

10-1-2008

Increasing Entrepreneurship in Agriculture in an Economically Depressed Region

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Recommended Citation

Campbell, T., & Barrett, H. (2008). Increasing Entrepreneurship in Agriculture in an Economically Depressed Region. *The Journal of Extension*, 46(5), Article 12. <https://tigerprints.clemson.edu/joe/vol46/iss5/12>

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Increasing Entrepreneurship in Agriculture in an Economically Depressed Region

Abstract

The article describes the purpose, conception, development, implementation, and evaluation of a series of workshops to support small/medium farms in a five-county area of northeastern North Carolina. Each of the workshops had a variety of topics to interest small and medium-sized farmers or those entering agriculture or agribusiness fields. The workshops, under a grant by the Golden Leaf Foundation, were to spur entrepreneurship within a rural, economically depressed region and implemented by an alliance of the Pasquotank County Center of the North Carolina Cooperative Extension Service and the School of Business & Economics at Elizabeth City State University.

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Introduction

The Pasquotank County Center of North Carolina Cooperative Extension partnered with the Davis School of Business & Economics of Elizabeth City State University in workshops to build the entrepreneurial, information technology, and decision-making skills of small/medium size farm families. This is a long-term commitment to develop and expand the business skills of this agriculture sector in the Albemarle region of North Carolina.

We challenged our audience to use their resources (financial, intellectual, arable farmland, and of course available time) in northeastern North Carolina to create value in market-driven opportunities. The purpose of the workshop series was to:

- Provide information on small niche markets (e.g., pick-your-own, vegetable stand, cut flowers) and innovative technologies (e.g., high tunnels, Internet marketing) of interest to small and medium-size farms;
- Provide guidance on how to analyze what is applicable, possible, and reasonable for a particular operation;
- Develop an entrepreneurial orientation, be adaptable to deal with change, anticipate change and create changes to the advantage of the enterprise; and
- Provide information on government and private assistance such as crop reserve programs or land trusts to preserve farmland.

The Economic Need

Elizabeth City State University (ECSU) is the designated University of North Carolina constituent institution for the 21 counties of northeastern North Carolina. Eight of the counties are among the most economically depressed in the state, and, of the six counties in N.C. that lost population in the 1990s, five of them are in the ECSU service area.

In the heart of Elizabeth City State University's geographical area, within the North Carolina northern coastal agricultural district, are the five counties surrounding ECSU: Camden, Currituck, Gates, Pasquotank, and Perquimans.

As can be seen in Table 1, the per capita income for each of these five counties is less than the national and state per capitias. As a group, the per capita income is 18.5% less than the state and 23.3% less than the national averages.

Table 1.
Population and Income Demographic Profile for Five-County Area

Area	Population, 2000	Per Capita Income, 1999
United States	281,421,986	\$ 21,587
North Carolina	8,049,313	20,307
Camden County	6,885	18,681
Currituck County	18,190	19,908
Gates County	10,516	15,963
Pasquotank County	34,897	14,815
Perquimans County	11,368	15,728
Five County Area	81,856	\$ 16,546
Source: United States Census Bureau, State and County QuickFacts		

Ours is a traditional farming area. Similar to national and North Carolina trends, the number of farms is decreasing. Large farms are getting bigger and more cost efficient. There has been a restructuring within agriculture towards larger, often corporate farms (Wortman, 1990b). The small family farm competes poorly in locally grown, commodity products such as wheat, cotton, corn, peanuts, soybeans, sorghum, or potatoes. Table 2 shows the relevant statistics for the five counties.

Table 2.
Farm Profile for Five-County Area

Geography	Item	2002	1997	1992	1987
Five-County Area	Farms (number)	631	685	803	956
	<i>change</i>	-7.8%	-14.7%	-16.0%	
Five-County Area	Land per farm (average acres)	556	462	375	338
	<i>change</i>	20.3%	23.2%	10.9%	
Source: USDA National Agricultural Statistics Service, 2002, 1997 Agricultural Census					

Rural eastern North Carolina's has been hurt by the outsourcing of textiles and apparel, with resulting plant closures and falling tobacco crop acreage. Area farmers have also been hard hit by Hurricane Floyd in 1999 and again by Hurricane Isabel in 2003 (Pages & Markley, 2004). For the small or medium family farm to be economically viable and frankly, to survive, there must be changes in crop selection, marketing orientation, and/or economic activities. This is a major paradigm shift for most family farm owners.

Rural Entrepreneurship

Entrepreneurship is a process that encourages creativity, calculated risk-taking, and business planning to take advantage of opportunities (Miller & Friesen, 1982). The process enables the business (whether start-up, established business, or family farm) to show profit by identifying market opportunities and creating unique combinations of resources to pursue these opportunities (Jacobson, 1992).

Wortman (1990a) stated that research studies examining rural development possibilities have been macro in orientation. We also need to have a micro orientation. Rural entrepreneurship often includes agriculture-related enterprises, including opportunities for family farms. The shift to larger

farms means that families with smaller farms, to survive, must often become dual-career families. This can mean employment off the farm or expanding enterprises on the farm to intensify farm business management.

Small and medium-sized farms can become (1) producers and marketers of niche products that are unattractive to large farm organizations and (2) use technologies (e.g., business analysis and accounting software) that allow them to be more productive in their efforts. Their challenge is to change a farm operation from a price taker (e.g., soybeans) to a price maker (e.g., differentiated product marketing such as roadside vegetables or Internet marketing). To this end, farmers of small/medium acreage must become far better educated about alternative opportunities.

McElwee (2006) stated that although diversification is the most-used strategy for farms, research shows that high specialization may be a more appropriate strategy to ensure survival of the farm. Unfortunately, the family farm with several generations of ownership may be locked into the way "it's always been done," and this reduces the entrepreneurial orientation. Farm communities and local/state governments may also reduce out-of-the-box ventures by blocking (e.g., zoning) such innovations as wind farms.

Dabson (2004) states that, "entrepreneurship needs to be given greater recognition as a means to revitalize rural America." Because of relative isolation, rural people tend to be more self-sufficient than their city cousins. However, the resulting sense of independence may reduce the likelihood of seeking support, and there is less awareness of available public and civic assistance.

Even with the Internet and its multitude of Web sites, potential rural entrepreneurs, both farm and off-farm, need guidance to obtain entrepreneurial support and information. Van Horn and Harvey (1998) recommend a support system for rural entrepreneurs that includes state Co-operative Extension Services and local higher education institutions. Such alliances work well in the farm communities with a strong history of collaborative efforts. Many small/medium acreage farmers need this support because they tend to be timid entrepreneurs who are risk-averse, rather than aggressive entrepreneurs who embrace risks of new enterprises.

Family farms can become more entrepreneurial and employ niche strategies to hone in on niche target markets, but only after thorough market analysis done prior to any expanded investment in alternative crop production or other ventures. Farmers must have some sense of "why" entrepreneurial activities are needed. What activities are reasonable and feasible for the target market of small and medium farms? Our workshops were designed to answer such questions.

Innovation in Agriculture Workshops

During a winter 2004 'computer technology for farm families' workshop series, we queried participants on the need for workshops on additional topics. Their responses included:

- Produce stands
- Adding Value Processes
- Organic Farming
- Pick-Your-Own
- Co-operative Farmers' Market
- Timberland Management
- Direct Marketing
- Internet Marketing
- Business Start-ups and Planning
- Developing Creativity Capabilities
- Innovative Farming Techniques
- Additional Crops/Products

We then developed a list of topics (1) that we could provide with regional experts, (2) that were of interest to farm families, and (3) that were consistent with the rural entrepreneurship literature.

The "innovation workshops" were held as dinner events on five evenings in January and February, 2005, in a community center on the ECSU campus. In all, there were 25 presentation topics ranging from innovation and value creation to timber farming to cut flowers for the retail florist market. Experts on topics were brought in from a two-state area.

Promotion

The workshops were promoted in the local newspapers covering the five-county region, mailings by the North Carolina Extension Service office in each of the five counties, word-of-mouth by Extension agents, and a local radio talk show.

Workshop Topics

Business & Marketing Orientation

- Creativity, Innovation, and Value Creation--how to increase your creative capabilities; led by an ECSU professor of entrepreneurship
- Developing Business Plans--why and how of a business plan; led by a Small Business Technology Development Center consultant who works with small businesses
- New Enterprises--such as Web sites, agri-tourism, pick-your-own; led by Extension agents
- Internet Marketing and Research--using the internet to obtain information needed in your business operations and marketing on the internet; led by an ECSU professor of entrepreneurship
- Market Opportunities--a go-slow approach to marketing, image creation, support activities, timber markets, nursery stock markets, florists, organic food buyers, auctions, wholesale distributors and buyers; led by extension agents

Value Added Processing

Unfortunately, it is often the case that natural resources (e.g., produce) are sent to urban centers with no opportunity for extra value-added income through processing (e.g., jam, wine, bread, sausage).

- Where Are the Opportunities, and Where Is the Support?--led by several Extension agents (active and retired) and ECSU professor of entrepreneurship
- What Are the NCDA and FDA Regulations; What's Feasible?--led by an NCDA-FDA agent

Hearing Buyers' Needs

- Supermarkets--what is needed by produce and other product buyers; led by a vice-president of a large regional supermarket chain
- Herbal Extraction Plant--what plants are being purchased for the industrial and medicinal markets; led by the president of an extract processor and manufacturer
- Growers' Cooperative--how does a co-op work, what products are involved; led by the general manager of a southern Virginia cooperative
- Needs of Retail Florist--what products are needed and buying requirements for local florists; led by the owner of the largest retail florist in area (who by the way, started this interest in local 4H program)

Specialty Crops

- Tomatoes, Sweet Corn, Peaches, Cantaloupes, Watermelons--the best sellers for local roadside stands in northeastern North Carolina; led by two local Extension agents
- Paw Paws, Figs, Grapes, Mushrooms, Organic Fruits, and Vegetables--best sellers for farmers' markets; led by a retired Extension agent now consulting on the agriculture activities
- Vegetable Specialties, Cut Flowers, and Herbs Specialties--discussion of these crop markets; led by two Virginia State agriculture professors

Local Product Markets

Direct farm-to-table food marketing has a "minor role" in food distribution in the United States. (Tippins, Rassuli, & Hollander, 2002). These direct markets include farmers' markets, roadside stands, pick-your-own, agri-tourism, and direct sales through mail order, telemarketing, and Internet sites. Despite this minor role, direct sales are still about \$ 1 billion per year nationally. The advantages are lower prices to the consumer and larger margins for the farmer.

- Retail Stores' Needs and Requirements; What Is Required for Pick-Your-Own and Roadside Stands?; Establishing and Maintaining Farmers' Markets--led by several Extension agents (active and retired)

Expansion of Land Use

- Timber Farming--Markets, Management, Risks, Stewardship Incentives; led by representatives of the NC Division of Forest Resources
- Farmland Preservation--Conservation of Farmland; led by representatives of the NC Clean Water Trust Fund and the NC Conservation Reserve Enhancement Program

Farm Operations

- Farm Worker Wage and Hour Laws and Regulations--led by representatives of the NC Department of Labor
- Farm Worker Contracting--discussion of how to do labor contracting; led by representatives of a firm that sources farm labor workers
- Farm Labor Health Issues--a discussion of migrant labor health problems and regulations; led by representatives of regional health department
- Crop Techniques Using High Tunnels--discussion of these techniques by two Virginia State agriculture professors
- Grant Opportunities--types of grants of benefit to small/medium farm enterprises, examples of grants obtained, sources of grants (e.g., Rural Advancement Fund International, Sustainable Agricultural Research and Education, NC Tobacco Trust Fund, Golden Leaf Foundation, USDA Rural Development); led by a retired Extension agent

Government

- NC Department of Agriculture Marketing Activities--discussion of activities and support; led by the regional office agency representatives
- NC State Legislature and Agencies Affecting Agriculture--led by a representative of the NC Agribusiness Council

North Carolina has done well with public sector support for entrepreneurial services, ranging from North Carolina Rural Economic Development Center <<http://www.ncruralcenter.org/>> to Community Development Initiative <<http://www.ncinitiative.org/home.cfm>> to micro-enterprise support and loans in a number of activities <<http://www.ncruralcenter.org/loans/micro.htm>>.

Evaluation

For the five workshops, we had a total of 108 (average of 22) attendees plus the presenters (who often were interested in the other speakers). Over 125 participants received the information within the workshops and are now part of an informal network about agriculture entrepreneurship.

We sought evaluation by the attendees and post-series activities initiated by the attendees. Table 3 provides the participant evaluations of each of the workshops. In addition, we did a follow-up survey of participants in March 2006, 1 year after the initial workshop to determine the participants' opinions of the workshops. This is provided in Table 4.

Table 3.
Individual Workshop Evaluations & Comments

Date	Overall Benefit	Appropriate Time	Discussion Opportunity	Knowledge of Speakers	Good Handouts	Would Recommend
Jan 20	4.0	4.0	4.3	4.5	4.2	4.4
<i>Comments--eye opening ideas, good info previously unknown to me, good speakers, reality oriented</i>						
Feb 3	4.2	3.9	4.3	4.7	4.4	4.5
<i>Comments--want more on tax and health regulations, relevant info, good ideas, had items of interest, helping me make decisions, well thought out, lots of resources available, good networking, stimulates me to think about developing profitable businesses</i>						
Feb 10	4.5	4.5	4.5	5.0	5.0	5.0
<i>Comments--learned about land programs unaware of, speakers' knowledge, getting</i>						

<i>speakers' cards was worth the time, good networking, good info on regulations, want directory of all people, organizations, state agencies connected with value-added, medicinal, agribusiness, and agri-environmental issues</i>						
Feb 17	4.4	4.2	4.7	4.7	4.6	4.7
<i>Comments--learned much about these agencies, good workshops, want more on livestock, home meat production, alternative energy, more on managing agribusiness, got good ideas for next season, want info on hydroponics, computers, workshops are good idea, more on pruning, have coffee available, good knowledge of support agencies</i>						
Feb 24	4.9	4.6	4.8	4.8	4.9	4.9
<i>Comments--more presentations similar to specialty vegetables and high tunnels, good combination of academic and practical expertise, good current info, season extension techniques was good, need breaks, good overall knowledge gained, information we needed and will use, good information network and ideas</i>						
Questionnaire Used Likert Scale, 1 (lowest) to 5 (highest).						

Table 4.
Overall Evaluations 1 Year After Workshops

Q1. Overall, the workshops were beneficial to me	4.2
Q2. Instructors were knowledgeable in subject	4.5
Q3. I would recommend this workshop series	4.4
Questionnaire used Likert Scale, 1 (lowest) to 5 (highest)	

A variety of actions were taken by attendees as a result of the workshops. These include the following.

- A wheelchair-bound individual has developed eight raised beds for disabled gardeners and two for wheelchair gardeners. Over 500 people have visited and seen these gardens, and he has been featured on University of North Carolina public television.
- A project has been initiated to teach homeless individuals to prune so they may sell their pruning services. This is part of a broader plan to combat homelessness in the region.
- A family has started making and selling professional outside-durable plant labels.
- One individual has developed and distributed a listing of pick-your-own farms in a five-county area.
- One family expanded asparagus production and began sales to a supermarket chain.
- We estimate that seven new jobs have been created, 12 jobs retained, and six workers' skills have been upgraded because of the workshops.
- Three farmers have started new production of an alternative crop.
- There have been increases in farm income and payroll attributed to the workshops.
- One family began a family business serving ponds. The father then got a county job, while his wife entered professional school to start estate-planning services.

Conclusion

The workshops succeeded in targeting small and medium-size farm families, challenging them to consider expanded activities both in and outside agriculture. The programs were most effective at simply promoting awareness of numerous opportunities. Plans have been made to post all PowerPoint presentations and handouts from the educational series on a Web page linked to from the Web site of the Pasquotank County Extension Master Gardener Volunteers.

Frequent contact by ECSU/Cooperative Extension has produced added results in new rural enterprises started by alumni of the Innovations in Agriculture programs. One alumnus has expanded into cut flowers. Another has expanded his product line and found new markets for vegetables. One woman returned to college, planning to start an estate planning service for other farm families. With regular individual attention and support, impacts can be far greater.

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