2013 Gardening Program Evaluation Summary MFH Project: Collaborating with Missouri Food Pantries for Better Health University of Missouri – Interdisciplinary Center for Food Security March 17, 2014 Contact: Bill McKelvey, <u>McKelveyWA@missouri.edu</u>



The following report summarizes the results of the 2013 Gardening Program Post-test conducted in October 2013. The participants surveyed in both St. James (43) and Shelbina (33) represent approximately 40-50% of the maximum number of people who participated in the gardening program in a given month. Of the 76 people who completed the post-test, 53 or 70% said they also completed the pre-test in the spring (this accounts for 47.3% of those who completed the pre-test).

Basic Gardener Characteristics

- Much like the pre-test, most gardeners surveyed this fall were women (76%). Their average age was 49. Their average household size was 3.18 people.
- Most people had many years of gardening experience. Over half (59.6%) had gardened for 11 or more years while 35% of people had zero to five years of experience. Half of the people saw themselves as "Intermediate" gardeners. Approximately one-quarter considered themselves "Beginners," one-quarter "Experts."
- Garden size varied among the group with 42% of gardeners reporting gardens of 801 square feet (approximately 20ft. by 40ft.) or greater. Twenty-eight percent of people reported having gardens of 100 square feet or less (approx. 10ft. by 10ft.); 26% reported having gardens between 101 and 400 square feet.
- Gardeners told us that *feeling in control of their health* and *feeling in control of what goes into the food they eat* were important motivations for gardening (mean score of 1.31 and 1.24, respectively, using a five point scale where 1 = Very important, 3 = Moderately important, and 5 = Of no importance).

Gardening Program Usefulness

We asked people to share their impressions of the usefulness of the gardening resources we provided during the season. Using a three point scale (1 = Very useful, 2 = Somewhat useful, 3 = Not at all useful), most people rated our resources to be very useful. Mean scores averaged 1.21 for questions about our seed distribution, transplant distribution, gardening handouts



(literature), and gardening discussion or advice. The garden seeds appeared to be the most memorable and impactful part of the resources offered. Many people expressed gratitude for any and all of the resources provided and encouraged us to "keep doing what [we're] doing."

We also asked people about ways to improve our program or things we could do differently in order to provide more appropriate resources. A number of people

Selecting vegetable seeds

(17) mentioned that offering a greater quantity and variety of seeds and transplants could help.Other responses centered on providing more gardening information generally (15) and providing specific information on topics such as pest and weed control, soil, and composting (14). Other topics of interest included growing and caring for specific plants, making best use of space in the garden, and food preservation.

Gardening Follow-through and Performance

After taking our Grow Well Missouri seed packets and information, we sought to determine what extent people followed through on their intentions to garden and learn more about their garden's performance and any challenges they faced during the season.

- Sixty-three people (83% out of a total of 76) said they planted a garden in 2013.
 - Of those surveyed who planted a garden in 2013, only six (9.5%) said their garden failed. The reasons for garden failure included too much rain or flooding early in the season, poor soil conditions, personal injury or surgery, drought, and the inability to water.
- Conversely, of the 76 people who completed the post-test, 13 (17%) said they did not plant a garden at all in 2013.
 - The reasons given for not planting a garden include the following:
 - Moving or lack of space (5)
 - Poor health or surgery (2)
 - Poor soil conditions (2)
 - Unable to get the garden plowed or prepped in time (2)
 - Out of town (1)
- For those who did not have a garden in 2013 or whose garden failed, 87.5% said they plan to have a garden in 2014.
- In general, gardens were rated as just above "Somewhat productive" (mean = 3.64) using a five point scale where 1 = Poor, 3 = Somewhat productive, and 5 = Very productive.
- Approximately 65% of people grew a new type of vegetable or a different vegetable variety in 2013.
- The two biggest challenges faced by gardeners in 2013 were weeds and weather (13
- mentions each). Pests and disease were also challenges (10 mentions) along with problems planting or harvesting and providing enough water to the garden.
- Gardeners frequently said there weren't any specific gardening tools or supplies that would have helped with their 2013 garden (29 mentions). Among those who did mention specific



Selecting sweet potato transplants

items, a tiller was identified most often (19 mentions). Seven people said that hand tools would help.

• Most people worked in their garden either daily (39.3%) or two to three times per week (32.1%).

Gardening Practices

Gardeners in our sample appeared to have a good handle on performing basic gardening tasks related to planning and planting a garden and controlling weeds. They ranked their level of ability as "High" (average mean score of 3.9 based on a five point scale where 1 = Very low, 3 = Medium, and 5 = Very high) for those activities. Mean scores fell slightly when asked about their ability to use mulch (3.66), control pests and disease (3.58), make and use compost (3.24), and grow a fall garden (2.75). However, a closer inspection of the data reveals a lack of familiarity with using mulch, making and using compost, and growing a fall garden (practices we consider to be moderately advanced). Between 18 to 27% of gardeners were unfamiliar with those practices or didn't make them a part of their gardening routine. These more advanced practices typically help improve garden yield over time and are important to promote when we consider our project's goals toward improving food security among the most vulnerable. We are currently working on new program additions to address these topics in 2014.

Sharing and Using Produce

Gardeners are generous. The vast majority (87.5%) shared produce with friends, family, and neighbors. Very few shared with other agencies such as the senior center or a food pantry. People report an agency's hours or operations, including the relative convenience of sharing with people who are geographically closer to them, as the main reasons for not donating outside of family/friend circles.

Everyone used produce fresh from their gardens. Over half (58.9%) froze some produce. Thirty percent canned some produce.

Changes from 2012 to 2013

We were pleased to find that **between 2012 and 2013, the majority of gardeners either increased or held constant on a number of measures related to gardening activity and productivity.** The table below includes the results from six questions aimed at understanding gardeners' assessment of changes to the size of their gardens, time spent working in the garden, garden productivity, and freezing, canning, and sharing produce.

Changes between 2012 and 2013	Increased	Stayed the Same	Decreased	Total
Garden productivity (n=54)	62.96%	16.67%	20.37%	100%
Freezing produce (n=32)	62.50%	15.63%	21.88%	100%
Canning produce (n=16)	50.00%	25.00%	25.00%	100%
Garden size (n=54)	48.15%	27.78%	24.07%	100%
Sharing produce (n=49)	44.90%	32.65%	22.45%	100%
Time spent working in the garden (n=53)	43.40%	37.74%	18.87%	100%

Conclusion

Based these survey results and on our time spent in the field, we believe that our project is making a positive impact on people's gardening activity. For new and experienced gardeners alike, the seeds and supplies provide a much-appreciated supplement to their household budgets. Our educational materials and in-person consultation provide a chance to engage in conversation and share both basic and more advanced gardening concepts.

As we move into 2014, our plan is to focus on reaching more new and beginning gardeners through a container gardening program. We intend to offer a greater variety of vegetable transplants during distribution hours while also offering redesigned gardening handouts that are more reader-friendly. For our more advanced gardeners, we are also encouraging the use of mulch and compost to help support and expand their present practices. In addition, we are working to increase partnerships in our communities in order to build more community support for gardening and sustain project activities over time.