

**Research Report:**  
**What They Know and Why They Do It: Preliminary Findings of  
Farmer Focus Group Discussion on Value-Added Agriculture in  
North Carolina**

Obed Quaicoe<sup>a</sup>®, Roger Vorsah<sup>b</sup>, Kenrett Jefferson-Moore<sup>c</sup>, Jarvetta Bynum<sup>d</sup>, and John Owens<sup>e</sup>

<sup>a</sup>*Assistant Professor, Department of Agribusiness, Applied Economics, and Agriscience Education,  
North Carolina Agricultural and Technical State University, Carver Hall,  
Greensboro, NC 27411-1011, USA*

<sup>b</sup>*Graduate Student, Department of Agribusiness, Applied Economics, and Agriscience Education,  
North Carolina Agricultural and Technical State University, Carver Hall,  
Greensboro, NC 27411-1011, USA*

<sup>c</sup>*Professor, Department of Agribusiness, Applied Economics, and Agriscience Education,  
North Carolina Agricultural and Technical State University, Carver Hall,  
Greensboro, NC 27411-1011, USA*

<sup>d</sup>*Research Assistant, Department of Agribusiness, Applied Economics, and Agriscience Education,  
North Carolina Agricultural and Technical State University, Carver Hall,  
Greensboro, NC 27411-1011, USA*

<sup>e</sup>*Instructor, Department of Animal Sciences,  
North Carolina Agricultural and Technical State University, Carver Hall,  
Greensboro, NC 27411-1011, USA*

---

---

## **Abstract**

Sustaining farm profitability has been challenging for North Carolina smallholder farmers facing market failure. Small farms earning between \$10,000 or less and \$50,000 annually in net farm income need alternative practices that will make them more profitable. This study assesses North Carolina small farmers' understanding and attitudes towards value-added agriculture. We conducted farmer focus group interviews and analyzed the data using Qualitative Data Analysis Miner Lite. We found that the main drivers of value-added agriculture include improving on-farm profitability, product expansion, and market growth. High production costs and lack of government assistance are some of the factors limiting value-added participation.

---

®Corresponding author: Tel: (336) 285-4830  
Email: oquaicoe@ncat.edu

## Background

The proportion of small farmers<sup>1</sup> in North Carolina has been declining over the years due to unsustainable farm profitability (NCDCAS, 2015; USDA-ERS, 2019; USDA-NASS, 2020). Due to low productivity and rising production cost, most small farmers are not generating enough revenue to cover production cost, especially labor cost. Research shows that farm sustainability is linked to the generation of additional income from existing farm resources (Barbieri and Mahoney, 2009). Value-added agriculture is one of the ways through which small farmers can generate additional income (Michel, Anders, and Wismer, 2011; Lu and Dudensing, 2015; Yeboah et al., 2019). Value-added agriculture includes “activities that result in the physical/nutritional alteration of an agricultural commodity” (Coltrain, Barton, and Boland, 2000, p. 5; Lu and Dudensing, 2015) with the aim of increasing farm revenue, rural jobs, and consumer market share (Michel, Anders, and Wismer, 2011; Lu and Dudensing, 2015; Yeboah et al., 2019). This study assesses North Carolina small farmers’ understanding and attitudes toward value-added agriculture.

## Methodology

We conducted a virtual focus group interview with 12 farmers (6 males and 6 females). Farmers were solicited from five major metropolitan areas across North Carolina, namely, Charlotte, Raleigh/Durham, Greensboro, Wilmington, and Asheboro. Interview discussions ranged from the definition of value-added activities from farmers’ perspectives to challenges and opportunities of value-added agriculture. The focus group discussion was recorded, transcribed, and analyzed using Qualitative Data Analysis (QDA) Miner Lite software.

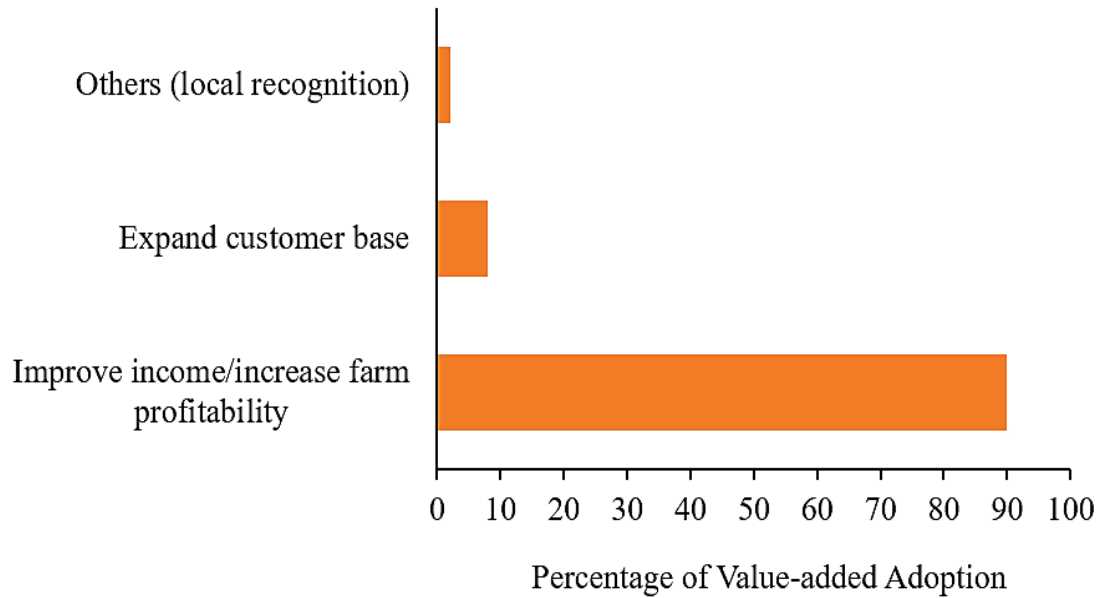
## Results and Conclusions

The average farmer interviewed was about 60 years old with at least 8 years of farming experience and operated on an average farm size of 38 acres (Table 1). Reported farm income ranged from \$10,000 to \$200,000 per year with an average income of about \$25,000 per year (Figure 1). During the interview, farmers expressed various reasons for their willingness to participate in value-added agriculture. About 90% of the farmers interviewed were willing to engage in value addition to increase farm profitability. The remaining 10% attributed willingness to adopt to expanding consumer base through local, interstate, national, or international recognition (Figure 1). Some of the examples of value-added agricultural practices given by the farmers included diversification in crops and animals, mixed farming, and processing of agricultural raw material.

**Table 1.** Demographic Characteristics of Small Farmers in North Carolina

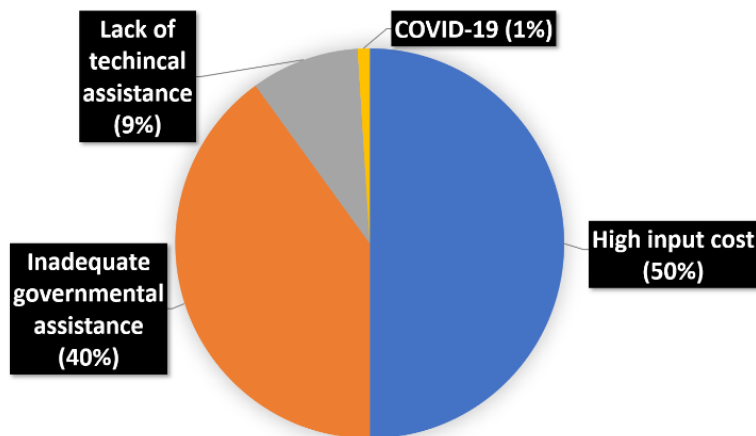
Variables	Mean Value	Minimum Value	Maximum Value
Age (years)	60	40	78
Income (\$)	25,000	10,000	200,000
Years of farming	7.5	1	15
Farm size (acreage)	37.5	5	58

<sup>1</sup> Small farmers are farmers who earn an annual gross farm income of \$250,000 or less (McDonald, 2021).



**Figure 1.** Reasons for Value-added Agriculture Adoption among North Carolina Farmers

Farmers also expressed some of the challenges associated with value addition: high production costs, lack of government assistance, inadequate financial support, poor extension services, and lack of processing infrastructure (Figure 2). We also asked how COVID-19 had impacted their farming operations. Farmers indicated that the lockdown and social distancing guidelines resulted in significant market disruptions resulting in both physical losses of farm produce and income. Furthermore, some farmers indicated that they had to divert resources toward their physical and/or mental well-being. Some of the farmers also indicated that COVID-19 enabled them to think about other innovative ways of marketing their products. Overall, small farmers in North Carolina acknowledged the good prospects that value-added agriculture presents, despite the associated challenges.



**Figure 2.** Constraints toward Adoption of Value-added Agriculture among North Carolina Farmers

## Acknowledgment

This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, Evans-Allen project award number 1019916.

## References

- Barbieri, C., and R. Mahoney. 2009. "Why Is Diversification an Attractive Farm Adjustment Strategy? Insights from Texas Farmers and Ranchers." *Journal of Rural Studies* 25:58–66.
- Coltrain, D., D. Barton, and M. Boland. 2000. *Value-added: Opportunities and Strategies*. Manhattan, KS: Arthur Capper Cooperative Center, Kansas State University.
- Lu, R., and R. Dudensing. 2015. "What Do We Mean by Value-added Agriculture?" *Choices*. Available online: <http://www.choicesmagazine.org/choices-magazine/submitted-articles/what-do-we-mean-by-value-added-agriculture>.
- McDonald, J. (2021). *Small Farms, Big Differences*. Available online: <https://www.usda.gov/media/blog/2010/05/18/small-farms-big-differences#:~:text=USDA%20defines%20a%20small%20farm,fell%20between%202002%20and%202007>.
- Michel, L., S. Anders, and W. Wismer. 2011. "Consumer Preferences and Willingness to Pay for Value-Added Chicken Product Attributes." *Food Science* 76:5469–5477.
- North Carolina Department of Agriculture and Consumer Services. 2015. *Agricultural Statistics 2015*. Available online: <http://www.ncagr.gov/stats/2015AgStat/NCHighlights.pdf>.
- U.S. Department of Agriculture. 2019. *Farming and Farm Income*. Washington, DC: U.S. Department of Agriculture, Economic Research Service. Available online: <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/farming-and-farm-income/>.
- U.S. Department of Agriculture. 2020. *Statistics by Subject*. Washington, DC: U.S. Department of Agriculture, National Agricultural Statistics Service. Available online: [https://www.nass.usda.gov/Statistics\\_by\\_Subject/result.php?34E78AA9-30E1-31F5-A37AB19C0AF013E8&sector5CROPS](https://www.nass.usda.gov/Statistics_by_Subject/result.php?34E78AA9-30E1-31F5-A37AB19C0AF013E8&sector5CROPS).
- Yeboah, A., O. Quaicoe, J. Owens, and J. Bynum. 2019. "Small Farmer and Other Minority Participation in Value-Added Agriculture in North Carolina." Paper presented at the Southern Agricultural Economics Association Annual Meeting, Birmingham, AL, February 2–5, 2019.