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# Popular Food Products Among Farmers in the Piedmont Triad Region of North Carolina

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## Abstract

This study evaluated the products produced by farmers in the 12-county Piedmont Triad Region of North Carolina. The study aimed to identify the most popular food products among farmers in order to enhance the local food economy. This was done by identifying food items that may be more suitable for production in the region. Survey respondents were asked to list all food items that they produced. The listed items were categorized as either crops or livestock products. The percentages of farmers that produced the different food items were calculated and compared. Beef was the number one livestock product produced by farmers in the region. Tomatoes, then lettuce, were the most predominant plant products produced by the region's farmers. One of every six farmers in the region produced tomatoes. Beef was produced by one of every eight farmers in the region. New and beginning farmers in the region will do well by considering these products because their production by many existing farmers may imply that there is a ready market for them.

**Keywords:** Farm Products, Local Food, Farm Business, Farm Enterprise, Food Marketing

## Introduction

Interest in growing locally-produced food in the United States started as a movement by a group of persons who prefer to eat foods grown or farmed relatively close to the places of sale and preparation. The movement aims to

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connect food producers and consumers in the same geographic area to develop more self-sustaining and resilient food networks, improve local economies by increasing income, or impact a particular place's health, environment, society, or community (Janssen, 2014; Pirog et al., 2014). The local food movement also reflects an increasing interest by consumers in supporting local farmers and better understanding their food's origin (Ilbery & Maye, 2005; Pirog, 2009). With the rapid growth of the food planning movement, the local food systems are gaining attention from policymakers (Diekmann et al., 2020) and have been found to contribute significantly to rural development, creating a sense of community and benefiting certain local food producers (Stein & Santini, 2022).

For many consumers, local food has come to be described as high quality, fresher, more authentic, trustworthy, environmentally friendly, and supportive of the local community (Tarken, 2015). According to Martinez et al. (2010), the growing interest in local foods in the United States results from consumer interest in the environment and community concerns, including supporting local farmers and the local economy and increasing access to healthful foods. Several statewide studies have noted that many consumers are willing to support local farmers because of the potential positive impacts of the local food system, including economic development, health and nutrition benefits, food security, energy use, and greenhouse gas emissions. Various studies have found that the top local products purchased by consumers are fresh fruits and vegetables, fresh meat, poultry, fish, and fresh baked goods (Food Institute, 2008). Swenson (2008; 2009) predicted that locally produced fruits, vegetables, and meat products increased output, employment, and labor incomes in Iowa.

Some studies assert that to capitalize on the momentum of the local food movement and broaden accessibility, engaging consumers and producers in the same region where the food items are produced will scale up the growth of the local food system (Mount, 2012; Born & Purcell, 2006). According to Mount (2012), farmers and consumers need to maintain some form of relationship to scale up local food systems. However, despite documenting the need for producer-consumer interaction (Mount, 2012; Born & Purcell, 2006; Macrae et al., 2009; Friedmann, 2016) in local food systems, various studies tend to focus mainly on consumers' attributes and preferences (Beingessner & Fletcher, 2020). In contrast, limited research studies focus on specific local food products and the attributes and preferences of farmers who produce them. The ability of local food consumers to access the desired food products is dependent on the willingness and ability of farmers to produce the products. This leads to our research question: What products are local farmers in the Piedmont Triad region of North Carolina more likely to produce? It is crucial to assess the type of supply chain, marketing channels, and types of products

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that local farmers prefer to actually produce (Enthoven & Van den Broeck, 2021) in order to better understand ways to strengthen the local food system and enhance the viability of local farms, employment, sales tax revenue, and quality of life for affected communities (Okefi, 2018).

This study provides a profile of the average farmer and assesses the food products that are more popular with farmers in the Piedmont Triad region of North Carolina. This study aims to identify food items that are suitable for farmers in the region. The study is specific to the Triad region of North Carolina because the types of food produced in any area depend on the region's abiotic and biotic conditions. Identifying products most suitable for specific areas will enable new farmers to determine what products are popular in addition to selecting niche products for which local markets exist. Information about the relative magnitude of local food sales, including types of products sold by market type, would provide a complete picture of the size of local food markets (Martinez et al., 2010).

## Methodology

The data for this study was obtained through a mail survey of farmers in the Piedmont Triad Region of North Carolina who operate within 50 miles of the major urban areas of Burlington, Greensboro, High Point, and Winston-Salem (Figure 1). Farmers in Alamance, Chatham, Davidson, Davie, Forsyth, Guilford, Orange, Randolph, Rockingham, Caswell, Stokes, and Yadkin counties were surveyed by mail. The survey instrument contained a total of 31 questions. The questions included background information on farmers, the marketing channels used for farm products, and the types of products produced in the past. The names of farmers, addresses, and other contact information were obtained from online sources such as Facebook, Google, and the websites of various farmer's associations.

A total of 425 farmers were contacted. Only 48 of 425 questionnaires were returned, representing a response rate of about 12%. Respondents were asked to list all items they produced. The items listed by the respondents were categorized as either crops or livestock. The different products in each category were summarized and ranked in order of importance based on the response frequency. Products with higher frequencies indicate that more farmers produced them relative to those with lower frequencies. In addition, selected information on the socioeconomic characteristics of the farmers was obtained.

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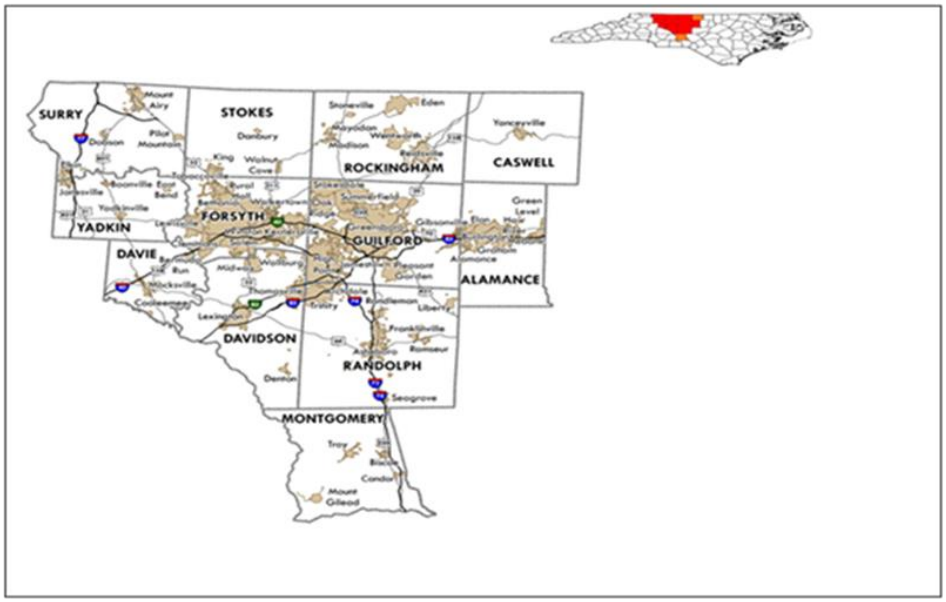


**Figure 1.** Map of North Carolina highlighting the Piedmont Triad Region
Source: Piedmont Triad Regional Council

## Results and Discussion

The average farmer who responded to our survey farmed an average of 53 acres of land. The average revenue per farm was $112,345, which indicates that most of them could be considered small farms. The average farmer had three employees. Full-time farmers constituted about 44% of the respondents, and part-time farmers made up about 24% of the respondents. Hobby and retired farmers made up 13% and 15% of the respondents, respectively (Table 1).

**Table 1.** Selected Attributes of Study Farmers in the Piedmont Region of North Carolina

| Farmer Attribute | Value |
|---|---|
| Average Acres (#) | 53 |
| Average Revenue ($) | 112,345 |
| Average Employees (#) | 3 |
| Farming Status | |
| Full-time (%) | 43.5 |
| Part-time (%) | 23.9 |
| Retired (%) | 13.0 |
| Hobby (%) | 15.2 |

## Farm Products

The study respondents reported producing 34 different products. Livestock constituted about 25 percent (9) of the products, and crops accounted for 74 percent (25).

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## Livestock Products

Beef production was the number one livestock product produced by most farmers who responded to our survey (Figure 1). Beef was produced by 12% of the farmers who responded to the survey. Chicken and goat tie for second place and as the second livestock product(s) produced by most farmers. Each of the two products was produced by 10% of the farmers. It is not unexpected that chicken is one of the high-ranking livestock products because North Carolina is one of the leading states in poultry production in the United States. Lamb and eggs also tie as the third livestock product produced by farmers in the region as 8% of the farmers who responded to the survey produced each of the products. Six percent of the farmers produced turkey. Honey and pork were each produced by 4% of the farmers. Only 2% of the farmers produced mushrooms, which is unexpected because mushroom production could be a relatively passive method of supplementing income on small farm production systems.

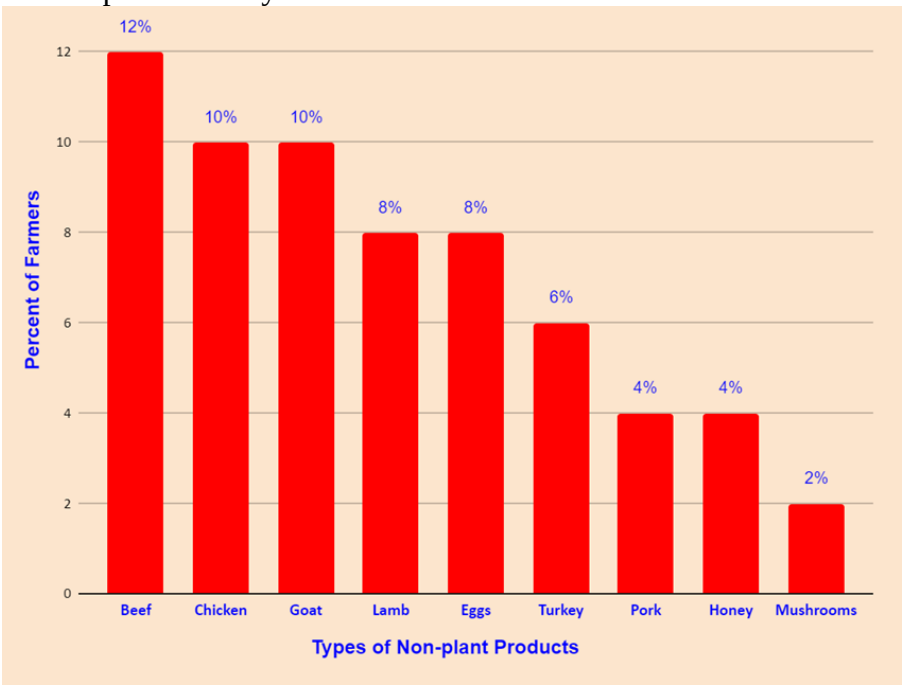


**Figure 2.** Percentage of Farmer Respondents in the Piedmont Triad Region of North Carolina by Type of Livestock Product Produced

## Plant Products

Tomatoes were the most important of the plant products (Figure 2). About 1 out of every six farmers (17%) produced tomatoes. This may be due to the universal appeal of the product to consumers and the ease with which the product could be produced either in the open or in greenhouses. One in every eight farmers (12%) produced lettuce, the second most popular plant

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product among farmers in the region. One of every 10 (10%) farmers produced squash, the third most popular crop. Blueberries, peppers, and sweet potatoes tie for the fourth position, as each was produced by about one of every 13 farmers (8%). Apples, chestnuts, okra, and strawberries were produced by one of every 17 farmers (6%) and tied for fifth position in popularity among farmers. Only one of every 25 farmers (4%) produced each of the four crops, which tied to rank as the sixth most popular crop among farmers. The crops in this sixth rank include blackberries, corn, melons, and peaches. In the seventh rank and last position is a group of 11 crops produced by only one of every 50 farmers. These crops that the study farmers least favor include arugula, basil, beans, eggplant, garlic, grapes, persimmons, pawpaw, peas, pecans, and pumpkins.

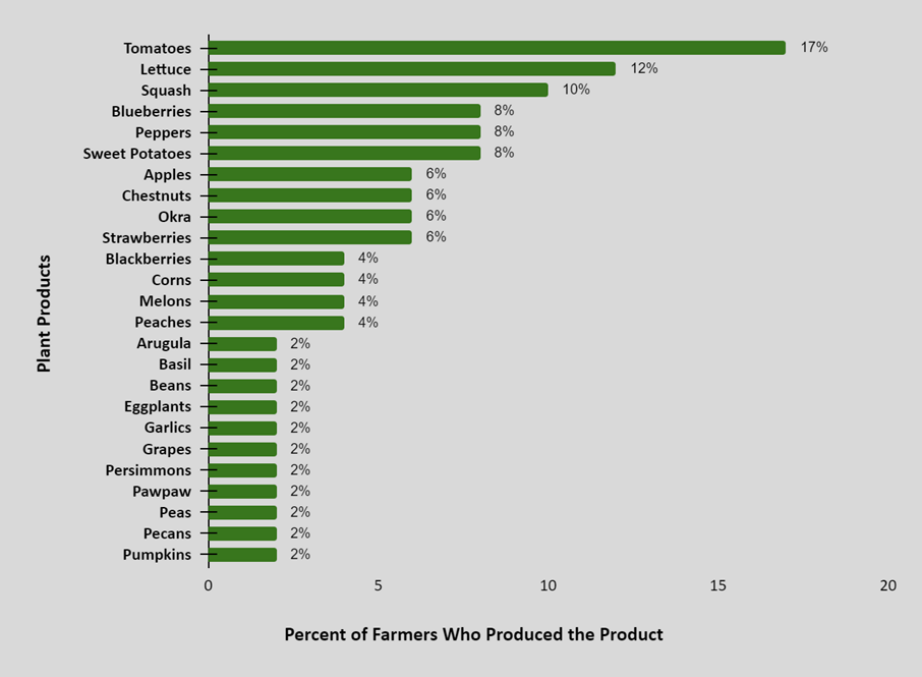


**Figure 3.** Percentage of Farmer Respondents in the Piedmont Triad Region of North Carolina by Type of Plant Product Produced

## Potential Limitations

One of the limitations of our study is that its applicability is limited across space. Farmers in different regions are likely to produce different products depending the abiotic conditions in the locality. Products may also be limited by the availability of local demand for them. An additional limitation is the low response rate of 12% to our survey. Studies that address any aspects of the above limitations are very likely to increase the applicability of our findings.

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## Conclusion

Farmers in the Piedmont Triad region of North Carolina produced 34 different plant and livestock products. Tomatoes are the most popular product and are produced by one of every six farmers. Beef and lettuce are the second most popular products produced by one of every eight farmers in the region. One out of every ten farmers in the region produced chicken, goat, and squash. New and existing farmers in the region could use these results as a guide when deciding on new enterprises to engage in. The preponderance of these products among farmers indicates that the local market for them is likely strong.

**Conflict of Interest:** The authors reported no conflict of interest.

**Data Availability:** All data are included in the content of the paper.

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