



COMMUNITY GARDENS AND FARMERS MARKETS

Forsyth County, North Carolina

Wake Forest University Translational Science Institute
Program in Community Engagement and Implementation

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The Wake Forest University Translational Science Institute (TSI) is a service-oriented institute working to enable a diverse culture of people and systems to generate and convert knowledge into better health. The TSI's Program in Community Engagement and Implementation facilitates collaboration among community members, community health care providers, and scientists in the translational research enterprise. This overall goal is being realized through activities that include those that foster the development and implementation of community-based research.

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This report is intended for educational and informational purposes. Maps included were created by the Center for Community Safety at Winston-Salem State University in support of the Wake Forest University Translational Science Institute's project on community gardens and markets. Locations of markets and gardens were acquired using a Trimble GeoXM GPS unit between 5/20/2010 and 9/1/2010. Information about demographics and income was provided by ESRI, Teletlas and InfoUSA. The Center for Community Safety and the Translational Science Institute make no guarantees about the accuracy of these data. The data should not be used for any other purpose than the intended research.

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Executive Summary

This report is based on a county-wide study of community gardens and farmers markets conducted during the summer of 2010 by the Wake Forest University Translational Science Institute. The purpose of the study was to assess the role of community gardens and farmers markets in the food environment of Forsyth County, North Carolina. Its specific objectives were to: (1) inventory and document the characteristics of all known community gardens and farmers markets in the county; (2) assess the challenges faced by community members in developing and operating community gardens and farmers markets; (3) evaluate the spatial distribution of community gardens and farmers markets in the food environment of Forsyth County; and (4) make recommendations for programs, policies or partnerships that can enhance the success of community gardens and farmers markets in improving the local food environment.

Forty-three community gardens and twenty-four market locations were located and a representative interviewed. The primary challenges faced by gardens were related to horticultural and natural resources issues, managing volunteers, lack of resources, and theft or vandalism. The spatial distribution of gardens showed many to be in the higher-income areas of the county with little minority population. In contrast, the largest farmers markets were located in lower income areas with greater concentrations of minority residents.

The energy and enthusiasm observed in this study for gardening and consuming locally-produced food present opportunities to foster efforts that will bring more and better quality local foods to residents of Forsyth County. Three types of recommendations are offered here. Each can be achieved through expanding and coordinating existing efforts such as those of Cooperative Extension, the Department of Public Health, and other gardening programs.

Recommendation 1: Provide infrastructure needed to widen gardening and market programs.

1a. Focus efforts on establishing and mentoring gardens in low income and minority areas of the county. Extending the Cooperative Extension Master Gardener Program to specifically target such gardens would be one approach to providing the badly needed assistance in this area. Community colleges might consider having gardeners or garden mentors as an extension of their missions.

1b. Establish a clearing house for donating garden produce to community organizations that can distribute it to persons in need, including service providers who regularly encounter persons in need. Although the major outlets for foods are well known (e.g., Second Harvest Foodbank of NW North Carolina, Crisis Control), there are numerous smaller programs (e.g. Cancer Services, Inc.) that can and are eager to provide, distribute fresh produce.

1c. Promote programs that place local produce in neighborhood stores in low income neighborhoods. Such programs will need to foster relationships between growers and stores, and advertise availability of produce to neighborhood residents. Exploring the potential of stores to handle produce (refrigeration, or at least air conditioned storage) needs to be considered.

1d. Establish programs to allow farmers market and produce store vendors to accept electronic benefit transfer (EBT) and coupons from government-sponsored programs such as the Senior Farmers' Market Nutrition Program, the WIC Farmers' Market Nutrition Program, and the Supplemental Nutrition Assistance Program (SNAP, formerly known as food stamps). Such programs are available in neighboring counties and allow persons with low incomes who using these programs to more easily purchase fresh fruits and vegetables. Forsyth County, should consider requiring government-sponsored farmers markets to accept EBT and coupons for government sponsored programs. The experience and advice of other communities that have achieved EBT acceptance are available on the internet. These programs ensure the prompt reimbursement of vendors, as well as ease of consumers using their benefits.

1e. Study approaches used in other communities to support gardens and markets, as well as to improve the distribution of healthy food to low income and minority residents. The Food Trust in Philadelphia provides an example of a broad-based approach (www.thefoodtrust.org), while specific programs such as the Veggie Mobile in New York state. (www.cdgc.org/VeggieMobile.html) provide more focused solutions that might be implemented.

1f. Facilitate the use of city- or county-owned land for farmers markets or community gardens, particularly in those segments of the county in which there are few food resources.

Recommendation 2: Increase the amount of food produced by gardens.

2a. Encourage gardeners to plant multiple gardens, with particular emphasis on growing fall crops.

2b. Encourage school gardens, particularly during the fall.

Recommendation 3: Evaluate the impact of community gardens and farmers markets on the local food environment.

3a. Encourage gardeners to document food production and disposition, as well as the volunteer hours contributed and involvement of children.

3b. Conduct surveys to document the fate of foods produced in community gardens and sold in farmers markets and produce stores in Forsyth County.

3c. Survey residents in low income and minority community to assess knowledge of markets and community gardens, as well as barriers to their use. Such surveys might investigate structural barriers (e.g., hours of operation, public transportation), as well as cultural barriers (e.g., availability of desirable food varieties, comfort in patronizing markets).

Introduction

The movement toward improving the food environment in communities in the US is experiencing unprecedented growth. This movement represents the confluence of three different forces. One comes from the fields of public health and medicine. These fields have recognized that much of the burden of chronic disease in the US is linked to the types and amounts of foods people eat, and that chronic disease is patterned along lines of social class (race and poverty), resulting in widespread health disparities. A second force is from the field of community development, which recognizes that features of life in communities—social relationships, norms, and values, often termed “social capital”—can increase the efficiency of achieving community goals and distributing community benefits. A third force is environmentalism, which focuses on the environment as places where human life occurs, promoting equitable distribution of environmental benefits among community residents (environmental justice) and sustainability of activities such as agriculture. Recent work examining the food environment in light of these forces has introduced new terms such as “food deserts”, areas characterized by limited access to healthy and affordable food (Beaulac et al. 2009; Hosler et al. 2008; Larson et al. 2009; USDA 2009; Whitacre et al. 2009), into the American vocabulary. Other recent work has highlighted the importance of the history of racism and social relations around food in perpetuating food-related health disparities (Cannuscio et al. 2010).

As these movements have coalesced, efforts to improve local public health through enhancing the food environment and building community have focused on constructing community gardens and promoting farmers markets (Cyzman et al. 2009; Kirby & Peters 2008). Such gardens and markets can bring locally-produced food to consumers to improve their diets (Alaimo et al. 2008), as well as link consumers more closely to their neighbors, to the land, and to the people who produce their food (Alaimo et

al. 2010; Alkon 2008). They can also help to eliminate food deserts (Charles 2007) and produce fruits and vegetables for low income residents to overcome food cost barriers (Drewnowski 2010)

It is hard to argue with the values that underlie community gardens and farmers markets: improving health, building community, and enhancing the environment in which we live. Yet both gardening and markets require resources, planning, and commitment from community organizations and individual community residents. Few studies have been conducted to document the issues faced in establishing and maintaining these entities and to evaluate their impact on communities and community members (McCormack et al. 2010).

The research reported here was undertaken to assess the role of community gardens and farmers markets in the food environment of Forsyth County, North Carolina. Its specific objectives were to:

1. Inventory and document the characteristics of all known community gardens and farmers markets in the county;
2. Assess the challenges faced by community members in developing and operating community gardens and farmers markets;
3. Evaluate the spatial distribution of community gardens and farmers markets in the food environment of Forsyth County; and
4. Make recommendations for programs, policies or partnerships that can enhance the success of community gardens and farmers markets in improving the local food environment.

Forsyth County covers 410 square miles, and has an estimated population of 359,638 (US Census, 2009 estimate). It is 71% white and 25% African American. An estimated 11% are Hispanic, many recent immigrants from Mexico and Central America. About 15% of the population was below poverty level in 2008.

Study Methods

Identifying Community Gardens and Farmers Markets

The project staff attempted to contact representatives of all known community gardens and farmers markets in Forsyth County. They were identified through word of mouth, a notice in the local newspaper, and internet searches. All participants were asked about any gardens or markets they knew of in the county in order to create what is called a “snowball sample,” one that grows as existing participants refer others.

Community gardens were defined as gardens with a group of gardeners working for the benefit of the community (in contrast to benefiting a single household or a business) and that had an active garden this year. Farmers markets were defined as a location where a vendor or multiple vendors were selling their products directly to the community without an intermediary. Added to this were produce stores, retail businesses who resold products purchased directly from local farmers.

A total of 43 gardens and 12 farmers markets (with 18 total market sites) were visited in Forsyth County (this includes one market located just over the county line in King). For each of these, the investigators attempted to interview a coordinator or founder of the garden or market. Six stores were visited, and managers interviewed. In addition to these people, community members with expertise pertaining to community gardens or farmers markets were interviewed.

Collecting and Analyzing Data

Data collection consisted of semi-structured, in-depth interviews and observations. A different interview guide was created for each of the three groups of participants. The guide for community garden coordinators was designed to discover the history of their garden, the manner in which their garden functions, and their beliefs about the purpose

and benefits of their garden and community gardens in general. The guide for markets was designed to learn about the history of the market, the origin of the produce, and the general characteristics of the market customers. The guide for community members was designed to discuss the participant's work with community gardens or markets, beliefs about community gardens or markets in Forsyth County, and comparisons to gardens in other regions. Most interviews were audio-recorded to assist the project staff in compiling notes after the interview. During observations, the project staff recorded the types of produce sold or grown in a market or garden and took notes about the condition of the gardens. They took photos over the summer to document the progress of the garden. They also recorded the GPS (global positioning system) coordinates for each garden and market. Researchers attempted to locate and visit all gardens and markets regardless of whether or not they could contact anyone associated with the garden or market for an interview.

Data obtained through the interviews and observations were captured as qualitative, textual data in detailed notes and partial transcriptions of conversations with those interviewed. Quantitative data were created from some aspects of the interviews (e.g., purpose of the gardens, products produced or sold). These were entered into a spreadsheet and later graphed or counted for presentation in this report.

GPS data were collected using a Trimble Geo XM with ArcPad 7.0 software. These data were mapped in relation to population density, household income, ethnicity, and other population characteristics. Each characteristic is expressed in quintiles. The reference data were acquired from provided by ESRI, Teleatlas and InfoUSA . Data were included at the census block group level. Grocery stores were included on the maps. These were identified from the InfoUSA data base. Stores were included if they met criteria for the North American Industry Classification System (NAICS) code 44511003 (supermarkets and other grocery [except convenience] stores). The code included 41

stores. All maps were created by the Center for Community Safety at Winston-Salem State University specifically for this project.

The study was explained to all participants, and each gave informed consent as approved by the Wake Forest University School of Medicine Institutional Review Board. Interviews were conducted at an agreed upon location, usually the garden or Wake Forest University School of Medicine.

Obtaining Community Feedback

Community garden volunteers, market coordinators, vendors, and local agencies involved in health and agriculture issues were invited to an open meeting held at 7:00 p.m. on Thursday, October 14th. Approximately forty persons attended, representing gardens, markets, and community and government organizations. A preliminary draft of the report was distributed. The report findings were discussed for feedback, and the preliminary recommendations were discussed. After the meeting comments and suggestions were incorporated into this final report.

Study Results

Describing Community Gardens

Number and Locations of Gardens

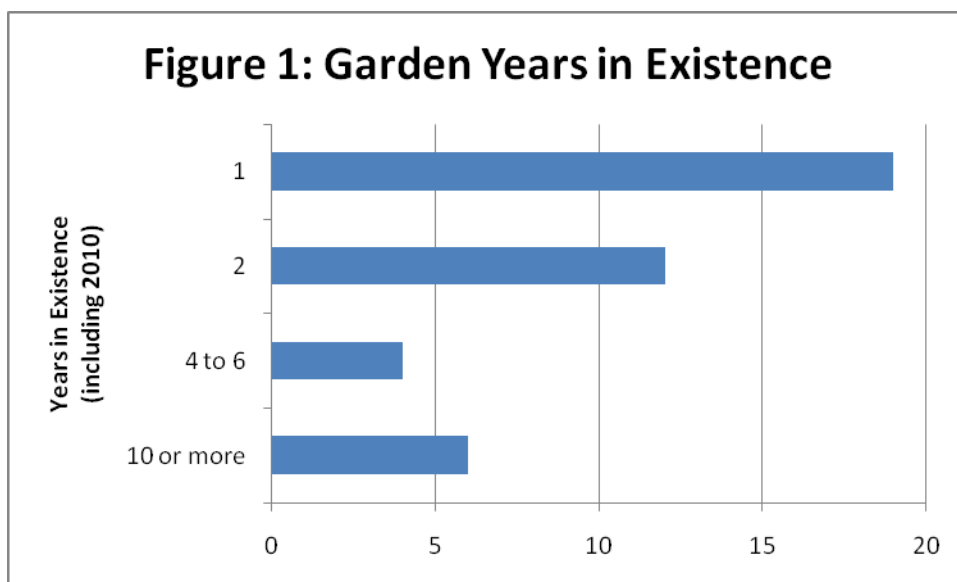
Researchers were referred to 44 community gardens, and were able to locate 43. Gardens were located at schools, churches, public housing developments, and on private land. All gardens were visited, and nearly all coordinators were interviewed. Because coordinators were not interviewed for all gardens, some data were not collected for those gardens.

Most gardens – 36 of 43 – were located in the city of Winston-Salem. Using highways US 52 and Business 40 to divide the city into quadrants, over half (18) of those gardens were in Northwest Winston-Salem. Ten were in Southwest Winston-Salem, six in Northeast Winston-Salem, and two in Southeast Winston-Salem. For the seven gardens outside of the Winston-Salem city limits, two were in western Forsyth County, two in eastern Forsyth County, and three in northwestern Forsyth County.

Size and Time Depth

Gardens ranged in size from 82 square feet to 130,680 square feet. Fourteen were less than 1,000 square feet. Nineteen of the gardens were between 1,000 and 10,000 square feet. The remaining 9 were over 10,000 square feet.

Most (32) of the gardens were in their first or second year (**Figure 1**). One was in its fourth, two were in their fifth, and one was in its sixth. Six were in their tenth or greater year. Of those in their tenth year or more, some were significantly older than ten years. The garden at Crystal Towers was started in 1991, the reconstructed 1759 Community Garden at Historic Bethabara was started in 1994, and the Food Bank Community Garden was started in 1998.



Garden Organization

Gardens were organized as communal, plot-based, or a mixture of the two. A communal garden is one in which individuals involved with the garden work together in one garden space. If the rules of the garden permit workers to receive produce from the garden, they can take any produce that is available. A plot-based garden is one where gardeners have their own space or section of the garden, called plots. Gardeners only take produce from their own plots. Those that are a mixture have one section that is communal and another that is plot-based. In those gardens contacted, 33 were communal, 7 were plot-based, and 3 were mixed.

Many of the communal gardens had primary objectives (explained in greater detail below) other than producing food for the workers of the garden. The purpose of plot-based gardens was almost entirely to provide produce for the gardeners, though many had a system in place for people to donate excess produce to other organizations.

Crops Grown in Gardens

Gardens determined the choice of crops by what was available to them, wishes of the gardeners, and, for gardens that donated produce, wishes of the group or organization receiving the produce. All gardens operated on limited budgets, so many used plants and seeds that were inexpensive or free. Cooperative Extension provided seeds and seedlings to many gardens at no cost.

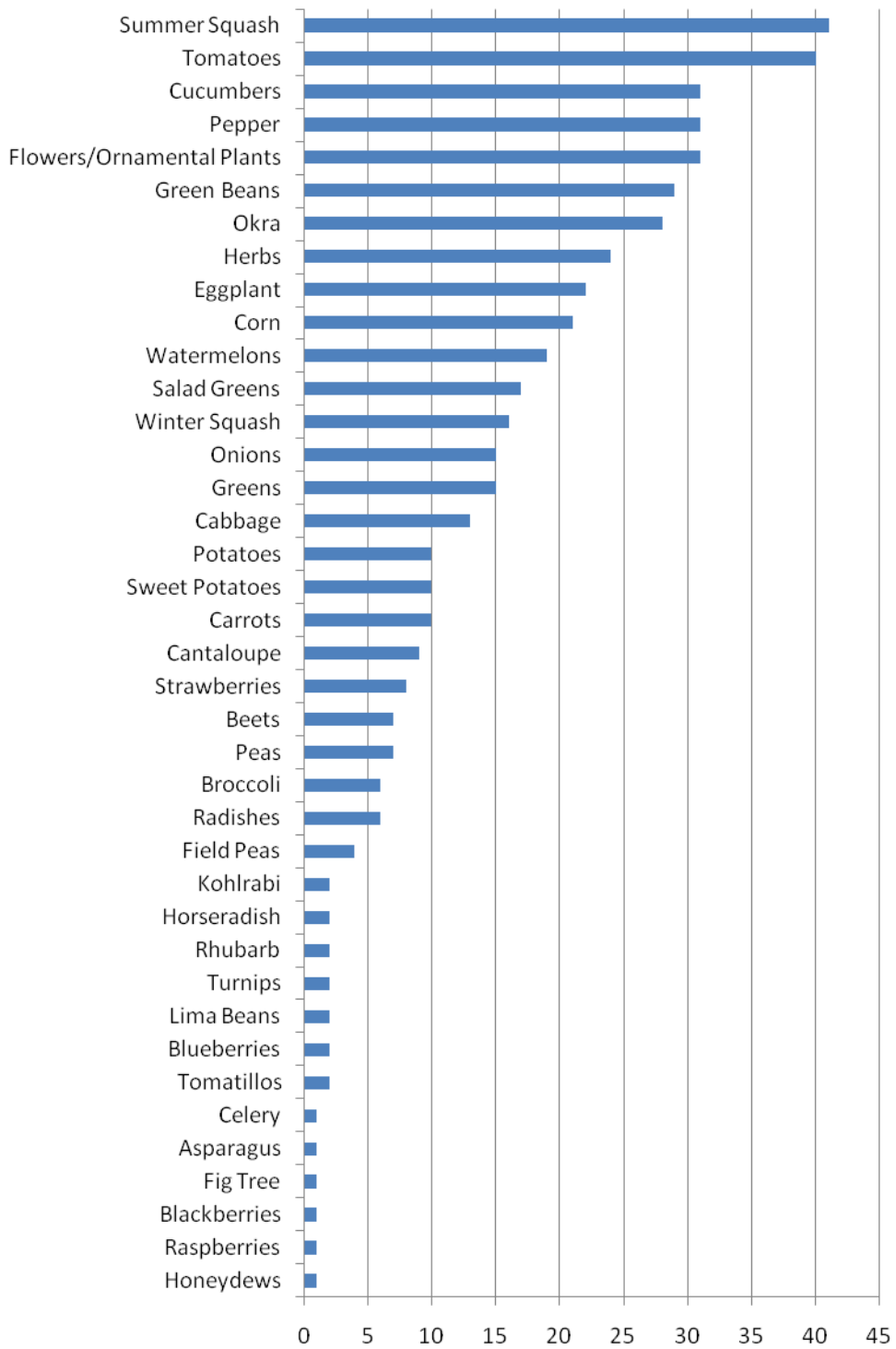
Gardens produced a variety of different crops (Figure 2). The five most common were summer squash (zucchini and yellow squash), tomatoes, cucumbers, peppers (all varieties), and flowers or ornamental plants. These crops, along with the other most common crops, are popular foods in the region and easy to grow in summer. The most common plants tended to be ones that produced a large amount of produce.

Produce Destinations

In nearly every garden, gardeners could take some of the produce for themselves (Figure 3). A few gardens donated all of their produce, and the gardeners did not take any of the produce. Many gardens shared their produce with members of their community (e.g., church, neighborhood) who did not work in the garden. For example, some church gardens gave members of the church a portion of the produce; in other cases the produce was be used in church dinners. Some neighborhood gardens left some of their produce for homebound older neighbors. The West Salem Community Garden put together produce in “meals” to give to community members. In 2009, they gave out 350 meals.

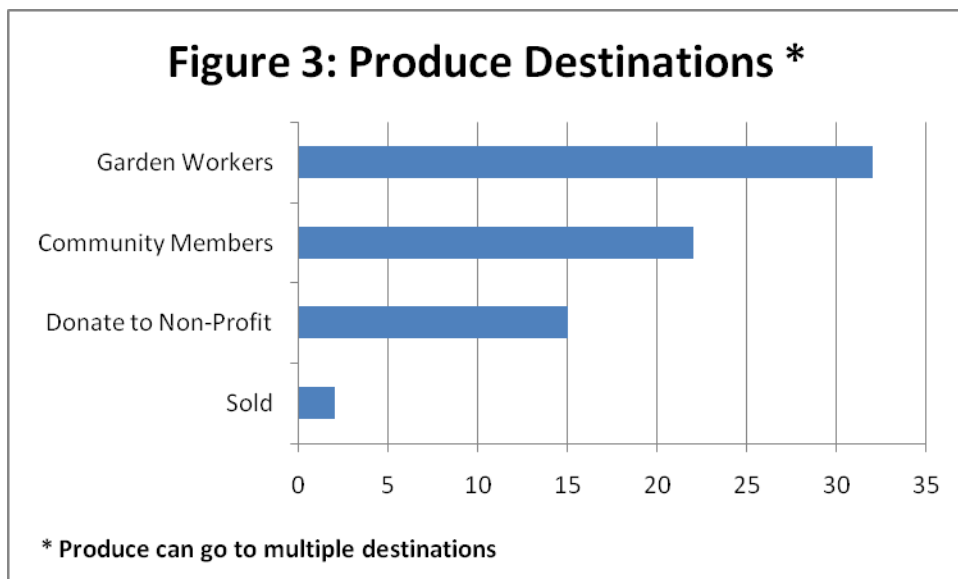
Some gardens started out with the intention of donating all or most of their produce. They often selected an agency or group of agencies, for example Crisis Control Ministries or Second Harvest Food Bank, with which they were familiar and did other volunteer work.

Figure 2: Crops Grown in Gardens



Gardens that donated to different agencies often selected a recipient agency based on the volume of produce they had on a given day. A day where they had a larger yield would see the produce given to a larger agency.

The gardens that donated a large volume of produce in previous years were the Food Bank Garden, Sedge Garden United Methodist Church's garden, and Main Street United Methodist Church's garden. In 2009 the Food Bank Garden produced over 6,000 pounds of produce that was donated to the Second Harvest Food Bank. Sedge Garden produced around 1,500 pounds of produce that was donated to several agencies in the county, including the Second Harvest Food Bank, Samaritan Ministries, and the Salvation Army. Main Street United Methodist donated around 2,000 pounds of produce to the Second Harvest Food Bank. Other gardens planning to donate most or all of their 2010 produce included Highland Presbyterian Church's garden, Knollwood Baptist Church's garden, Best Choice's garden, the Wake Forest CROP garden, and Ancestor Acres.



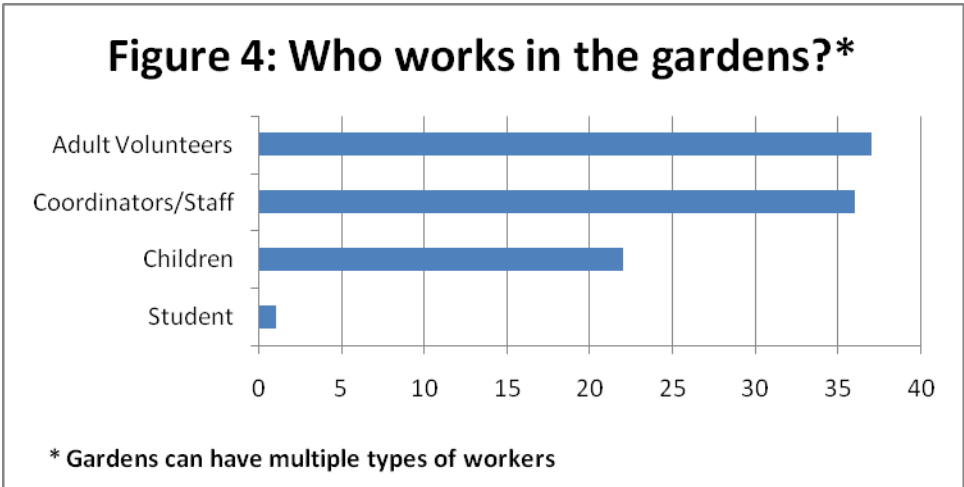
Many gardens that did not intend to donate a large volume of their produce donated some over the course of the summer. Particularly in plot-based gardens, people grew more than they could use. These gardens had a system set up to donate to a

particular organization, or people gave produce to others they know need it. The garden at Bethabara had such a system. Gardeners with extra produce could leave it on the porch of the pastor at Bethabara Moravian Church for the English as a Second Language Program.

Two gardens sold their produce. In each case, it was a way for the garden to support itself. The Children’s Home Garden sold part of its produce in a small farmers market each week in the summer. This was also considered an educational aspect of the garden because the children could work on social and math skills. The gardeners from Main Street United Methodist Church in Kernersville made relishes and pickles from some of their produce to sell in the fall. The proceeds from these sales pay for most of the following year’s expenses.

Garden Labor

People who worked in the garden (Figure 4) were determined by several factors. If the sponsoring organization was a school or children’s organization, children or students were more likely to play a larger role in the garden. At Winston-Salem Preparatory Academy, the students were part of a gardening club and worked in the garden. Other



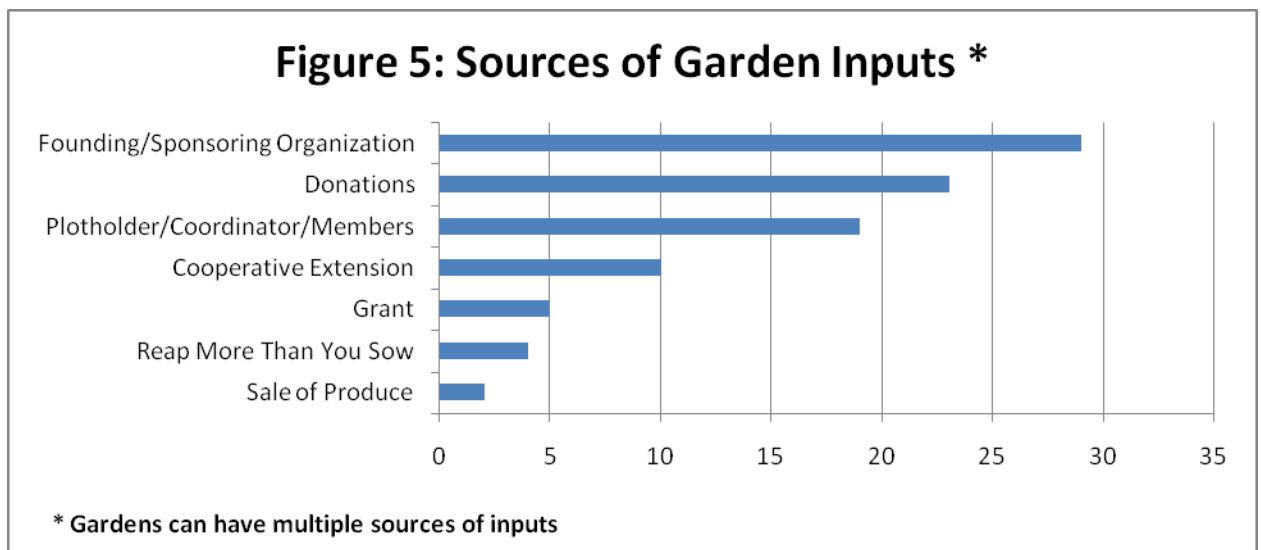
schools had mechanisms similar to this to involve students in the garden. Another determining factor was the financial sponsor. One organization that sponsors gardens, the non-profit organization Reap More Than You Sow, requires that children work in the garden. The most important factor was the composition of the community. If there were mostly older adults in the community, the gardeners were mostly older adults.

With few exceptions, the garden coordinator or manager worked in the garden. In some cases, they did the bulk of the work. Most gardens had adult volunteers. Some gardens had other staff from the sponsoring organization who worked in the garden as part of their employment.

Only one garden (at My Sister’s Place, a school for developmentally-disabled adults) had adult students working in the garden. In Figure 4 they are the only group categorized as students. College students are categorized as adults.

Sources of Garden Inputs

Garden inputs (Figure 5) are money, land, water, tools, plants and seeds needed to run a garden. There were several sources for these inputs.



Reap More Than You Sow is a non-profit organization that sponsors community gardens and provides education for the gardeners. It requires that a certain portion of the people working in the garden be children under the age of 15 and that a portion of the food be donated. It pays to set up the gardens and for all their needs besides land and water.

The sponsoring organization is the group that founded the garden. In many cases, this group is the landowner and provides the water. Often, this group gives some money to the gardeners. Many gardens received donations, including plants or supplies. Other times, a person living beside the garden would provide easier access to water. Sometimes the sponsoring group did not own any land for the garden, so they asked to use someone else's land. Also, people within the community who did not work in the garden would give money. Members would also supply some of these needs, particularly in plot style gardens where each person was often entirely responsible for everything they grew and used.

North Carolina Cooperative Extension provides many services for community gardens. For some gardens, they till the land, provide most or all of the plants, and provide some tools. They also are a resource for gardeners who have questions about pest control and plant problems, like bud end rot on tomatoes. They facilitate soil testing for gardens.

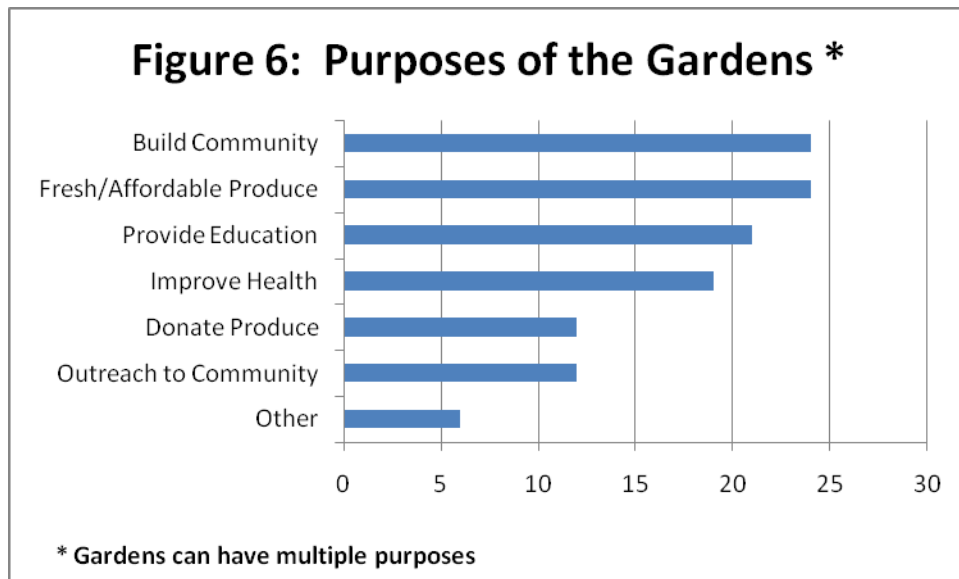
A few gardens were financially self-sustaining. They would either sell a portion of their produce or sell products made with their produce. They often did this so they would not constantly need money from the sponsoring organization.

Some gardens received grants. These grants were available for specific items, like a large piece of equipment, or for specific types of organizations with an intended purpose. The Wake Forest University CROP garden was partially funded by a faculty member's research grants and by grants given by the university to student projects. The

Children’s Center received a grant to establish a garden for horticultural therapy since they work with severely handicapped children. The Kimberly Park garden received a grant from the Maya Angelou Foundation because of their intention to work with mothers and daughters. St. Anne’s Episcopal Church’s peace garden received a grant from the North Carolina diocese to promote peace in the community. Winston-Salem Preparatory Academy received a grant to build a green house.

Purposes of the Gardens

Having fresh and affordable produce was a common purpose for community gardens (Figure 6). Many gardens started with this as their primary purpose, and discovered other benefits during the garden’s existence that became more important than the original purpose.



Another purpose reported for the gardens was to build community. Many gardens were associated with established organizations, like churches, but they often said that people who worked in the garden did not know each other as well before the garden as they did after gardening together. People in these groups were often trying to build

community with people in the surrounding neighborhood. Some gardens did not expect to build the community that they have but are very glad they did:

“I’ve lived here for 16 years, and I moved to Rural Hall because I liked the small town feel, but I wasn’t really connected. I wasn’t plugged in. And then suddenly, all of a sudden, just through participation in this project, I’m on a first name basis with people I meet at the post office, at the gas station, going to vote; they ask how I’m doing, it’s like that. The community in community garden is really, really important.” – Rural Hall

Providing education was another common purpose. Some gardens, like the one at the Boys and Girls Club, wanted to teach children gardening skills that they could use later in life. Others simply wanted to teach children where food comes from:

“For a lot of young people to see how things really grow and to know that they don’t really come from the grocery store and stuff. They have to be planted and grow first before they can get to the stores.” – Winston Summit

Some wanted to have nutrition education for everybody involved with the garden.

A purpose that links providing fresh produce and education is improving health. Some gardens sought to improve health by having more fresh fruits and vegetables in their members’ diets. Others did this through nutrition education. People said gardens improved health in other ways, such as through increasing physical activity. Particularly for gardens with older members, the gardens provided a purpose for them to get out of the house and have some light exercise. Others mentioned the mental health benefits:

“The bottom line of the whole thing, if you want to get right down to it, is called ‘ecotherapy.’ And what ecotherapy is just, like fishing for me. When you’re in the garden working, your mind is clear; you’re focus on your gardening. It has been proven to be 90% more effective for depression and anxiety than any pill on the market.” – Reap More Than You Sow

Two horticultural therapists working with community gardens were interviewed. They used the garden to teach persons with disability about science and plants as well as to increase mobility, improve mental health, and help emotional and mental development.

Some gardens had purposes specific to that garden. Bethabara is trying to preserve and recreate the gardening style of the early Moravians. They have recreated the garden's structure based on archeological data and preserved records. Tomatoes and corn are not permitted in the garden because the Moravians did not grow them, and gardeners have to make trellising and structures out of natural materials. While they do not prohibit pesticides and fertilizers, they ask that gardeners limit their use. The garden at My Sister's Place was started as a green project for the school. Pfafftown Christian Church's garden was started to increase social capital by building bridges between the church and the surrounding community. Southgate and LaDeara Crest gardens serve to keep youth in the neighborhoods occupied and maintain the neighborhoods' long-standing tradition of having a community garden. Kimberly Park's garden is intended to help maintain mother-daughter relationships for late elementary-aged girls and as girls enter puberty. The garden at St. Clement's Episcopal Church was founded to grow God's garden.

Challenges for Community Gardens

Garden coordinators listed their primary challenges encountered with creating and maintaining community gardens. They were, in order of frequency: (1) horticultural and natural resources issues, (2) managing volunteers, (3) lack of resources, and (4) theft and vandalism.

Horticultural and Resources Issues

Most gardens had some problems with insects. They dealt with these using insecticides, insect traps, or including plants that naturally repel insects. Although some gardens had policies about the use of chemical insecticides, interpretations of the policy varied among different garden volunteers. In some gardens where the coordinator claimed that no pesticides were used, volunteers were observed applying chemicals.

Larger animals presented problems. Two gardens had groundhogs living in the garden or nearby. Others had problems with deer. Many gardens tried to prevent these problems; solutions included an electric fence and kerosene soaked rags. One coordinator was concerned about safety because she works primarily with young children:

The other day I went to pick a cucumber and there was a big ol' black widow up underneath it. And all of a sudden it dawned on me that, 'cause that was the same day that I saw that there were, North Carolina was the number one state in snake bites, and it's copperheads. Earlier that week the fellow who was bitten by a copperhead in his garden up in Wilkesboro, and he sucked it out and all. My biggest worry and challenge... is if I get kids down in here, is there anything that might hurt them? – South Fork Baptist Church Community Garden

Weeds also presented challenges. At Carter G. Woodson, volunteers struggled continuously to keep the kudzu from taking over the garden. At Rural Hall, Bermuda grass invaded the beds, despite putting down straw and other materials below foot-high raised beds. Other gardens that had trouble keeping up with the weeds simply considered weeds a fact of life when it comes to gardening.

Soil quality was a concern for many gardens. Volunteers stated that it was hard to grow anything in their soil. Several had their soil tested before they started the garden and understood that their soil quality was very poor. Many gardens, especially trying to

grow organically, have significant problems. They report having spent a large amount of time trying to rehabilitate the garden.

Some gardens reported having problems with plants that were pale and did not grow well. This was sometimes attributed by gardeners to poor soil quality. However, gardeners often did not understand what their plant problems were. In the case of one garden, most of their tomato plants had died by the time they understood the problem.

Weather challenged gardeners. Many gardens started late because of late frosts. At the Food Bank Garden, the winter squash were growing too quickly because of the heat. The hot weather made it difficult for gardeners to keep their plants watered. Most of the gardens are far away from the building sponsoring the garden. At Maple Springs United Methodist Church they connect hoses over several hundred feet to get water, but they lose pressure due to leaks and have a hard time watering the most distant parts of the garden. Though they have a long hose, watering is also difficult at Rural Hall Community Garden because the long hose is heavy and difficult to manage. Main Street United Methodist Church in Kernersville has run into a similar problem. For the moment they are using a neighbor's water. They are trying to connect to the town's water, but the process is slow due to regulations.

Low production due to combined pest, soil, and water problems made it hard to keep the community's interest, particularly as the weather grew hotter. For gardens that wanted to donate their produce, some said it was embarrassing when they could only donate a few heads of lettuce at a time.

Managing Volunteers

Communal or mixed-type gardens reported that having enough volunteers was a challenge. As the weather became hotter and people lost interest, it was more difficult to

get people to come to the garden. For inexperienced gardeners, there was more work than they expected and not as much produce, so they stopped working in the garden.

Communal gardens reported problems managing the volunteers they had. Particularly in gardens with mostly adult volunteers, coordinators wanted volunteers to go to the garden throughout the week as their schedules allowed. Often, though, the coordinators said that the majority of the volunteers only came when the coordinator was there, so the garden was only worked one or two times a week. Some coordinators did not want to set a schedule for volunteers because they believed that gardens do not run on a schedule. For example, if volunteers are scheduled to work on Thursday, it could be storming every Thursday for a month. In such a case, many volunteers might simply not go to the garden for a month. Coordinators wanted volunteers to understand that whenever they go to a garden, there will be work to do. Many garden coordinators felt that the lack of a schedule kept some volunteers from coming to the garden to work:

I think so many clubs and organizations, things that people are involved with in general are so highly structured that when you have something that's like, a little more open-ended and a little more like, we want you to come out when you wanna work. And with a garden—another volunteer was just here, but I could probably go out and find something to do. There is always something that can be done. I have found in my work and working with volunteers, that people like structure and they like to know exactly when to come out and what to do, what they're gonna be doing and when it's gonna be over, and with a garden, I could tell you that you're gonna come out and do X but if the weather is bad, we can't do it. If the soil is too wet, we can't do certain things. If the weeding's not as bad as I thought it was going to be, then it only takes half an hour; it doesn't take an hour. – WFU CROP garden

Gardens that worked primarily with children could often not include as many children as they wanted. Sometimes the garden space was too small for there to be as many people working as wanted to work. There were too few tasks to keep them occupied. More commonly, there just were not enough people supervising to include as many children as wanted to participate. Garden coordinators found that elementary school-aged children were always very energetic. For the Boys and Girls Club garden, this sometimes led to behavior problems. The coordinator said that it was also hard to keep them all occupied for the designated garden time. Some gardens have trouble finding age-appropriate tasks for children. For gardens that were not always worked by children, there were some plants that needed to be harvested with shears, and the coordinator felt that this was too problematic to have young children do.

Working around the school calendar was a challenge associated with school gardens or gardens that worked with after school programs. The growing season for most vegetables is during the summer when students are not at school or these programs. For this reason, many of the school gardens visited were not planted when visited. Some of these gardens, though, still ran during the summer. Some had summer programs, like at Carter G Woodson and the Boys and Girls Club. At others, the students volunteer to come out to the garden during the summer, like at Winston-Salem Preparatory Academy.

Lack of Resources

At many gardens, the coordinator was responsible for paying for all inputs. While they usually did not mind the expense, several said they wished their sponsoring organization would or could contribute more. Many said that gardens are fairly inexpensive once you get them going, but it was hard finding the money to get certain items, like fencing or irrigation, put in. In one case, a coordinator who had few volunteers

from her organization and no monetary support felt that her community was not entirely supportive of the project.

The economy was mentioned in relation to the financial issues. Gardeners found it hard to find sources of funding for anything. They observed that many people currently have a tighter financial situation, and it is hard for them to give money to get a garden established. Though many people could benefit from garden space, they may not be able to afford the time to work in a garden, get to a garden, or pay a fee to rent a plot in a garden.

Garden maintenance has suffered because of the economy. If equipment is broken, it is sometimes challenging to replace or fix it. If a fence is broken mid-summer, it can be much more difficult to fix than in the spring. Some gardens cannot afford to buy new equipment, especially larger equipment like tillers.

One intangible resource cited was lack of gardening knowledge or experience. Most gardens said that some of their members did not have any gardening experience before they started, and some said that the coordinator did not have experience. Even gardens where there were apparently a number of experienced people had some problem with a lack of knowledge in particular problem areas that became apparent after the garden was underway. In most cases, the lack of knowledge had to do with one particular problem, like bud end rot or pale plants. Most gardens could overcome this problem by asking someone else in the garden, finding answers on the internet, or through Cooperative Extension.

Some gardens that provided tools found it difficult to make tools available to their members. They wanted people in the community to feel welcome to work in the garden, but did not have a way to provide access to tools and not risk them being stolen. At El Buen Pastor, this prevented some people who wanted to work in the garden from being able to:

“Because we haven’t created a system for people to have access to those tools, there have been times when people wanted to help, and then just didn’t have the tools to help. So for example, right now our garden has – in the past 2 weeks, grass just grew, within the community garden overnight, like that. And people noticed and wanted to come out to help, and they came, just with their bare hands and couldn’t pull it because the soil we’re using is new soil that hasn’t really been worked much. It’s very tough, and the grass couldn’t just be pulled by hand; you needed the tools for it. We had the tools and they had no access to it.”—El Buen Pastor

Theft and Vandalism

Many gardens dealt with theft or vandalism at some point during their existence. In some cases, people stole produce. At many gardens, gardeners assumed that if people stole produce, they clearly needed it; and the gardeners did not worry about it. Those that had continual problems with theft identified the person stealing the produce and explained what the garden was and who the produce was meant for, and the problem stopped. In other cases, equipment was stolen. People were more concerned when this happened and more wary of it happening because equipment is more expensive than the produce. The most notable case of vandalism was at Lewisville Elementary School. Just after the garden had been planted and plants started to emerge, the garden was largely destroyed by vandals. Because school had almost ended, the project had to be abandoned for the year.

Farmers Markets and Produce Stores

Four categories of markets were identified in Forsyth County, based on how they are administered. City-sponsored markets are run by the local government. Three

markets fit this description: The Downtown City Market, Winston-Salem Retail Farmers Market, and Kernersville Farmers Market. Non-profit markets are markets that are sponsored by a non-profit organization, such as the Triad Buying Co-op, Inc., which sponsors Krankies Farmers Market, or the American Legion, where the King Farmers Market is located. Business-encouraged markets are located at businesses, such as City Beverage Market, the Lewisville Farmers Market at Casanova's Coffees and Fudge, and Reynolda Village Farmers Market. Employer-sponsored markets are held at places of employment for employees and customers or clients. Three markets fit this category: the Wake Forest Baptist Medical Center Markets, Forsyth Medical Center Markets, and Pilgrim Court Market. The Wake Forest University Baptist Medical Center and Forsyth Medical Center markets have satellite markets at facilities around the county.

Stores were separated from markets into another category. Produce stores sell local produce and other products that might also be available at a farmers market. These products are generally bought from regional and local producers and resold by an individual or business. Mostly Local Market, Boston Grocery, Let It Grow Produce, Union Baptist Market, and Reynolda Farm Market fit into this category. Boston Grocery was encouraged by the Department of Public Health to sell local produce. Additional efforts to help such stores advertise the availability of this produce and set up relationships with vendors are necessary before such a program can make an impact on food consumption.

Farmers markets varied in size. Two (Winston-Salem Retail Farmers Market and Krankie's Farmers Market) had 20 or more vendors and are considered "large". Five had between seven and eleven vendors ("medium"). Twelve had five or fewer vendors ("small"). Employer-sponsored markets tended to have a primary location that was in the medium size category; satellite markets were small. Those encouraged by businesses were in the small and medium category. The markets sponsored by the local government were in the large and medium category.

Most vendors at the farmers markets are white, and range in age from people in their twenties to people in retirement. Most of the vendors sell at more than one market. For example, a vendor from Ingram Farms in High Point sells at different places during the week: on Mondays at a small office, Tuesdays from a small farm, Wednesdays at the Pilgrim Court Market, Thursdays at Wake Forest University Baptist Medical Center Hawthorne Deck Market, and Fridays through Sundays at the Piedmont Triad Farmers Market in Guilford County.

Categories of food available at markets and stores were fruits and vegetables, meat, prepared food, or non-food goods. Most vendors sold a single category of products. There were some exceptions. Cheese and eggs were most commonly sold along with products in other categories. Some people selling animal-based non-food goods (i.e., wool or milk-based soaps) also sold other products, like cheese or meat, from those animals. Most of the vendors were from Forsyth County or a surrounding area. The only time a vendor was from a greater distance was when they were selling a special product like lamb.

A market's hours, location, and sponsor affected its customers' demographics. During the week, customers at markets that were not for employees appeared to be primarily older adults and younger women not in the labor force and their children. Those near businesses had some customers come from work. Most of the customers at markets were white. The coordinator of the Krankies' market, which is on Tuesdays from 10:00 to 1:00 p.m., described the typical customers as "yuppies." Markets on the weekends saw a larger variety of customers, but, for the most part, had a largely white customer base. There were more families at Saturday markets. The only markets or stores patronized primarily by minority residents were the Union Baptist Church Market and Boston Grocery, which are in predominantly African American neighborhoods.

Markets' and stores' policies about reselling affects the type of products found there. Those selling only local products have products that vary depending on the season. Others that allow resale have additional products such bananas and out of season produce. Some markets only have local vendors, and their vendors must grow their own produce or make their own products.

In contrast to markets in other counties, none of those in Forsyth County participates in programs to accept vouchers or Electronic Benefit Transfer cards that persons receiving public food assistance have. The WIC program distributes voucher to its participants to use at farmers markets, but they must go out of the county to use them. The market visited in King, which is just outside of Forsyth County in Surry County, does accept these payment types.

The survey of markets and stores did not visit all possible locations. There are a variety of other locations in the county where single vendors sell produce with limited schedules. Some are for specific clientele (e.g., one vendor reports selling one day a week at Arbor Acres United Methodist Retirement Community), while others set up at high traffic locations (e.g. temporary roadside stands). Some of the latter are advertised on places such as Krankies' Farmers Market Facebook page.

Maps: Community Gardens and Farmers Markets in the Food Environment

Most gardens are concentrated within the Winston-Salem city limits and located in the central part of the city ([Map 1—see Appendix](#)). Throughout the county, most are located fairly close to US 52, US 421, or Reynolda Rd. Similarly, most markets are in the city of Winston-Salem ([Map 2](#)). Nearly all are close to US 421. All of the produce stores are in the northwest part of the county. The majority of gardens, markets and stores are located west of US 52. There are few gardens and markets located in the rural areas of

the county. However, this likely reflects the large number of household gardens evident in those areas.

When compared with per capita income and household poverty status in the county ([Maps 3 and 4](#)), the largest gardens are in areas with higher per capita income and lower household poverty. The largest markets are located in low income, high household poverty areas, but they are not well distributed through those areas. For example, there are no markets and few gardens located in the high poverty areas south of US 421 in the center and eastern portions of Winston-Salem. Displaying supermarkets on the same maps shows that most supermarkets are in areas of higher per capita income and outside the high poverty concentrations. Thus, the limited access to supermarkets in the low per capita income and high household poverty areas in the center of Winston-Salem creates a potential food desert that markets and gardens might fill.

Like the poverty and income measures, population density and percent minority are greatest in the center of the county ([Maps 5 and 6](#)). With only a few supermarkets in that area, only smaller gardens, and the largest markets concentrated in the downtown area, there are large areas where there is likely need for food but little access.

Discussion

One of the primary reasons reported for conducting a community garden was to “build community”. Many garden coordinators could not articulate what that meant, but insisted it was their primary goal. According to the literature, “building community” is one of the most identifiable, “real” results of community gardening (Mundel & Chapman 2010; Shiner et al. 2004; Wakefield et al. 2007). Garden coordinators in Forsyth County note that the gardens do serve that purpose, whether the garden is a communal operation or plot-based. Even if building community is not a goal of the garden, it seems to happen. Gardeners spend time together, and the garden itself attracts neighborhood residents. Gardens have also been used as a youth activity, and thus provide an intergenerational experience. For existing communities (e.g., a church congregation), the garden serves as a way of tying the group to the larger community through food donations.

Producing fresh fruits and vegetables was another significant reason for gardening. Some of the larger gardens that donated to the Food Bank and other organizations for distribution to those in need kept records from previous years, and could report precise poundage. Their numbers were impressive: taking only three large gardens, the amount totaled almost 10,000 pounds for 2009. Beyond this, it is less certain how much community gardens contribute to fruit and vegetable consumption. Large individual plots at gardens like Bethabara seem to be tended by experienced and devoted gardeners. But smaller gardens, particularly those started more recently, were quite dry and overgrown by late July.

It is difficult to know how much smaller gardens contributed to the fruit and vegetable intake of the gardeners or other food recipients. Documenting these intakes was beyond the means of this study.

Despite their enthusiasm for their gardens, garden coordinators were willing to enumerate their challenges. Some can be remedied through improvements in knowledge of gardening and dealing with problems common in gardening in North Carolina. Others, however, involve infrastructure that may take a greater investment of resources. These include soil quality, access to tools, and water supply. Solving such problems will likely take coordinated effort at the local level. In contrast to other, more urbanized areas, gardeners in Forsyth County did not cite lack of land as a challenge. Nevertheless, the recruitment strategy of interviewing only those with active gardens means that difficulties in obtaining land or any other problems (e.g., serious vandalism) that might prematurely end a garden will be undercounted.

Interviews with service providers in the county revealed that several systems of support exist for community gardens. Cooperative Extension supports a Master Gardener Program in which individuals trained as master gardeners provide leadership and service to the community through their gardening activities. There are few hard data on how many gardens are assisted and where these are. However, this government-supported service appears to be under-utilized by community gardeners. Greater efforts are needed to extend the benefits of these gardeners to fledgling community gardens, particularly in minority and low income neighborhoods. Reynolda Gardens has hosted annual informational meetings for community gardeners and seen a recent rise in interest. However, Reynolda Gardens does not appear to consider the support of these gardens as part of their primary mission in the community.

Few gardeners discussed planting fall crops. Considering the problems faced in keeping a garden watered and sustaining the enthusiasm of volunteers during the heat of the summer, fall gardens may be more successful. They might also allow more use of school property and integration into school curricula.

Except for the larger and more permanent markets and stores, the enumeration of farmers markets produced here is likely to be an undercount. Throughout the summer, project staff received reports of temporary produce stands set up where vendors were selling one or more items in a neighborhood or shopping center parking lot. Recent changes in county ordinances permitting such temporary stands are a positive step in encouraging sales throughout the county. However, while such stands add to the total food available and supplement the more permanent food environment, they cannot be considered a reliable supply of food for neighborhoods.

Employer-sponsored markets appear to provide a reliable and convenient way for individuals working for the several large employers who facilitated them to obtain fresh produce on a regular basis. The hours for some were quite short, but well advertised to employees, many of whom took advantage of the opportunity to leave work briefly to buy produce for home consumption. Businesses with multiple locations appear to make arrangements with one or a few “traveling” vendors who visit different locations on different days. Such an arrangement appears to be a win-win situation for both vendors and customers.

Although the maps of markets indicate some in areas of poverty, this is somewhat deceiving. Having a market in a low wealth area does not guarantee that neighborhood residents are its customers. For example, Krankie’s is located in an area with considerable poverty. However, both vendors from that market and others interviewed for this report expressed concern that the people who live in the community feel uncomfortable patronizing that market because of its largely white, upper class clientele and its focus on higher priced organic foods.

The inability of markets in Forsyth County to accept vouchers or Electronic Benefits Transfer cards is a serious problem. Programs elsewhere have shown that such

programs improve diet quality (Herman et al. 2008). Currently, county residents must go outside of Forsyth County to use these benefits at farmers markets.

Limitations

The findings in this report should be interpreted in light of several limitations. Although a variety of methods were used to find community gardens and markets, it is likely that some were omitted. In particular, small, new gardens in minority areas, temporary roadside market stands, mobile markets (sales from trucks), and sales of local produce in other businesses are likely to be underrepresented in this report.

While attempts were made to contact representatives from all known community gardens and markets, some could not be reached. In almost all instances, those locations were visited and observations made, but more detailed interview data could not be obtained.

Data for the report were gathered from late May to mid August, 2010. Multiple visits were conducted for most locations. Nevertheless, observations of crops and conditions at gardens and numbers of vendors and variety of products at markets depended on timing of visits. The timing of the garden interviews influenced the problems most salient to the garden coordinators. Day-to-day variation in vendors at markets may have reduced the accuracy of market descriptions.

This report could only include that gardens active in 2010. Data on age of the gardens found suggest many may last only one year. It would be useful to interview those whose gardens have been discontinued, as their experiences might provide valuable insights into the challenges faced by community gardeners.

Recommendations

The energy and enthusiasm observed in this study for gardening and consuming locally-produced food present opportunities to foster efforts that will bring more and better quality local foods to residents of Forsyth County. Three types of recommendations are offered here. Each can be achieved through expanding and coordinating existing efforts such as those of Cooperative Extension, the Department of Public Health, and other gardening programs.

Recommendation 1: Provide infrastructure needed to widen gardening and market programs.

- 1a. Focus efforts on establishing and mentoring gardens in low income and minority areas of the county. Extending the Cooperative Extension Master Gardener Program to specifically target such gardens would be one approach to providing the badly needed assistance in this area. Community colleges might consider having gardeners or garden mentors as an extension of their missions.
- 1b. Establish a clearing house for donating garden produce to community organizations that can distribute it to persons in need, including service providers who regularly encounter persons in need. Although the major outlets for foods are well known (e.g. Second Harvest Foodbank of NW North Carolina, Crisis Control), there are numerous smaller programs (e.g. Cancer Services, Inc.) that can and are eager to provide, distribute fresh produce.
- 1c. Promote programs that place local produce in neighborhood stores in low income neighborhoods. Such programs will need to foster relationships between growers and stores, and advertise availability of produce to

neighborhood residents. Exploring the potential of stores to handle produce (refrigeration, or at least air conditioned storage) needs to be considered.

- 1d. Establish programs to allow farmers market and produce store vendors to accept electronic benefit transfer (EBT) and coupons from government-sponsored programs such as the Senior Farmers' Market Nutrition Program, the WIC Farmers' Market Nutrition Program, and the Supplemental Nutrition Assistance Program (SNAP, formerly known as food stamps). Such programs are available in neighboring counties and allow persons with low incomes who using these programs to more easily purchase fresh fruits and vegetables. Forsyth County, should consider requiring government-sponsored farmers markets to accept EBT and coupons for government sponsored programs. The experience and advice of other communities that have achieved EBT acceptance are available on the internet. These programs ensure the prompt reimbursement of vendors, as well as ease of consumers using their benefits.
- 1e. Study approaches used in other communities to support gardens and markets, as well as to improve the distribution of healthy food to low income and minority residents. The Food Trust in Philadelphia provides an example of a broad-based approach (www.thefoodtrust.org), while specific programs such as the Veggie Mobile in New York state. (www.cdcg.org/VeggieMobile.html) provide more focused solutions that might be implemented.
- 1f. Facilitate the use of city- or county-owned land for farmers markets or community gardens, particularly in those segments of the county in which there are few food resources.

Recommendation 2: Increase the amount of food produced by gardens.

- 2a. Encourage gardeners to plant multiple gardens, with particular emphasis on growing fall crops.
- 2b. Encourage school gardens, particularly during the fall.

Recommendation 3: Evaluate the impact of community gardens and farmers markets on the local food environment.

- 3a. Encourage gardeners to document food production and disposition, as well as the volunteer hours contributed and involvement of children.
- 3b. Conduct surveys to document the fate of foods produced in community gardens and sold in farmers markets and produce stores in Forsyth County.
- 3c. Survey residents in low income and minority community to assess knowledge of markets and community gardens, as well as barriers to their use. Such surveys might investigate structural barriers (e.g., hours of operation, public transportation), as well as cultural barriers (e.g., availability of desirable food varieties, comfort in patronizing markets).

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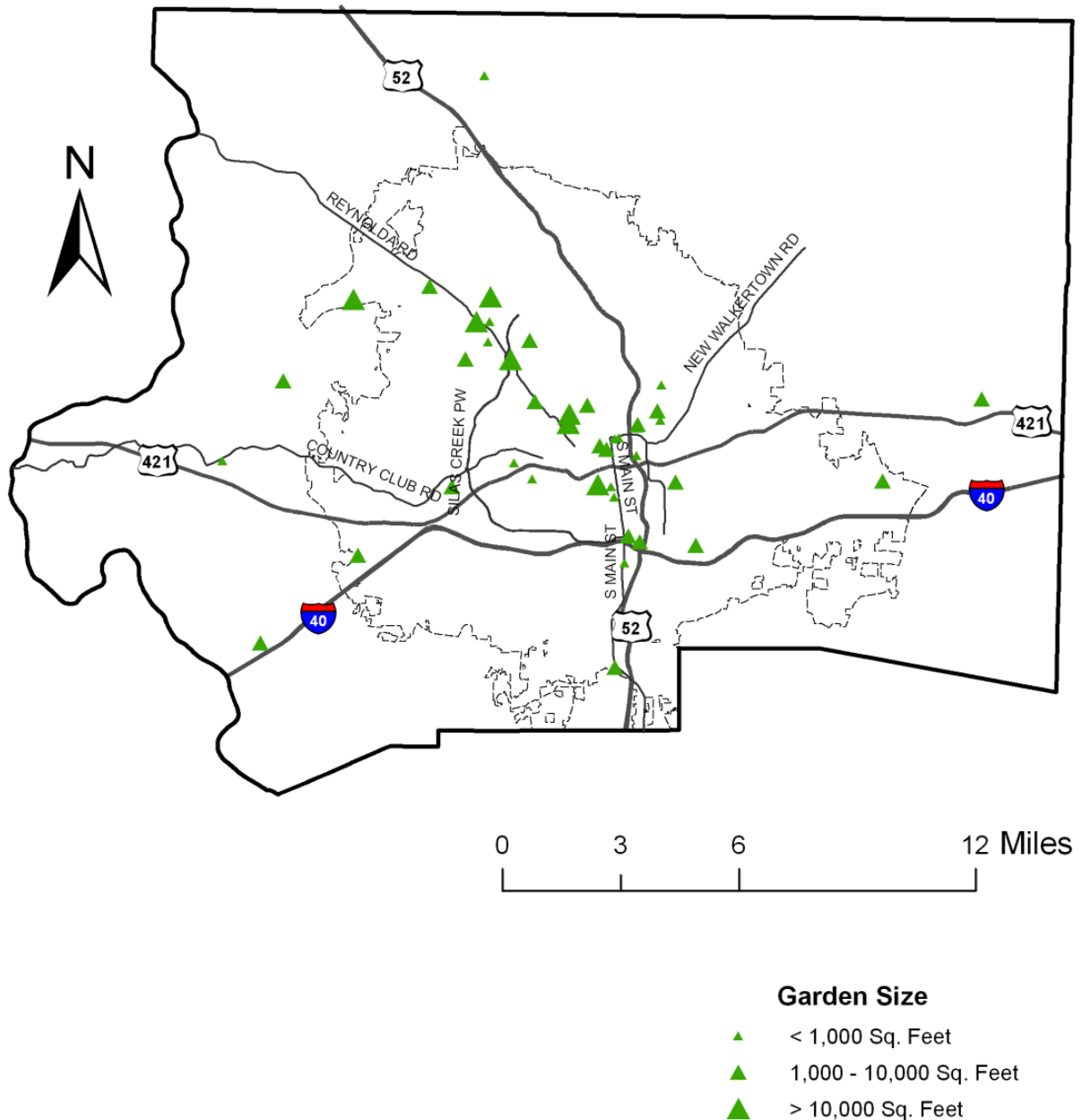
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Appendix

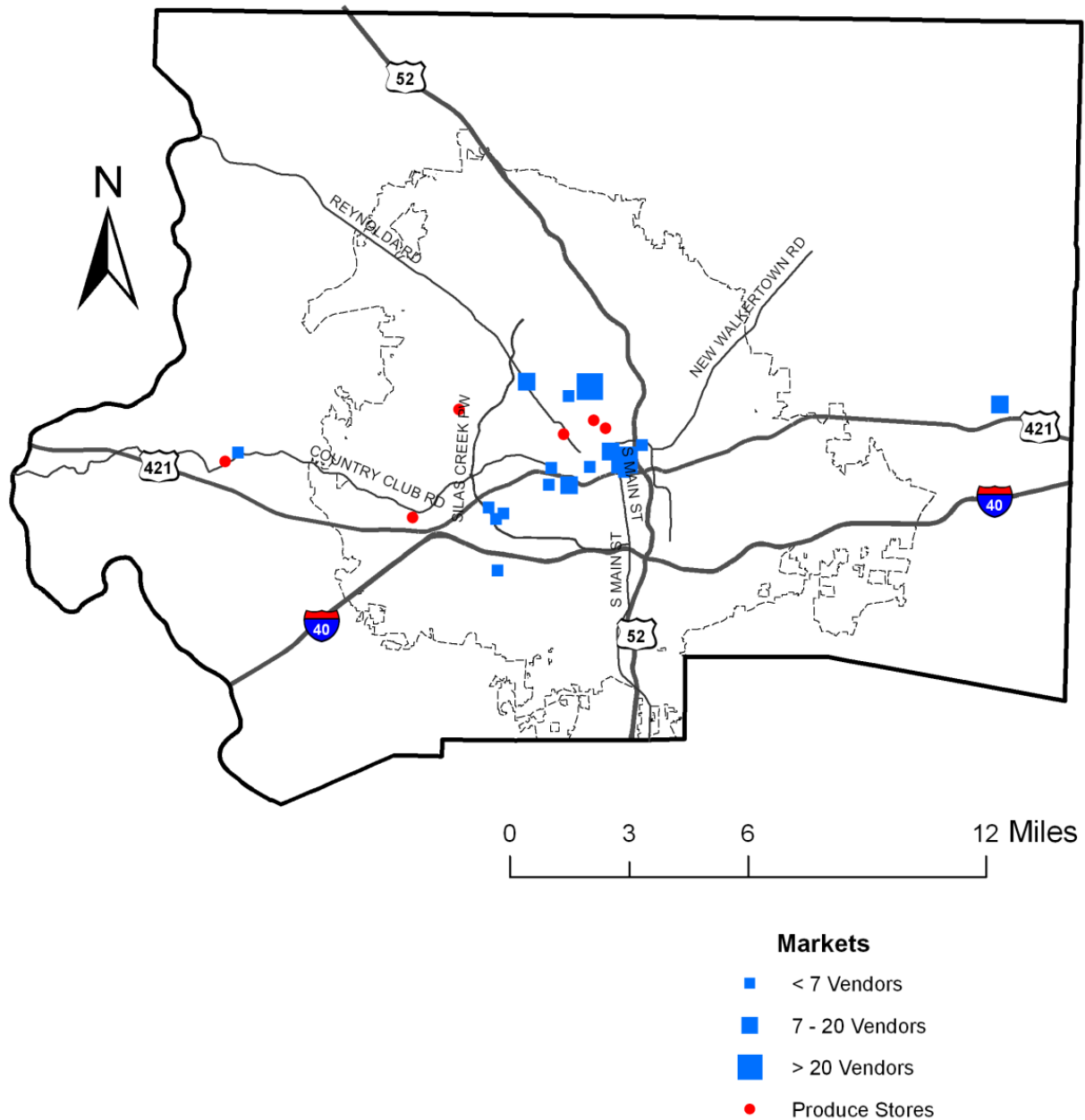
- 1. Maps***
- 2. List of Community Gardens***
- 3. List of Farmers Markets***

Map 1



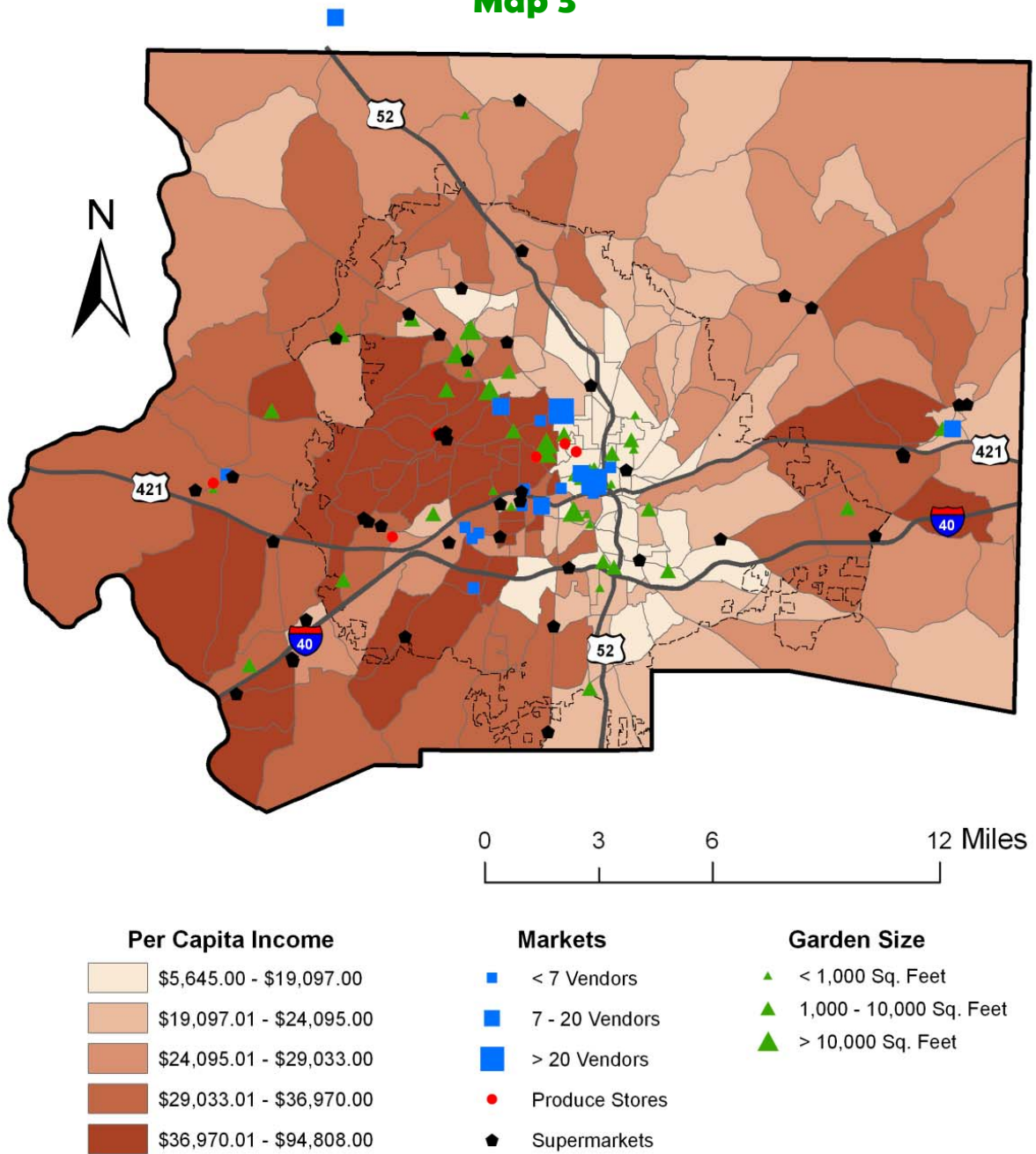
This map is intended for educational and informational purposes. It was created by the Center for Community Safety at Winston-Salem State University in support of the Wake Forest University Translational Science Institute's project on community gardens and markets. Locations of markets and gardens were acquired using a Trimble GeoXM GPS unit between 5/20/2010 and 9/1/2010. Information about demographics and income was provided by ESRI, Teleatlas and InfoUSA. The Center for Community Safety and the Translational Science Institute make no guarantees about the accuracy of these data. The data should not be used for any other purpose than the intended research.

Map 2



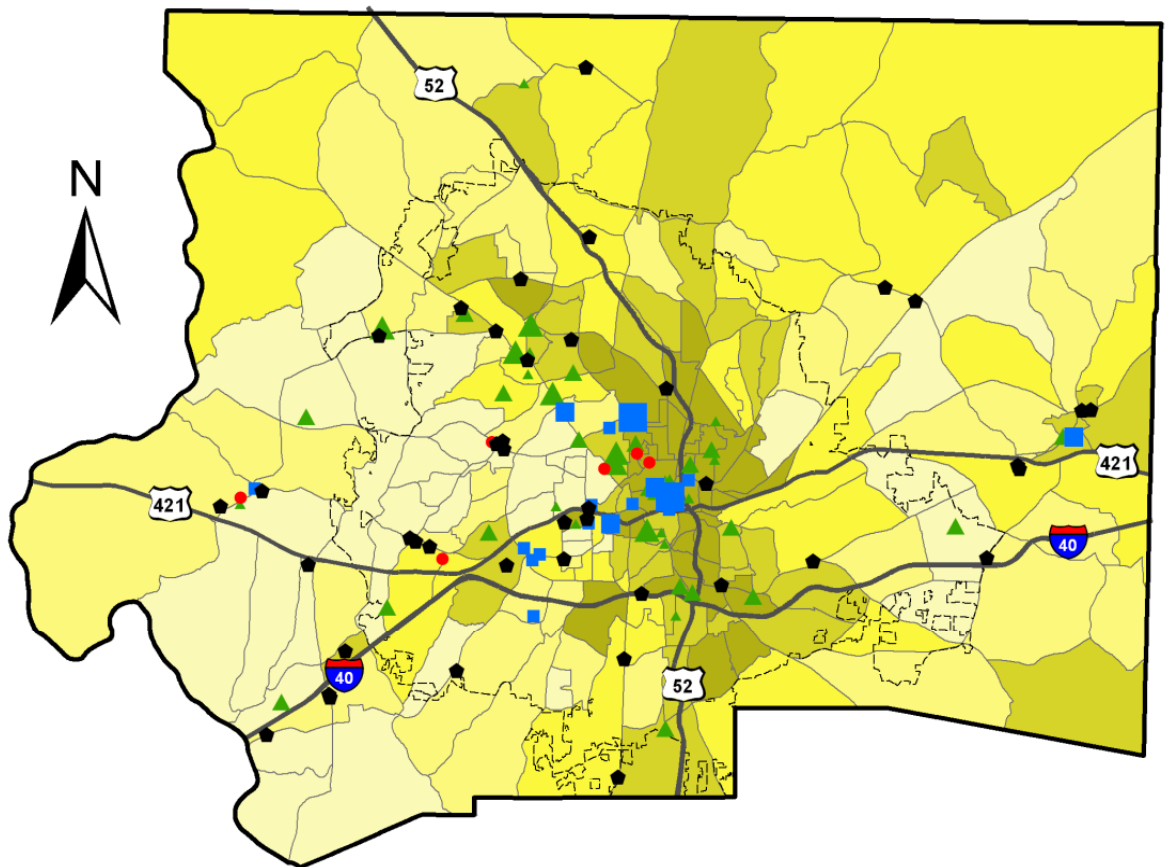
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Map 3



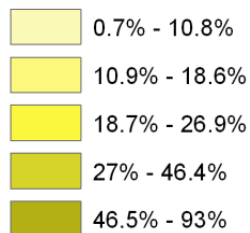
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Map 4

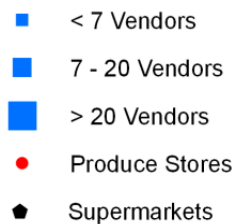


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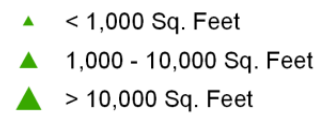
Percent < 200% Poverty Level



Markets

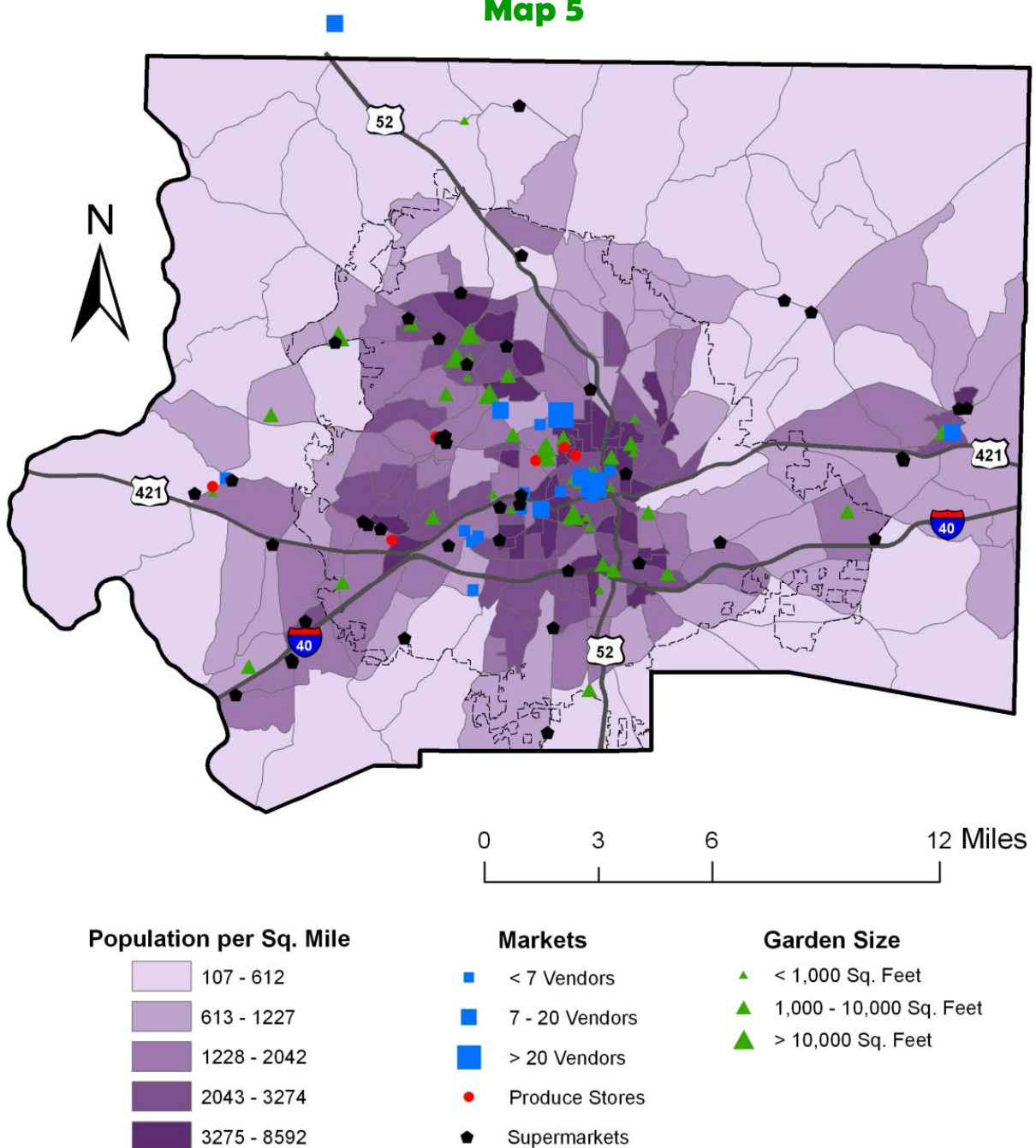


Garden Size



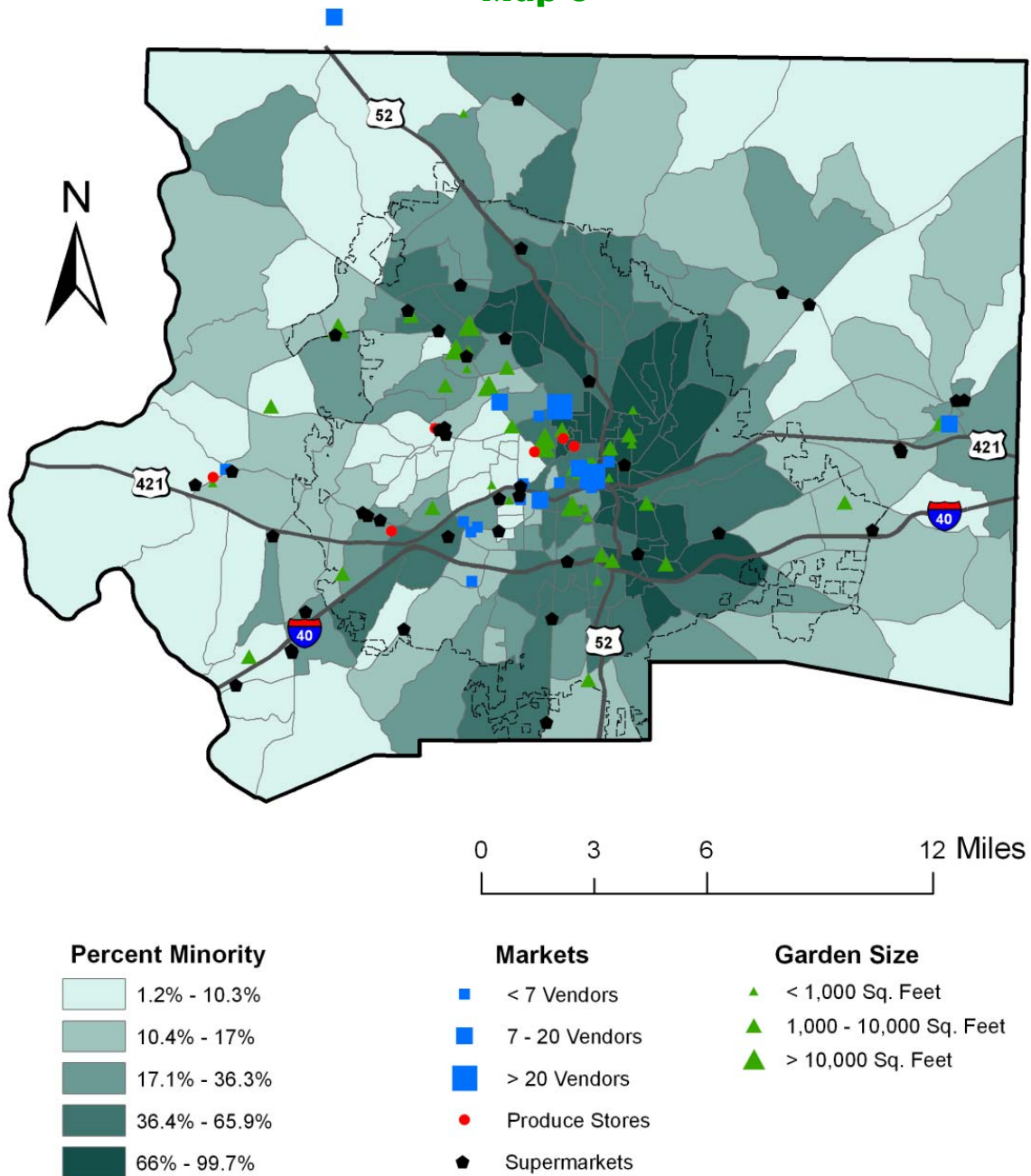
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Map 5



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Map 6



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Listing of Community Gardens

Northwest Winston-Salem

El Buen Pastor Community Garden was started this year at El Buen Pastor Presbyterian Church. The garden is worked communally. The purpose of the garden is to build community with their neighbors. It covers approximately 2200 square feet, and it grows at least eight different types of plants.

The Children's Center Garden started this year at The Children's Center. The garden is worked communally by students. The purpose of the garden is to provide horticultural therapy for the students at the school. The garden covers approximately 2300 square feet, and it grows at least 11 different types of plants.

The Children's Home Garden is located at The Children's Home. This communal garden was started fifteen years ago. The purpose of the garden is to be an educational and social tool for the children. The garden is approximately 130000 square feet, and it grows at least 12 different types of plants.

Colonial Agriculture 1759 Community Garden is located at The Historic Bethabara Park. This garden has existed for more than ten years and is plot based. The purpose of this garden is to continue the community garden Moravians started in 1759. The garden is approximately 22000 square feet, and it grows at least 29 different types of plants. Plants grown are restricted to those grown in the original Moravian gardens.

The CROP Garden started last year at Wake Forest University. The garden is communal. The purpose of the garden is education and to help supply Campus Kitchen with fresh produce. Campus Kitchen is an organization run through Wake Forest University to supply food to people in need. The garden is approximately 4900 square feet, and it grows at least 8 different types of plants.

Crystal Towers Community Garden is located at Crystal Towers Apartments, a public housing community. This plot based garden was started in 1991. The purpose of the garden is to provide the residents with fresh produce. The garden is approximately 2200 square feet, and it grows at least 11 different types of plants.

The Food Bank Garden is located at The Children's Home. This garden has existed since 1997 and is communal. The purpose of the garden is to provide fresh produce to the Second Harvest Food Bank of Northwest North Carolina. The garden covers approximately 87000 square feet, and it grows at least 19 different types of produce.

The Goler Memorial Community Garden started in 2010 at the Downtown Health Plaza. The garden is worked communally by the Goler community and employees of the Downtown Health Plaza. The purpose of the garden is to build a sense of community around the garden. The garden is approximately 540 square feet, and it grows at least 13 different types of plants.

Knollwood Baptist Church Community Garden has beds located at Knollwood Baptist Church and some off site locations. The garden started spring of 2010, and it is communal. The purpose of this garden is to provide fresh produce to the Latino

community in Winston-Salem. Altogether the beds are approximately 150 square feet, and they grow at least 5 different types of plants.

Lloyd Presbyterian Church Community Garden is located at the church. The garden is worked communally, and it started in fall of 2008. The goal of the garden is to expand the church's ministry to the community. The garden is approximately 450 square feet, and it grows at least 24 different types of plants.

Loch Drive Community Garden started in 2010 on Loch Drive. The garden is worked communally. The purpose of the garden is to help feed the people who need food and to bring the neighborhood together. The garden is approximately 300000 square feet, and it grows at least 17 different types of plants.

Maple Springs Community Garden started in 2009 at Maple Springs United Methodist Church. The garden is worked communally by church members, and there are some plot spaces worked by people in the neighborhood. The purpose of the garden is to provide fresh produce to the church's food pantry and weekly congregational meal and to educate the youth. The garden is approximately 10600 square feet and has at least 17 different types of plants.

The Mothers and Daughters Together We Can Community Garden started in 2010 on city land. It is a cooperative effort of Winston-Salem State University and Kimberly Park Elementary. The garden is worked communally. The purpose of the garden is to bring mothers and daughters together and to bring the community together. The garden covers approximately 2000 square feet, and it grows at least 4 different types of plants.

Robinhood Forest Community Garden is located on a private citizen's property. The garden was started in 2009 and is plot-based. The purpose of the garden is to develop a sense of community and to allow participants to grow their own food. The garden covers approximately 7200 square feet, and at least 16 different types of plants are grown.

St. Anne's Community Peace Garden was started in 2009 at St. Anne's Episcopal Church. The purpose of the garden is to promote community relations with their neighbors. The garden is worked communally. It covers approximately 500 square feet, and it grows at least six different types of plants.

Stanton Court Community Garden started in 2010 at a private citizen's property. This garden is communal. The purpose of the garden is to provide the members' families with fresh vegetables and to bring the community closer together. The garden is approximately 4500 square feet, and it grows at least 20 different types of plants.

South Fork Community Garden started in 2010 at South Fork Baptist Church. The garden is worked communally. The purpose of the garden is outreach. The garden is approximately 2600 square feet, and it grows at least 10 different types of plants.

The Urban League Community Garden started in 2009 at the Urban League. The garden is worked communally by volunteers. The purpose of the garden is to provide fresh produce for the people working in the garden and to get people in touch with the earth. The garden is approximately 1300 square feet, and it grows at least 7 different types of plants.

Winston Summit Community Garden started in 2009 at the Winston Summit Apartments, a public housing community. The garden is communal. The purpose of the garden is to provide fresh vegetables to the residents of the apartments. The garden is approximately 450 square feet, and it grows at least 9 different types of plants.

Northeast Winston-Salem

Alpha and Omega Church of Faith has a community garden located at the church. The garden is approximately 5400 square feet, and grows at least 10 different types of plants.

Ancestor Acres started five years ago at the Shiloh Baptist Church Center. This is a communal garden worked primarily by the students of Carter Vocational High School. The purpose of the garden is to get folks to understand the art of the growing process and to get them to do it at home. The garden is approximately 1600 square feet, and it grows at least eight different types of plants.

Best Choice Community Garden started in 2010 at the Best Choice Center. The garden is worked communally. The purpose of the garden is to educate children about gardening and healthy foods. The garden is approximately 400 square feet, and it grows at least 6 different types of plants.

LaDeara Crest Community Garden is located at LaDeara Crest Estates, a public housing community. The community garden has existed for more than ten years. The garden is worked communally. The purpose of the garden is to provide fresh produce to some of the residents. It is also a component of the afterschool program. The garden is approximately 325 square feet, and it grows at least six different types of plants.

Southgate Community Garden is located at Southgate Apartments, a public housing community. The garden has existed more than ten years. The garden is worked communally. The purpose of the garden is to provide activities for the youth in the neighborhood. The garden is approximately 80 square feet and grows at least seven different types of plants.

Winston-Salem Preparatory Academy Community Garden started in 2009 at the school. This is a communal garden. The purpose of the garden is to have the kids connect more with the earth. The garden is approximately 169 square feet, and it grows at least 12 different types of plants.

Southwest Winston-Salem

Academy Park Community Garden started in 2009 at the Academy Park Condos. The garden is worked communally. The purpose of the garden is to grow fresh food and improve health. The garden covers approximately 700 square feet, and it grows at least 14 different types of plants.

Carter G Woodson Community Garden started in 2010 at Carter G Woodson School of Challenge. The garden is worked communally. The purpose of the garden is to be a service project and education. The garden is approximately 1200 square feet, and it grows at least 7 different types of plants.

Green Street Church garden is located at the church and is a part of the Shalom Project. The garden is approximately 330 square feet, and it grows at least 9 different types of plants.

Highland Presbyterian Community Garden started in 2009 at the church. This garden is worked communally. The purpose of the garden is to help feed the people who need food and education. The garden is approximately 540 square feet, and it grows at least 7 different types of plants.

Horticultural Training Camp started in 2009 and is located at AC Delco Automotive. This is a communal garden. The purpose of the garden is to be a horticultural training site for youth. The garden is approximately 300 square feet, and it grows at least 6 different types of plants.

My Sister's Place Community Garden started in 2010 at My Sister's Place. This garden is communal. The purpose of the garden was to be a 'Green Project' for the school. The garden is approximately 950 square feet and grows at least 13 different types of plants.

Thunder Horse Community Garden started in 2010 at a private citizen's home. The garden is worked communally by five families. The purpose of the garden is to provide fresh produce for the workers. The garden covers approximately 2500 square feet, and it grows at least 10 different types of plants.

West Salem Community Garden is located at Piedmont Baptist College. The garden started six years ago, and it is plot-based. The purpose of the garden is to provide the West Salem community with fresh produce. The garden is approximately 21000 square feet, and it grows at least 9 different types of plants.

West Side Baptist Church Community Garden started in 2010 at West Side Baptist Church. The purpose of the garden is to provide gardening space for the people in the neighborhood. This is a plot-based garden. The garden is approximately 3500 square feet, and it grows at least 8 different types of plants.

Southeast Winston-Salem

The Boys and Girls Club Community Garden was started in 2009 at the Ken Carlson Boys and Girls Club. The goal is to teach the children gardening skills and to let them bring some produce home. The garden is worked communally. It covers approximately 1000 square feet, and it grows at least 14 different types of plants.

The Hill Middle Unity Garden started in 2010 at Hill Middle School. The garden is worked communally. The purpose of the garden is to get the youth active and eating healthy foods. The garden covers approximately 2000 square feet, and it grows at least 9 different types of plants.

Sunnyside Community Garden is located at a private citizen's home. The garden has been going for five years and is communal. People from the Sunnyside neighborhood work in the garden. The purpose of the garden is to provide fresh produce for the people working in the garden and to have community fellowship. The garden covers approximately 5500 square feet, and it grows at least 12 different types of plants.

Forsyth County Outside of Winston-Salem

God's Garden started in 2009 at St. Clements' Episcopal Church. The garden is plot-based with a communal area. The purpose of the garden is to grow for God. The garden is approximately 3000 square feet, and it grows at least 16 different types of plants.

Lewisville Elementary has had a garden for several years. It is used for science education during the school year.

Main Street United Methodist Church Community Garden is located at the church. This garden started in 2009 and is communal. Most of the people that work in the garden are volunteers from the church. The purpose of this garden is to serve people in need by providing fresh produce and to provide a community activity for people. The garden is approximately 7200 square feet, and it grows at least 13 different types of plants.

Pfafftown Christian Church Community Garden started in 2010 at the church. The garden is worked communally and there are some plot spaces. The purpose of the garden is to help build bridges and provide social capital. The garden is approximately 35000 square feet, and grows at least 12 different types of vegetables.

The Rural Hall Community Garden is located at Nazareth Lutheran Church. The garden started in 2008 and is plot-based. The purpose of the garden is to supply fresh produce. The garden covers approximately 350 square feet, and it grows at least 21 different types of plants.

Sedge Garden Methodist Church Community Garden is located at the church. The garden was started four years ago for an outreach ministry to feed the hungry. The garden is worked communally. It covers approximately 9000 square feet, and it grows at least 11 different types of plants.

Listing of Farmers' Markets and Stores Selling Local Products

City Sponsored Markets

The Downtown City Market is held under a shelter located on the corner of Sixth Street and Cherry Street in Winston-Salem. The market is open Tuesdays and Thursdays from 9am to 1pm. It opens in May and closes in November. There are approximately 15 vendors selling various products, including vegetables, fruit, flowers, herbs, crafts, pickled vegetables, honey, baked goods, ornamental plants, and some name brand goods, like chips and candy.

Winston-Salem Retail Farmers' Market is located in a building on the Dixie Classic Fairgrounds. The market is open Saturdays from 6am to 1pm year round. There are approximately 60 vendors selling crafts, pickled vegetables, flowers, fruits, vegetables, baked goods, ornamental plants, soap, honey, jams, meats, prepared foods, sauces, and eggs.

Kernersville Farmers' Market is located at 1401 Union Cross Road in Kernersville under a shelter. The market is open on Tuesdays, Thursdays, and Saturdays from 7am to 12pm. It starts in May and ends in October. There are seven vendors selling vegetables, jams, and flowers.

Non-Profit Markets

Krankies Farmers' Market, sponsored by the Triad Buying Co-op, is located behind Krankies Coffee Shop on the 300 block of Patterson Avenue. Vendors have individual "gazebo" tents. The market is open Tuesdays from 10am to 1pm from late April to November. There are 24 vendors selling vegetables, flowers, fruits, meats, eggs, prepared goods, crafts, loofas, bamboo, and spreads.

Business-Encouraged Markets

City Beverage Market is located in the parking lot of the City Beverage at 915 Burke Street, Winston-Salem. The vendors sell their products under tents on Saturdays from 12pm to 4pm. There are four vendors selling meats, plants, vegetables, eggs, soaps, cheese, herbs, and worm compost.

Café Roche Market was located outside the Café Roche Coffee House at 1316 South Hawthorne Road, Winston-Salem on Saturday mornings. It ended during 2010 because the vendors sold at other markets with better traffic on Saturdays whose times conflicted with this market.

Lewisville Farmers' Market is located on the porch of Casanova's Coffees & Fudge at 6275 Shallowford Road, Lewisville. This market is open Saturdays from 8am to 12pm. There are three vendors at the market selling vegetables, crafts, and jewelry.

Reynolda Village Farmers' Market is located in the Reynolda Village Shopping Center at 2201 Reynolda Road, Winston-Salem. This market is located outside the stores and people sell their products under individual tents on Fridays from 9am to 2pm. There are

eleven vendors who sell flowers, crafts, vegetables, fruits, soap, truffles, and baked goods.

Markets For Employees

The Wake Forest University Baptist Medical Center Farmers' Markets are located at various locations on the medical campus and at Medical Center sites elsewhere in Winston-Salem. The markets are located behind the Piedmont Plaza One building at Miller and First Streets, in the Old Hawthorne Parking Deck, downtown at the Piedmont Triad Clinical Research Center (PTCRC), at Kimel Park, and outside Miller Plaza. These Farmers' Markets are held for the employees of the Wake Forest Baptist Medical Center, though anyone can patronize them. The market held in the Old Hawthorne Parking Deck has seven vendors and is open on Thursdays from 12pm to 5:30pm. At this location the vendors sell vegetables, fruits, eggs, honey, preserves, meats, sauces, and baked goods. The markets located at Miller Plaza, PTCRC, and Piedmont Plaza only have two vendors. The same two vendors sell at these markets. The vendors sell the products from their vans. The vendors sell baked goods, vegetables, and fruits. The market at PTCRC is on Monday from 1:30pm to 2:30pm. The market at the IS Building is on Mondays from 2:30pm to 3:30pm. The market behind Piedmont Plaza One is on Mondays from 3:30pm to 4:00pm. The market at Kimel Park is open on Thursdays from 12pm to 5:30pm.

Forsyth Medical Center Farmers' Markets are located at various locations on the Forsyth Medical Center Campus. These locations are the Forsyth Medical Center, Novant Winston-Salem Healthcare, and Novant Medical Park. These farmers' markets are held for the employees of Forsyth Medical Center and patients. The farmers' market at Novant Winston-Salem Health Care has one vendor who sells fruits and vegetables. This market is held every other Tuesday from 8am to 12pm. The market at Forsyth Medical Center is located near the employees' entrance and the ICU Building. At this market three vendors sell fruits, vegetables, honey, meat, and baked goods. The market is held Friday's from 11pm to 3:30pm.

Pilgrim Court Market is located on a grass field between Pilgrim Court and Inmar's parking lot. This market is for the employees of Inmar and is open Wednesdays during lunch time. The vendors set up tents and tables to sell their produce. There are five vendors that selling vegetables, fruits, baked goods, honey, eggs, oils, and soaps.

Stores Selling Local Products

Mostly Local Market is located at 6321 Shallowford Road in Lewisville. The store opened September 2009 and sells primarily products produced in western North Carolina. It is open all year Monday through Fridays 8am to 6pm, Saturdays 8am to 5pm, and Sundays 11am to 3pm. The store carries vegetables, fruits, jams, honey, sauces, ice cream, pasta, meats, pickled vegetables, cider, supplements, butters, candy, juice, eggs, and dog treats.

Boston Grocery is a store located at 1400 Old Cherry Street in Winston-Salem. It is a small neighborhood store open six days a week and has recently started selling local produce. When visited there were potatoes and watermelons for sale. The clerk said that they had sold out of cantaloupes and peas.

Let It Grow Produce is an open air store located at 214 Jonestown Road in Winston-Salem. The market opened in 2010 and sells locally-grown products. The store is open

every day except Sunday and Wednesday. Its weekday hours are 10am to 5:30pm and Saturday hours are 9am to 4pm. The store will be open until Thanksgiving when the lot will be used to sell Christmas trees. Its produce varies seasonally. When visited in early August it had plants, potatoes, okra, squash, peaches, apples, onions, cantaloupes, watermelons, jellies, pickles, apple butter, eggs, and honey.

The Union Baptist Church Market is located at 1200 Trade Street Northwest in Winston-Salem. It began in July of 2010. The market is open Friday and Saturday from 7am to 7pm. There is one vendor who sells onions, watermelon, tomatoes, cabbage, peaches, corn, cucumbers, sweet potatoes, and apples.

Reynolda Farm Market is a store located at 1206 Reynolda Road in Winston-Salem. It is open Mondays through Saturdays from 7am to 8pm. The store carries fruits, sauces, pasta, meats, pickled vegetables, cider, butters, candy, baked goods, ice cream, honey, coffee, milk, and syrup. There are some locally produced items in season.

