

# FORSYTH COUNTY'S COMMUNITY FOOD SYSTEM: A FOUNDATION TO GROW 2013





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Forsyth Futures is a nonprofit collaborative of residents, organizations and institutions working together to address critical community issues. Established in 2006, the organization's mission is to put community knowledge to work by being an objective catalyst, connecting people, and serving as a convener.

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# EXECUTIVE SUMMARY

In Forsyth County, North Carolina there is a renewed interest in local foods, including the growth of farmers markets, community gardens, buying co-ops, and local food advocacy groups. New efforts demonstrate an interest in eating locally. There is an evolving vision of a community with a food system that is economically, socially, and environmentally sustainable that is the result of promoting a strong local food economy, ensuring producers and food system workers a fair and sustainable livelihood, and providing all residents with access to fresh and healthy foods. However, the actual and potential social and economic impacts on the community are not yet clear. Thus, there was a need to study the impact and gain a greater understanding of the role of local foods in the current community food system.

With support from the Forsyth County Government and the Winston-Salem Foundation, Forsyth Futures led a team comprised of staff and local/state experts that conducted an objective assessment of the current community (local) food system in Forsyth County. It is hoped that the results will serve as a catalyst to maximize the impact of local foods.

For the purpose of this study, local foods were defined as “fruits, vegetables and livestock that are produced and raised, or processed within Forsyth County and the seven surrounding counties.” The community food system was further defined to include producers, processors, and distributors that serve Forsyth County, and the outlets through which consumers in Forsyth County purchase local food. Because a high portion of local foods consumed in Forsyth County are produced in surrounding counties as well as Forsyth, the decision was made to include food produced in the seven surrounding counties.

The *Forsyth County Community Food System* study focused on the following:

- | Elements of the local food system in Forsyth County and surrounding counties.
- | Challenges and successes of the current local food system.
- | Examples of successful food system elements implemented in comparable communities.
- | Opportunities to expand the positive impact of local foods.

## FINDINGS

Primary and secondary data analysis, stakeholder interviews, community program mapping and surveys yielded the following insights, about the system’s infrastructure, production, processing, distribution and consumption elements:

### 1. A NEED FOR STAKEHOLDER COORDINATION

Key Finding: Stakeholders are seeking a way to drive initiatives that support the community food system, maintain and build connections between one another, and ensure communication occurs in an open and transparent forum.

### 2. MARKETING OF THE COMMUNITY FOOD SYSTEM

Key Finding: In all areas of the food system, marketing was a challenge for stakeholders. Without marketing opportunities, producers and entrepreneurs lose business opportunities needed to maintain and expand their business.

### 3. AN INCREASED INTEREST IN FOOD SYSTEMS

Key Finding: In recent years, citizen and community leaders have shown increased interest and active participation in the community food system. While certainly a positive issue to have, stakeholders are unsure of how to involve themselves in the system to create meaningful change.

### 4. TRAINING FOR A FOOD SYSTEM WORKFORCE

Key Finding: Expansion of the community food system has potential for new jobs, and as a result will require a skilled workforce. In particular, initiatives such as shared-use processing facilities and aggregation centers require a workforce trained to use specific equipment and in food safety.

## 5. LOSS OF FARMLAND AND FARMERS

Key Finding: The amount of farmland in the region is decreasing, and the average age of farmers is increasing. Producers also noted that the inability to find farm labor prevented expansion. A sustainable community food system requires the continued preservation of existing farmland, training of new farmers and access to farm labor.

## 6. GROWTH OF URBAN AGRICULTURE

Key Finding: Community gardening is the primary form of urban agriculture occurring in Forsyth County. With a very strong community garden system, potential exists to expand urban agriculture to urban farms. Urban farms connected to institutions, government agencies, and individual organizations can provide training opportunities for new farmers, education experiences for students, and a new means of food access.

## 7. GROWTH OF SMALL FOOD BUSINESSES & ENTREPRENEURS

Key Finding: Community food systems as an economic development tool rely on their ability to foster entrepreneurship of small food businesses. In Forsyth County, residents have the option to process low-risk food products in the home, but facilities for processing, packaging, and labeling high-risk foods are not available for small businesses.

## 8. LACK OF POULTRY PROCESSING FOR SMALL AND MID-SIZE PRODUCER

Key Finding: The majority of poultry product sales originate from large-scale poultry farms, and poultry products do not necessarily stay in Forsyth County. Other than slaughtering and processing poultry on the farm, convenient options do not exist for small or mid-size poultry farmers.

## 9. ACCESS TO DISTRIBUTION NETWORKS

Key Finding: Distribution networks help farmers reduce the time they spend

marketing their products and allow them to reach markets requiring larger volumes than they produce individually. However, the current food system does not readily provide options scaled for small and mid-size producers.

## 10. SALES TO LOCAL RESTAURANTS AND INSTITUTIONS

Key Finding: Producers and restaurants/institutions desire to form business relationships with one another, however the current system presents some challenges to making this a reality. Restaurants and institutions have specific needs for quantity, variety, and delivery, which often require extra planning on the part of the farmer; by addressing these challenges, restaurants and institutions serve as a strong market opportunity for producers.

## 11. COORDINATION OF FARMERS' MARKETS

Key Finding: Overall the number of farmers' markets in Forsyth County is a benefit. It implies more venues for producers to sell and an increased potential for consumers to access local foods. However, it also presents some challenges. Markets are time consuming for producers to attend, and often operate at hours that are difficult for consumers to attend.

## 12. CONSUMER KNOWLEDGE & VALUE OF LOCAL FOODS

Key Finding: Interviews with food system stakeholders suggest increasing community knowledge of the food system to convey the value of local foods. Many consumers are removed from farming and lack awareness of the benefits of eating locally grown goods, what products are grown in the region, and the seasonality of fresh produce.

## 14. ACCESSIBILITY OF LOCAL FOODS

Key Finding: The ability for all residents to have access to fresh, healthy local foods is an issue that needs to be addressed. Currently, many residents do not have the opportunity to purchase local foods. They may lack knowledge on the benefits of local foods, not have easy access to retailers that sell these foods or not be able to afford them.

## Opportunities for Community Action

Based on the results, the following twenty-four opportunities for community action were identified.

### OPPORTUNITIES FOR COMMUNITY ACTION

System Infrastructure	<ol style="list-style-type: none"> <li>1. Develop a Community Food System Consortium</li> <li>2. Create a Community Food System Coordinator Position</li> <li>3. Explore Local Food Directory Options</li> <li>4. Examine Branding Opportunities</li> <li>5. Provide Food System Training Opportunities</li> <li>6. Develop Job Training Programs for Food Related Businesses</li> </ol>
Production	<ol style="list-style-type: none"> <li>7. Expand the Piedmont Farm School</li> <li>8. Adopt a Farmland Preservation Plan</li> <li>9. Promote Internship Referral Services</li> <li>10. Expand the Community Garden Resource Program</li> <li>11. Amend the Unified Development Ordinance</li> <li>12. Develop Policy for Use of City and County Land/Resources for Urban Agriculture</li> </ol>
Processing	<ol style="list-style-type: none"> <li>13. Complete a Feasibility Study for the Development of a Shared-Use, Processing Facility</li> <li>14. Promote Existing Entrepreneurial Resources</li> <li>15. Work Regionally to Explore Need for a Mobile Poultry Processing Facility</li> </ol>
Distribution	<ol style="list-style-type: none"> <li>16. Strengthen and Expand Food Hubs Serving Forsyth County</li> <li>17. Promote Good Agricultural Practice (GAP) Certification</li> <li>18. Educate Farmers and Chefs</li> <li>19. Establish Institutional Purchasing Policy</li> <li>20. Convene a Farmers Market Association</li> </ol>
Consumption	<ol style="list-style-type: none"> <li>21. Launch a Consumer Education Campaign</li> <li>22. Introduce Local Food Sales to Convenient Stores</li> <li>23. Research and Establish Mobile Markets</li> <li>24. Streamline Process of Accepting SNAP/EBT at Farmers' Markets</li> </ol>

# INTRODUCTION

Food is a community issue that impacts the economic well-being, health, safety, and overall quality of life of all residents. The manner in which food is produced, processed, distributed, and consumed comprises a food system. Post World War II, this system shifted from a primarily local network of producers to a complex national and global system.<sup>1</sup> Following national trends, North Carolina experienced a 56 percent decrease of acreage in farmland from 1950 to 2007.

In recent years, communities have started to explore the benefits of supporting and maintaining a community food system. Some of the potential benefits of a community food system include:<sup>2</sup>

- | Sustainability of farms
- | Creation of new jobs and workforce
- | Generation of a **local multiplier effect\***
- | Accessibility of fresh and nutritious foods
- | Preservation of farmland
- | Development of **social capital**
- | Improvement of environmental quality

In North Carolina, this is occurring at both the state and local level. In 2010, the Center for Environmental Farming Systems (CEFS) released a statewide action guide entitled, *From Farm to Fork: A Guide to Building North Carolina's Sustainable Local Food Economy*. The goal of this action guide is to enhance local food systems throughout North Carolina. The recommendations of *From Farm to Fork* emphasize a commitment at the state, regional and local levels to establishing a strong, "sustainable local food economy in North Carolina."<sup>3</sup> The state has also established the Sustainable Local Foods Advisory Council address policies impacting local food production and consumption.

In Forsyth County, various efforts demonstrate a renewed interest in local foods,

*\*Definitions of bolded terms are found in Appendix A.*

including the growth of farmers markets, community gardens, buying co-ops, and local food advocacy groups. While these efforts demonstrate an interest in eating locally in Forsyth County, the current and potential social and economic impacts on the community are not yet clear. In part, realizing this impact requires a greater understanding of the role of local foods in Forsyth County and the region. Through the following study, Forsyth Futures expects to deepen the understanding of the economic and social impact of the increased production and consumption of local foods in Forsyth County.

**Study Area:** For the purpose of this study, local food is defined as, "fruits, vegetables and livestock that are produced, raised, or processed within Forsyth County and the seven surrounding counties." The community food system consists of producers, processors, and distributors that serve Forsyth County, and the outlets through which consumers in Forsyth County purchase local food. Because a high portion of local foods consumed in Forsyth County are produced in surrounding counties as well as Forsyth, the decision was made to include food produced in the seven surrounding counties. Figure 1 depicts the project study area.

FIGURE 1. Project Study Area



## VISION, GOALS & OBJECTIVES

Forsyth Futures envisions a community food system that is economically, socially, and environmentally sustainable, by promoting a strong local food economy, ensuring producers and food system workers a fair and sustainable livelihood, and providing all communities with access to fresh and healthy foods.

The goals of the study are to provide an objective assessment of the current community food system in Forsyth County, and to serve as a catalyst to maximize the impact of local foods. Forsyth Futures aims to accomplish these goals through the following four objectives:

1. Identify the elements of the local food system in Forsyth County and surrounding counties.
2. Understand the challenges and successes of the current local food system.
3. Provide examples of successful food system elements in comparable communities.
4. Highlight opportunities to expand the positive impact of local foods.

## METHODOLOGY

To provide a comprehensive picture of Forsyth County's food system, Forsyth Futures incorporated a variety of methodologies. The U.S. Census of Agriculture, conducted by the United States Department of Agriculture (USDA) every five years, was the primary source for agricultural statistics in the region. The most recent Census of Agriculture was completed in 2007\*. Forsyth Futures analyzed census data from 1997 through 2007 to understand agricultural trends.

While data from the Census of Agriculture provide a general picture of agriculture in the region, primary data provide a better understanding of the views of stakeholders. Forsyth Futures contracted with The Center for Environmental Farming Systems (CEFS) to assist with the collection and analysis of primary data.

### *Data Collection Methods*

**Interviews:** The CEFS team interviewed 51 stakeholders in the categories of economic development, production, direct-market distribution, food service, and access to local food. The individuals interviewed were recommended by Forsyth Futures and Forsyth County Cooperative Extension. Forsyth Futures completed three additional interviews of community gardeners in Forsyth County, for a total of 54 stakeholder interviews.

**Focus Groups:** CEFS conducted two focus groups, the first to gather comments on access to local foods, and the second to hear from local producers. Eight individuals attended the focus group on access, and three attended the producer focus group. Forsyth Futures conducted a third focus group with community gardeners from Forsyth County; four community gardeners attended.

**Surveys:** As an additional tool to understand the views of stakeholders CEFS distributed an online survey to 108 individuals and received 45 completed surveys.\*\* Almost half of the individuals who completed the survey were also interviewed over the phone or in person. Forsyth Futures also distributed a second consumer survey to residents of Forsyth County to better understand potential changes to the system that would encourage residents to purchase more local foods.

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*\*In general, the Census of Agriculture is recognized as the source for agricultural statistics, however there are some limitations to the Census. The National Agricultural Statistics Service (NASS) defines a farm as an "operation that produces, or would normally produce and sell, \$1,000 or more agricultural products per year."<sup>4</sup> This means that very small farms and/or hobby farms are not captured in the Census. At the moment the Census of Agriculture is the most extensive source for providing a picture of the amount of agricultural production, current agricultural operations, and economic benefit of agriculture.*

*\*\* Given the small sample size and sampling method, tests of statistical significance were not done, but instead this data is meant to reinforce information collected from the interviews and focus groups.*

Finally, a policy analysis of current regulations and ordinances provided an awareness of how current policies impact the community food system. The Winston-Salem Sustainability Resource Center assisted with completion of the policy analysis and provided policy recommendations.

The following compilation and analysis of data on the Forsyth County community food system presented a picture of where the system is excelling and where there are gaps. They form the basis for the final recommendations.

### *Community Food System Inittiascape®*

To gain a deeper understanding of current initiatives promoting the community food system in Forsyth County, Forsyth Futures completed an Inittiascape® study. Forsyth Futures developed, and copyrighted, the Inittiascape® concept as an information tool that allows the community to analyze what programs are currently working on an initiative, and determine connections between programs.

The term Inittiascape® is the combination of the words initiative and landscape because the result is a depiction of the landscape of a community’s initiatives (i.e., programs, campaigns, coalitions, etc.).

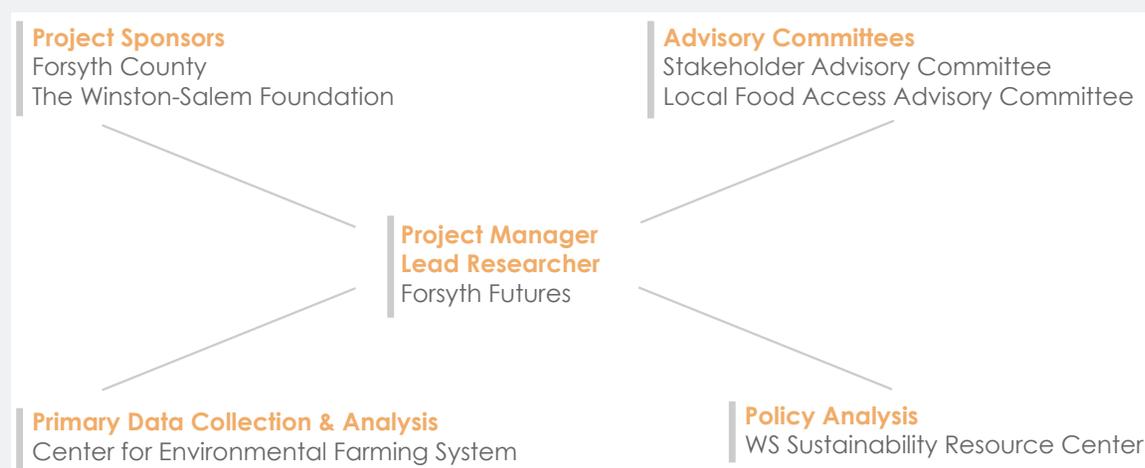
Forsyth Futures has the following intentions for the Community Food System Inittiascape®:

- ▮ Map the landscape of community food system initiatives/programs
- ▮ Promote an understanding of the current scope of initiatives
- ▮ Break down the efforts involved in an initiative by programs
- ▮ Assist community conversations shift towards strategic actions

The results from the Inittiascape® study add to the analysis of the current community food system, and they help guide recommendations for enhancing the system.

**Assessment Team:** To ensure a comprehensive analysis of the community food system, Forsyth Futures formed a research team to assist with various aspects of the project. Along with CEFS, the Winston-Salem Sustainability Resource Center provided a policy inventory and analysis. In addition to the research partners, two advisory committees were formed to provide guidance and oversight of the study process. Forsyth County and The Winston-Salem Foundation granted funding to assist with completion of the study. Figure 2 identifies the partners and their roles in the local food system study.

**FIGURE 2. Community Food System Assessment Team**

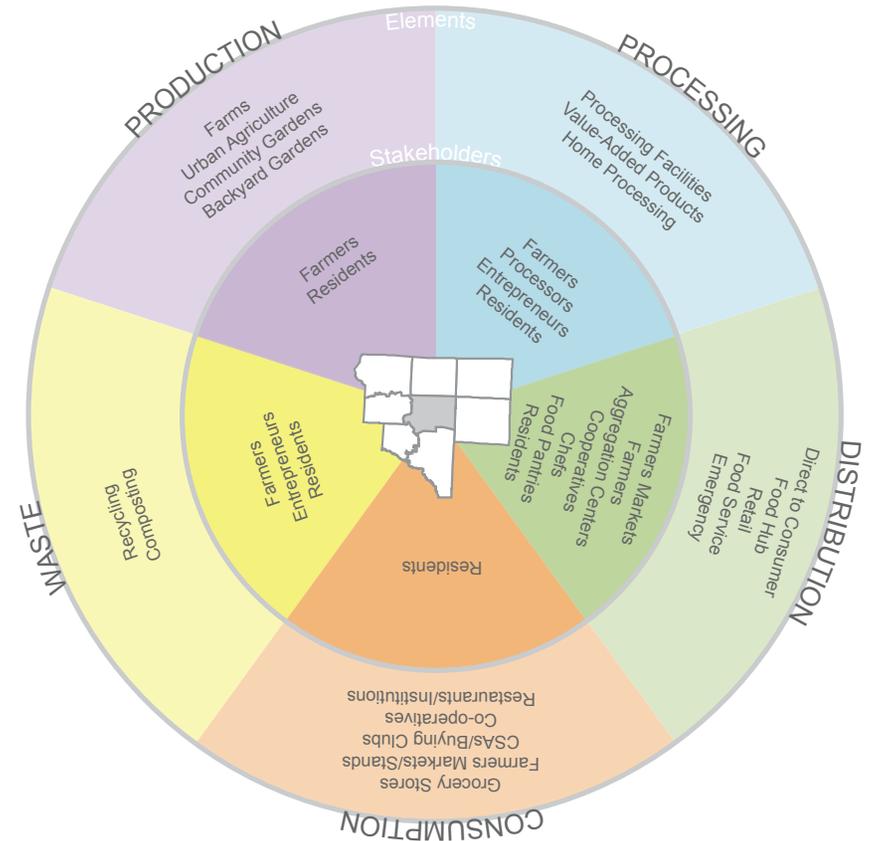


## UNDERSTANDING THE FOOD SYSTEM

A food system is highly dynamic, consisting of numerous components and influenced by social, political, economic, and environmental factors. In general, the term “food system” refers to the cycle and elements of food creation that keep communities fed. Food systems can encompass a local, regional, or global span. For the purposes of this assessment, the food system in question is the community food system; a system in which the elements are connected and promote the economic, social, nutritional, and environmental health of a community. A focus of the food system at a community level reinforces the goal to build a prosperous and just food system through relationships and connections.<sup>5</sup>

A community food system is traditionally broken down into five main categories: Production, Processing, Distribution, Consumption, and Waste. Within these categories are various elements and stakeholders that contribute to the system. Figure 3 describes the elements, and stakeholders of each category.

FIGURE 3. Components, Elements and Stakeholders of a Community Food System



THE FORSYTH COUNTY COMMUNITY FOOD SYSTEM CONSISTS OF PRODUCERS, PROCESSORS, AND DISTRIBUTORS THAT SERVE FORSYTH COUNTY, AND THE OUTLETS THROUGH WHICH CONSUMERS PURCHASE LOCAL FOODS.

## IMPACT OF A COMMUNITY FOOD SYSTEM

Food systems are an inherent part of communities; however the positive or negative impacts of community food systems vary based on individual elements. A strong community food system incorporates elements that: <sup>6</sup>

- | Improve the ability to produce raw and value-added agricultural products locally.
- | Boost the local economy and economic opportunities for residents.
- | Increase the opportunities for healthy eating and a healthier population.

Table 1 demonstrates the impacts a strong community food system could have in the areas of economic development, health, and food security. The following chapters demonstrate how the food system currently impacts Forsyth County. The report concludes with recommendations to cultivate a local, just and sustainable community food system. Recommendations focus on maximizing the impact of local foods on economic development, health, and **food security**.

TABLE 1. Impacts of a Strong Community Food System

ECONOMIC DEVELOPMENT	Farmer Sustainability	With support from a community food system and an increase in the purchase of local foods, farmers are more likely to retain dollars spent on food. Direct-to-consumer sales provide the highest retention of food dollars by eliminating the “middleman.”
	Increased Entrepreneurship	A well-developed food system infrastructure provides the opportunity for growth of established businesses and the addition of new food businesses.
	Job Growth	As farm operations and food businesses expand, the need for labor also increases. This also includes the support infrastructure of community food systems, such as shared-use processing facilities and food hubs.
	A Local Multiplier Effect	An increase in producing, processing, and purchasing food locally leads to an increase in dollars that stay in the community. Each dollar spent locally has a greater multiplying impact than dollars spent outside of the system. <sup>7</sup>
HEALTH	Improved Nutrition	Along with consumer education on the benefits of eating fresh produce and how to prepare healthy meals with fresh fruits and vegetables, an increase in the availability of local foods will potentially encourage residents to maintain a nutrient rich diet.
	Decrease in Certain Chronic Diseases	As an indirect impact, a shift in dietary habits could lead to a reduction in chronic diseases related to obesity or poor nutrition.
FOOD SECURITY	Food Access	Access to healthy foods not only means an increase in production, but also a shift in distribution of local food and a consideration of affordability. A strong community food system contains various options for production, purchasing, and cost to provide all residents access to fresh, healthy foods. Community gardens are one element of a food system that offers the potential to reach a range of individuals.

Source: Community food system impacts derived from the USDA’s report *Local Food Systems: Concepts, Impacts, and Issues May 2010*

## END NOTES

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<sup>1</sup> Martinez, Steve, et al. (2010) *Local Food Systems: Concepts, Impacts, and Issues*, ERR 97, U.S. Department of Agriculture, Economic Research Service.

<sup>2</sup> Ibid. p42-49.

<sup>3</sup> Curtis, Jennifer, et. al. (2010). *From Farm to Fork: A Guide to Building North Carolina's Sustainable Local Food Economy*, a Center for Environmental Farming Systems report, Raleigh, N.C.

<sup>4</sup> United States Department of Agriculture. (2007) *National Agricultural Statistics Service, Appendix A. Census of Agriculture Methodology*. U.S. Census of Agriculture..

<sup>5</sup> Wilkins, Jennifer, & Eames-Sheavly, Marcia. (2003) A Primer on Community Food Systems: Linking Food, Nutrition, and Agriculture. *Discovering the Food System*. Accessed October 25, 2012 from Cornell University Department of Horticulture. Ithaca N.Y. <http://www.discoverfoodsys.cornell.edu/>

<sup>6</sup> Bendfeldt, E. S., Walker, M., Bunn, T., Martin, L., & Barrow, M. (2011) *A Community-Based Food System: Building Health, Wealth, Connection, and Capacity as the Foundation of Our Economic Future*. Developed for the Martinsville/Henry County Region.

<sup>7</sup> The Multiplier Effect of Local Independent Business Ownership. American Independent Business Alliance. Accessed 7 December 2012. <http://www.amiba.net/resources/multiplier-effect>.

# FORSYTH COUNTY'S COMMUNITY FOOD SYSTEM

**T**o increase the positive impacts of producing and consuming local foods, it is necessary to understand the current community food system for Forsyth County. The following sections examine each component of the community food system and its impact.

- | **Production:** The process of growing crops and/or raising livestock on farms and in gardens.
- | **Processing:** Transforming or adding value to raw agricultural products through preserving, baking, cooking, or packaging.
- | **Distribution:** The channels for moving raw and processed food products to markets and consumers.
- | **Consumption:** The ability to obtain and use local food products.
- | **Waste:** The process of disposing unconsumed food products

Each section presents a snapshot of related data, case studies on efforts to enhance elements of the system, and a description of policies impacting each component.

This chapter also contains the results from the InItiascape<sup>®</sup> analysis to provide a knowledge of what initiatives are currently active in the food system. The initiatives studied in this analysis are designed to enhance the capacity to produce and consume local foods in Forsyth County.

Finally, the chapter ends with an analysis of the economic value of the consumption of local foods for Forsyth County. The section gives an overview of the current impact of locally produced foods and an exploration of the potential impact on the economy.

## REPORT HIGHLIGHTS

- | **Between 1997 and 2007 the amount of farmland in the Forsyth County community food system has decreased by over 100,000 acres.**
- | **The average age of farm operators in the Forsyth County region is 58.**
- | **In 2007, vegetables for sale were harvested on at least 2000 acres of cropland in the region.**
- | **The most commonly harvested vegetable in the region is sweet corn, and strawberries are the most common berry grown.**
- | **In the fall of 2012, the Community Garden Resource Program identified almost 100 active community gardens in Forsyth County.**
- | **Over 100 businesses in Forsyth County have inspected and registered kitchens for home processing.**
- | **Forsyth County had 11 farmers' markets operating in 2012.**
- | **A challenge for small and mid-size farmers in working with distributors and institutions is the need for Good Agricultural Practices (GAP) training and/or certification.**
- | **Residents responding to a consumer survey indicate that a greater selection of local food in grocery stores will encourage the purchase of more locally produced foods.**
- | **Over 60 programs in Forsyth County are working to increase the production and consumption of local foods.**
- | **In 2007, an estimated \$2.3 million worth of local produce and meats were sold directly from producer to consumer. Residents responding to a consumer survey indicate that a greater selection of local food in grocery stores will encourage the purchase of more locally produced foods.**

# PRODUCTION

The production category of the food system includes crop production and/or raising of livestock and **community gardens**. Existing agricultural production occurs primarily on the fringe in unincorporated areas of Forsyth County. In addition to agricultural products grown and raised in Forsyth County a lot of local food products originate in the counties surrounding Forsyth. In municipalities, agricultural production occurs in community and backyard gardens.

## KEY RESULTS

### Farm Characteristics

#### Farmland

Data from the U.S. Census of Agriculture indicates that the number of farms and farmland in the Forsyth County food system is shrinking. To maximize production and consumption of local foods, it is important that these trends are reversed.

- As of the 2007 Census of Agriculture, an estimated 729,247 acres of farmland existed on 7,418 farms in the project study area. Approximately 1/3 of the farm acreage is dedicated to **harvested cropland**.
- Since 1997, the number of farms in the study area have decreased by 10 percent, and the amount of farmland has decreased by 15 percent, slightly higher than North Carolina as a whole.

BETWEEN 1997 AND 2007 THE AMOUNT OF FARMLAND IN THE FORSYTH COUNTY COMMUNITY FOOD SYSTEM HAS DECREASED BY OVER 100,000 ACRES.

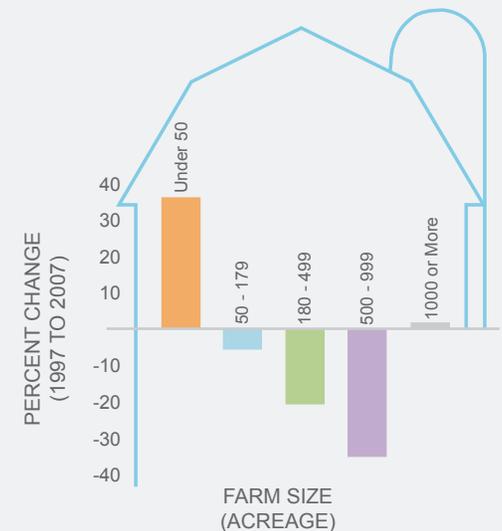
#### Farm Size and Type

The trend for farm operations in the Forsyth County food system is moving towards smaller, family-owned and operated farms. This type of farm presents a possibility to increase sales of local produce and meats directly from producers to consumers.

- The majority of farms in North Carolina - approximately 85 percent - are considered **small family farms**. In the Forsyth community food system, this trend is more apparent; almost 94 percent of farms are classified as small family farms.
- In 2007 the average size of farms in the region had dropped 10 percent over 10 years, from 109 acres to 99 acres.
- In the study area, farm operators primarily own the land they farm. An estimated 66 percent of operators own all of the land they farm; an additional 30 percent own a portion of the land.

**FIGURE 4. Percent Change in Number of Farms by Size** demonstrates the change in the number of farms by acreage from 1997 through 2007.

The most significant change occurred among farms under 50 acres, increasing by approximately 36 percent, and those between 500 and 999 acres, decreasing by 35 percent.



Source: U.S. Census of Agriculture, National Agricultural Statistics Service, United States Department of Agriculture (1997 - 2007)

## Labor

### *Operator Demographics*

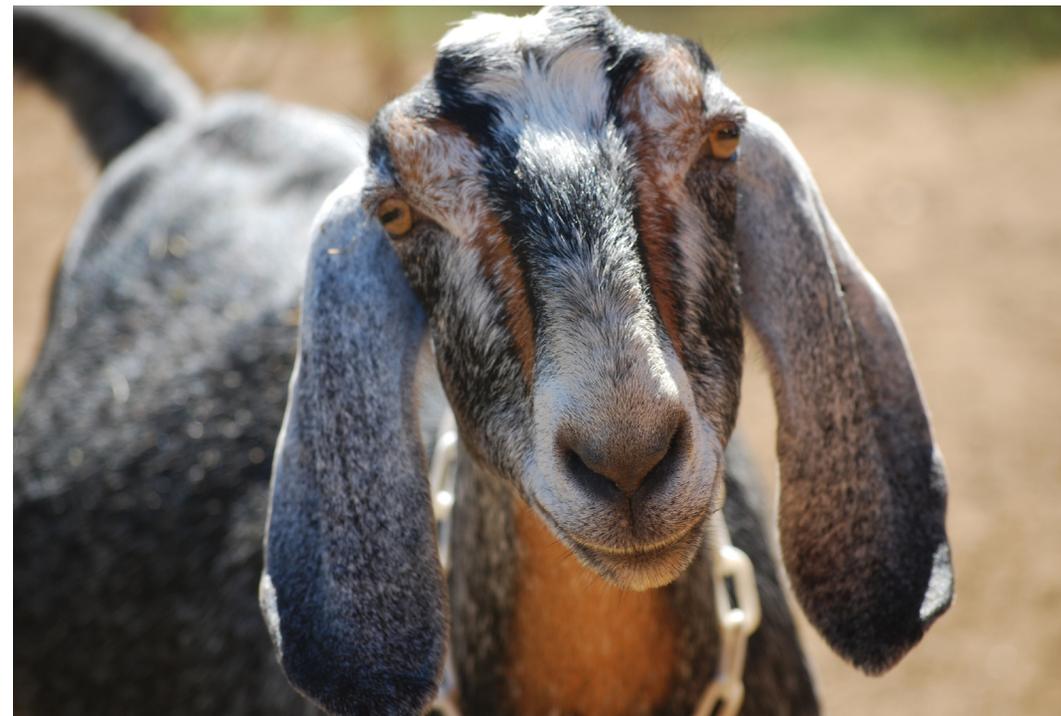
The Forsyth County food system faces a challenge in line with state and national trends. As **farm operators** age and look towards retirement, fewer new farmers are entering the market.\* Minority populations, including Black/African-Americans, Hispanic/Latinos, and women, are not well represented as principal operators in the farming industry.

- | In 2007 the average age of farm operators in North Carolina was 57, and 58 in the Forsyth County food system. Ten years earlier the average age of farm operators was 55 in both North Carolina and the study region.
- | The number of young farmers in the Forsyth region is declining. Farmers under the age of 35 decreased by almost 50 percent between 1997 and 2007, while the number of farmers ages 55 to 69 increased by 7 percent.
- | On average, farmers have spent 22 years on their current farms. The number of farmers on the farm less than five years decreased by 14 percent between 1997 and 2007. In 2007, only 10 percent of farmers had started their farm within the last five years.

{ IN 2007 ONLY 13% OF PRINCIPAL FARM OPERATORS WERE WOMEN, 1% WERE BLACK/AFRICAN-AMERICAN, & 0.8% WERE HISPANIC/LATINO. }

\* Current initiatives in the region are working to reverse this trend, and since the 2007 Census of Agriculture, agricultural agency officials report an increased interest in establishing small farms. For more information on a few of these initiatives, see page 10.

- | In the Forsyth County food system only 1 percent of **principal farm operators** are Black/African-American. This is less than North Carolina as a whole where 3 percent of principal operators are Black/African-American.
- | Principal farm operators who reported their ethnicity as Hispanic or Latino operate 0.8 percent of farms in the region.
- | Between 1997 and 2007, the number of women principal operators increased by almost 50 percent, from 645 to 956. Still the percent of women principal operators was only 13 percent in 2007.



### Labor Characteristics

Access to labor is a key component of growing a farm operation and entering into new markets. In the current Forsyth County food system, finding trained labor presents a challenge to producers and prevents efforts of expansion. Increasing access to trained and skilled farm workers provides farmers the opportunity to increase production, allow for entrance into new retail markets, and expand the job market for Forsyth County residents.

Equally important to increasing access to labor is providing a fair wage for farm workers. The increase of trained farm labor and assistance on the farm allows farm principal operators more time to expand operations and sales, potentially increasing the ability to pay higher wages.

- | In 2007, an estimated 1500 farms in the Forsyth County region employed **hired farm labor**; approximately 20 percent of all farms in the system.
- | Of farms that did employ hired labor, half hired only one or two workers. Additionally, the majority of workers are seasonal, as 68 percent work less than 150 days a year.
- | The previous numbers are supported by interviews with producers. Farmers interviewed primarily rely on family and sometimes friends or volunteers for labor. For small farmers, finding and training staff is often expensive and time consuming.
- | For the Winston-Salem and the Greensboro-High Point Metropolitan Statistical Areas (MSA), an estimated half of farm workers on cropland make less than \$10 an hour,\* slightly higher than the North Carolina median wage of \$9 dollars an hour.

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*\* The Winston-Salem MSA is comprised of Forsyth, Davie, Stokes, and Yadkin counties. The Greensboro-High Point MSA is comprised of Guilford, Rockingham, and Randolph counties. Data for the two MSAs offer the closest estimate of wages in the Forsyth County food system at this time. Data for Davidson and Surry counties are currently not available. Wage data are also only available for crop, nursery, and greenhouse workers, but not for ranch workers.*

## BEGINNING FARMER INITIATIVES

As noted, farm operators are aging and the number of farms are decreasing. Farmers in the Forsyth County food system struggle with finding labor for production and harvesting. The training of new and beginning farmers and access to labor are key components of a successful community food system. Several initiatives in North Carolina have developed programs and initiatives to address these issues.

### The Piedmont Farm School

The North Carolina Cooperative Extension Service (a partnership between N.C. State University, N.C. A&T State University, and the USDA) developed the Piedmont Farm School to address the issue of new farmer recruitment and training. The Piedmont Farm School is geared towards individuals considering or currently involved in farming and aims to increase the number of local producers and the quantity of local produce within the Piedmont region. The curriculum offers seven business-planning seminars that focus on building successful business plans for a small-scale, economically sustainable farm enterprises. It divides training sessions by alternating between business training and field trips to local farms. The school welcomes students from Davidson, Davie, Forsyth, Guilford, Iredell, Montgomery, Randolph and Rowan counties.

<http://davidson.ces.ncsu.edu/2012/10/2013-piedmont-farm-school/>

### Farmer Internship Programs

The Center for Environmental Farming Systems (CEFS) and Carolina Farm Stewardship Association (CFSA) offer opportunities for new and beginning farmers to intern and learn at a working farm. CEFS operates a summer internship program at a 2,000-acre research farm in Goldsboro, N.C. This program provides an educational opportunity for students interested in sustainable agriculture systems. Through the USDA's Beginning Farmer and Rancher Development Program, CFSA created the Growing Green Farmers initiative and provides an on-line Internship Referral Service. The goal of the Internship Referral Service is to link sustainable farms across North Carolina with new and beginning farmers.

<http://www.cefs.ncsu.edu/whatwedo/academic.html>

<http://www.carolinafarmstewards.org/growing-green-farmers/>

## PRODUCTION CHARACTERISTICS

### *Crop Production*

Similar to state and national trends, the primary crops produced in the Forsyth County food system are field crops. However, a few vegetable and fruit crops have a strong presence in the region.

- | In 2007, over 250,000 acres of farmland were dedicated to harvesting cropland. Over half of harvested cropland is dedicated to the production of field crops (e.g. corn for grain, soybeans, wheat, tobacco). For the study region, most of harvested cropland acreage is dedicated to soybeans.
- | Vegetables for sale were harvested on at least 2000 acres of cropland in 2007. Table 2 (found on page 12) shows the 10 most common vegetables produced in the Forsyth County food system. Sweet corn has the most acreage.
- | The majority of vegetables produced are harvested for the fresh market, versus for processing.
- | While fruit only makes up a small portion of harvested cropland in the region, some production comes from orchards and berries. Grapes are overwhelmingly the highest produced fruit in the region. Almost 84 percent of land in orchards is dedicated to grapes.\* Strawberries are the most common berry present in the study region, with more than 150 acres in production.

*\*This is most likely attributed to the strong presence of vineyards in the Piedmont region.*

### *Livestock Production*

Poultry processing characterizes livestock production in the region. The data indicates that raising of poultry occurs on **vertically integrated farms** contracted with chicken-processing corporations.<sup>1</sup> As a result, it is difficult to estimate how much of the poultry raised for meat remains local. Due to the costs associated with raising and processing dairy cows and products, the dairy industry in Forsyth County experienced a considerable decrease.

- | While a variety of livestock are raised in the Forsyth County food system (poultry, cattle, hogs/pigs, goats, and sheep/lambs) almost 98 percent of total livestock is poultry.
- | In 2007, approximately 74 percent of the poultry raised for production were broiler chickens, raised for meat production. Over half of farm operations raising broiler chickens sell more than 200,000 broilers a year.
- | In contrast, 80 percent of farms raising layers (poultry raised for table-eggs or for hatching) have an inventory of less than 50.

{ STRAWBERRIES ARE THE MOST COMMON BERRY PRODUCED IN THE STUDY REGION, WITH MORE THAN 150 ACRES IN PRODUCTION. }

- In the study region, beef cattle are more prominent than dairy cows. Of all farms raising cattle, only about 3 percent have dairy cows; 36 percent have beef cattle. Most other farms with cattle raise steer, calves, bulls, and heifers that have not calved.
- Between 1997 and 2007, the number of farms with dairy cattle dropped by almost 64 percent in the state of North Carolina and the Forsyth County region, almost two times greater than the decrease in beef cattle over the same time period.
- Of respondents to the stakeholder survey, 70 percent feel that the supply of meat products do not meet the current demand; 59 percent feel local dairy products do not meet demand. A majority of respondents also stated that the existing supply is difficult to find.



TABLE 2. Most Common Agricultural Products Harvested in 2007, by Acreage

TYPE OF VEGETABLE	ACRES	TYPE OF FIELD CROPS	ACRES	TYPE OF ORCHARDS	ACRES	TYPE OF BERRY	ACRES
<b>Total Vegetables Harvested</b>	<b>2,015</b>	<b>Total Field Crops</b>	<b>N/A</b>	<b>Total Orchards</b>	<b>1,780</b>	<b>Total Berries</b>	<b>356</b>
Sweet Corn	681	Soybeans for Beans	53,674	Grapes	1,494	Strawberries	168
Watermelons	199	Corn for Grain	37,666	Apples	94	Blueberries, All	38
Tomatoes	183	Wheat for Grain	20,942	Nuts, All	83	Blackberries/Dewberries	7
Beans	156	Tobacco	18,390	Peaches, All	75		
Potatoes	128	Rye for Grain	9,277	Pecans, All	23		
Pumpkins	93	Barley for Grain	2,838	Pears, All	5		
Cantaloupes	90	Oats for Grain	983	Other Non-citrus	3		
Cucumbers/Pickles	81	Sorghum for Grain	373	Plums and Prunes	1		
Sweet Potatoes	63						

Source: 2007 U.S. Census of Agriculture, National Agricultural Statistics Service, United States Department of Agriculture

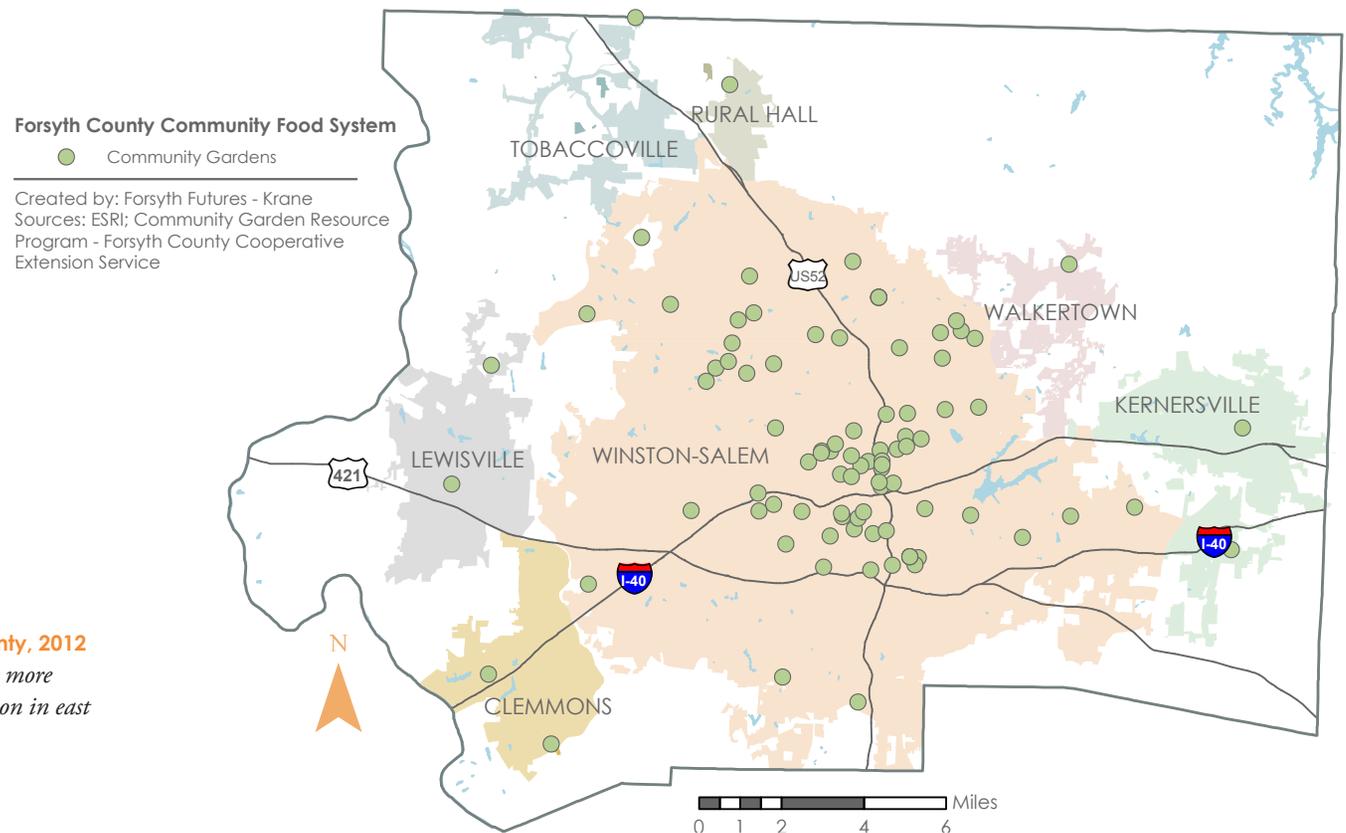
## COMMUNITY GARDENS

Community gardening is another key element in the production category of a food system. For the purpose of this study, community gardens are defined as an active produce garden organized and maintained by a group of gardeners for the benefit of the community.<sup>2</sup> Over the last three years, Forsyth County experienced the development of a strong community garden system that provides fresh produce to County residents.

- Based on interviews, reasons for starting a community garden include providing healthy food to those without access, educating children about where food

comes from, and building community relationships. Faith-based organizations, schools, neighborhood organizations, and non-profits are all among groups planting gardens in Forsyth County.

- In the fall of 2012, the Community Garden Resource Program, through Forsyth County Cooperative Extension Service, identified almost 100 active community gardens in Forsyth County. This is an increase of 42 gardens in the county since community gardens were first identified in the *Community Garden and Farmers' Market Study* from 2010.
- While community gardens are thriving, focus group and interview participants indicated that the cost of a water hook up was a significant challenge.



**FIGURE 5. Community Gardens of Forsyth County, 2012**  
*The majority of community gardens are located in more urban areas of the county, with a high concentration in east Winston-Salem.*

## COMMUNITY GARDENING INITIATIVES

Community gardens serve an important role in neighborhoods by establishing a tool for community building, educational opportunities and healthy recreational activities for youth, and providing an affordable source of fresh produce. Forsyth County has a rich history of community gardening with the first community gardens dating back to the late 1700s in Historic Bethabara.<sup>3</sup> Entities in Forsyth have recognized the importance of community gardens and established programs and research to strengthen the community garden system.

### Community Garden & Farmers Market Study

In 2010, the Wake Forest University Translational Science Institute Program in Community Engagement released the report *Community Gardens and Farmers' Markets*. This report identified community gardens and farmers markets located in Forsyth County and examined some of the challenges facing local community gardens. The report also provided a list of recommendations for growing the community garden system, some of which are now taking place in Forsyth County. Two recommendations were to provide needed infrastructure for establishing and expanding gardens and to document the amount of produce grown and distributed in the community. These recommendations are carried out through the development of the Community Garden Resource Program within Forsyth County Cooperative Extension Service.

<http://tsi.wfubmc.edu/index.cfm/for-researchers/about-the-tsi/news-announcements/>

### Community Garden Resource Program

In an effort to support and grow community gardens in Forsyth County, the Forsyth County Cooperative Extension Service, with funding from the Winston-Salem Foundation, established the Community Garden Resource Program. The program supports new and established gardens through a network of community gardens and provides gardens with shared resources, classes, advice, and mentorships. The Resource Program also provides an opportunity for gardens to donate fresh produce to food pantries located throughout the county and gives gardeners resources to help them track how much they are producing and donating.

<http://www.forsythcommunitygardening.com>



## POLICIES & REGULATIONS

Policies and ordinances governing agricultural production exist at the federal, state and local levels. In Forsyth County, the primary ordinances regulating production of agricultural products are **Unified Development Ordinances (UDO)** that define zoning and land use regulations, and county and municipal codes. Below are a few key policies currently impacting the Forsyth County community food system.

**Reduced Tax Assessment:** A farm with a minimum of 10 acres in crop production, that meets ownership and income criteria classifies as a ‘bona fide farm’ and can qualify for a reduced property tax assessment.<sup>4</sup> This applies to farms in unincorporated areas of the county as well as municipalities.<sup>5</sup>

**Zoning Districts:** Through zoning ordinances the Winston-Salem/Forsyth County City Planning Board regulates development that occurs in the County. The growing and selling of produce is a permitted accessory use in all residential districts in the county and a permitted principal use in agricultural zones.<sup>6</sup> Currently, it is unclear if land in a municipality could have agricultural production as a principal use.<sup>7</sup> If this is the case, it could present a challenge to urban farming endeavors.

**Livestock Regulations:** Within unincorporated areas of Forsyth County, livestock is allowed as a permitted use. Most municipal codes in Forsyth County follow County regulations on the keeping of livestock. The Town of Kernersville regulates noisy fowl and the City of Winston-Salem permits horses, mules, goats, sheep and cattle with appropriate shelter and setbacks.<sup>8,9</sup> A limited number of hens are allowed in the City of Winston-Salem with appropriate setbacks and/or permitting.<sup>10</sup>

**Legacy 2030:** As the comprehensive planning document for the City of Winston-Salem and Forsyth County, Legacy 2030 provides guidelines for future growth and development of the City and County. Two chapters of Legacy refer specifically to agriculture; Chapter 8, “Healthy, Complete, and Equitable Communities,” and Chapter 12, “Rural Character.” *A complete copy of Legacy 2030 is available at [www.legacy2030.com](http://www.legacy2030.com).*

**Voluntary Agricultural Districts (VAD):** Voluntary Agricultural Districts serve two main purposes: to preserve existing farmland and protect farmers against nuisance suits as residential development occurs. A VAD designation is a nonbinding, 10-year conservation agreement between a farm owner and the county.<sup>11</sup> Except for Tobaccoville, VAD properties are only permitted in unincorporated areas.



# PROCESSING

The production stage of a community system provides raw agricultural products for sale in the fresh market or for further processing. Processing includes all of the elements that add value to or transform an agricultural product through preserving, baking, cooking, or packaging.<sup>12</sup> The processing of raw foods for the marketplace can occur in private processing facilities, at inspected homes, and in licensed, shared-use facilities.

## KEY RESULTS

### Processing Facilities

Processing in facilities includes the slaughtering and processing of meats and poultry, as well as the processing of vegetables and fruits. To ensure food safety facilities are inspected by either the North Carolina Department of Agriculture and Consumer Services (NCDA&CS) or the USDA. While meat producers have several facilities for processing, small and medium poultry producers have few options.

- As of November 2012, Forsyth Futures identified 43 inspected, meat-processing facilities in the Forsyth County food system; 13 of these facilities process meat as a service to farmers, and 5 provide slaughtering services as well.
- Currently, small and mid-size poultry producers do not have an option for poultry slaughtering in the region. Producers can slaughter and process up to 20,000 birds raised on their farm, but this requires additional equipment and labor, as well as packaging and labels, all costly to a producer.<sup>13</sup>

*\* The Piedmont Food and Agricultural Processing Center exists in Hillsborough, NC and serves food businesses within a 75-mile radius; this excludes many of the areas on the western side of the Forsyth County food system.*

OVER 100 BUSINESSES IN FORSYTH COUNTY HAVE INSPECTED AND REGISTERED KITCHENS FOR HOME PROCESSING.

### Home Processing

In certain cases, processing and creating value-added products from raw produce is permitted within the home. Current laws in North Carolina allow for the production and selling of low risk, processed foods (jams and jellies) and baked goods in home kitchens after an inspection by North Carolina Department of Agriculture & Consumer Services.<sup>14</sup> This type of “cottage food” law allows for an increase in food entrepreneurship and an increased market value.

- Over 100 businesses in Forsyth County have registered their home, and had their kitchen inspected, for processing food products. This includes products such as jams, jellies, baked goods, and catering services.

### Shared-Use Facilities

Shared-use facilities, also known as community or shared-use kitchens, provide another opportunity for agricultural processing and development of food-related businesses. A shared-used facility is an inspected kitchen with commercial processing equipment for individuals to store and process raw ingredients, and to package finished products. In many cases, shared use facilities also provide business and marketing assistance to food businesses.<sup>15</sup> A shared-use facility does not exist within the boundaries of the Forsyth County food system.\*

## CASE STUDIES: SHARED-USE FACILITIES

One opportunity for economic growth in the community food system is through a shared-use processing facility. An inspected commercial kitchen open for rental by producers and food entrepreneurs to process raw products for market allows individuals to expand their current businesses or develop start-ups. It is also an opportunity for healthy fruits and vegetables to reach a broader population, as it increases the possibilities to enter institutional and restaurant markets. While a shared-use facility does not exist in the Forsyth County region yet, there are examples of this model in other areas of North Carolina.

### Blue Ridge Food Ventures

Blue Ridge Food Ventures (BRFV), located in Western North Carolina, is a Limited Liability Corporation (LLC) held by AdvantageWest Economic Development Group. It is an 11,000-square foot shared-use kitchen incubator and natural-products manufacturing facility. BRFV specializes in value-added processing projects and is incubating around 60 regular businesses with sales collectively exceeding \$3 million since 2005.<sup>16</sup> In addition to dry storage areas and walk-in coolers and freezers, the facility includes areas for wet, dry, and natural-product preparation. BRFV also offers support in product development, regulatory guidance through the safe production of food products and dietary supplements, and packaging and label-design consulting.

[http://www.advantagewest.com/content.cfm/content\\_id/144/section/food](http://www.advantagewest.com/content.cfm/content_id/144/section/food)

### Piedmont Food & Agriculture Processing Center

The Piedmont Food & Agriculture Processing Center (PFAP), which opened in Hillsborough, N.C. in 2011, is a food business incubator designed to assist new and existing food businesses. While PFAP started as a joint project of four Piedmont counties (Alamance, Chatham, Durham, and Orange), the ultimate goal is to transition the center to a non-profit or similar entity. The mission of the center is to “create a strong base to help launch and grow new food businesses in the Piedmont, focusing on a 75 mile radius in all directions” and accomplishes this through a range of services for entrepreneurs. While commercial kitchen space is one service provided, the center also offers general consultations and training, product development and consultation services, networking, and vendor truck water services. The development of the center was funded by the four counties and grants from numerous foundations and organizations.

<http://www.orangecountyfarms.org/pfap/index.asp>

### Foothills Pilot Plant

Also located in Western North Carolina the Foothills Pilot Plant is a non-profit facility that processes chickens, turkeys, rabbits and ducks. The facility is USDA and FDA inspected. The USDA stamp of inspection means farmers can sell their products across state lines and increase their market potential. It also allows farmers to raise more than the limited number of birds per year allowed for on-site processing. The Foothills Pilot Plant serves a second function by providing minimum wage jobs and job training for inmates at a nearby minimum-security prison.<sup>17</sup>

[http://www.co.forsyth.nc.us/CES/Documents/TSI\\_Study.pdf](http://www.co.forsyth.nc.us/CES/Documents/TSI_Study.pdf)

## POLICIES & REGULATIONS

To ensure food safety and health of individuals, regulations exist requiring the inspection and permitting of processing facilities. All processors in North Carolina who plan to sell processed and prepared food products are required to comply with the Good Manufacturing Requirements set by the federal government.<sup>18</sup> Packaging and labeling are also required to ensure safety, maintain freshness, and provide adequate information of ingredients. The Carolina Farm Stewardship Association has published *Growing Your Local Food Business in North Carolina* to help producers and food businesses understand federal and state processing laws. The following is a synopsis of some of the processing regulations relevant to the Forsyth County food system.

**Low-Risk Foods:** The regulation of food prepared in home kitchens for commercial sale occurs primarily at the state level through “cottage food” laws and inspection requirements. In North Carolina, with an inspection by the NC DA&CS Food and Drug Protection Division, entrepreneurs can process certain low-risk foods, such as jams/jellies, pickles, candies and baked goods in their homes. Completion of a training course on acidified foods processing and packaging is also required for processing these foods in the home.<sup>19</sup>

**High-Risk Foods:** The processing and packaging of high risk foods for sale can not occur in a home-based kitchen, but require a licensed, commercial kitchen. High-risk foods include dairy products, low-acid canned foods, frozen produce, and seafood. Commercial kitchens are inspected by the Food and Drug Protection Division of NC DA&CS.<sup>20</sup> Finding resources for costs associated with acquiring and maintaining the space and equipment for a commercial kitchen is challenging for start up and small food businesses. An inspected and certified shared-use processing facility provides opportunities, that would not otherwise exist, for these food entrepreneurs.

**Meat and Poultry:** The inspection and selling of meats and poultry **intra-state** and across state lines is regulated by the Federal Meat Inspection Act and the Poultry Products Inspection Act. The Act requires the processing of all meat and poultry for sale occur at a USDA or State inspected facility. Processing at a USDA inspected facility is required to sell meat and poultry across state lines. At the state level, a Meat and Poultry Handler Registration license is also required for anyone wishing to store, transport, or sell meat and poultry products. While producers can only slaughter meat products on site for personal consumption, it is permissible to slaughter a limited number of poultry on the farm for intrastate sale.<sup>21</sup>

**Dairy and Eggs:** At the federal level the Pasteurized Milk Ordinance regulates the processing, packaging, and sale of pasteurized milk across state lines, and prohibits unpasteurized milk or raw milk for sale to cross state lines. While some states permit the sale of raw milk within state lines, North Carolina laws prohibit all sales of raw milk. At the state level all dairy farms and milk plants must contact the Division of Environmental Health to obtain a permit. The processing of milk products (butter, cheese and ice cream) are subject to state regulations and inspections by the NCDA&CS. Eggs sold across state lines are subject to the federal Egg Products Inspection Act, and eggs for intrastate sale are regulated by the North Carolina Egg Law. Producers selling less than 30 dozen eggs a week on their farm are exempt from the egg-production laws.<sup>22</sup>

**Raw Produce:** Fresh, raw produce is exempt from compliance with Federal processing regulations and does not require an inspection by the NCDA&CS if sold intrastate. The USDA does offer a voluntary compliance and inspection program to maintain a standard of fruit and vegetable products. North Carolina has adopted standards for some produce such as apples, peaches, and pecans making them subject to inspection.<sup>23</sup>

# DISTRIBUTION

The distribution component of a community food system involves the channels for moving raw and processed agricultural products from producers and processors to consumers. There are five main elements to consider at this stage:

1. Direct to consumer
2. Food hubs
3. Retail
4. Food service
5. Emergency

Marketing of agricultural products falls under distribution as the connection between producers and consumers. If marketing is missing from the food system, producers lose valuable opportunities to enter the retail and food service market.



## KEY RESULTS

### Direct to Consumer

Selling directly to the consumer takes place in several different markets, including farmers' markets, roadside farm stands, on the farm, and through community supported agriculture (CSAs). Of the producers interviewed and surveyed for the study, most participate in some form of direct sales, and often through a mix of direct markets.

Direct to consumer sales provide several benefits for the producer and the consumer. Direct market sales lead to increased interaction between consumer and producer, the opportunity for consumer education, and feedback for producers. For small and mid-size farmers who do not have the scale to sell in larger markets, such as grocery stores and institutions, direct markets provide an opportunity for a farmer to receive retail prices that help support a profitable farm business.

A potential downfall of direct markets is the extra resources needed to sell directly to consumers. CSAs and farmers markets require an increased investment in marketing, planning, and time spent at the market, ultimately taking time away from farming and production. The struggle to find trained labor also prevents farms from expanding their direct market sales. Given the increasing trend of small to mid-size farms in the region, support of direct markets is essential for building a sustainable community food system.

### Farmers' Markets, CSAs, and Farm Stands

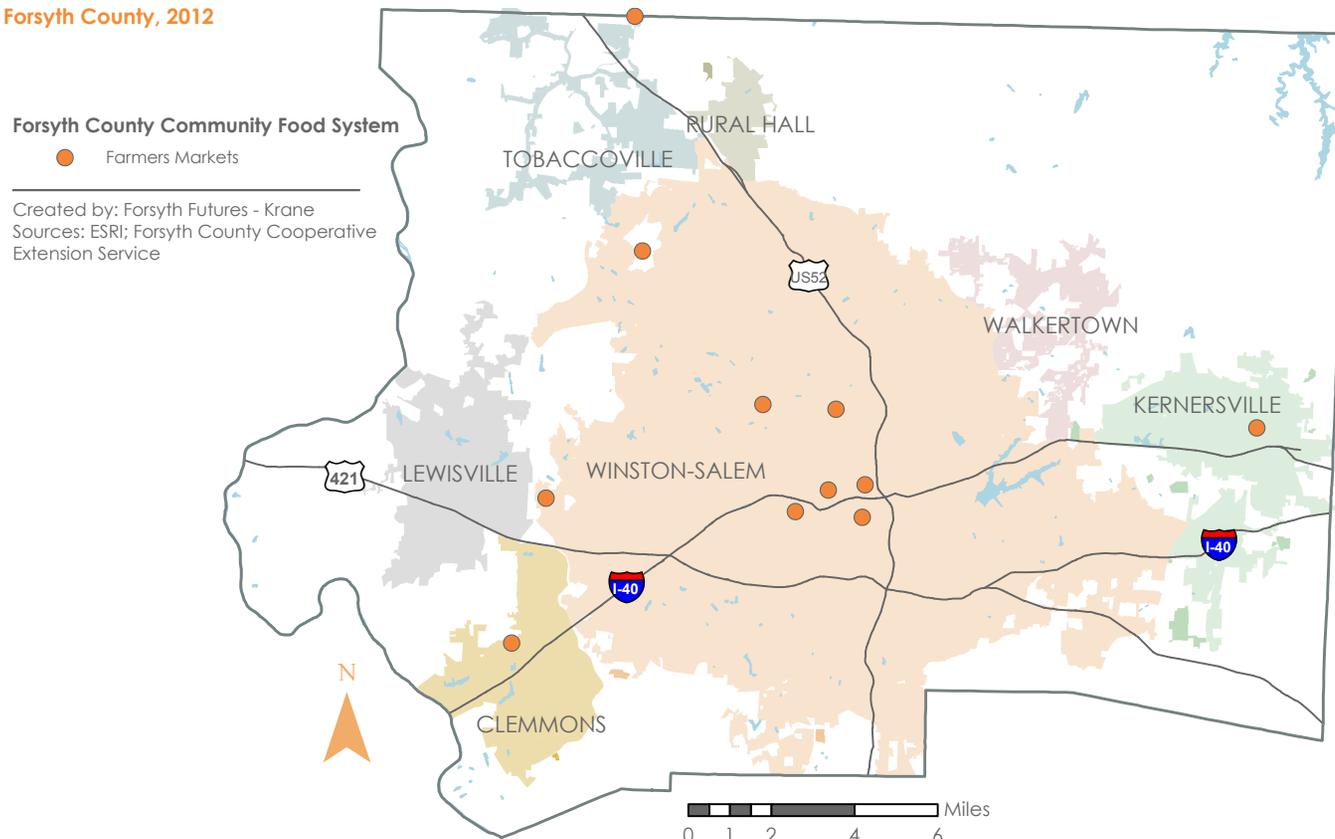
Information from stakeholders provided varied opinions regarding the number of farmers markets in Forsyth County. Some producers expressed concerns that too many markets would spread the customer base too thin. From a consumer perspective, respondents felt more markets would increase access to locally grown, healthy foods.

As of the fall of 2012, Forsyth County had 11 farmers' markets held on various days and times. Figure 6 indicates the geographic range of these markets.

All markets are seasonal except for the Dixie Classic Farmers' Market which operates year round. Most markets in the county occur on a weekday in the morning and early afternoon, and a few operate on Saturdays. There are not any markets available during the evening.

At least 39 farms in the region have CSAs that serve Forsyth County residents.

FIGURE 6. Farmers' Markets of Forsyth County, 2012



## Food Hubs

One option for small and mid-size farmers to increase their share in the market is to work with an aggregation and distribution center, also known as a food hub. The USDA Agricultural Marketing Services division defines a food hub as:

*“A business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand.”*

The benefits of distribution through food hubs include decreasing cost and increasing efficiencies for producers, a link between producers and buyers, food safety and good agricultural practices, and better access to local foods. Food hubs, however, do face some challenges; to operate efficiently and reach their missions, centers require:<sup>24</sup>

- | Raising a significant amount of capital.
- | Balancing supply from producers and demand from consumers.
- | Setting a fair price for producers and an accessible price for consumers.
- | Finding a reliable and trained workforce (volunteer and staff).
- | Maintaining quality products to meet buyer needs.
- | Retaining the producer’s identity.

As the food hub concept continues to develop, solutions to many of these challenges will arise.

The structure of food hubs vary based on organization type and market model. Common organization types are non-profits, privately held businesses, cooperatives and public-private partnerships. The USDA identifies three types of market models for food hubs:

1. **Farm-to-Consumer:** The food hub aggregates, packages, markets and sells directly to consumers.
2. **Farm-to-Business/Institution:** Food hub activities are focused on selling to grocery stores, food cooperatives, institutions, and restaurants.
3. **Hybrid:** Hybrid food hubs sell both directly to consumers as well as wholesale markets/institutions.

**TABLE 3. Food Hubs Serving Forsyth County As of Fall 2012** *At least eight food hubs serve Forsyth County. The majority of these food hubs are privately held businesses and farm-to-consumer models, with only two food hubs selling to businesses and institutions as well as consumers. Pricing models also vary among local food hubs, ranging from retail to wholesale prices. Interviews with local food hubs revealed that marketing to attract a strong customer base is one of the biggest challenges.*

NAME	ORGANIZATION TYPE	MARKET MODEL
Backyard Produce	Privately held business	Farm to Consumer
Carolina Grown	Privately held business	Farm to Consumer
Organic Food 2 You	Privately held business	Farm to Consumer
Piedmont Local Food	Non-profit	Hybrid
Pilot Mountain Pride	Privately-held business	Hybrid
The Produce Box	Privately-held business	Farm to Consumer
Triad Buying Cooperative	Cooperative	Farm to Consumer
Triad Farm to Table Cooperative	Cooperative	Farm to Consumer

Table is based on USDA’s Types of Regional Food Hubs classifications found in “The Regional Food Hub Resource Guide”

## CASE STUDIES: AGGREGATION & DISTRIBUTION CENTERS

Aggregation and distribution centers, also referred to as food hubs, are increasingly becoming an option for small and mid-size farmers to expand to more and larger retail markets. Food hubs can provide a balance between the needs of both farmers and consumers, by providing a guaranteed market for producers and an outlet for consumers to locate fresh, local food. As seen in Table 3 several food hubs already serve the Forsyth County region and have the potential to play a greater role in the community food system. The following models are examples of nearby aggregation and distribution centers that can serve as potential models.

### Local Food Hub (Charlottesville, VA)

The Local Food Hub (LHF) distributes food to more than 150 locations in the region from a central warehouse that aggregates food from more than 75 partnering family farms within 100 miles of Charlottesville.<sup>25</sup> Since its start in 2009 LFH has sold more than \$1.2 million worth of local food.<sup>26</sup> Their distribution partners include public schools, hospitals, restaurants and markets. A key aspect of LFH's success is production planning between producers and consumers to be able to match supply with demand as fully as possible. Not only does LHF serve as an aggregation and distribution center it also has an educational organic farm on six acres, provides a farm workers training program, and other programs to support and expand locally grown food in the Charlottesville community.

[www.localfoodhub.org](http://www.localfoodhub.org)

### Eastern Carolina Organics

Eastern Carolina Organics (ECO), in Durham, NC, aggregates produce from over 40 growers and distributes to retailers restaurants and buying clubs. ECO operates as an LLC owned by the grower and managers of the organizations, with 80 percent of sales going back to the producers. Recognizing restaurants and institutions need consistent quality and quantity of food products ECO aggregates from several regions to ensure “high-quality, seasonal food choices throughout the year.” Coupled with aggregation services, ECO also helps producers improve production and product packaging, and assists producers wanting to transition into organic farming from conventional methods. Similar to the Local Food Hub in Charlottesville, ECO also implements collaborative crop planning so that more useful crops are grown based on customer demand.

<http://www.easterncarolinaorganics.com/>

## RESOURCE: REGIONAL FOOD HUB GUIDE

In April of 2012 the USDA Agricultural Marketing Service department released the Regional Food Hub Resource Guide to assist communities with developing and supporting a local food hub. This resource provides an overview of what a regional food hub is, the impacts of food hubs, and resources available to support food hubs. The guide serves as a potential tool for the Forsyth County community food system as it grows.

<http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5097957>

## Retail\*

Retail options in a food system include supermarkets, other grocery stores, warehouse clubs and supercenters, and convenience stores. National supermarkets are the primary stakeholder for retail in the food system; however, since 2001 food sales at warehouse clubs and supercenters have doubled.<sup>27</sup>

### Grocery Stores

Traditionally, supermarkets source agricultural products from **merchant grocery wholesale distributors** to ensure product quantity and quality. However, some supermarket chains have started working with local food hubs and farmers to supply individual stores. In the current food system, supermarkets and supercenters are better suited to work with large-scale farming operations. The quantity needed and wholesale prices paid make it difficult for small and mid-size farmers to enter this market.

Small, independently owned grocery stores and food cooperatives have a natural advantage to provide more locally produced and processed food, as required quantities are smaller and owners can work directly with farmers.

- An estimated 114 supermarkets and grocery stores\*\* currently operate in Forsyth County, as well as 12 specialty seafood or meat markets. At least three independently owned grocery stores, with a focus on providing local foods to residents, are located in the county.

*\* Because chain supermarkets make up such a high portion of food expenditures, little data exists at the local level. Most information on retail markets in the Forsyth County food system is taken from interviews and surveys with stakeholders.*

*\*\* This estimate is based on the North American Industry Classification System definition of supermarkets and grocery stores, “establishments that primarily engage in retailing a general line of food, such as canned and frozen foods; fruits and vegetables; and fresh prepared meats, fish, and poultry.” The definition does not include convenience stores.*

- Most major supermarket chains in Forsyth County, including Fresh Market, Food Lion, Harris Teeter, Lowes Foods, and Whole Foods, offer some variety of local produce in stores. Among retail chains, definitions of local food vary, and most definitions encompass all of North Carolina as well as bordering states.
- Lowes Foods also offers a prepaid produce box, similar to a CSA, with produce from farms across North Carolina.
- Lowes Foods and Fresh Market both purchase local produce from Pilot Mountain Pride, a regional aggregation and distribution center.
- Forsyth County has approximately 80 convenience stores that already sell some variety of groceries. These convenience stores offer a currently, untapped market to connect vendors of local foods with residents.



Photo courtesy of Rebecca's Store

## Food Service

The food service element consists of food distribution to restaurants and institutional buyers. Institutions in Forsyth County include county government, municipalities, Winston-Salem/Forsyth County Schools (WS/FCS), local universities, and hospitals. Local restaurants and institutions are making an effort to include more local foods on their menus. But some challenges exist in making local food purchases a regular practice.

### *Restaurants*

Restaurants have various reasons for purchasing locally sourced foods for their menus, such as obtaining higher quality products, building relationships in the community, and meeting the needs of a niche market. One of the strongest reasons given in interviews for chefs to purchase local foods was the superior quality of local agricultural products. Some challenges for chefs in purchasing local foods include cost, variety, delivery coordination, consistency and communication.

- ▮ As of Fall 2012, five restaurants participated in the North Carolina 10% Campaign to demonstrate their support of the local food movement.\*<sup>28</sup>
- ▮ Based on interviews with locally owned and operated restaurants the amount of local food used by chefs varies, from less than 5 percent of sourced products to between 25 and 50 percent. None of the restaurants interviewed reported using more than 50 percent of locally-sourced food.
- ▮ Chefs in Forsyth County expressed an interest in more locally raised meat and specialty items (such as shiitake mushrooms and heirloom vegetable varieties).

*\*The North Carolina 10% Campaign is a voluntary campaign for individuals and businesses to pledge their support to purchasing local food. It is most likely an underestimation of the number of restaurants that purchase local food, but still provides one way to understand support for local foods. More information on the NC 10% Campaign is located on their website [www.nc10percent.com](http://www.nc10percent.com).*



- ▮ Chefs also identified consistency of supply as an important factor in purchasing decisions. Developing an understanding between chefs and farmers as to what and how much is available, and the importance of consistent product supply, can present a challenge.
- ▮ The restaurant and agricultural industries are both time intensive and demanding, and as a result, delivery of agricultural products presents another challenge for both farmers and chefs. Chefs may not have the time to personally visit farms or farmers' markets, and producers might not have the delivery equipment or time needed to deliver items to restaurant locations.

### *Institutions*

Institutions in Forsyth County also make an effort to purchase locally sourced foods; however similar challenges exist. For efficiency and cost effectiveness, institutions contract with food service providers and wholesale distribution companies. A few of the food service providers and distributors serving Forsyth County institutions are Aramark, Chartwells, Fresh Point, Foster Caviness, Sysco, and US Foods. In some instances, broadline and wholesale distributors are able to source food locally for institutions, however it is difficult for institutions to work directly with local farmers.

- | In many cases, government institutions have limited budgets for food services, and interview data suggest price is a limiting factor in purchasing local foods. Institutions mainly purchase produce and dairy locally, as cost usually prohibits the purchase of local meats.
- | Several local institutions work with Fresh Point, a distribution company (with a location in Raleigh) working with farmers across North Carolina to source local produce and dairy.
- | Based on an interview with Wake Forest Baptist Health, between 5 and 10 percent of food from North Carolina farmers is purchased through Fresh Point.
- | A challenge for small and mid-size farmers in working with distributors and institutions is the need for Good Agricultural Practice (GAP) certifications, liability insurance, minimum volume, specific packaging and purchasing requirements.
- | While most institutions define “local” as grown or raised in North Carolina, many distributors consider products from North Carolina and the surrounding states as local.
- | Compass Group North America, the food service management company for Chartwells dining services and the WS/FC schools, defines local “as food grown within 150 mile radius of where it is consumed.”<sup>29</sup> Compass Group has signed on to the NC 10% Campaign and is developing a ‘farm to institution’ buying program to source 10 percent of produce from North Carolina farms.

## GAP CERTIFICATION

The Good Agricultural Practices (GAP) & Good Handling Practices (GHP) audit verification program was instituted by the USDA in 2002. The goal of this program is to verify that the production and handling of fresh fruits, vegetables, and nuts takes place in a manner that reduces the risk of food contamination. While the program is voluntary, distributors are increasingly requiring farmers obtain third-party Good Agricultural Practices (GAP) certification.<sup>30</sup> Audits for USDA GAP&GHP certification are conducted by the USDA Agricultural Marketing Service employees or trained employees of NCDA&CS.<sup>31</sup> Third party, private companies do conduct GAP audits and provide certification, however the companies are not overseen by the Federal government and can have varying standards.<sup>32</sup>

The costs for an audit and certification fall to the producer or facility and for most small and mid-size farmers is time and cost prohibitive. Some programs in North Carolina do offer training and assistance for producers interested in a GAP audit or certification. In the past Forsyth County Cooperative Extension has held GAP trainings, and NCDA&CS offers a GAP Certification Assistance Program. Increasing opportunities for producers to obtain a cost-effective, GAP audit and certification is important for expanding the local foods in the community food system. Without this certification small and mid-size farmers will continue to struggle to enter larger retail markets, and reach institutions and restaurants.

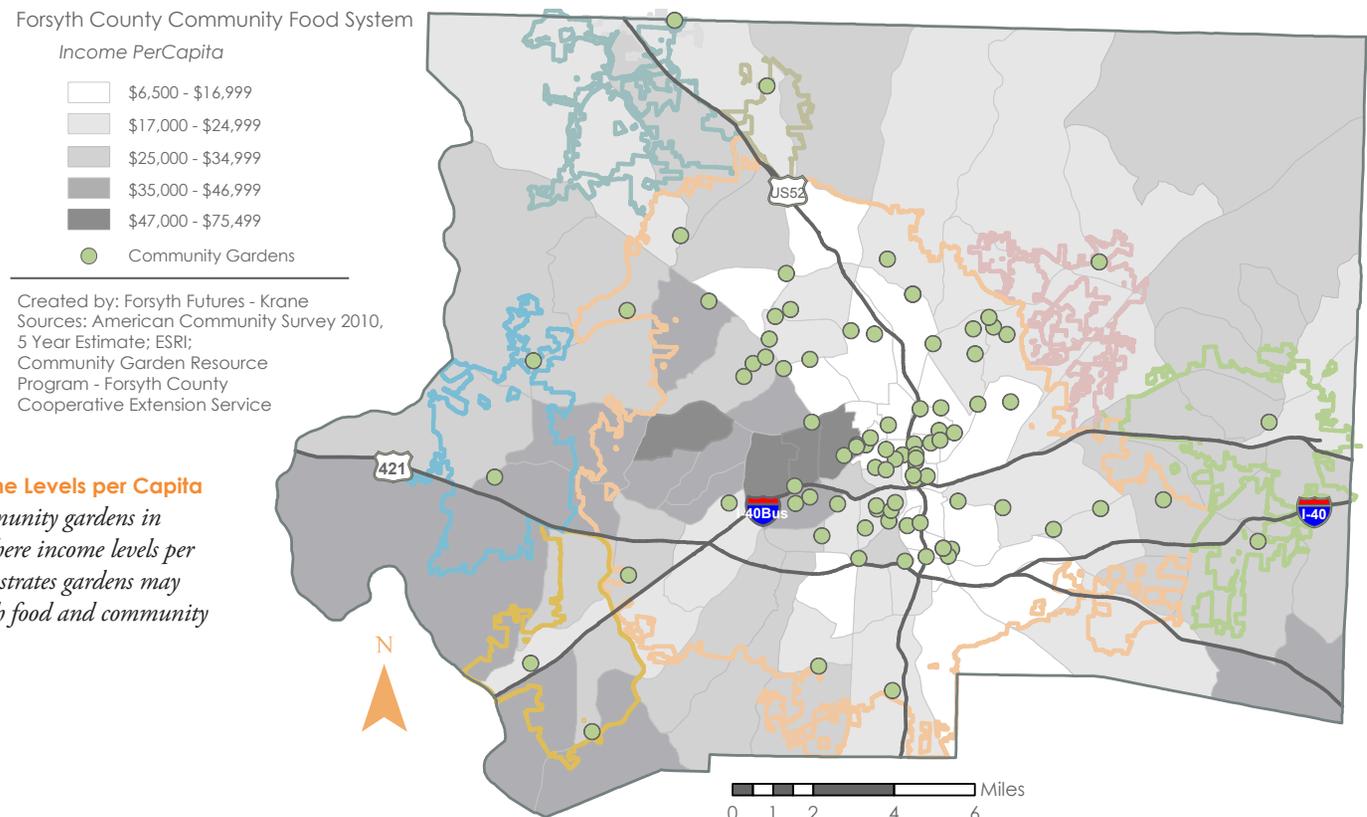
## Emergency

Emergency food distribution is an important piece of a community food system, as it provides local, fresh foods to those who might not otherwise have access to them. In Forsyth County, the main stakeholders of the emergency food element of the community food system are the food bank, food pantries, and community gardens.

- | In 2011, community gardens donated over 8,000 pounds of produce through The Pantry Project.<sup>33</sup> During the 2012 growing season, an estimated 20,000 pounds of produce from community gardens were donated to pantries. Ap-

proximately, half of donated produce was grown on the Betty and Jim Holmes Food Bank Community Garden for the Second Harvest Food Bank of North-west North Carolina and their programs, the Triad Community Kitchen and Kids Cafes.

- | At the time of this study, 26 food pantries accepted food from community gardens; these food pantries are a mix of faith-based organizations and non-profits.
- | Interviews with garden managers confirm that part of the mission of many community gardens is to provide produce to those with limited access.



**FIGURE 7. Community Gardens and Income Levels per Capita by Census Tract, 2012** *The majority of community gardens in Forsyth County are located in census tracts where income levels per capita are below \$25,000 a year. This demonstrates gardens may already play a role in improving access to fresh food and community development.*

## POLICIES & REGULATIONS

Transporting food from one place to another requires some regulation to maintain food quality and safety. Traditionally, food is distributed between wholesale distributors and retail supermarkets or grocery stores; as such current policies reflect this model. Yet as direct sales to consumers or through aggregating facilities become more common, policies will need to match this distribution model.

**Aggregation Facilities:** Aggregation facilities for fresh produce must comply with local zoning and business-licensing laws but are also regulated by North Carolina Administrative Codes. Current good manufacturing practices of the Food & Drug Protection division of NCDA&CS regulate building requirements for food distribution facilities, and require separate rooms or facilities for receiving, shipping, and storage of final products.<sup>34</sup>

**Mobile Markets:** Pushcart vending of fresh fruit and vegetables is permitted by the Winston-Salem Municipal Code in certain areas of the city. One area where pushcart vendors selling fresh fruits and vegetables are not permitted is in downtown Winston-Salem. In other areas of the city, produce vendors are permitted if they meet other licensing and food-safety requirements.<sup>35</sup> The sale of fresh fruits and vegetables from mobile food units (vehicles) is also regulated city municipal codes, and requires inspection by the county health department.



# CONSUMPTION

The consumption component of a community food system explores individual habits for obtaining and using local food products. This can refer to purchasing and preparing foods in home kitchens, as well as purchasing prepared foods outside of the home. Several factors influence the consumption levels of locally produced foods, such as affordability, access, and consumer education.

Given time and resource limitations, Forsyth Futures did not complete an in-depth study of local food purchasing and consumption by Forsyth County residents. Instead several secondary resources, interview data and a short consumer survey were utilized.

## KEY RESULTS

### *North Carolina Child Health Assessment and Monitoring Program*

*The Journal of Nutrition Education and Behavior* recently analyzed data from the 2008 North Carolina Child Health Assessment and Monitoring Program (NC CHAMP) to determine who purchases local foods directly from vendors (through farmers' markets, CSAs, and roadside stands). While many North Carolina residents are purchasing produce from local vendors, factors such as race, established consumption of produce, and knowledge of how to cook fresh foods appear to influence purchasing habits.

- | Survey results suggest that half of residents in North Carolina purchase local produce at least once a month.<sup>36</sup>
- | A **multivariate analysis** of NC CHAMP data indicates that African-American, non-Hispanic residents (with children) are 2.5 times less likely to purchase local produce than white, non-Hispanic residents (with children).
- | The same analysis demonstrates that individuals with a high self-perception of healthy cooking skills are significantly more likely to purchase local produce than those with a low self-perception.

*\*For more detail on survey respondents and a copy of the survey see Appendix B.*

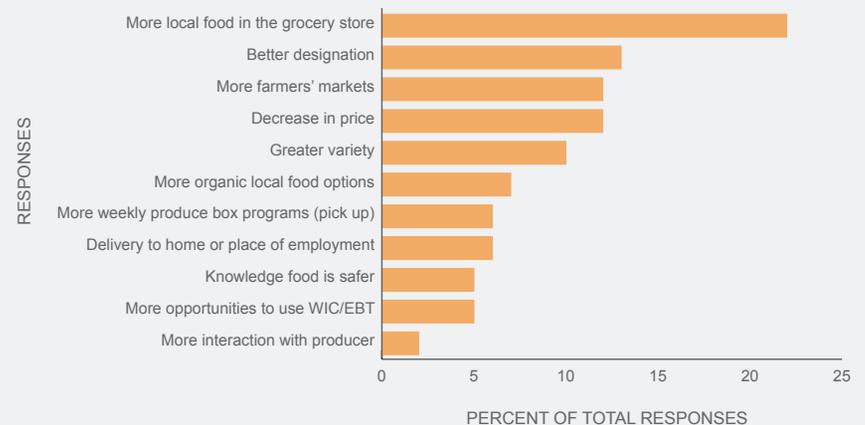
- | Parents whose children consume five or more servings of vegetables or fruits a day are also significantly more likely to purchase local produce directly from vendors.

### *Forsyth County Consumer Survey*

To understand what encourages Forsyth County residents to purchase more locally produced foods, Forsyth Futures conducted a short consumer survey. Results suggest that Forsyth County residents are interested in purchasing local food, but are looking for convenient access to products.

- | Around 600 residents completed surveys at various locations, including a Forsyth County Public Health Department clinic, a local church, several neighborhood events, and online. Surveys were available in English and Spanish.\*
- | When given a selection of 11 changes that would increase purchasing of local foods, the most common response was, "More local food selection in the grocery store."

**FIGURE 8. Encouraging Local Food Purchases, Based on Consumer Survey Responses**



### *Farmers' Market Attendance*

Attendance at farmers' markets is one indicator of locally produced food consumption. Forsyth County has a wide range of farmers' markets, and although some diversity in the customer base exists, there is room for efforts to target a broader population.

- Attendance at farmers' markets vary greatly based on the size of the market. Interviews with farmers' market representatives reveal that different markets can attract an estimated 150 to 2,500 customers each week.
- Interviews also show that although the types of customers vary between markets, many people do not travel far to get to the market. Families commonly attend, and shoppers tend to have a knowledge of how to use fresh produce.
- In an effort to attract more residents to farmers' markets and increase access to local foods, two markets accepted **Women, Infants, & Children (WIC) Farmers' Market Nutrition Program (FMNP)** coupons in 2012, and two markets accept Food and Nutrition Services' **Electronic Benefit Transfer (EBT)**.



## FARMERS' MARKET INITIATIVES

### Farmers' Market Nutrition Program

The Farmers' Market Nutrition Program (FMNP) is part of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) run by the USDA Food and Nutrition Services division. While it is a federal program, it involves a partnership with the North Carolina Department of Health and Human Services (NC DHHS), and is administered by NC DHHS. Through the Forsyth County Health Department FMNP provides coupons to WIC recipients to spend at approved farms, farmers' markets, or farm stands on fresh, local produce.

[www.nutritionnc.com/wic/fmarket.htm](http://www.nutritionnc.com/wic/fmarket.htm)

### Matching Dollars

Residents can use WIC FMNP vouchers and EBT funds at the Cobblestone Farmers' Markets in Winston-Salem. With funds from the Winston-Salem Foundation, the markets are able to match these dollars to allow customers to purchase more local produce. WIC FMNP vouchers are matched dollar for dollar while EBT users can receive up to \$10 in matched value.<sup>37</sup>

# WASTE

The waste component refers to the process of disposing of food products. Elements of this area include landfill disposal, recycling, composting, and edible food recovery. While a full analysis of the waste component does not fit within the scope of this study, it is still a key area of a community food system. A sustainable waste disposal system can help protect the environment, create healthier living conditions, provide alternative fuel sources, and improve overall quality of life. Waste also present opportunities for entrepreneurship around composting and disposal of restaurant refuse, such as cooking oil.



## CASE STUDIES: COMPOSTING

Opportunities exist to sustainably dispose of and convert waste into valuable resources. Composting is a method for breaking down organic waste and reusing some waste products as fertile garden soil.<sup>38</sup> Across the country and in North Carolina, organizations are developing composting programs as an alternative for food waste disposal. The following are a few examples of composting initiatives.

### Gallins Family Farm

In 2011, Gallins Family Farm (located in Mocksville, N.C.) began a program to offer businesses a composting service to recycle food waste. The service provides carts for compostable waste, and the carts are picked up once or twice a week. This services provides local businesses an opportunity to reduce waste-handling fees and have a positive impact on overall environmental quality.<sup>39</sup> The food waste picked up by Gallins is converted into compost and sold as Carolina Dynamite Compost, available in the Winston-Salem area.

*[www.gallins.com/family-farm/food-waste-recycling/](http://www.gallins.com/family-farm/food-waste-recycling/)*

### Compost Cab

Compost Cab is a company in Washington, D.C. that provides home pickup of compostable materials. Residents also have the option to drop compostable waste off at various farmers' markets through out the city. In addition, the program provides pickup for schools, businesses, and special events.

*[www.compostcab.com/](http://www.compostcab.com/)*

# COMMUNITY FOOD SYSTEM INITIASCAPE®

The Initiascape® analysis of the Forsyth County community food system provided insight on current efforts to enhance the production and consumption of local food in Forsyth County. The Community Food System Initiascape® tracks local or state programs leading or participating in these efforts and the relationships between them. All data for the Initiascape® analysis are based on internet research and personal communications. Understanding the dynamics of existing programs and relationships will assist the community in mobilizing efforts for future initiatives.

## KEY RESULTS

The Initiascape® analysis revealed the following information about the community food system:

- Currently, the Forsyth County community food system contains 61 unique programs engaged in the enhancement of the production and consumption of local foods.
- All programs within the system are administered by 43 different organizations. The majority of these organizations (16) are non-profits ranging from community organizations to higher-education institutions.
- Within the system, Forsyth Futures identified 156 relationships between existing programs, organizations, and stakeholder groups (e.g. farms, community gardens, food entrepreneurs, and residents).
- As shown in Table 4, the majority of relationships in the community food system are classified as participant relationships - where members of the system were utilizing a program's services or member of an initiative.

TABLE 4. Community Food System Relationships

RELATIONSHIP TYPE	DESCRIPTION	NUMBER OF RELATIONSHIPS
Participant	Using a program's services or member of a program's initiative.	94
Partner	Is working with a program to provide a service or conduct an activity that is an integral part of the program's services/actions.	38
Funder	Provides funding or physical agent for a program.	11
Parent	Sets the mission for an organization, and has fiduciary responsibility for the organization.	5
Affiliate	Has a formal connection with a program (such as promoting the program), but does not have a funding, partner or participant relationship.	4
Vendor	Contributes a product or service to the target program based on a contract with the program.	4

*Notes: A full list of programs and organizations in the community food system is on Forsyth Futures website: <http://www.forsythfutures.org/initiascapes/initiascapes-main.html>. The relationship types "advisor, evaluator, funder, partner, participant, referrer, regulator, and researcher" were not included in this table because those relationships did not exist for this Initiascape®. The total number of relationships adds up to more than total programs, because a program may have more than one relationship.*

# ECONOMIC IMPACT

The findings presented throughout the report imply that the community food system has an economic impact on the County as a whole. However, existing economic indicators allow for a better understanding of this impact. The current economic impact of dollars associated with the community food system was measured by total market value of agricultural products, the value of direct market sale, and consumer expenditure figures.

## KEY RESULTS

### *Total Market Value*

The market value of agricultural products in the region is a multi-million dollar industry. However, the data indicates that the majority of the sales occur on a few, high-grossing farms contracted with corporations located outside of the region. This implies that a lot of agricultural dollars do not remain in the Forsyth County region.

- | In 2007, the **market value of agricultural products sold** was almost \$400 million. Sales of livestock, poultry, and their products generated almost two-thirds of total market value, while crops (including nursery and greenhouse crops) comprised approximately a third of the market.
- | On average, farms in the study area sold \$50,000 worth of agricultural products in 2007. However, the value of sales for almost half of farms in the region is less than \$2,500 a year.
- | The highest-grossing agricultural products in the region are poultry and eggs, with an annual value of approximately \$175 million in 2007. As mentioned in a previous section, because of the vertical integration of poultry processing it is unclear what portion of sales remain in the region.

### *Value of Direct Market Sales*

In 2007, the USDA added the category **value of agricultural products sold directly for human consumption** to the Census of Agriculture. Because this category indicates the value of fresh produce, meat, and livestock sold directly from the producer to the consumer, it provides a more accurate estimate of agricultural sales that remain in the region. Although direct market sales currently represent only a small portion of total agricultural sales in the study region they increased greatly over the last 10 years. Direct markets are extremely valuable to small and mid-size farmers because of the retail prices they offer. Increasing the demand of local produce, meat, and poultry through direct markets has economic potential for the county.

- | In 2007, almost 1 percent of total agricultural product sales for the region came from direct market sales, an 84 percent increase since 1997.
- | The estimated 120 percent increase in direct sales of raw agricultural products to consumers between 1997 and 2007 raised the value of direct market sales from just over \$1 million to \$2.3 million in the region.



### Consumption

Every year, the Bureau of Labor Statistics releases annual consumer expenditures by region. From this data, Forsyth Futures calculated an estimated consumer expenditure on food products.\* Understanding what consumers spend on food annually allows for a projection of the potential value of local foods. Analysis suggests local foods could have a much greater economic impact than the current value, but in order to reach the full potential a culture and consumer base that values local foods needs to grow. Simultaneously, producers should consider production planning to meet an increased demand.

- In 2010, households in Forsyth County spent an estimated \$800 million on all food products (including eating outside of the home). Of the total expenditures an estimated \$83 million is spent on fresh fruits and vegetables, and approximately \$110 million are spent on meats, poultry, fish, and eggs for home preparation.
- Table 5 shows that if 10 percent of the dollars spent on fresh produce and meat products went towards purchasing local foods in direct-to-consumer markets there is the potential for almost \$25 million to remain in the region.
- An additional benefit of increasing expenditures on locally produced food is the economic-multiplier effect theory. The economic multiplier represents the circulation of a dollar within a community and the increased income that circulation brings to the community. In some instances it is estimated that purchasing local produce from farmers' markets and stands can have an economic multiplier of approximately 1.6.<sup>40</sup>

\* Calculation based on equation used by Ken Meter in Martinsville / Henry County region (Virginia & North Carolina) *Local Farm & Food Economy*. For a detailed methodology of this calculation, see page 35.

TABLE 5. Consumer Expenditure Potential

FOOD PRODUCT	ESTIMATED SPENDING	10% OF TOTAL SPENDING	5% OF TOTAL SPENDING
Meats, Poultry, Fish & Eggs	\$107,707,369	\$10,770,737	\$5,385,368
Dairy Products	\$48,136,583	\$4,813,658	\$2,406,829
Fruits and Vegetables (Fresh & Processed)	\$83,145,007	\$8,314,501	\$4,157,250
Fresh Fruits & Vegetables	\$52,653,799	\$5,265,380	\$2,632,690
Processed Fruits & Vegetables	\$30,491,208	\$3,049,121	\$1,524,560

Source: Estimated spending based on Bureau of Labor Statistics Consumer Expenditure data for the Southern region

IN 2007, \$2.3 MILLION OF RAW AGRICULTURAL PRODUCTS WERE SOLD DIRECTLY FROM THE PRODUCER TO THE CONSUMER IN THE FORSYTH COUNTY REGION.

## DATA SOURCES

	INDICATORS	MEASURE	SOURCE
Production	Farm Characteristics	Farmland	Table 8. Farms, Land in Farms. Census of Agriculture 1997 - 2007. USDA National Agricultural Statistics Service. <a href="http://www.agcensus.usda.gov/">http://www.agcensus.usda.gov/</a>
		Farm Size	
	Labor	Farm Type	Table 46. Selected Operation and Operator Characteristics. Census of Agriculture 1997 - 2007. USDA National Agricultural Statistics Service. <a href="http://www.agcensus.usda.gov/">http://www.agcensus.usda.gov/</a>
		Operator Demographics	
		Labor Characteristics	
	Production Characteristics	Crop Production	Table 8. Farms, Land in Farms; Table 26. Field Crops; Table 30. Vegetables, Potatoes, and Melons Harvested for Sale; Table 31. Land in Orchards; Table 32. Fruits and Nuts; Table 34. Berries. Census of Agriculture 2007. USDA National Agricultural Statistics Service. <a href="http://www.agcensus.usda.gov/">http://www.agcensus.usda.gov/</a>
		Livestock Production	Table 11. Cattle and Calves - Inventory and Sales; Table 12. Hogs and Pigs - Inventory and Sales; Table 13. Poultry - Inventory and Sales. Census of Agriculture 1997 - 2007. USDA National Agricultural Statistics Service. <a href="http://www.agcensus.usda.gov/">http://www.agcensus.usda.gov/</a>
	Community Gardens	Community Gardens	Brennan, Mary Jac. (2012) <i>The State of Community Gardening in Forsyth County</i> . Forsyth County Cooperative Extension Service
Quandt, S.A., Arcury-Quandt, A.E., Washington, C.J., Mulrooney, T., Bertoni, A.G. (2010) <i>Community Gardens and Farmers Markets, Forsyth County, NC</i> . Wake Forest University Translational Science Institute Program in Community Engagement. <a href="http://tsi.wfubmc.edu/index.cfm/for-researchers/about-the-tsi/news-announcements/">http://tsi.wfubmc.edu/index.cfm/for-researchers/about-the-tsi/news-announcements/</a>			
Processing	Processing Facilities	Inspected Processing Facilities	Directory of Establishments Inspected that Slaughter and/or Process Meats for Farmers. Meat Handlers Permits. NCDA&CS Meat and Poultry Inspection Division, North Carolina Department of Agriculture. <a href="http://www.ncagr.gov/meatpoultry/index.htm">http://www.ncagr.gov/meatpoultry/index.htm</a>
		Home Processing	FSIS Meat, Poultry and Egg Product Inspection Directory. (2012) USDA Food Safety and Inspection Service. <a href="http://www.fsis.usda.gov/regulations/Meat_Poultry_Egg_Inspection_Directory/index.asp">http://www.fsis.usda.gov/regulations/Meat_Poultry_Egg_Inspection_Directory/index.asp</a>
Distribution	Direct to Consumer Sales	Farmers Markets and CSAs	Data Request to Amy Stafford, Food Compliance Officer. 16 October 2012. Value Added & Home Food Processors in Forsyth County. NCDA&CS Food and Drug Protection Division.
			Forsyth County Farmer's Markets. Forsyth County Cooperative Extension. <a href="http://www.forsyth.cc/CES/Documents/farmers_markets.pdf">http://www.forsyth.cc/CES/Documents/farmers_markets.pdf</a>
	Food Hubs	Food Hubs	Internet search of farm directories including: <i>North Carolina Farm Fresh</i> <a href="http://www.ncfarmfresh.com/farmmarkets.asp">http://www.ncfarmfresh.com/farmmarkets.asp</a> , <i>Local Harvest</i> <a href="http://www.localharvest.org/">http://www.localharvest.org/</a> , <i>Local Food Finder</i> <a href="http://localfood.carolinafarmstewards.org/browse.php">http://localfood.carolinafarmstewards.org/browse.php</a> , <i>NC Food Net</i> <a href="http://ncfoodnet.com/">http://ncfoodnet.com/</a>
			Interviews with farmers' market representatives.
	Retail	Grocery Stores and Supermarkets	Barham, J., Tropp, D., Enterline, K., Farbman, J., Fisk, J., and Kiraly, S. (2012) <i>Regional Food Hub Resource Guide</i> . USDA Agricultural Marketing Service. Washington, DC. <a href="http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5097957">http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5097957</a>
			Interviews with supermarket representatives.
	Food Service	Convenience Stores	Infogroup database. ESRI Business Analyst Software.
			Restaurants & Institutions
Emergency Food	Community Gardens	Personal Communication with Mary Jac Brennan. Community Garden Resource Program. Forsyth County Cooperative Extension	
		Betty and Jim Holmes Food Bank Garden. Blog Food Bank Garden in Winston-Salem, NC. <a href="http://www.foodbankgarden.blogspot.com/">www.foodbankgarden.blogspot.com/</a>	
Consumption	Farmers Markets	Farmers Market Attendance	Interviews with farmers' market representatives.
			Personal Communication with Forsyth County Department of Public Health WIC Director

## DATA SOURCES, CONT.

	INDICATORS	MEASURE	SOURCE
Community Food System Initiatives	-	-	All Initiatives data is gathered through internet research and personal communication with programs. All Data is point - in - time
Economic Impact	Market Value	Market Value of Agricultural Products Sold Value of Direct Market Sales	Table 2. Market Value of Agricultural Products Sold Including Direct Sales. Census of Agriculture 1997 - 2007. USDA National Agricultural Statistics Service. <a href="http://www.agcensus.usda.gov/">http://www.agcensus.usda.gov/</a>
	Consumption	Consumer Expenditures	Consumer Expenditures Survey 2002 - 2011. Bureau of Labor Statistics. <a href="http://www.bls.gov/cex/csxstnd.htm#2011">http://www.bls.gov/cex/csxstnd.htm#2011</a> <b>Methodology for Forsyth County Estimate:</b> To determine an estimate of how much Forsyth County residents are spending on food Forsyth Futures used the average annual expenditure per household for the South region and multiplied this by the number of households (American Community Survey, US Census) in Forsyth County. Assumption - households in Forsyth County spend approximately the same amount on food a year as the households in the South as a whole.

## END NOTES

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- <sup>1</sup> U.S. Department of Agriculture. (2011) Poultry 2010. *Structure of the U.S. Poultry Industry, 2010*. USDA–APHIS–VS–CEAH–NAHMS. Fort Collins, C.O. #583.1211 Accessed 24 January 2013 [http://www.aphis.usda.gov/animal\\_health/nahms/poultry/downloads/poultry10/Poultry10\\_dr\\_Structure.pdf](http://www.aphis.usda.gov/animal_health/nahms/poultry/downloads/poultry10/Poultry10_dr_Structure.pdf)
- <sup>2</sup> Quandt, S.A., Arcury-Quandt, A.E., Washington, C.J., Mulrooney, T., Bertoni, A.G. (2010) Community Gardens and Farmers Markets, Forsyth County, N.C. Wake Forest University Translational Science Institute Program in Community Engagement. <http://tsi.wfubmc.edu/index.cfm/for-researchers/about-the-tsi/news-announcements/>
- <sup>3</sup> History. Forsyth Community Gardening. Forsyth County Cooperative Extension. Accessed 10 January 2013. <http://www.forsythcommunitygardening.com/History.aspx>.
- <sup>4</sup> Nowlin, M.B., (2012) *Growing your Local Food Business in North Carolina: A Guide to Laws and Regulations*. (R. McReynolds & S.M. Rayl, Eds.) Carolina Farm Stewardship Association.
- <sup>5</sup> Personal communication with Glen Simmons, AICP, ASLA, Principal Planner Winston-Salem/Forsyth City-County Planning staff.
- <sup>6</sup> Winston-Salem/Forsyth County, North Carolina, U.D.O § 2-4.1 - Table B.2.6 (2011).
- <sup>7</sup> Op. cit., Simmons
- <sup>8</sup> Kernersville Municipal Code § 3.61
- <sup>9</sup> Winston-Salem Municipal Code § 6.4 (2012)
- <sup>10</sup> Winston-Salem Municipal Code § 6.6 (2012)
- <sup>11</sup> Voluntary Agricultural Districts Ordinance. Article V (2008)
- <sup>12</sup> Cruze, S., & Curtis, J., *Cabarrus County Food System Assessment*. Center for Environmental Farming Systems.
- <sup>13</sup> N.C. Department of Agriculture and Consumer Service MPID Notice 15-12 (2012)
- <sup>14</sup> Op. cit., Nowlin p.5
- <sup>15</sup> Mills, S., & Wold, C., (2007) *Developing Shared-use Food and Agricultural Facilities in North Carolina*. Center for Assessment and Research Alliances at Mars Hill College and Wold & Associates.
- <sup>16</sup> Rogers, C., (2011, April 1) Blue Ridge Food Ventures. *NC Rising*. [Television Broadcast] UNC TV [www.unctv.org/ncrising](http://www.unctv.org/ncrising)
- <sup>17</sup> Tiberii, J., (2012, February 1) Non-profit Poultry Plant Opens in Marion. [Radio Broadcast] WUNC 91.5 North Carolina Public Radio. <http://wunc.org/programs/news/archive/>
- <sup>18</sup> Op. cit., Nowlin p. 5
- <sup>19</sup> Ibid. p. 5
- <sup>20</sup> Ibid. p. 23

## END NOTES, CONT.

<sup>21</sup> Ibid. pp. 8-9, 12-13

<sup>22</sup> Ibid. pp. 10-11, 14-16

<sup>23</sup> Ibid. p. 20

<sup>24</sup> Schmidt, M.C., Kolodinsky, J. M., DeSisto, T. P., and Conte, F. C. (2011). Increasing farm income and local food access: A case study of a collaborative aggregation, marketing, and distribution strategy that links farmers to markets. *Journal of Agriculture, Food Systems, and Community Development*, 1(4), 157–175.

<sup>25</sup> Local Food Hub. *Mission*. Accessed 11 January 2013. <http://localfoodhub.org/about/mission/>

<sup>26</sup> Suokko, K. & Manley, E. Local Food Hub Brings Fresh, Healthy Food to Virginia's Heartland. The Center for a New American Dream. Accessed 11 January 2013. <http://www.newdream.org/resources/local-food-hub-brings-fresh-healthy-food-to-virginia>

<sup>27</sup> USDA Economic Research Service (2012) *Wholesaling*. Accessed 29 November 2012. <http://www.ers.usda.gov/topics/food-markets-prices/retailing-wholesaling/wholesaling.aspx>

<sup>28</sup> Personal communication with Mark Tucker, Director. Forsyth County Cooperative Extension Service.

<sup>29</sup> Compass Group. *Eat Local*. Accessed 29 November 2012. <http://compass-usa.com/Pages/EatLocal.aspx>

<sup>30</sup> Rejesus, R. (prepared by). (2009) *Good Agricultural Practices GAP Certification: Is it Worth It?* North Carolina Cooperative Extension.

<sup>31</sup> USDA Agriculture and Marketing Service. (2011) *Good Agricultural Practices and Good Handling Practices and Verification Program User's Guide*. Fruit and Vegetable Programs Fresh Products Branch.

<sup>32</sup> Op. cit., Rejesus p.2

<sup>33</sup> Personal communication with Mary Jac Brennan, Community Gardening Resource Program. Forsyth County Cooperative Extension Service.

<sup>34</sup> N.C. Administrative Code § 02 NCAC 09C.0503

<sup>35</sup> Winston-Salem Municipal Code § 74.285 (2004)

<sup>36</sup> Racine, E.F., Mumford, E.A., Laditka, S.B., & Lowe, A.E., (2012) Understanding Characteristics of Families who Buy Local Produce. *Journal of Nutrition Education and Behavior*.

<sup>37</sup> Personal communication with Beta Verde, market manager for the Cobblestone Farmers Markets.

<sup>38</sup> USDA Natural Resources Conservation Service. *Composting*. Accessed 23 January 2013. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/?ss=16&navtype=SUBNAVIGATION&c&id=nrcs143\\_023537&navid=22012000000000&position=Not%20Yet%20Determined.Html&ttype=detail](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/?ss=16&navtype=SUBNAVIGATION&c&id=nrcs143_023537&navid=22012000000000&position=Not%20Yet%20Determined.Html&ttype=detail)

<sup>39</sup> DeRosa, Joey. *Compost in Action*. Wake Forest University Office of Sustainability. Accessed 23 January 2013. <http://sustainability.wfu.edu/2012/09/27/compost-in-action/>

<sup>40</sup> Sonntag, Viki. (2008) *Why Local Linkages Matter: Findings From the Local Food Economy Study*. Researched and Written for Sustainable Seattle.

# OPPORTUNITIES FOR COMMUNITY ACTION

Data collected and analyzed during the study indicate that Forsyth County has a solid foundation capable of supporting a stronger community food system. The current community food system is comprised of an active farming and gardening community, institutions and restaurants interested in local foods, and a strong community of local-food advocates. Community organizations and non-profits, government entities, and individual residents are all key players in the current system. The combination of an active community and current initiatives provides the foundation to expand the community food system.

However, the analysis also identified key gaps in the food system that if filled could significantly boost the economic and social impact of local foods. Table 6 (found on page 38) sorts these findings by component of the community food system and provides a brief description of each. Forsyth Futures developed a set of opportunities for community action to address the gaps and increase the impact of the system. Table 7, on page 39, identifies the recommended actions for enhancing the community food system. Accompanying the two tables are detailed overviews of each opportunity by component of the food system. Located in Appendix C are charts that lay out potential time frames, leaders and participants identified for implementation.



TABLE 6. Key Findings and Rationale by Food System Component

FINDINGS & RATIONALE

System Infrastructure	<p>1. <b>A NEED FOR STAKEHOLDER COORDINATION:</b> Stakeholders are seeking a way to drive initiatives that support the community food system, maintain and build connections between one another, and ensure communication occurs in an open and transparent forum.</p> <p>2. <b>MARKETING OF THE COMMUNITY FOOD SYSTEM:</b> In all areas of the food system, marketing was a challenge for stakeholders. Without marketing opportunities, producers and entrepreneurs lose business opportunities needed to maintain and expand their business.</p> <p>3. <b>AN INCREASED INTEREST IN FOOD SYSTEMS:</b> In recent years, citizen and community leaders have shown increased interest and active participation in the community food system. While certainly a positive issue to have, stakeholders are unsure of how to involve themselves in the system to create meaningful change.</p> <p>4. <b>TRAINING FOR A FOOD SYSTEM WORKFORCE:</b> Expansion of the community food system has potential for new jobs, and as a result will require a skilled workforce. In particular, initiatives such as shared-use processing facilities and aggregation centers require a workforce trained to use specific equipment and in food safety.</p>
Production	<p>5. <b>LOSS OF FARMLAND AND FARMERS:</b> The amount of farmland in the region is decreasing, and the average age of farmers is increasing. Producers also noted that the inability to find farm labor prevented expansion. A sustainable community food system requires the continued preservation of existing farmland, training of new farmers and access to farm labor.</p> <p>6. <b>GROWTH OF URBAN AGRICULTURE:</b> Community gardening is the primary form of urban agriculture occurring in Forsyth County. With a very strong community garden system, potential exists to expand urban agriculture to urban farms. Urban farms connected to institutions, government agencies, and individual organizations can provide training opportunities for new farmers, education experiences for students, and a new means of food access.</p>
Processing	<p>7. <b>GROWTH OF SMALL FOOD BUSINESSES &amp; ENTREPRENEURS:</b> Community food systems as an economic development tool rely on their ability to foster entrepreneurship of small food businesses. In Forsyth County, residents have the option to process low-risk food products in the home, but facilities for processing, packaging, and labeling high-risk foods are not available for small businesses.</p> <p>8. <b>LACK OF POULTRY PROCESSING FOR SMALL AND MID-SIZE PRODUCERS:</b> The majority of poultry product sales originate from large-scale poultry farms, and poultry products do not necessarily stay in Forsyth County. Other than slaughtering and processing poultry on the farm, convenient options do not exist for small or mid-size poultry farmers.</p>
Distribution	<p>9. <b>ACCESS TO DISTRIBUTION NETWORKS:</b> Distribution networks help farmers reduce the time they spend marketing their products and allow them to reach markets requiring larger volumes than they produce individually. However, the current food system does not readily provide options scaled for small and mid-size producers.</p> <p>10. <b>SALES TO LOCAL RESTAURANTS AND INSTITUTIONS:</b> Producers and restaurants/institutions desire to form business relationships with one another, however the current system presents some challenges to making this a reality. Restaurants and institutions have specific needs for quantity, variety, and delivery, which often require extra planning on the part of the farmer; by addressing these challenges, restaurants and institutions serve as a strong market opportunity for producers.</p> <p>11. <b>COORDINATION OF FARMERS' MARKETS:</b> Overall the number of farmers' markets in Forsyth County is a benefit. It implies more venues for producers to sell and an increased potential for consumers to access local foods. However, it also presents some challenges. Markets are time consuming for producers to attend, and often operate at hours that are difficult for consumers to attend.</p>
Consumption	<p>12. <b>CONSUMER KNOWLEDGE &amp; VALUE OF LOCAL FOODS:</b> Interviews with food system stakeholders suggest increasing community knowledge of the food system to convey the value of local foods. Many consumers are removed from farming and lack awareness of the benefits of eating locally grown goods, what products are grown in the region, and the seasonality of fresh produce.</p> <p>13. <b>ACCESSIBILITY OF LOCAL FOODS:</b> The ability for all residents to have access to fresh, healthy local foods is an issue that needs to be addressed. Currently, many residents do not have the opportunity to purchase local foods. They may lack knowledge on the benefits of local foods, not have easy access to retailers that sell these foods or not be able to afford them.</p>

**TABLE 7. Identified Opportunities for Community Action**

**OPPORTUNITIES FOR COMMUNITY ACTION**

System Infrastructure	<ol style="list-style-type: none"> <li>1. Develop a Community Food System Consortium</li> <li>2. Create a Community Food System Coordinator Position</li> <li>3. Explore Local Food Directory Options</li> <li>4. Examine Branding Opportunities</li> <li>5. Provide Food System Training Opportunities</li> <li>6. Develop Job Training Programs for Food Related Businesses</li> </ol>
Production	<ol style="list-style-type: none"> <li>7. Expand the Piedmont Farm School</li> <li>8. Adopt a Farmland Preservation Plan</li> <li>9. Promote Internship Referral Services</li> <li>10. Expand the Community Garden Resource Program</li> <li>11. Amend the Unified Development Ordinance</li> <li>12. Develop Policy for Use of City and County Land/Resources for Urban Agriculture</li> </ol>
Processing	<ol style="list-style-type: none"> <li>13. Complete a Feasibility Study for the Development of a Shared-Use, Processing Facility</li> <li>14. Promote Existing Entrepreneurial Resources</li> <li>15. Work Regionally to Explore Need for a Mobile Poultry Processing Facility</li> </ol>
Distribution	<ol style="list-style-type: none"> <li>16. Strengthen and Expand Food Hubs Serving Forsyth County</li> <li>17. Promote Good Agricultural Practice (GAP) Certification</li> <li>18. Educate Farmers and Chefs</li> <li>19. Establish Institutional Purchasing Policy</li> <li>20. Convene a Farmers Market Association</li> </ol>
Consumption	<ol style="list-style-type: none"> <li>21. Launch a Consumer Education Campaign</li> <li>22. Introduce Local Food Sales to Convenient Stores</li> <li>23. Research and Establish Mobile Markets</li> <li>24. Streamline Process of Accepting SNAP/EBT at Farmers' Markets</li> </ol>

# SYSTEM INFRASTRUCTURE

## 1: DEVELOP A COMMUNITY FOOD SYSTEM CONSORTIUM

Issues Addressed - 1, 2, 3, 7, 11, 12, 13

The first recommendation of this study is to develop a structure for stakeholders to convene and plan strategically for future development of the community food system. A consortium model can foster relationships and serve as a catalyst for community food system projects (ranging from job training, youth leadership training, consumer education on healthy eating and nutrition campaigns) while working within a broader plan for community development. A consortium is defined as a collection of entities (e.g., institutions, community organizations, individuals) brought together by their interest in collaborative work to accomplish a task of mutual value beyond the resources of any one member.<sup>1,2</sup> Fundamentally, consortia are formed so that members can accomplish more as a collective than on their own, and projects have a greater likelihood of successful implementation with early buy-in and input. An advantage of the consortium structure is it allows the entity to shift as the community grows. It also provides the option to disband when the consortium has met the needs of the community.

**Structure:** The consortium should have a formal structure with a steering committee and member representation from all elements of a food system. To maintain neutrality, the consortium should function as an independent entity with a fiscal agent for funding purposes. A set of bylaws should provide a framework for how members of the steering committee are selected and for general membership to the consortium. The Wake Forest Business and Community Law Clinic is an existing organization that could assist with creating a structure to accommodate the needs of the community, and the Winston-Salem Sustainability Resource Center offers a potential non-profit organization to act as a fiscal agent for the consortium.

**Funding:** Food is an issue that reaches across sectors of the community, from health to economic development, and as a result funding for an initiative requires support from across the community. A tiered membership structure allows for joint funding from community leaders and institutions while not excluding groups/individuals that cannot contribute financially. As the consortium grows and shifts, major sources of funding will also shift.

**Tasks:** Tasks of a food system consortium should include those that raise awareness of food system initiatives, provide a communication process between members, address issues in the system as they arise (including policy), drive initiatives that promote economic and community development, and guide the implementation of recommendations of the *Forsyth County Community Food System* study. The consortium has the potential to play a lead role in many of the recommended actions, and is identified as a role in Table 10 (found in Appendix C). Potential frameworks for implementing the suggested tasks include regular community meetings, a website, social media, and/or a community list serve.

The work and authority of the consortium relies on agreement of the community to recognize the consortium as a central entity to convene food system stakeholders, address food system issues as they arise, and undertake initiatives appropriate to the mission of the consortium.

Following the release of *The Forsyth County Community Food System* report, community leaders should gather to formalize a structure and development plan for a community food system consortium. Table 8 identifies suggested community organizations and institutions to lead the development of the consortium.

TABLE 8. Potential Leaders to Form the Community Food System Consortium

OPPORTUNITIES FOR ACTION	KEY LEADERS
Develop a Community Food System Consortium	Forsyth Cooperative Extension, Forsyth Futures, Foundations/Funders, Higher Education, Hospitals, Local Governments, Winston-Salem Sustainability Resource Center

## 2: CREATE A COMMUNITY FOOD SYSTEM COORDINATOR POSITION

Issues Addressed - 1, 2, 3, 7, 11, 12

Based on interview and survey data there is a need for an individual who is connected to the food system as a whole but with ability to work directly with stakeholders of the food system. Often farmers, entrepreneurs, and existing small food businesses, including restaurants and value-added food processors, do not have the time or knowledge to connect to existing resources that could help their business succeed. At the same time consumers are often unaware of the value and benefits of local food production and consumption.

In order to expand market opportunities for producers and food businesses, both of these issues need addressing. An individual dedicated to the promotion of local foods in Forsyth County could help meet these needs and promote economic development around agriculture and the food system. The primary responsibilities of a food system coordinator are connecting producers, entrepreneurs, and food businesses with tools for economic development (e.g. marketing, capital, and technical resources), assisting with the launch of a consumer education campaign, and implementing a marketing campaign for the Forsyth County Community Food System. Placing the coordinator position in the structure of the Community Food System Consortium allows this individual to remain neutral, develop and build trust with members of the system, stay connected with all initiatives, and serve as a manager for consortium activities.\* As with the consortium, it is expected that the role of the coordinator position will shift as the food system grows.

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\* Given the variety of skill sets needed for this position (economic development, consumer education, and management), it is possible that instead of one full-time individual there is a need for two part-time individuals working together to address these issues.

## 3: EXPLORE LOCAL FOOD DIRECTORY OPTIONS

Issues Addressed - 2, 13

Local food guides are one opportunity to market local food products and initiatives, however these initiatives are often costly and time consuming. Two main options exist for distribution of local food guides - printed and online directories. While printed guides allow for easy distribution, they run the risk of becoming outdated quickly. Online local food directories allow for quick updating of information, but not all residents have access to the Internet.

Currently, there are at least six online “local food finder” databases with information on products in the Forsyth County food system. While sites like these are helpful in locating local food, having numerous sites can overwhelm producers and consumers. The consortium should establish one directory to market for producers to enter and update their information, and for consumers to use as a locator; most likely one of the existing directories can serve this purpose. When selecting a database, they should work with the host to see if there are easy ways to print and subsequently distribute information stored in the database.

## 4: EXAMINE BRANDING OPPORTUNITIES

Issues Addressed - 2, 13

Branding of local foods is another strategy for marketing local produce and food products to consumers. Piedmont Grown is an organization certifying and branding farms growing, raising, and processing food in the Piedmont Region.<sup>3</sup> One option for increase branding of foods grown in the study region is to encourage and assist producers with applying for Piedmont Grown certification. The Piedmont Grown certification does span a region broader than the study area, but working with a current branding program is less costly and confusing for the community than creating another brand. Another option is to work with Piedmont Grown to explore a sub-branding to specify what county products are coming from.

## 5: PROVIDE FOOD SYSTEM TRAINING OPPORTUNITIES

Issues Addressed - 1, 3

Increasingly, community leaders and residents are taking an interest in impacting the local food system. Trainings will provide interested individuals with in-depth knowledge of local food system issues and way they can connect with others, and engage in building it.

## 6: DEVELOP JOB TRAINING PROGRAMS FOR FOOD RELATED BUSINESSES

Issues Addressed - 4, 5

Several organizations operating in Forsyth County provide job training for residents, including The Triad Community Kitchen (TCK). TCK is a program of Second Harvest Food Bank of Northwest NC that trains chronically unemployed and underemployed individuals for the food-service industry. Goodwill Industries and Forsyth Technical Community College are two other organizations with a focus on job training in Forsyth County. An opportunity exists to work with job-training organizations to provide individuals skills needed to work in processing and/or distribution facilities.



# PRODUCTION

## 7: EXPAND THE PIEDMONT FARM SCHOOL

Issues Addressed - 5

The Piedmont Farm School is an existing initiative to support new farmers in their efforts to establish farm businesses, and transitioning farmers in expanding. The Piedmont Farm School was full in 2012, with a waiting list, demonstrating a need to identify and dedicate resources to expand the program and train more farmers. This need was also identified by *Legacy 2030*, the comprehensive planning document for the city and county. Expansion of the Farm School could also include a formal mentorship program between those who have gone through Farm School and potential new farmers. Connecting with the Winston-Salem Forsyth County Schools is a potential resource for recruiting new farmers.

## 8: ADOPT A FARMLAND PRESERVATION PLAN

Issues Addressed - 5

Farmland preservation plans address existing agricultural activity and challenges to maintaining family farming in the county.<sup>4</sup> A plan will also outline tools available for protection and a strategy to maintain current agricultural assets. Resources for constructing a farmland preservation plan include data from this study and development guidelines from *Legacy 2030*.

## 9: PROMOTE INTERNSHIP REFERRAL SERVICES

Issues Addressed - 5

Carolina Farm Stewardship Association's Internship Referral Service connects farmers with farm interns throughout North Carolina. A potential responsibility of a coordinator is to connect with this service to match farm interns and farms in Forsyth County. Other potential resources for internship opportunities include working with the Piedmont Farm School and the Winston-Salem/Forsyth County Schools.

## 10: AMEND THE UNIFIED DEVELOPMENT ORDINANCE (UDO)

Issues Addressed - 6

This recommendation is also supported by the action agenda of Chapter 12: Rural Character in *Legacy 2030*. A couple of options exist for amending current UDOs to foster agriculture in municipalities - by treating urban agriculture as a district or a use category. Agricultural use categories designate agriculture as a permitted use in specified existing zoning districts. This form of zoning allows for more widespread urban agriculture. Urban agriculture districts create a separate zoning district for farming purposes, allowing for more intensive agricultural practices in certain areas and more protection of urban agricultural sites to future development.<sup>5</sup> Either option will provide a clear designation for urban agriculture within municipalities.

## 11: EXPAND THE COMMUNITY GARDEN RESOURCE PROGRAM

Issues Addressed - 6, 7, 13

The Community Garden Resource Program has had great success in encouraging community gardening in Forsyth County. To maintain a strong community garden system, the Garden Resource Program should continue its work and expand to assist established and interested community gardens with efforts to enter retail markets as an economic-development tool. The increase and expansion of community gardens for use by local residents, with education on the value of eating fresh produce, has great potential to impact the public health of Forsyth County.

Within the Community Garden Resource Program, opportunities also exist for youth-training programs. Training youth in growing and food system work can empower them to help establish other gardens and to promote the value of urban agriculture across the community.

## 12: DEVELOP POLICY FOR USE OF CITY AND COUNTY LAND & RESOURCES

Issues Addressed - 5, 6, 13

Urban farming and community gardening offer a solution for putting to use vacant and under utilized properties owned by the county and individual municipalities.<sup>6</sup> Another role local governments can play in urban agriculture is to assist with services to reduce costs. As mentioned earlier one challenge for community gardeners is access to water. Many community groups or individuals can not afford to install a water hookup needed to maintain the garden. Local governments can assist with establishing a hook up and providing water for farming. Benefits of supporting and providing resources for community gardening include productive use of currently unproductive property, city/county beautification, occasions for youth education, and opportunities to improve public health.

## CASE STUDY: CLEMMONS COMMUNITY GARDEN

Across the country, local governments are taking an inventory of vacant property and authorizing lease agreements with community groups and individuals to use vacant land for urban agriculture; there is also precedence for local governments providing support resources for urban farming. In Forsyth County, a few examples of this model already exist. The Clemmons Community Garden, located on village property, has 21 beds for community gardening. Most are available for rent to residents of Clemmons, with five used for donation gardening. The project is overseen by a garden manager along with the residents who rent plots. The village provides support for water and storage space. Revenue from plot rental helps offset the village's water expenses.<sup>7</sup>



## 13: COMPLETE A FEASIBILITY STUDY FOR A SHARED-USE, PROCESSING FACILITY

Issues Addressed - 7, 9, 10, 13

From interviews and focus groups, an interest in a shared-use processing facility emerged as a potential economic development tool for Forsyth County. The Triad was also identified as a potential location for a processing facility in the report *Developing Shared-use Food and Agricultural Facilities in North Carolina*. However, because of the large commitment of resources it requires, there is need for a feasibility study and planning period. While there are numerous examples of shared-use facilities, they all operate slightly differently and there is not a “cookie cutter” model to apply across communities.<sup>8</sup> In addition, given the costs and high demand needed to make a project successful, consideration should be given to this as a regional project.

Based on identified needs from the study, two forms of shared-use facilities show the greatest potential for success in Forsyth County: a shared-use, value-added processing facility and an agricultural-processing facility. These forms would provide a space for food entrepreneurs interested in value-added products, and allow producers to process raw produce for sale. A key component of many shared-use facilities is the technical and marketing assistance they can provide new and expanding businesses.

While the *Forsyth County Community Food System* study identified an interest in a shared-use facility, a true feasibility study to measure demand, cost, and potential impact of the facility is necessary for a successful project. Fortunately, several resources exist to help start a feasibility study and learn from previous experiences. Blue Ridge Food Ventures and the Piedmont Food and Agricultural Processing Center can serve as organizations that provide guidance and sharing of best practices. Another resource in North Carolina is Smithson Mills, a consulting firm, that has assisted with feasibility studies and development of processing facilities. Smithson Mills is also the coauthor of the study *Developing Shared-use Food and Agricultural Facilities in North Carolina*. The consortium should work with public entities and community organizations to complete a feasibility study for a shared-use, regional processing facility in Forsyth County.

## 14: PROMOTE EXISTING ENTREPRENEURIAL RESOURCES

Issues Addressed - 2, 7

Winston-Salem and Forsyth County are communities with numerous resources for small businesses and entrepreneurs. A list of resources for small businesses and entrepreneurs is located in Appendix D. These resources support various forms of entrepreneurship, but in many cases do not have a specific knowledge of food businesses. A food system coordinator could work with these programs and aspiring food entrepreneurs to develop specific programs for food business start-ups.

## 15: IDENTIFY NEED FOR A MOBILE POULTRY-PROCESSING FACILITY

Issues Addressed - 8

While it is clear there are limited options for small and mid-size poultry processing, more discussions with poultry producers are needed to determine the appropriate response. The community food system consortium could facilitate conversations among stakeholders to clarify processing needs and look for opportunities at the state level for a mobile processing unit or to collaborate regionally.



# DISTRIBUTION

## 16: EXPAND FOOD HUBS SERVING FORSYTH COUNTY

Issues Addressed - 9, 10, 13

As demonstrated in the distribution section, multiple food hubs serve Forsyth County, and with increased investment they could reach more local producers and consumers. Options for investment that would expand services to producers include increased marketing to farmers and an examination of the drop-off and payment process to best serve farmers. For those interested in wholesale distribution, Pilot Mountain Pride offers an opportunity to aggregate their products for retail sales, however a more centralized drop-off point might be needed for producers in the Forsyth County region.

Expansion of delivery services and additional drop-off points for municipal offices, businesses, faith-based institutions, and schools could increase consumers access to local foods. By developing partnerships with wholesale distributors, food hubs can address the challenges of supplying local foods to institutions and restaurants. These challenges include transportation and delivery issues, planning for appropriate quantities, and required certifications for producers. With increased staffing, technical, and marketing support, an organization such as Triad Farm to Table cooperative could serve this purpose.

## 17: PROMOTE GOOD AGRICULTURAL PRACTICE (GAP) CERTIFICATION

Issues Addressed - 7, 9, 10

As food safety becomes more of a concern, it is increasingly common for institutions to require GAP training and/or certification to purchase fruits, vegetables, and meats from local producers. GAP training and certification is potentially expensive for small and mid-size producers and sometimes not logistically feasible. The Forsyth County Cooperative Extension Service has offered GAP trainings in the past and should explore the possibility of regular trainings. Connecting farmers with resources to attend trainings and working with state advocates to streamline the certification process will allow farmers to stay competitive.

## 18: CONVENE FARMERS AND CHEFS

Issues Addressed - 10, 12

There are numerous opportunities for chefs and farmers to exchange knowledge on the production and preparation of food. One option is to bring farmers and chefs together for a local food sampling event. This event should provide producers the opportunity to showcase their products, offer training for producers on how to sell to chefs, and cooking demonstrations on ways to prepare local foods. It also provides farmers and chefs the opportunity to meet face to face, build a relationship, and understand the complex needs of each party. At this event, producers could help chefs showcase their products with cooking demonstrations. A local chamber of commerce could potentially sponsor this type of event for chefs and producers.

## 19: ESTABLISH INSTITUTIONAL PURCHASING POLICIES

Issues Addressed - 10, 13

A local-food purchasing policy could encourage government agencies and institutions to purchase more local foods for events and dining services. One example of a government purchase policy is in Cabarrus County, which requires County employees to “source at least 10% of all food served at county-catered events and small department-sponsored meetings from food producers within North Carolina.”<sup>9</sup> A modification of this policy is to allow for use of non-local foods if the local supply is insufficient.\*

A second option is to implement a ‘best faith’ policy within an institution, meaning purchasers of food would show they made their best effort to purchase from a local source. This policy is not as strong as a 10% requirement, but it allows for more flexibility if products are not readily available.

\* A guide for developing and implementing a food purchasing policy was created by The Food Alliance and can be found at [www.sustainablefoodpolicy.org](http://www.sustainablefoodpolicy.org)

\*\* The Research Triangle presents an example of joint marketing between area markets. For more information visit [trianglefarmersmarkets.wordpress.com](http://trianglefarmersmarkets.wordpress.com).

## 20: CONVENE A FARMERS' MARKET ASSOCIATION

Issues Addressed - 11, 13

A farmers’ market association would be comprised of market managers from all farmers’ markets in Forsyth County. The role of a farmers’ market association includes examining the locations, days and times of markets to determine if they are meeting the needs of the community. This association should also promote markets across the county through collaborative efforts.\*\* Promotions that benefit all Forsyth County markets should be a priority.



# CONSUMPTION

## 21: LAUNCH A CONSUMER EDUCATION CAMPAIGN

Issues Addressed - 10, 12

The purpose of an education campaign is to broaden the value of local foods in Forsyth County and foster a community that understands the benefits of supporting the food system. The campaign could include outreach on the benefits of the local food system, food seasonality, fresh food preparation, and food-safety issues. An education campaign also serves as a public-health tool as it helps people to realize the nutritional benefits of consuming fresh, healthy foods. Potential activities for consumer education include farm tours and cooking demos using local foods. Ultimately, a community with a deeper knowledge and value of the benefits of local foods will increase market demand for local foods.

## 22: INTRODUCE LOCAL FOOD SALES TO CONVENIENCE STORES

Issues Addressed - 13

Convenience stores offer an almost untapped market for local producers to retail food products. The Healthy Food Financing Initiative is a tool other communities have used to bring fresh foods to convenience stores. The Healthy Corner Stores Network, an initiative of The Food Trust in Philadelphia, PA, can serve as a model for expanding fresh foods to local convenience stores\*. To encourage the sale of local foods, convenience stores can work with a local food hub or gardens in the same community as the store provide another alternative. The community food system coordinator can help develop these relationships.

*\* For more information on the Healthy Food Financing Initiative, see the US Department of Health and Human Services at <http://www.acf.hhs.gov/programs/ocs/resource/healthy-food-financing-initiative-0>. The Healthy Corner Store Networks website is located at [www.healthycornerstores.org](http://www.healthycornerstores.org)*

## 23: RESEARCH AND ESTABLISH MOBILE MARKETS

Issues Addressed - 13

Mobile markets offer an opportunity to reach communities that do not have a farmers' market or access to other local food markets. Two models of mobile markets, with examples in North Carolina, are the use of a delivery truck converted to a market or produce peddlers. The LoMo Market, based in the Triangle area, operates as a converted truck, while the Wayne Food Initiative operates the Produce Ped'lers, a bike-delivery program for local foods. A non-profit, private business, or public-private partnership are all options for establishing a mobile market initiative.

## 24: STREAMLINE PROCESS OF ACCEPTING SNAP/EBT AT MARKETS

Issues Addressed - 13

Accepting SNAP vouchers and EBT at farmers' markets is one way to diversify the consumer base at farmers' markets and of local foods in general. While a couple of farmers' markets in Forsyth County have started to accept SNAP/EBT, the process was lengthy. A farmers' market association should work with state leaders of the local food movement to help streamline the process for accepting SNAP/EBT at farmers' markets.

It is important to note that accepting SNAP and EBT alone will not automatically create a broader consumer base for farmers' markets, but this effort should be accompanied by education on the benefits of fresh, local foods and tips for how to prepare them.

## END NOTES

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- <sup>1</sup> Cullen, P.W., Norris, R. H., Resh, V. H., Reynoldson, T. B., Rosenberg, D. M., & Barbour, M. T. (1999). *Collaboration in scientific research: A critical need for freshwater ecology*. *Freshwater Biology*, 4.2, 131-142.
- <sup>2</sup> Consortium. *Merriam-Webster Online*. Accessed 5 January 2013. <http://www.merriam-webster.com>
- <sup>3</sup> About Us. Piedmont Grown. Accessed 10 December 2012. <http://www.piedmontgrown.org/?5>
- <sup>4</sup> N.C. Department of Agriculture & Consumer Services. Farmland Preservation Tools. The Agricultural Development & Farmland Preservation Trust Fund. Accessed 11 December 2012. <http://www.ncadfp.org/documents/FarmlandPreservationToolshandout.pdf>
- <sup>5</sup> Mukherji, N., & Morales, A., (2010) Zoning for Urban Agriculture. *Zoning Practice, Practice Urban Agriculture*. American Planning Association, (3), 4-6.
- <sup>6</sup> Hagey, A., Rice, S., & Flournoy, R. (2012) Growing Urban Agriculture: Equitable Strategies and Policies for Improving Access to Healthy Food and Revitalizing Communities. *PolicyLink*.
- <sup>7</sup> Personal communication with Clemmons community garden representative.
- <sup>8</sup> Mills, S., & Wold, C., (2007) *Developing Shared-use Food and Agricultural Facilities in North Carolina*. Center for Assessment and Research Alliances at Mars Hill College and Wold & Associates.
- <sup>9</sup> Cruze, S., & Curtis, J., *Cabarrus County Food System Assessment*. Center for Environmental Farming Systems.

# APPENDIX A. DEFINITIONS

**COMMUNITY GARDEN:** An active produce garden organized and maintained by a group of gardeners for the benefit of the community. Source: Quandt, S.A. et al. (2010) Community Gardens and Farmers Markets, Forsyth County, NC.

**ELECTRONIC BENEFIT TRANSFER (EBT):** Program of Food and Nutrition Services to assist low-income families with food assistance. Source: Food and Nutrition Services. North Carolina Division of Social Services <http://www.ncdhhs.gov/dss/foodstamp/index.htm>

**FARM OPERATOR:** Person who operates a farm, either by doing the work or making day-to-day decisions about such things as planting, harvesting, feeding, and marketing. The operator may be the owner, a member of the owner's household, a hired manager, a tenant, a renter or a sharecropper. Source: Census of Agriculture. Appendix B. General Explanation and Census of Agriculture Report Form

**FOOD SECURITY:** the ability for all people to access, at all times, "enough food for an active, healthy life." Source: USDA

**HARVESTED CROPLAND:** Land from which crops were harvested and hay was, used to grow short-rotation woody crops and land in orchards, citrus groves, Christmas trees, vineyards, nurseries, and greenhouses. Source: Census of Agriculture. Appendix B. General Explanation and Census of Agriculture Report Form

**HIRED FARM LABOR:** Total hired farm workers, including paid family members, by number of days worked. Does not include contract laborers. Source: Census of Agriculture. Appendix B. General Explanation and Census of Agriculture Report Form

**INTRASTATE:** Sale of goods within state lines. Source: Carolina Farm Stewardship Association. *Growing your Local Food Business in North Carolina: A Guide to Laws and Regulations*.

**LOCAL MULTIPLIER EFFECT:** The boost to an economy resulting from dollars spent at a local business recirculating within a community. Source: American Independent Business Alliance <http://www.amiba.net/resources/multiplier-effect>

**MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD:** Equivalent to total sales it represents the gross market value before taxes and production expenses of all agricultural products sold. Source: Census of Agriculture. Appendix B. General Explanation and Census of Agriculture Report Form

**MERCHANT GROCERY WHOLESALE DISTRIBUTORS:** Firms primarily engaged in buying groceries and related products from manufacturers, or processors, and reselling to retailers, institutions and other businesses. Source: USDA "Wholesaling" Economic Research Service <http://www.ers.usda.gov/topics/food-markets-prices/retailing-wholesaling/wholesaling.aspx>

**MULTIVARIATE ANALYSIS:** An analysis used to determine the relative contributions of different causes to a single event. Source: Katz, Mitchell. (1999) *Multivariate Analysis: A Practical Guide for Clinicians*. Cambridge University Press. <http://catdir.loc.gov/catdir/samples/cam032/98039350.pdf>

**PRINCIPAL FARM OPERATOR:** The person primarily responsible for the on-site, day-to-day operation of the farm or ranch business. This person may be a hired manager or business manager. Source: Census of Agriculture. Appendix B. General Explanation and Census of Agriculture Report Form

## DEFINITIONS, CONT.

**SMALL FAMILY FARMS:** Farms with sales of less than \$250,000. Source: Census of Agriculture. Appendix B. General Explanation and Census of Agriculture Report Form

**SOCIAL CAPITAL:** The relationships among individuals that lead to productive outcomes, includes social trust, norms, and networks. Source: Social Capital Research <http://www.socialcapitalresearch.com/literature/evolution.html>

**UNIFIED DEVELOPMENT ORDINANCE:** A set of regulations for the county or a municipality that govern land use, including zoning ordinances, environmental ordinances, and subdivision ordinances. Source: Winston-Salem/Forsyth County City-County Planning <http://www.cityofws.org/default.aspx?mod=Article&id=1103>

**VALUE OF AGRICULTURAL PRODUCTS SOLD DIRECTLY FOR HUMAN CONSUMPTION:** The value of agricultural products that are produced and sold directly for human consumption from roadside stands, farmers' markets, pick-your-own sites, etc. Source: Census of Agriculture. Appendix B. General Explanation and Census of Agriculture Report Form

**VERTICALLY INTEGRATED FARMS:** Farms that operate under a contract with a larger processing company that owns the livestock and provides feed and other services. The farm raises the livestock, provides housing and labor. Source: USDA "Structure of the U.S. Poultry Industry, 2010" <http://www.nationalchickencouncil.org/wp-content/uploads/2011/12/USDA%E2%80%99s-Animal-and-Plant-Health-Inspection-Service%E2%80%99s-%E2%80%9CStructure-of-the-U.S.-Poultry-Industry-2010.%E2%80%9D.pdf>

**WOMEN, INFANTS, AND CHILDREN (WIC) FARMERS' MARKET NUTRITION PROGRAM (FMNP):** Program through WIC to provide fresh, unprepared, locally grown fruits and vegetables to WIC participants, and to expand the awareness, use of, and sales at farmers' markets. Source: Food & Nutrition Service. USDA <http://www.fns.usda.gov/wic/fmnp/fmnpfaqs.htm>

# APPENDIX B. CONSUMER SURVEY

## ARE YOU HUNGRY FOR LOCAL FOODS???

PLEASE TAKE A MOMENT TO FILL OUT OUR SURVEY ABOUT BRINGING MORE LOCAL FOODS TO YOUR COMMUNITY

In general, would you say 10% of the food you purchase for home preparation is defined as local food? Local food is defined as food produced or processed in Forsyth County or counties surrounding Forsyth.

- Yes  No

What would encourage your household to purchase more food local? *Please select your top 3 choices*

- |   |   |
|---|---|
| <input type="checkbox"/> More local food selection in the grocery store   | <input type="checkbox"/> Better designation that food is produced locally |
| <input type="checkbox"/> More farmers markets   | <input type="checkbox"/> A decrease in the price of local foods           |
| <input type="checkbox"/> More opportunities to sign up for a weekly box of local produce (pick up at a designated location) | <input type="checkbox"/> More variety of local foods produced and sold    |
| <input type="checkbox"/> Local food delivered to my home/place of employment  | <input type="checkbox"/> More local food that is organic                  |
| <input type="checkbox"/> More opportunities to use WIC and EBT for local food purchases                                     | <input type="checkbox"/> More interaction with the producer               |
|   | <input type="checkbox"/> Knowledge the food is safer                      |
|   | <input type="checkbox"/> Other: _____                                     |

Are you a resident of Forsyth County?

- Yes  No

Gender

- Male  Female

Age

- Under 18  
 18 to 24  
 25 to 54  
 55 to 64  
 65 to 70  
 70 and Older

Race

- White  
 Black or African American  
 Asian  
 Native Hawaiian and Other Pacific Islander  
 Two or More Races  
 Other: \_\_\_\_\_

Ethnicity

- Hispanic or Latino  
 Not Hispanic or Latino

Household Income Level

- Less than \$15,000  
 \$15,000 to \$24,999  
 \$25,000 to \$34,999  
 \$35,000 to \$49,999  
 \$50,000 to \$74,999  
 \$75,000 to \$99,999  
 \$100,000 or more

THANK YOU FOR YOUR PARTICIPATION!

As part of a local food system assessment Forsyth Futures (a community research and analysis non-profit located in Forsyth County) is conducting a consumer survey to understand what would encourage Forsyth County residents to purchase more local foods. All surveys are anonymous and all demographic information collected is solely for ensuring a diverse group of respondents.

# CONSUMER SURVEY, CONT.

The following tables are a demographic breakdown of survey respondents.

GENDER	NUMBER	PERCENT
Male	132	21
Female	485	78
No Response	5	1
<i>Total</i>	622	100

AGE	NUMBER	PERCENT
Under 18	7	1
18 to 24	70	11
25 to 54	339	55
55 to 64	114	18
65 to 70	43	7
70 and older	44	7
No Response	5	1
<i>Total</i>	622	100

RACE	NUMBER	PERCENT
White	380	61
Black or African American	178	29
Asian	4	1
Native Hawaiian and Other Pacific Islander	1	0
Two or More Races	15	2
Other	9	1
No Response	35	6
<i>Total</i>	622	100

ETHNICITY	NUMBER	PERCENT
Hispanic	60	10
Not Hispanic	497	80
No Response	65	10
<i>Total</i>	622	100

INCOME	NUMBER	PERCENT
Less than \$15,000	113	18
\$15,000 to \$24,999	68	11
\$25,000 to \$34,999	54	9
\$35,000 to \$49,999	78	13
\$50,000 to \$74,999	90	14
\$75,000 to \$99,999	59	9
\$100,000 or more	136	22
No Response	24	4
<i>Total</i>	622	100

# APPENDIX C. OPPORTUNITIES

TABLE 9. Opportunities for Community Action by Time Frame and Issue

TIME FRAME	OPPORTUNITY	ISSUES ADDRESSED
Immediate	O1. Develop a Community Food System Consortium	1, 2, 3, 7, 11, 12
	O2. Create a Community Food System Coordinator Position	2, 3, 7, 11, 12
	O3. Promote Existing Entrepreneurial Resources	2, 7
	O4. Convene a Farmers Market Association	11, 13
	O5. Launch a Consumer Education Campaign	10, 12
Short Term	O6. Complete a Feasibility Study for the Development of a Shared-Use, Processing Facility	7, 9, 10, 13
	O7. Explore Local Food Directory Options	2, 13
	O8. Examine Branding Opportunities	2, 13
	O9. Provide Food System Training Opportunities	1, 3
	O10. Adopt a Farmland Preservation Plan	5
	O11. Promote Internship Referral Services	5
	O12. Amend the Unified Development Ordinance	6
	O13. Promote Good Agricultural Practice (GAP) Training	7, 9, 10
	O14. Educate Farmers and Chefs	10, 12
	O15. Expand the Community Garden Resource Program	6, 7, 13
	O16. Streamline Process of Accepting SNAP/EBT at Farmers Markets	13
	O17. Establish Institutional Purchasing Policy	10, 13
Mid Term	O18. Develop Job Training Programs for Food Related Businesses	4, 7
	O19. Develop Policy for Use of City and County Land/Resources for Urban Agriculture	5, 6, 13
	O20. Expand the Piedmont Farm School	5
	O21. Strengthen and Expand Food Hubs Serving Forsyth County	9, 10, 14
Long Term	O22. Work Regionally to Explore Need for a Mobile Poultry Processing Facility	8
	O23. Research and Establish Mobile Markets	14
	O24. Introduce Local Food Sales to Convenient Stores	14

Immediate = Within the next year      Short Term = 1 to 3 years      Mid Term = 3 to 5 years      Long Term = More than 5 years

# OPPORTUNITIES, CONT.

TABLE 10. Opportunities for Community Action by Role

## OPPORTUNITIES FOR COMMUNITY ACTION

		Community Food System Consortium	Community Food System Coordinator	Community Based Non-Profits	Economic Development Organizations	Faith-Based Communities	Producers (including gardeners)	Farmers Market Managers	Food Related Businesses	Foundations/Funders	Higher Education - Forsyth Technical Community College	Higher Education - All	Hospitals	Local Government Entities - Forsyth Cooperative Extension Services	Local Governments Entities - All	Neighborhood Associations/Groups	Primary & Secondary Schools	Residents	Workforce Development Organizations
Immediate	Promote Existing Entrepreneurial Resources	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Convene a Farmers Market Association	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Launch a Consumer Education Campaign	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
Short Term	Explore Local Food Directory Options	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Examine Branding Opportunities	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Provide Food System Training Opportunities	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Adopt a Farmland Preservation Plan	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Promote Internship Referral Services	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Amend the Unified Development Ordinance	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Promote Good Agricultural Practice (GAP) Training	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Convene Farmers and Chefs	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Expand the Community Garden Resource Program	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Streamline Process of Accepting SNAP/EBT at Farmers Markets	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Establish Institutional Purchasing Policy	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Complete a Feasibility Study for the Development of a Shared-Use, Processing Facility	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Mid Term	Develop Job Training Programs for Food Related Businesses	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
Develop Policy for Use of Public Land for Community Gardens/Urban Agriculture		Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
Expand the Piedmont Farm School		Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
Expand Food Hubs Serving Forsyth County		Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
Long Term	Work Regionally to Explore Need for a Mobile Poultry Processing Facility	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Research and Establish Mobile Markets	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner
	Introduce Local Food Sales to Convenience Stores	Lead	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner	Partner

 = Lead Entity       = Partner

# APPENDIX D. RESOURCES FOR FOOD ENTREPRENEURS

TABLE 11. Local Resources for Food Businesses and Entrepreneurs

LEAD ORGANIZATION	PROGRAM	SUMMARY
City of Winston Salem Small Business Center	<i>Minority &amp; Women Business Enterprise Program</i>	Provides workshops and seminars for minority- and women-owned businesses.
	<i>Small Business Center</i>	Offers technical assistance on matters relating to small businesses including "opening a small business" and small business operations. Can also assist small businesses to navigate the process of complying with City/County rules and regulations.
	<i>Small Business Loan Program</i>	Loan program that provides matching funds to small businesses unable to secure financing through conventional lending. Businesses must create or retain jobs that benefits low-to-moderate income individuals, and be located in the Winston-Salem Neighborhood Revitalization Strategy Area or in the Hewitt Business Center in Old Salem.
	<i>Target Area Business Association Program</i>	This initiative is designed to provide incentives to encourage businesses to locate within distressed areas of the city and to create job opportunities.
ForsythTech	<i>Small Business Center</i>	Provides small business assistance through one-on-one counseling, workshops, computer courses, and small business development seminars.
S.G. Atkins Community Development Corporation/ Winston-Salem State University	<i>The Enterprise Center</i>	A combination business incubator and community learning center that offers support for start-up and emerging companies. The mission of The Enterprise Center is to be a catalyst for business and community collaborations; provide resources and support for "Green" ventures in the Triad; encourage social entrepreneurship; support economic growth opportunities for small businesses; enhance community health and wellness outreach; and provide experiential learning opportunities for undergraduate and graduate students.
Wake Forest University	<i>Babcock Demon Incubator</i>	Part of the Angell Center for Entrepreneurship the Center's goal is to assist entrepreneurs develop businesses that will create, "significant economic impact in the Triad.
	<i>Angell Center for Entrepreneurship</i>	Center located in the Wake Forest School of Business to assist new and existing businesses with starting or growing a business.
	<i>Community Law &amp; Business Clinic</i>	The Community Law & Business Clinic (CL&BC) provides a full range of legal services to entrepreneurs engaged in small business development and social enterprise. The CL&BC's clients are directly involved in creating economic opportunity for local communities.
Winston-Salem Chamber of Commerce	<i>Small Business Resources</i>	Program of the Winston-Salem Chamber of Commerce to help small businesses grow.
Winston-Salem State University	<i>Center for Entrepreneurship</i>	Provide entrepreneurship courses at Winston-Salem State University and assist African-Americans with training to start a new business.
	<i>The Small Business and Technology Development Center (SBTDC)</i>	Helps business owners and potential entrepreneurs with resources to start or grow a business.