 
1 in 4 Texan children are food insecure.

Source: Calculated by ERS based on Current Population Survey Food Security Supplement data.

Rates of food insecurity in Dallas County are even higher than the Texas and the national average.



20% of Dallas County's population is food insecure.

26.8% of Dallas County's children are struggling with food insecurity.

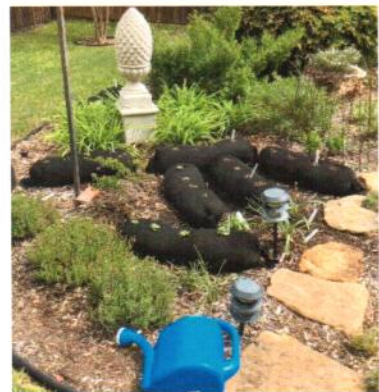
30% of Dallas County seniors had to choose between food and medical care.

35% of Dallas County seniors had to choose between food and paying for heat/utilities.

Physical, emotional and spiritual health are too often compromised when hunger and poverty are a daily reality. For low-income families, hunger and poverty can cause increased physical and emotional stressors since they are more likely to face additional anxieties associated with underemployment, mental health issues, immigration status, and lack of health insurance. Food insecurity, although harmful to everyone, is especially dangerous for children. Insufficient or non-nutritious food puts children at a higher risk to develop health and developmental issues and to exhibit behavioral and social challenges. For seniors, living on a fixed income and facing increased health and mobility issues can be incredibly challenging as they are forced to choose between meeting their dietary needs and other basic necessities. With such a high percentage of Dallas County residents struggling with food insecurity, local food banks, non-profit organizations and churches are doing their part to distribute food to low-income families in their areas. However, food pantries provide a temporary relief for families and do not replace the need for Texas and the nation as a whole to broaden social services and implement preventative measures such as adequate, and affordable housing, quality education and a livable wage for working people.

A Solution: The Family Garden Demonstration Project

The Family Garden Demonstration Project is a model of a community-based response to the high percentage of families experiencing food insecurity in Dallas. Five of the nine participating faith-based organizations already operate a weekly food pantry; however, they hoped to empower their congregation members to supplement their food intake by providing them with the tools and knowledge to grow their own food. GardenSoxx gardens were designed to be a simple and convenient way to make gardening more accessible to low-income families who often live in high-density housing with poor quality soil – a population for whom traditional, in-ground gardening is impractical. The project hoped to demonstrate that the simple design of the GardenSoxx garden makes gardening feasible for families with limited space and resources. 148 GardenSoxx garden kits, which were financially sponsored by the 9



organizations, were distributed to 120 low-resourced families throughout Dallas. Each family received a full kit which was comprised of 8 GardenSoxx, a *Garden Fresh Recipe Book*, a *GardenSoxx Care Guide*, 9 different types of vegetable seeds and a watering can. This self-contained, raised bed gardening system uses organic, compost filled soil to grow a variety of pesticide-free vegetables.

Evaluation

Purpose & Methods

This fall planting season was the first time GardenSoxx gardens were used to grow vegetables in the Northern Texas climate. With previous projects being successful throughout the state of Ohio, Michigan and Pennsylvania, the Faith Community Action Team in Dallas established three goals for the evaluation of the project:

1. Assess if and how much the GardenSoxx garden improved food security.
2. Determine best practices for growing vegetables in the GardenSoxx garden in the Northern Texas climate.
3. Analyze the impact the project had on families' relationships with their host organizations.

This is the list of participating organizations: Brother Bill's Helping Hand, North Texas Conference-United Methodist Church, Feed Lake Highlands, Northlake Baptist Church – Garland, Presbyterian Children's Home, City Church International, Temple Emanu-El, Cliff Temple Baptist Church and Sharing Life Community Outreach.

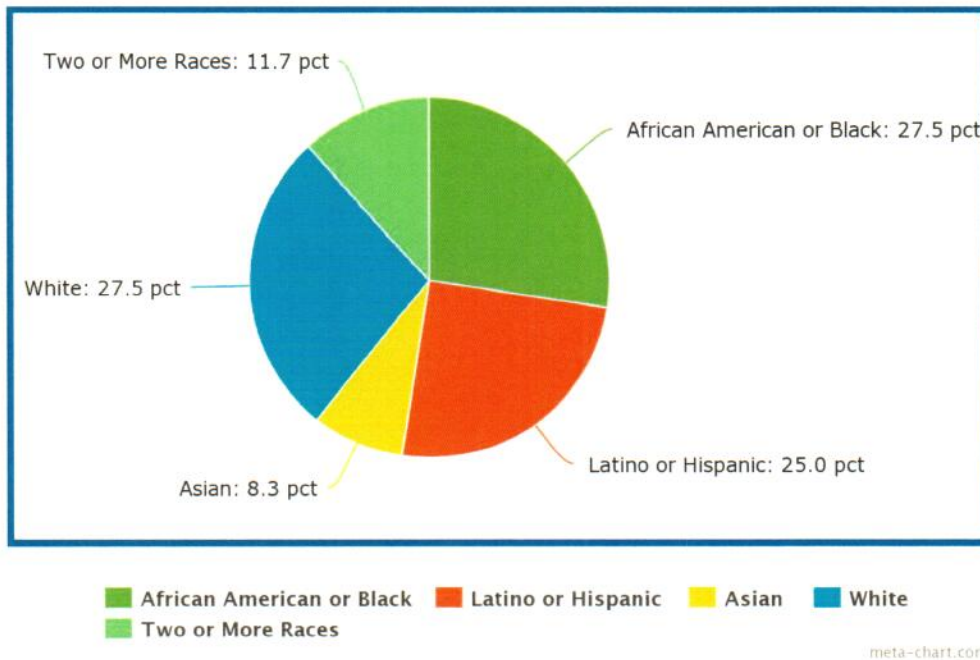
Data was gathered for the evaluation of this project by:

1. Following 7 families on a biweekly basis. Information on their watering and maintenance practices as well as their overall impressions and experience with the garden were gathered through email, phone and garden visits.
2. Receiving information monthly, via email or phone from host organization leaders about general impressions of the use of the GardenSoxx garden, vegetable growth and maintenance practices.
3. Conducting a final phone survey with 29 of the 120 families. The survey was administered the end of the fall season and collected detailed information about demographics, maintenance practices and overall experiences with the GardenSoxx gardens.

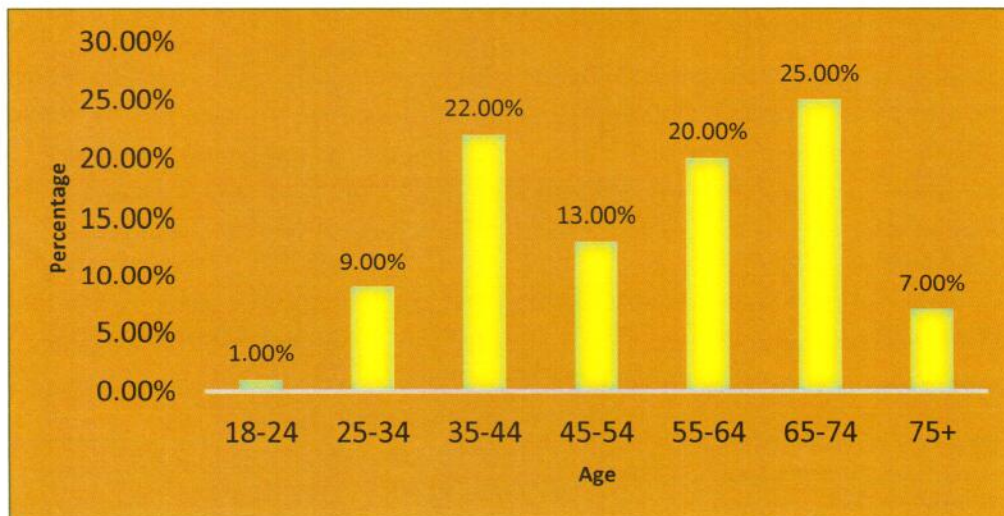
Demographics of Participants

The following demographic data is for all 120 family recipients of the gardens. Participation was diverse among ethnicity and age, although the largest segment of the garden recipients were seniors.

Ethnic Breakdown of Family Recipients



Age of Participants

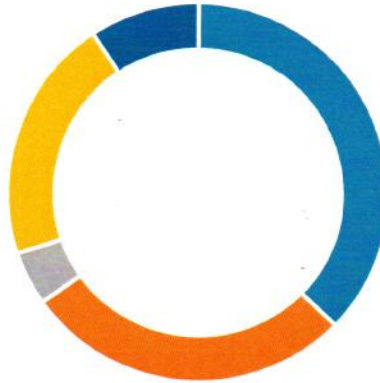


Statistical Results

The following information was gathered from the 29 final phone interviews conducted.

The success of pilot projects is often tied to the factors influencing people's motivations and, consequently, their behaviors associated with the maintenance of their gardens.

Why Were You Interested In Receiving A GardenSoxx Garden?



- Interested In Building Gardening Skills
- Interested In Growing My Own Food
- Host Organization Suggested I Participate
- Familial Experience With Gardening
- Interested In Supplementing Food Intake

Families were motivated most by the ability to learn new gardening skills.

65%



65% had previous gardening experience, ranging from self-taught skills to growing up in rural, farming communities.

58%



58% planted their gardens on the scheduled planting day – September 13th.

41%



41% planted their gardens after September 13th, ranging from 1-3 weeks later.

57%



57% did not water their gardens twice a day.

26.9%



26.9% had issues with insects, rodents or other bugs eating their vegetables, especially the lettuce and spinach.

46.2%



46.2% complained of stagnant vegetable growth.

44%



44% used the *GardenSoxx Care Guide* on the planting date only.

72%

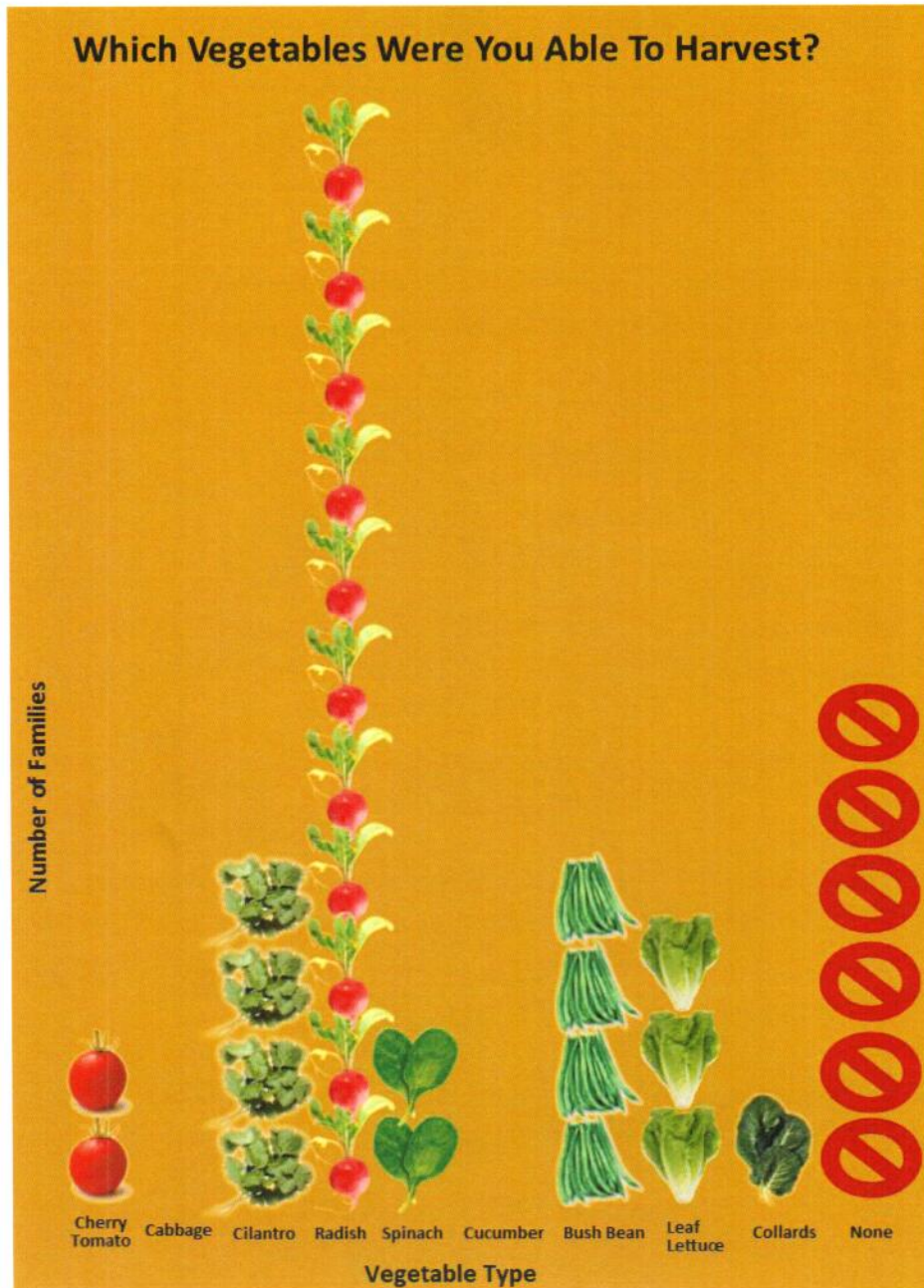


72.2% stated they appreciated the vegetable choices.

Evaluation Goal #1

Assess if and how much the GardenSoxx gardens improved food insecurity

With high hopes for the simple maintenance of and the robust vegetable yield of the GardenSoxx gardens, families and host organizations were eager to determine how much of an impact the gardens made in supplementing families' food intake.



The following chart demonstrates how many families were able to harvest each vegetable this fall season. Each vegetable represents the number of families who were able to harvest that particular vegetable but does indicate how much of each vegetable the family was able to harvest.

11 of the 29

11 of the 29 families were able to pick an average of 5-10 radishes this season. Radishes proved to be the easiest vegetable to grow in the GardenSoxx garden.

4 of the 29

4 of the 29 families were able to pick cilantro and bush beans; the average harvest yielded 1 cup of cilantro and 5-10 bush beans.

0 of the 29

Cabbage and cucumbers proved to be the most difficult vegetables to grow as no family was able to harvest either vegetable.

Collards, Spinach and Tomatoes

Only 1-2 families were able to harvest less than a cup-full of collards, spinach and tomatoes.

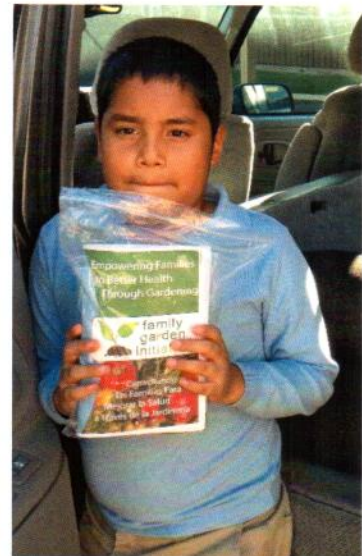
20%

20% of the families were unable to harvest any vegetable this season.

The minimal amount of vegetables each family was able to grow did not improve any families' food security. However, when asked if they were interested in planting for the spring season, 93% of families seemed undeterred by the minimal vegetable growth and conveyed genuine interest and eagerness to continue gardening using the GardenSoxx garden. So, what motivators were associated with their continued interest if not a substantial vegetable yield?

The gardens empowered families to:

- **Learn new gardening techniques:** Demonstrating interest in gardening was a prerequisite for all families to receive a GardenSoxx garden. This project gave families the ability to explore that interest and learn new skills that could be used to beautify and enrich their families and communities. The GardenSoxx gardens were used as a starting point to explore a simplified version of gardening that might later be translated to traditional, in-ground gardening.
- **Teach their children about food production and responsibility:** Families with young children praised the program for providing them with an activity that the entire family could participate in. As an example, the Reed family has two young children who helped plant, water and tend to the garden on a weekly basis. Along with learning responsibility, parents used the gardens as a way to teach their children about how food is grown and how to take care of living organisms that they depend on for their own sustenance and growth.
- **Grow their own food:** Low income families living in high-density apartments, with little to no access to land and resources, are also less likely to have access to adequate grocery stores in their immediate area – which robs them of fresh produce and the ability to grow their own food. The ability to place the self-contained mesh garden tubes on any surface gives families the ability to grow their own food in unconventional spaces. As miniscule of a vegetable yield there was this season, a minimal yield is better than no yield.
- **Reconnect with historical and familial gardening knowledge:** There was a significant number of families in all ethnic categories that had extensive gardening experience because they were raised in rural areas where growing your own food was the norm. When asked



why they chose to participate in the fall demonstration project, several families recalled memories of planting, tending to and harvesting fruits and vegetables as a young child and wanting to continue those traditions outside of their rural upbringings. For example, migrant families who work with Temple Emanu-El often left their rural communities to live in an urban landscape, and treasured the gardens for giving them the ability to reconnect with the land and the earth.

- **Strengthen relationships with their neighbors:** The Gonzalez family decided to incorporate the neighborhood children in the care and watering of the garden. Although the children often fell through with their responsibilities for the maintenance of the garden, it taught them a valuable lesson that plants need appropriate and timely care in order to survive.
- **Enhance mental health and well-being:** Cliff Temple Baptist Church distributed 2 gardens to the Well Community, which is a home focused on sustaining a restorative environment for men who have had their lives drastically disturbed and need the support of others in moving toward health. One particular client at the Well Community who took personal ownership of the garden, recalls fond memories of gardening with his grandparents as a child. For individuals experiencing mental health issues, caring for a garden, can give them a sense of purpose and meaning, important for their well-being.



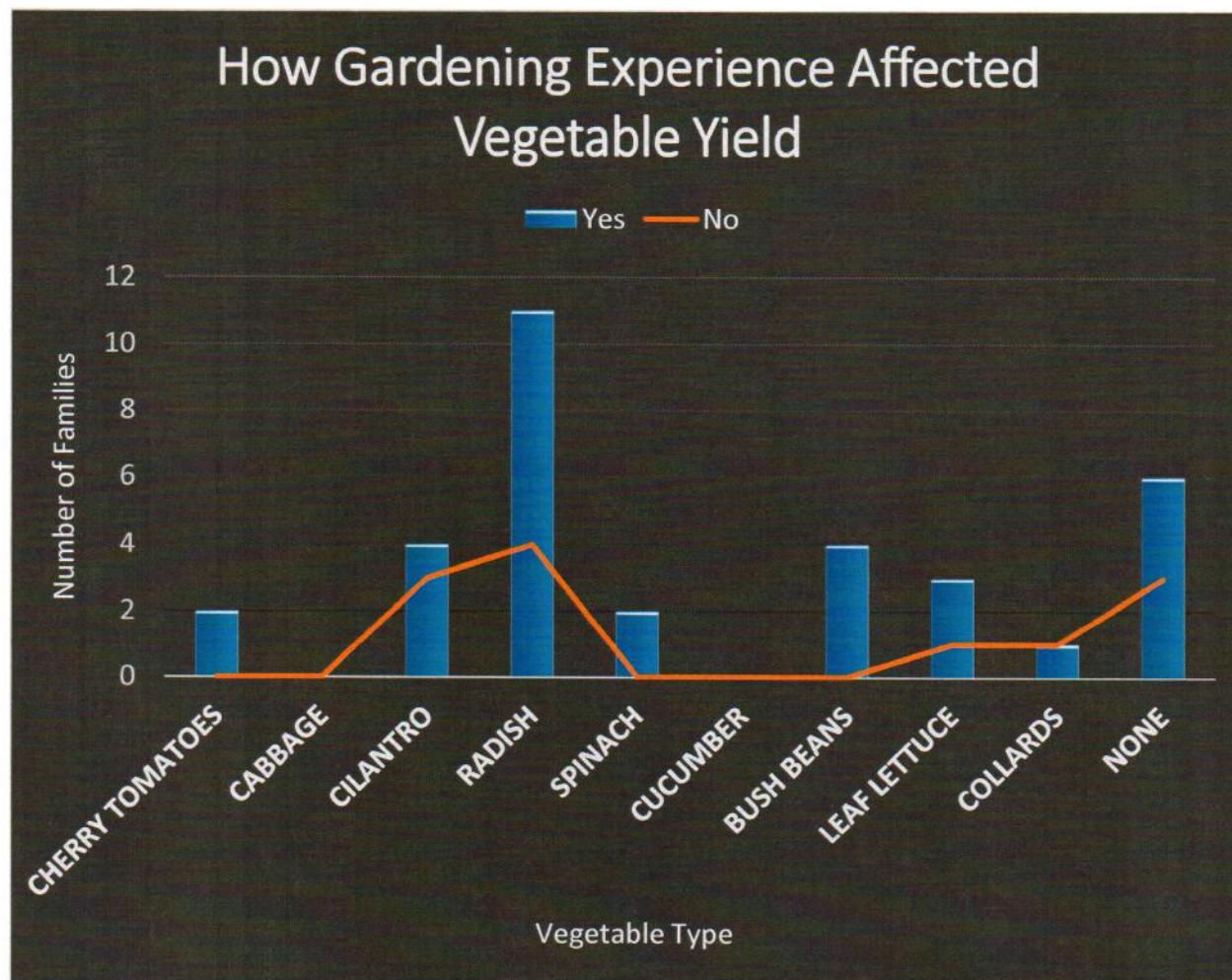
Evaluation Goal #2

Determine best practices for growing vegetables in the GardenSoxx garden in the Northern Texas climate.

For the fall planting season, the unintended, yet positive, impacts of the gardening process superseded any sense of disappointment associated with the minimal vegetable growth. Nonetheless, the lack of vegetable yield requires an analysis of what factors contributed to the stagnant growth and what best practices can be implemented for future planting seasons.

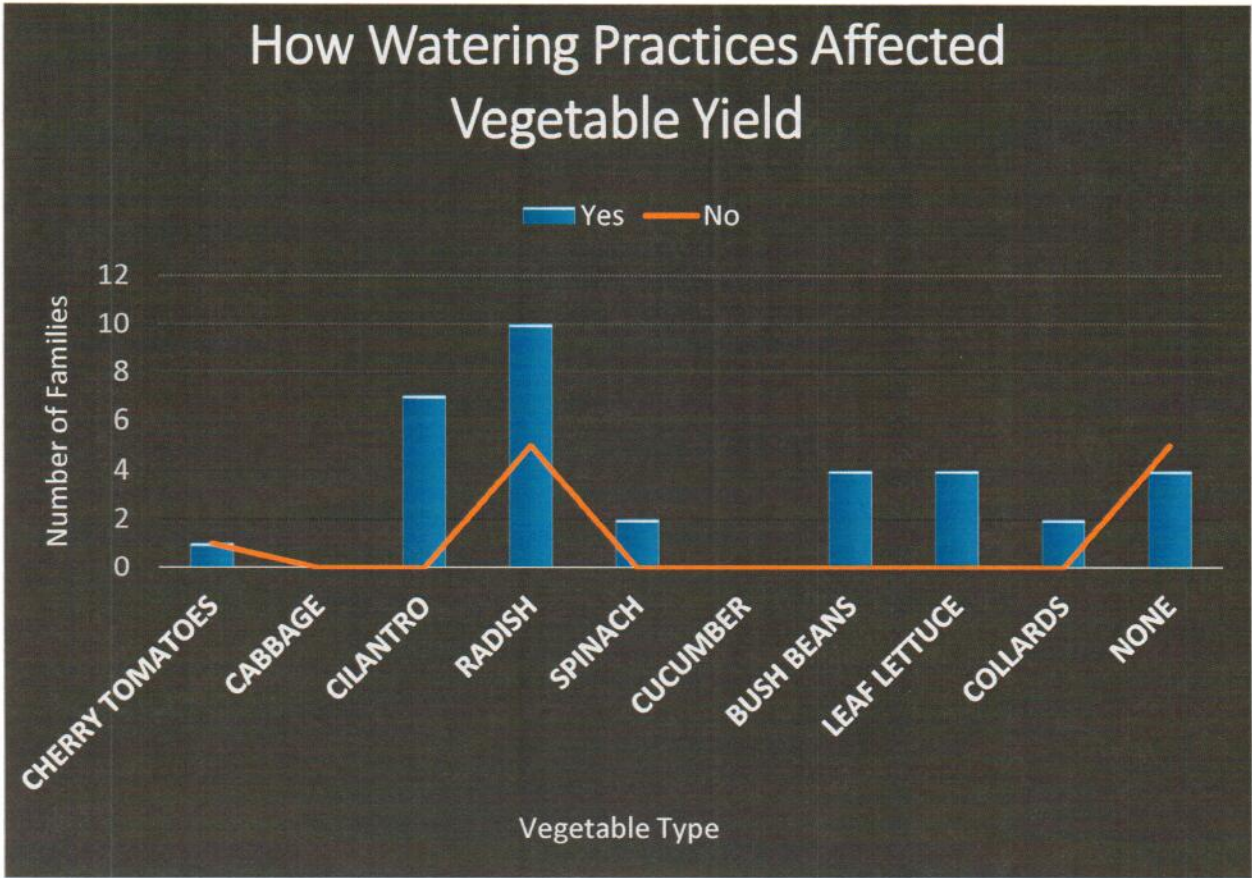
The following three graphs illustrate how gardening experience, watering practices and the planting date affected vegetable yield.

This graph demonstrates how gardening experience affected vegetable yield. The number of families who were able to grow radishes, tomatoes, spinach, bush beans and leaf lettuce doubled with gardening experience.



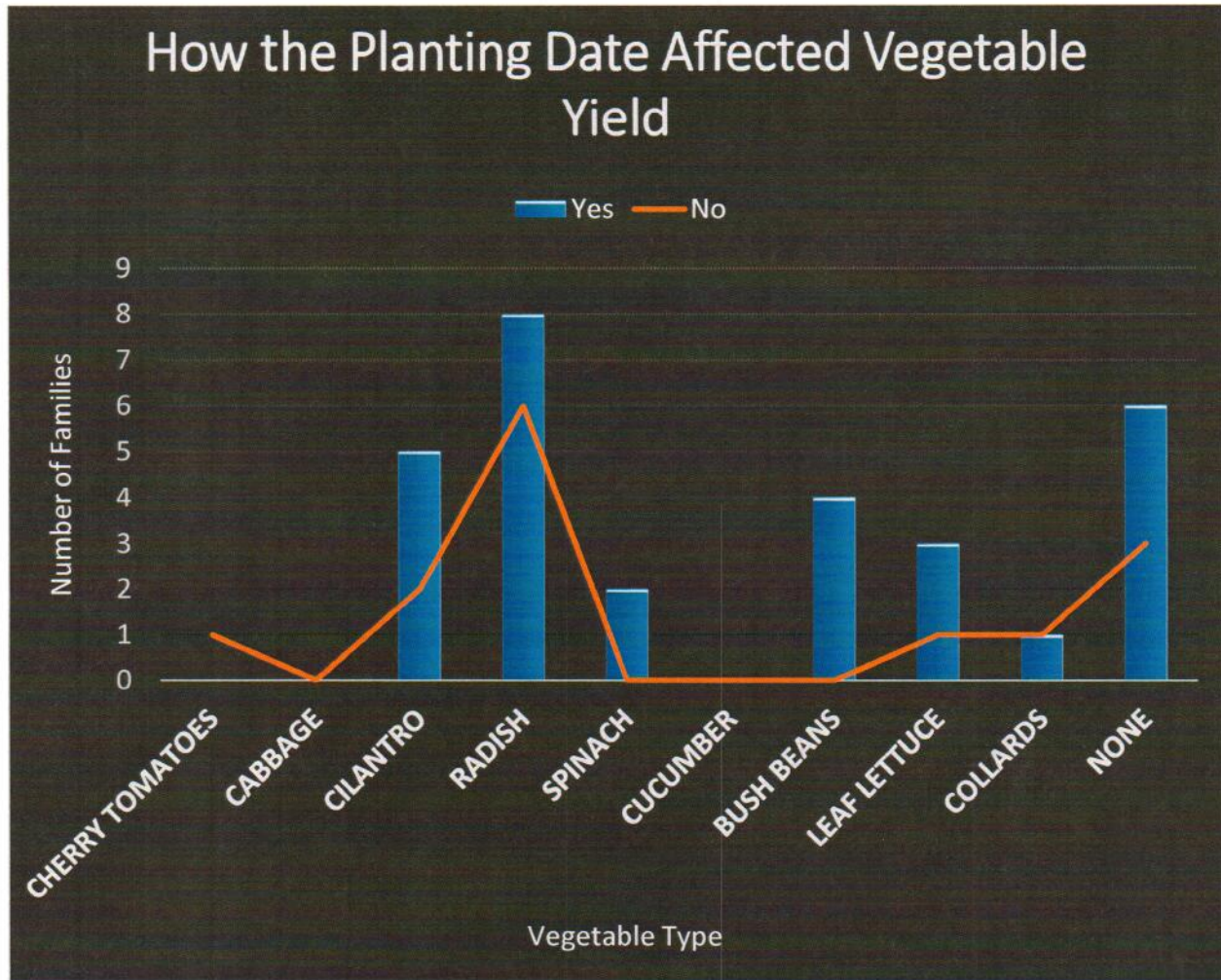
Experience/ Sufficient Support Matters: The GardenSoxx gardens, although praised for their simplicity and easy maintenance, did not override families’ need of sufficient and consistent support throughout the gardening process. Families needed guidance in not only determining whether or not they had the space for a garden, but in deciding if that space got enough direct sunlight and was out of reach for large rodents. Additionally, numerous families with no gardening experience struggled with harvesting the few vegetables that did grow. Knowledge about which vegetables to thin and cut back was often challenging. Vegetables were browning before some families realized they were ready to harvest. Although the *GardenSoxx Care Guide* was given to families to troubleshoot any problems they may experience, none of the families used the guide past the planting date. These findings support that having sufficient and consistent support throughout the entirety of the process would optimize the amount of vegetables grown in the gardens, as well as teach families valuable skills.

The following graph illustrates how watering practices affected vegetable yield. Watering practices, which included watering twice a day with two full watering cans, seemed to have the greatest impact above any other factor, in terms of vegetable growth.



Watering Twice a Day Is Standard: After years of using the GardenSoxx gardens in multiple climates nationwide, the Family Garden Initiative, has determined the standard practice of watering the gardens twice a day with two full watering cans for ideal vegetable growth. Over half of the families did not water their gardens twice a day and their vegetable growth was nonexistent with the exception of radishes.

The following graph looks at how the planting date affected vegetable yield.



Plant According to the Recommended Schedule: The recommended planting date for the fall season is the last week of August, which means the September 13th planting date was at least two weeks late for optimal vegetable growth. Families that planted their gardens 1-3 weeks after September 13th greatly diminished their chances of growing vegetables because the amount of time vegetables need to grow was cut by 4-5 weeks. Furthermore, freezing temperatures in Dallas came through in early November, drastically decreasing the amount of time families had to grow their vegetables by several weeks.

Although the minimal amount of vegetables families were able to yield for the fall season was not nearly enough to supplement their monthly food intake, we learned a great deal about best practices to implement for future plantings. These will be discussed further in the recommendations section.

Evaluation Goal #3

Analyze the impact the project had on families' relationship with their host organizations

Host organizations hoped the project would help strengthen the relationship between families and their congregations. However, almost half of the families stated they had no contact with their host organizations throughout the process.

47%

47% said their host organizations never contacted them.

89%

89% said they wanted but did not receive help from anyone in caring for their gardens.

10.7%

10.7% received assistance from family, friends, neighbors or their host organization in caring for their garden.

These findings are partly due to the lack of clear expectations with volunteers, and the host organizations inability to foresee how much support families were going to need. One exception to this finding was at Vickery Meadow Apartments. A staff member from Temple Emanu-El checks in with the Vickery Meadow families on a regular basis for other program requirements and made a conscious effort to support them in tending for their gardens during their weekly check-ins. Gardens at Vickery Meadow did not produce more vegetables than other gardens, but families seemed to have greater ownership of their gardens and received additional assistance in watering their gardening and learning how to harvest.

Recommendations

After the fall planting season, 93% of the families that participated in the final phone survey said they would definitely continue to plant for the spring season. Additionally, several faith based organizations and congregations have expressed interest in the garden project. Below are some recommendations for improving future plantings based on the experience of the fall demonstration project. These recommendations are critical for helping achieve the project goals.

1. *Determine Level of Commitment To Caring For A GardenSoxx Garden*
 - a. Inform key people in your congregation about participating in the GardenSoxx project and make sure there is sufficient interest and commitment from potential family gardeners and volunteers.
2. *Tap Into Local Resources And Experts:*
 - a. Identify all your local resources. Are there members in your congregation with gardening and/or landscaping experience who would be willing to provide support? What skills and resources already exist among the people in your congregation?

- b. Contact neighborhood gardeners, master gardeners, agricultural extension offices, local botanical garden experts and horticultural societies in your area to provide input and lead biweekly workshops for families receiving gardens.
3. *Be Realistic About Your Organization's Capacity:*
 - a. Consider how many reliable volunteers in your organization can provide consistent, long-term support for families and their gardens.
 - b. Only sponsor gardens for families who have the time, space, energy, commitment and passion to maintain a garden.
 - c. Form a planning committee of well-organized and reliable people in your congregation who commit to supporting the entirety of the project. This group can be comprised of gardening experts in your congregation, volunteers who have the time to devote to the project and families who are interested in receiving a GardenSoxx garden.
 4. *Plant According to the Recommended Schedule:*
 - a. With the assistance of expert gardeners, organizations can calculate the appropriate planting date based on how many weeks it takes for different vegetables to grow and under what physical conditions they grow best.
 5. *Plant Choice:*
 - a. Choose plants and herbs that are easy to grow for first-time gardeners. With the input of master gardeners, host organizations can decide which vegetables are nutritious and ideal to grow for the season and climate.
 6. *Build Community:*
 - a. Include families in the organizing of the project and develop a shared vision or goal for the gardens. These gardens are a great tool to empower families to be part of the decision making and planning process and build a stronger sense of community among congregation members.
 - b. Give families a comprehensive introduction to the gardening process and be clear about responsibilities and expectations in relation to the maintenance of the gardens and participation in biweekly workshops.
 - c. With the help of expert or master gardeners, keep families engaged by hosting biweekly gardening and cooking workshops. Families can come together to learn new skills, share their experiences, ask questions, and provide updates. Help families keep in touch and support one another outside of the regular meetings as well.

Visions For The Future

The evaluation of this project provides interested organizations and congregations with an overview of the successes and challenges of the Fall Garden Demonstration Project. It is unlikely that the GardenSoxx gardens will ever provide sufficient vegetables to end families' food insecurity. However, implementing this project with the outlined recommendations taken into account can empower families to learn gardening skills that can lead to greater dividends in terms of food production and can be applied to in-ground gardening as well, grow their own food in low-income neighborhoods where access to land and quality soil is scarce, reconnect with historical and familial

gardening knowledge that is often lost when families move into space-constrained housing, and teach their young children through participatory action about food production and how to tend for living organisms that in turn nourishes their life. This project also has the potential to help families strengthen relationships with their neighbors, engage in reciprocal learning and sharing, enhance mental health and well-being, commit to caring for the natural environment, and integrate families more deeply into their faith community. Ultimately, communities will feel a sense of empowerment as they add another skill to their arsenal of self-determining tactics, which will build their capacity to fulfill their, and all of our quest for social, economic and political justice.