

## Validation of Factors Influencing Successful Small Scale Farming in North Carolina

Anthony K. Yeboah  
North Carolina A&T State University,  
[yeboaha@ncat.edu](mailto:yeboaha@ncat.edu)

John Paul Owens  
North Carolina A&T State University  
[owensj@ncat.edu](mailto:owensj@ncat.edu)

Jarvetta S. Bynum  
North Carolina A&T State University  
[jsbynum@ncat.edu](mailto:jsbynum@ncat.edu)

Daniel Boisson  
North Carolina A&T State University  
[djboisso@ncat.edu](mailto:djboisso@ncat.edu)

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## Literature Review

North Carolina farms vary widely in size and other characteristics, ranging from very small retirement and residential farms to establishments with sales in the millions of dollars. The North Carolina Department of Agriculture reports that 45,200 farms have sales less than \$100,000 (Environmental Systems Research Institute, 2003). In describing types of small farm operations, classification needs to include not only the size of the farm in terms of sales but also the basic structure of the operation. These basic structures are delineated in Table 1.

The availability of literature based on the characteristics of successful small farmers is very limited. However, a study by Perry & Johnson (1999) “focused on small farms (annual gross sales under \$250,000) where the primary occupation of the operator is farming. The study showed that top-performing farms used three management practices; production strategies that control costs, actively marketing their products, and adopting financial strategies such as maintaining cash and credit reserves.” The aforementioned study was conducted on a national level. A study by McLean-Meynsse and Brown (1994) was conducted on the state level and “showed that factors contributing to success are good management practices, knowledge and early adoption of new technology, a strong work ethic, love of farming, size of operation, participation in government programs, and strong family support.”

**Table 1 - Farm Typology Group Definitions**

<b>Small Family Farms</b> (sales less than \$250,000)	<b>Other Family Farms</b>
<b>1. Limited-resource farms:</b> Small farms with sales less than \$100,000, farm assets less than \$150,000, and total operator household income less than \$20,000. Operators may report any major occupation except hired manager.	<b>1. Large family farms:</b> Sales between \$250,000 and \$499,999
<b>2. Retirement farms:</b> Small farms whose operators report they are retired. This excludes limited-resource farms whose operators report this occupation.	<b>2. Very large family farms:</b> Sales of \$500,000 or more
<b>3. Residential/lifestyle farms:</b> Small farms whose operators report a major occupation other than farming. Again this excludes limited-resource farms whose operators report this occupation.	
<b>4. Farming-occupation farms:</b> Small family farms whose operators report farming as their major occupation. This excludes limited-resource farms whose operators report this occupation. <b>Low-sales farms:</b> Sales less than \$100,000 <b>High-sales farms:</b> Sales between \$100,000 and \$249,999	

In an effort to further explain the factors that affect successful small-scale farming, researchers have identified factors that have underpinnings in 1) small-farm educational programming; 2) small-scale agricultural enterprises and production practices; 3) alternative marketing; and 4) risk management. Furthermore, marketing, value added processes, enterprises that generate income in several ways (e.g. tourism plus direct sales etc.) as well as many of the “sustainable community” or “smart growth” issues address economic viability directly (Perry, J. & J. Johnson, 1999).

Specialty crops can be economically viable, particularly for smaller producers. For specialty crops, profitability is based on: 1) management of ecological capital and efficient use of on-farm natural resources, 2) diverse and specialized marketing opportunities, and 3) price premiums available from buyers for many specialty and value-added specialty crops. Diversifying farming operations creates a greater opportunity for year-round income and can contribute to the success of the business. An example of how farmers can diversify their crop mixes includes using trees for a windbreak with marketable crops to produce small amounts of very labor-intensive-but-high-value crops such as European melons, figs, or herbs (Humphrey and Mussen, 1995). Effective marketing of North Carolina specialty crops requires a correct assessment of consumer food and shopping preferences, development of successful production practices, research in production economies, and creation of new distribution channels. Finding ways for North Carolina farmers to switch to other high value crops and environmentally sensitive management practices may give them the needed income and confidence to continue to produce and diversify on small acreage and keep larger family farming enterprises viable and successful. As commodity programs are eliminated, more farmers will need to consider the potential that specialty crops offer as an economically viable alternative to tobacco and other row crops.

Even though we live in an age of technology where computers are prevalent in the larger businesses, this is not the case with small farmers. Although many small farmers use computers, manual record keeping remains a key component for these farmers (Doye, D., Jolly, R., Hornbaker, R., Cross, T., King, R., Lazarus, W., and Yeboah, A., 2000). Muhammad, S., Tegegne, F. Ekanem, E. (2004) found that computer technology does not play a vital role in small farm operations.

According to North Carolina A&T State University’s Cooperative Extension Program, small farms are alive and well across the United States and across North Carolina (North Carolina A&T State University, 1998 – 2002). Most of the farms in the United States and the vast majority of the farms in North Carolina are small farms. Successful small-scale farmers know what success means to them, however, success means different things to different people. While income from the farm is important, it usually is not the only goal of the small-scale farmer. Protecting the environment, being active in the community, a rural lifestyle, and investments for future family expenses, all can be important goals. Although, all small-scale operators face challenges, they can all be successful (North Carolina A&T State University, 1998 – 2002).

## **Data and Methods**

This research project includes several surveys, however for this component researchers identified sets of variables associated with small farm success from prior case studies that were part of this research project, through various literature, published and unpublished reports and recommendations from experts in the field. The North Carolina Cooperative Extension Service identified a group of “successful” small farmers. The research instrument was then disseminated to a sample group of these farmers.

The survey instrument was designed to solicit production and financial data, as well as farm organization, use of labor, marketing strategies, attitudes and beliefs about farming. The instrument also solicited demographic data. The instrument consisted of eight sections utilizing a mix of short answer, yes/no, and Likert scale responses. To encourage the farmers to accurately complete the financial sections, the instrument did not request names, addresses nor telephone numbers. For this research, a small farmer is identified uses the USDA definition as a farmer with total gross income less than \$250,000 for last calendar year. Therefore for this survey, small farm status was verified prior to the farmers participating in the research.

## **Conclusions and Discussion**

Based on prior case studies, literature and this research questionnaire, the following variables are expected to be viable predictors of success: Technology, Education, Marketing, Enterprise Diversity and Environment Impact. Recurring indicators among the successful farmers were the “love of farming” and “manageable debt”. For example, most farmers surveyed chose “love of farming” over “pays the bills” as reasons to continue farming. Also, most farmers own their homes and do not carry any debt. Even though they operate on limited funds, they resist reliance on various forms of credit.

Other strong indicators of successful farmers included a combination of marketing strategies that utilize technology such as websites as well as local farmers markets and educational level. Most of the surveyed farmers had at least some college education, though not necessarily in agriculture.

Additional enumerated indicators of success include: 1) the existence of clearly defined goals; 2) years of farming experience of the farm operator, 3) existence of specialty crops; 4) diversification of farming operations; 5) existence of financial management tools; and 6) access to educational programs. Many of the farmers, for example, took part in various outreach programs and services, which provide assistance for such areas as soil testing and environmentally friendly pest control methods.

Each farm represents an individual business enterprise that has to deal with its own unique set of factors. The success of a small farm is likely to be based on

having characteristics that enable the farm to overcome changes in market demand and operating costs as well as manage risk.

Knowledge about the successful small farm is likely to provide valuable information about how to evaluate the “successfulness” of small farm operations and produce best practices models for small scale farm operations.

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