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Consumer-Driven Agriculture As A Means To Promote Rural Income And Employment Opportunities: A Case Study Of West Virginia

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The trend toward a commodity agriculture subject to harsh international competition and slim profit margins on one hand, and consumer-driven product agriculture on the other hand, may provide opportunities for small farmers to increase their incomes. This article presents results of a survey of Extension agriculture agents in West Virginia that was conducted to learn about interest in and awareness of the existence of product agriculture enterprises in West Virginia. A survey of agricultural value-added enterprises that were identified by the agriculture agents shows a diversity of businesses. Six follow-up case studies illustrate the potential of such businesses and their benefits to the community as a whole; they also reveal some threats to their long-term existence.

Introduction

West Virginia ranks at or near the bottom of most major indicators of economic health. It is one of the most rural states in the nation with an economy that has long been dominated by extractive industries, particularly coal mining and timber, and related manufacturing industries. Automation in coal mining and traditional industries and international competition resulted in job losses in most of the state's fifty-five counties. Many of the jobs that disappeared offered above average pay. While the wood industry and tourism field are growing, they cannot absorb all those who have lost mining or manufacturing jobs and their salaries tend to be below the state's average.

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The size of extractive and related industries has overshadowed the economic contributions of other industries. The decline of employment in the former warrants taking a closer look at opportunities in the latter. This article's focus is on agriculture. In spite of its relatively small size, agriculture is an important economic factor in rural West Virginia (Gandee and D'Souza 2002) and influences its landscapes and local and regional cultures. Sales and self-consumption of farm products constitute a significant part of farmers' income. However, the future of farming is intricately linked to the rest of the regional economy as income earned off the farm typically accounts for more than half of farm family income. Conversely, sales of equipment, seeds, fertilizer, various services, etc., to farms support rural towns.

This article explores the potential of enhancing the economic contributions of agriculture to West Virginia's farm families and rural communities because changes in agriculture in the United States

are opening up new opportunities. Drabenstott (2002), Drabenstott and Sheaff (2001), Martinez and Davis (2002), Stauber (2001) see the emergence of two types of agriculture: (1) commodity agriculture and (2) product agriculture. The former is market-driven and international competition keeps profit margins low so that only the most cost efficient producers survive. Product agriculture is consumer-driven, focuses on serving local and regional niche markets, allowing local producers to overcome price disadvantages with special services and/or higher quality. The generally small farm sizes and mountain topography make West Virginia not well suited for commodity agriculture, but the state's proximity to large metropolitan regions and a growing tourism industry provide a potential market for agricultural niche products and direct marketing to consumers (on direct marketing as a tool for adding value see Ellerman, McFeeters, and Fox 2001). The long trend of a falling farmers' share of each dollar civilian consumers spend on domestic farm-originated food—farmers received 30.9% of each dollar in 1980 but only 18.7% in 2000 (U.S. Census Bureau 2002: p. 525)—is a reflection of the highly competitive nature of the market for homogenous agricultural commodities and of the increasing demand by consumers for processed and semi-processed foods. However, farmers face obstacles to taking advantage of this trend because they typically are not equipped to process, package, market, and transport their products (Mortenson 1997).

Thus, the general purpose of this research was to study the extent to which West Virginia farmers use value-added processing to explore the interest in value-added processing expressed by farmers and agriculture extension agents in the state. The specific objectives were to identify the types of value-added processing farmers in West Virginia use to increase their income, and to obtain an estimate of the interest in value-added processing among farmers and agriculture extension agents. In addition, we wanted to learn what obstacles might prevent farmers from moving from commodity agriculture to product agriculture. In this study we defined value-added agriculture as “getting more income from your

commodity and the natural resources on your farm in a sustainable manner,” and we defined value-added products as “products that have increased in value because of processing.” The literature defines value-added agriculture as food processing, bagging or packaging, self-picking, marketing and/or shipping, and agri-tourism (Natural Resource Conservation Service 2000; Rottman and Powell n.d.; Tronstad 2002; University of California Small Farm Center 2003). Though we know that many farmers in West Virginia have already taken steps in the direction of product agriculture, little information is available on the extent to which farmers can or are using value-added agriculture as a means of increasing income or on the methods to do so.

Characteristics of West Virginia's Agriculture

More than one-half (53.9%) of West Virginia's population of 1.808 million is classified as living in rural areas (Northeast-Midwest Institute 2002, based on the 2000 Census of Population) and 22,114 people live on farms (1.2% of the state's population, close to the national average of 1.1%). The number of farms remained fairly constant during the decade of the 1990s at between 20,000 and 21,000. Land in farms also changed very little and in 2000 was 3,600,000 acres or 22.4% of the state's land area. Following a national trend and consistent with similar trends in neighboring states, the average farm size had declined from 185 acres in 1991 to 176 acres in 2000.

The top agricultural commodities in West Virginia are broilers, cattle and calves, dairy products, turkeys, and chicken eggs (Economic Research Service 2003; West Virginia Agricultural Statistics Service 2001). Most of these commodities, including timber, are sold wholesale. Sales are geographically very unevenly distributed. The top two counties account for 39.6% of the state's total receipts and the top five for 60.6%. All are located along the state's eastern border with Maryland and Virginia (Economic Research Service 2003; West Virginia Agricultural Statistics Service 2001). The vast majority of farms (94.0%) have annual sales of less than \$50,000. In spite of the small size, in 1997 farming and farm related activities—farm inputs,

processing and marketing, and wholesale and retail trade—accounted for 14.8% of the state’s employment (Economic Research Service 2003; logging and related activities were not included in this figure). The magnitude of farm and farm related employment suggests that even a relatively small increase could have a measurable impact on total employment, particularly in rural areas where there are fewer alternative opportunities (Gandee and D’Souza 2002).

Methodology

The data collection part of the study employed a descriptive research design and a case study approach. Phase I consisted of a survey distributed to all West Virginia county agriculture extension agents. The survey requested information regarding the number of farmers involved in value-added agriculture, an assessment of the degree of interest among farmers and county extension agents in value-adding activities, and the types of such activities being used. The Phase II population consisted of all farmers engaged in some form of value-added agriculture. We relied on county agricultural extension agents to identify this population because agents are familiar with “their” counties.

After interviewing the Phase II producers, four of them were chosen to participate in Phase III, which consisted of farm visits and follow-up interviews. We selected farmers in a non-random fashion to include enterprises that differed from one another in type and scale to obtain a range of more specific information concerning opportunities and obstacles than that obtained through the surveys in the first two phases of the research.

In addition to the four case studies mentioned above, we investigated a successful value-added agricultural enterprise that had recently shut down. We were curious to learn what reasons led to this decision and thought we might learn more about obstacles from this business than from businesses that seemed to be successful. Finally, we are also discussing the case of a value-added food processing enterprise that supports several farmers who are in the product agriculture business. The discussion is based on a

joint project with and a marketing study for this processor that was conducted at around the same time (Schaeffer and Smith 2001; Schaeffer and Lewis 2002). The focus of this case study is on inter-relationships between product agriculture enterprises and other local and regional businesses.

The survey instruments were developed specifically for this study and tested for content validity by a panel of experts. The Phase I survey had a reliability coefficient of 0.85. The surveys were mailed to extension agents on February 10, 2002, along with the cover letter, definitions of value-added processing, value-added agriculture, and criteria, with deadline for response by February 20, 2002. If agents did not respond by this date, we made a follow-up phone call to inquire about the status of the survey. If the agents had not received or lost the original survey, they were asked the survey questions over the telephone. Farmers in the Phase II population were given a telephone interview and the case study participants were visited and interviewed in March and April 2002. A map of West Virginia and its counties is provided below (Figure 1) for the convenience of the reader.

Findings

Agent Interviews

Data were obtained from 27 agriculture extension agents representing 53 of West Virginia’s 55 counties and an average 405.67 farms per agent. The counties for which we received no information were Pleasants County and Ritchie County (see Figure 1). Pleasants is located in the Ohio Valley at West Virginia’s border with Ohio, Ritchie, and Wood counties as its neighbors to the southeast. The maximum number of farms represented by an agent was 1,000 and the minimum was 55 for a total of 10,953 farms. Of these farms, 209 (1.9%) were engaged in some form of value-added agriculture or an average of 8.71 farms per county. The majority of these producers were involved in marketing beef cattle or beef products. This was an expected finding because beef is the most common livestock enterprise in the state (United States Department of Agriculture, 1997). The second most prevalent form of value-adding was Farmers’ markets, closely

FIGURE 1. MAP OF WEST VIRGINIA WITH COUNTY BOUNDARIES



followed by production of jams, jellies, and salsas. Together, these categories add up to 96.2%. Although some categories were overlapping because some farmers were engaged in multiple enterprises, we concluded that 96% of farmers with a value-added enterprise were involved in beef marketing, farmers’ markets, or jams and jellies. This leaves only a small number of value-added producers who were involved in sheep, wine, honey, greenhouses, dairy, tobacco, and grain enterprises.

Agents were first asked to respond to five questions using a five-point Likert scale. The questions focused on their interest and current involvement in value-added processing in their county. When presented with the statement, “I am currently involved in increasing value-added processing in my county,” 37% of agents indicated strong and 26% moderate agreement. Among the 37% that remained, 11% were neutral, 15% expressed

moderate disagreement, and 11% strongly disagreed. The mean score for this statement was 3.63, indicating moderate overall agreement. The statement, “I would like to know how to advise farmers in my county to get started in value-added processing,” had a 3.81 mean score, with 26% of agents in strong and 48% in moderate agreement. Eleven percent of agents were neutral and another 11% expressed moderate disagreement. Only 3.7% strongly disagreed with the second statement. A mean score of 4.63 for the third statement, “I would help a farmer in a value-added enterprise if they expressed an interest,” indicated strong agreement. Seventy-four percent of respondents strongly agreed with the statement and 18.5% expressed moderate agreement. Moderately disagree and neutral responses were evenly split with 3.7% of responses each. No agents strongly disagreed with statement number three.

TABLE 1. VALUE ADDED PROCESSING: SUMMARY OF AGENTS' RESPONSES

	Strongly Disagree		Moderately Disagree		Neutral		Moderately Agree		Strongly Agree		Score <i>X</i>
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	
I am currently involved in value-added processing.	3	11.1	4	14.8	3	11.1	7	25.9	10	37.0	3.63
I need help advising farmers in value-added processing.	1	3.7	3	11.1	3	11.1	13	48.1	7	25.9	3.81
If asked, I would help farmers with value-added processing.	0	0.0	1	3.7	1	3.7	5	18.5	20	74.1	4.63
I want more information on value-added processing.	2	7.4	1	3.7	2	7.4	10	37.0	12	44.4	4.07
Value-added processing has no place in county.	17	63.0	7	25.9	2	7.4	1	3.7	0	0.0	1.52

Note: 27 of 28 agriculture agents responded, representing 53 of 55 counties.

TABLE 2. PERCENT OF FARMERS EXPRESSING INTEREST IN VALUE ADDED PROCESSING TO AGENTS

	Agents	%
Numerically specific answers:		
Farmers expressed no interest	2	7.4%
1% of farmers expressed an interest	5	18.5%
2% of farmers expressed an interest	1	3.7%
3% of farmers expressed an interest	2	7.4%
5% of farmers expressed an interest	2	7.4%
7% of farmers expressed an interest	1	3.7%
8% of farmers expressed an interest	1	3.7%
10% of farmers expressed an interest	1	3.7%
15% of farmers expressed an interest	1	3.7%
25% of farmers expressed an interest	2	7.4%
Answers giving a range:		
Fewer than 1% of farmers expressed an interest	1	3.7%
Fewer than 5% of farmers expressed an interest	1	3.7%
Fewer than 10% of farmers expressed an interest	7	25.9%
Total	27	100.0%

Note: 27 of 28 agriculture agents responded, representing 53 of 55 counties.

The fourth statement, "I would like more information on value-added processing," also had a mean score of 4.07. Forty-four percent of agents agreed strongly with this statement and 37% moderately. A minority of 19% was either neutral (7.4%), disagreed moderately (3.7%) or disagreed strongly (7.4%). The majority of agents disagreed with the final statement, "I believe value-added processing

has no place in my county," Sixty-three percent of them disagreed strongly and 26% moderately. Of the remainder 7.4% were neutral and 3.7% agreed moderately. No agent strongly agreed with this statement. The results of the Phase I survey are summarized in Table 1.

Two follow-up questions inquired about farmersexpressing interest in value-added agriculture to the agents. When asked what percent of farmers in their counties had expressed an interest in value-added processing, two agents reported that no farmers had expressed an interest to them and 21 reported that fewer than 10% of farmers had mentioned an interest. In one county, 10% of farmers had expressed interest and in another 15%. Finally, two agents reported that 25% of farmers expressed an interest in some form of value-added agriculture.

The final survey question asked extension agents to list all types of value-added processing currently being employed in their counties. Six agents (22%) knew of no value-added processing in their counties, while 21 (78%) reported at least one enterprise. The most common value-adding activities involved beef cattle or marketing of beef products with 13 agents reporting the presence of such an enterprise. Farmers' markets or fresh produce were second most common, closely followed by the production of jams and jellies. Value-added agriculture involving sheep, wine making, and honey were each mentioned by two agents, while greenhouses, dairy, tobacco, and grain enterprises were named by one agent each (Table 3).

Interviews with Producers

Value-added producers contact information we received from agriculture agents were interviewed by telephone. They represented a variety of enterprises including wool production, produce markets, farm tours, pasteurized milk and dairy products, calf pools, beef products, jams and jellies, aquaculture, grains for feeds, wine making, greenhouse plants, and honey products. When asked about the success of their enterprises, all farmers reported some degree of success. Two farmers reported ups and downs in profit, mostly due to the seasonality of their businesses. One farmer responded that her enterprise was more of a hobby and not a substantial income source and one reported limited success due to marketing problems.

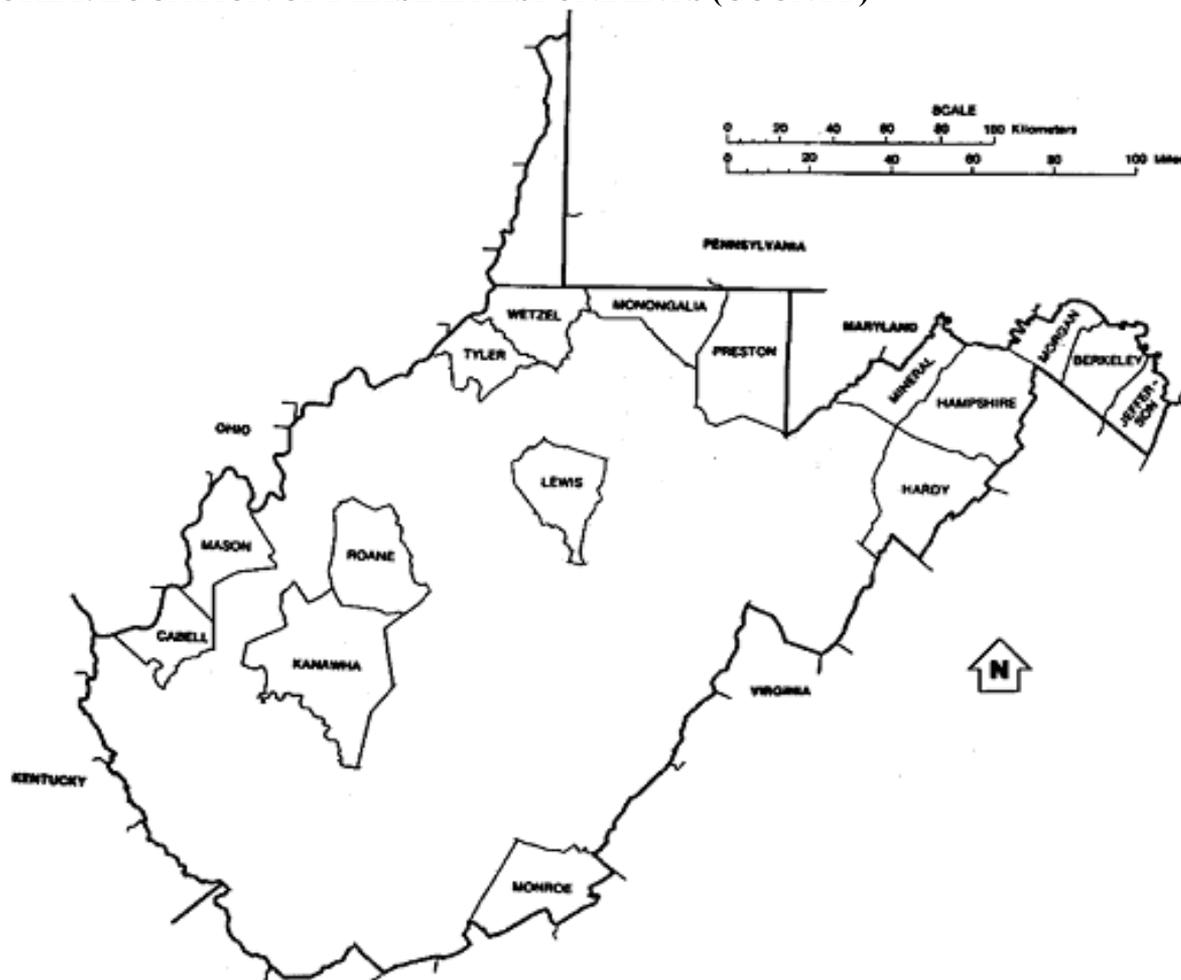
The geographic distribution of the value-added enterprises identified by agriculture agents reflects the general economic significance of agriculture in different parts of the state and access to customers (Figure 2). Except for hay production, the economically most successful farms are concentrated along the state's eastern border, particularly in the Eastern Panhandle and, to a lesser degree, in the southwest in the Ohio Valley where most of West Virginia's tobacco is produced. The importance of access to markets is suggested by the observation that four of these counties are part of a Metropolitan Statistical Area (Cabell, Jefferson, Kanawha, Mineral) while an Interstate highway serves seven counties (Berkeley: I-81; Cabell: I-64, Kanawha: I-64, I-77, I-79; Lewis: I-79; Monongalia: I-68, I-79; Preston: I-68; Roane: I-79). Of the nine counties not served by an Interstate, five are served by at least one U.S. Highway. This confirms the results of a study by Gandee (2003) who found that distance from Washington, DC, which is used as a measure of the influence of tourism and, hence, access to customers, has a positive effect on direct marketing by farmers. On the supply side, we note that all but Kanawha, Lewis, and Roane are among the top producers of at least one of the crops included in West Virginia Agricultural Statistics Service's 2001 Annual Bulletin.

Most farmers interviewed had been in the value-added business for less than 10 years and one farmer was in the process of building a value-added dairy enterprise. Three farmers have been adding value to products between 10 and 15 years, two reported being successful in their business for more than 20 years, and one farmer has been direct marketing potatoes for 51 years. Farm sizes ranged from 10 to 300 acres that were devoted to value-adding activities. All respondents were willing to participate in case studies and discuss their enterprises.

Case Studies

Because of time and funding constraints, only four farms were selected for visits from among the Phase II population. They were chosen based on type of enterprise, success, and transferability to other regions of West Virginia. We also wanted to include

FIGURE 2. LOCATION OF PHASE II RESPONDENTS (COUNTY)



different types of agriculture and methods of processing. The four farms were visited during the week of March 22, 2002. Two case studies were added based on prior knowledge or research. Readers who are interested in additional rural development case studies and a broader industrial and geographic perspective are referred to Schaeffer and Loveridge (2000).

Case Study 1: ThistleDew Farm

ThistleDew Farm is a honeybee enterprise located in Wetzel County (see Figure 2 for county location). The owners, Mr. and Mrs. Conlon, started their business in 1974 with two hives of honeybees. They could not earn a satisfactory income from producing and selling raw honey and beeswax and, therefore, started looking for opportunities to increase their income through value-adding activities. The business grew steadily and today has approximately 700

honeybee hives from which 60,000 pounds of honey are produced each year. In 2000 the Conlons bought West's Best, a West Virginia specialty food business that produced gourmet sauces, when the owners sought to retire from that business. From honey and wax the Conlons produce honey mustards, creamed honey, flavored honeys, candles, and ornaments. The acquisition of West's Best allowed ThistleDew Farm to diversify its product line.

ThistleDew Farm's honey can also be bought in "collectible" glass jars. Glass making has a long tradition in West Virginia and this offering demonstrates how value-adding agriculture and traditional industries and crafts can complement each other, thereby increasing the total impact on the local and regional economy. The connection between different crafts is also demonstrated by the Mountain

Craft Shop, Co., which was started by Dick Schnacke in 1963 (<http://www.folktoys.com/>) and is now being operated by the Conlons. This crafts store sells reproductions of traditional toys, many of them made from hardwood.

Products are sold at the business location, via Internet (www.thistledewfarm.com/), through specialty retail stores, and at food and craft shows. In addition to the sale of products, the firm provides educational demonstrations, bee beards, and distributes honeybee literature. The business has been profitable and is the owners' sole source of income. Besides the owners, it has a staff of seven employees, including members.

Case Study 2: Hopping Acres

Hopping Acres, owned by Mrs. Kelly Smith and located in Preston County, is a sheep farm. The owner breeds and raises Romney and Leicester Longwool sheep. The Leicester Longwool is listed as rare, meaning that there are fewer than 1,000 North American annual registrations and an estimated global population less than 5,000 (American Livestock Breeds Conservancy n.d.; Oklahoma State University 1999). From the wool of her sheep Mrs. Smith spins yarn, which she knits into sweaters, hats, mittens, scarves, slippers, socks, and ornaments. She also sells sheep skin rugs, teaches spinning classes, shows sheep, and sells yarn and bulk wool to other hand spinners. Most of her products are sold at shows that she attends; however, some are sold over the Internet through her website (<http://frontiernet.net/~hoppingacres/>), or direct from her home. Her webpage also advertises individual sheep for sale. The business dates back to 1984 and now has some 40 sheep, which she feeds year round on 10 acres at her home. The business generates more than enough to cover the cost for the upkeep of the sheep. Mrs. Smith explains that, though she could successfully expand her business, she is content with a smaller scale enterprise to supplement her family's income.

Case Study 3: Headwater Farms LLC

Headwater Farms LLC is a limited liability corporation formed by eight beef farmers in Hampshire County with guidance and advice from the extension agriculture agent. The seeds for this enterprise were planted in

1995 with the establishment of the Hampshire County Feeder Calf Producers Association. Looking for a way to increase farmers' income, the association explored different ways of marketing beef cattle. Eight farmers committed themselves to a strategy of marketing their cattle directly to buyers. They followed-up their sales with phone calls and visits to check on the status of the sold cattle.

At around the same time, the Cacapon Institute (www.cacaponinstitute.org/), a West Virginia non-profit organization dedicated to protecting Appalachian watersheds, became interested in promoting ways of raising cattle in a manner that would have less of an impact on creeks and rivers. The Cacapon Institute found a partner in the Hampshire County Feeder Calf Producers Association. With the help of a grant from USDA's Northeast Region Sustainable Agriculture Research and Education Program, Headwater Farms LLC was founded to raise cattle and market organically produced beef. The newly formed corporation contracted with a USDA certified processor in Pennsylvania for the processing of their cattle. Headwater Farms is marketing the processed beef directly to consumers under the name Petite Beef, a leaner, pasture-fed beef. Promotional materials stress the environmentally friendly approach to raising the cattle, the high quality of the pasture-raised beef, and the ties of the producers' family farms to the region. As the extension agriculture agent put it, they want to "put a face with the food" to let consumers know where the food comes from and who produces it. The beef can be ordered over the Internet (www.headwaterfarms.com/) and is shipped or can be picked up at the corporation's headquarters in Hampshire County.

Headwater Farms' strategy has proven successful. On average the corporation pays farmers \$750 for beef cattle that can be processed and sold for \$1,200. This leaves \$450 for marketing, advertising, and for profits. The success of the enterprise has helped the formation of a central commercial kitchen and gourmet

foods facility that provides a storage facility for Petite Beef. Because each of the eight families has a share of the corporation, they are committed to the successful marketing of their products, which allows them to obtain a greater share of consumers' outlays for the beef. Several months after completing the case study research we learned that Petite Beef has branched out and added a farmer in Monongalia County (Figure 2).

Case Study 4: The Higsons' Farm

Ron Higson and his family have been in the value-added produce business in Mineral County for some 15 years on the former dairy farm of his wife's family. When Mrs. Higson's father passed away, the couple inherited the farm. Ron was raised on a produce farm and saw greater opportunities to make a profit raising fruits and vegetables instead of dairy products. Today their 125 acres are planted with vegetables and fruits, including strawberries, asparagus, raspberries, pumpkins, gourds, squash, cucumbers, peppers, sweet corn, green beans, lima beans, and tomatoes. The family sells about 50% of their fruits and vegetables in the produce market on their farm. This market is open from Sunday through Friday during the growing season. Some produce is sold to customers to pick themselves. The rest is sold at three farmers markets in Maryland and West Virginia. Hayride tours of the farm for schools and children's groups supplement the income from farming. The Higsons are currently building a pavilion to provide a gathering place for visitors to the farm.

Most advertising for the farm is by word of mouth, except for advertisements placed in the Cumberland, MD newspaper during the growing season and ads placed in local papers. In the past, the Higsons also ran some television ads. The enterprise is helped by its location in Mineral County, which is part of a small Metropolitan Statistical Area and receives many visitors from the Baltimore-Washington, DC area. The business has been successful, employing at least two people year round and as many as 10 during the growing season, and allowing the Higsons to make a living as full-time farmers.

Case Study 5: Brier Run Chevre

During Phase I of the research, we were surprised when the agriculture agent responsible for Nicholas County (see Figure 1), located in south-central West Virginia, did not list Brier Run Chevre, a well-known goat cheese maker that had been in business since 1985, among the value-added agricultural enterprises in his region. When we asked about the apparent omission, we learned that the owners, Mr. and Mrs. Sava, had stopped making cheese. We called and the owners told us that they had unsuccessfully tried to sell their business. Though they had found interested buyers, the buyers wanted to acquire the business and the 250 acres farm. The Savas were not willing to sell the farm as they wished to continue to live there. The decision to shut down the profitable business was based on the time commitment required to run it. A dairy farm business never shuts down completely since the animals need to be fed and milked and otherwise cared for every day. At one time the Savas employed four full-time and two part-time employees, but Mr. Sava commented on the challenge of finding employees willing to work early and late hours, and/or weekends and holidays. Difficulties managing employees was one of the reasons for cutting back production a few years ago, when Mr. Sava and his wife went back to running the business by themselves. However, the Savas also did not want to be tied down by their business every day of the year and they therefore eventually shut it down when they could not sell it at terms acceptable to them.

The business was profitable and had contracts with specialty stores and resorts, including West Virginia's well-known Greenbrier Resort, ensuring reliable sales. Brier Run Chevre had such a reputation for excellence that restaurants listed it by name on their menu. When the Savas stopped making cheese many restaurants found it difficult to replace Brier Run Chevre with a product of similar quality.

Recently Mr. Sava informed us that he and his wife found a couple that wanted to enter into the business. The Savas will retain ownership of the farm and the business will continue to be located there. When we

last talked with him in July 2003, Mr. Sava anticipated production would start up again very soon.

Case Study 6: Gourmet Central

Gourmet Central is a food processor and commercial kitchen in Romney, Hampshire County. It owes its presence to a team effort that includes the extension agriculture agent who helped start Headwater Farms LLC (described in case study 3), the county economic development director, the Small Business Administration, and a regional non-profit organization. They recruited Harvey Christie, Gourmet Central's CEO and owner, and enticed him to move from Monroe County to Hampshire County with the prospect of better facilities and greater opportunities. One of these opportunities is linked to apples, a major crop in a region that also has peach orchards and produces other fruits and vegetables. A few farmers are processing some of their own produce for sale at road stands and farmers markets. However, food safety and health standards and requirements make this a difficult task. The establishment a commercial kitchen and food processing facility operated by Gourmet Central made professional food processing of small batches available. Gourmet Central was established with financial support from the Hampshire County Economic Development Authority, the Small Business Administration, and a regional micro-lending institution.

Gourmet Central develops recipes, processes, produces, packages, and labels food products for hotels, restaurants, farmers, retail stores, and others who wish to have a food item available under their own label. Because of its experience, the company can also assist with business planning, including pricing and marketing. In addition to co-packaging, Gourmet Central also produces, markets, and sells products under its own labels.

By definition, specialty items are not produced in large volume. Since there are considerable fixed start-up costs in food processing, it is difficult to reach a scale that is sufficient to cover all costs while holding the price to a level that will be accepted by

targeted consumers. Gourmet Central, by accepting the produce from a number of farmers and by producing for other businesses under their labels, has a better chance of achieving a critical scale. To this end, Gourmet Central is also working with Headwater Farms and stores Petite Beef's meat products and has become part of Highland Harvest, LLC, which, in addition to Gourmet Central, includes seven apple growers. Gourmet Central serves as the processor and marketing arm of Highland Harvest. With some seasonal variation, Gourmet Central employs 15 to 20 people, including Mrs. Christie.

Finally, as in the case of many farm-based value-adding enterprises, Gourmet Central welcomes visitors, conducts tours, has a store at its facility, and sells products over the Internet (<http://www.wvgourmetfoods.com/gourmetcentral/>). Gourmet Central has several thousand visitors a year, including many bus tours, and has become part of the local and regional tourist attractions. The company caters events, including weddings, and works with county schools and 4-H clubs. Mr. Christie also offers cooking lessons and has a cooking show on West Virginia public television. In spite of efforts to diversify Gourmet Central's activities, at the time of this writing, it is still a struggling enterprise. As Mr. Christie expressed it, it takes a large volume to cover the basic cost of the business.

Implications and Recommendations

All case study participants are cautioned that without detailed research into products and markets, success will be limited, and that running a business takes a great deal of time and dedication to ensure its commercial success. One of them commented on the difficulty of finding and retaining employees. Nonetheless, the entrepreneurs expressed satisfaction that their business allowed them to maintain an agricultural lifestyle. The owners of ThistleDew Farm and of Hopping Acres mentioned that they derived great satisfaction from product development and marketing the new products they had created.

Failure to perform a careful marketing study before starting a business is listed among the eleven most common causes why a new business fails (American Women's Economic Development Corporation 1997). The agents' responses to the survey (Table 1) show that a majority of them have reservations about their ability to assist farmers wishing to move into product agriculture. Together with the comments from the business owners that we interviewed, this suggests a need for more entrepreneurial training. Determination of the extent and nature of such needs requires additional study, however.

The concentration of value-adding agriculture along West Virginia's northeastern border demonstrates the importance of consumer-driven agriculture's access to consumers. It may be possible to overcome distance through web-based marketing, but many of the smaller value-adding businesses rely on face-to-face contact and visiting the farm may be part of the shopping experience. Cooperative efforts that facilitate building personal ties to customers, such as in the case of Petite Beef and Gourmet Central, may therefore deserve additional study to determine if they can serve as a model for other value-adding agriculture businesses. More generally, support for marketing and advertising may be a way to help farmers enter into a value-adding business, particularly those farmers who are located some distance from customers.

The Brier Run Chevre case study calls attention to an obstacle that may be more prevalent in relatively isolated rural than in urban areas, and that is finding a successor for a business when the current owner wants to quit. Though the owners of this particular business were confident about their ability to get it going again, businesses with a more common product and without the stellar reputation of Brier Run Chevre, may find it difficult to regain their former customer base. Commercial and institutional customers cannot afford to wait long before supply is re-established and will therefore quickly switch to another, more reliable source. Retail clients may also find suppliers elsewhere and, if their experience with the new source is positive, may not come back. In

summary, delays in business succession that lead to a temporary suspension of operations may easily turn into a permanent shutdown.

The six case studies illustrate that product agriculture and associated value-adding activities generate benefits beyond the farm. They provide employment and income. Some of them have become one of the local attractions and indirectly support tourism-related businesses in their communities. The owners of ThistleDew Farm took over two businesses that might otherwise have disappeared, demonstrating another benefit of having experienced local entrepreneurs. We therefore caution against promoting product agriculture solely as a tool for assisting farmers, but instead encourage its inclusion in the rural economic development specialist's toolbox. First, there is more merit in promoting enterprises that potentially can help make life better for all rural residents instead of only a few. Second, neglecting ties between agricultural value-added enterprises and other local businesses may diminish opportunities for both.

As we conducted our research and learned more about product agriculture in West Virginia, we repeatedly discovered new examples of such businesses, some of which had apparently not been known to extension agriculture agents or, more likely in many of these cases, were not considered by the agents as agricultural. In particular, no agent identified any trout farms and fee fishing lakes and ponds as an agricultural value-added enterprise, though we know of 32 fee-fishing sites in West Virginia (West Virginia University Extension Service and West Virginia Aquaculture Association 2002).

In another instance we came across a brochure jointly published by the Garrett County Chamber of Commerce and Visitors Center in Maryland and the Greater Morgantown Convention and Visitors Bureau and Preston County Visitors Center (2002) in West Virginia. The brochure advertises 16 working farms that welcome visitors. Six of the 16 farms are located in West Virginia, but the agriculture extension agents only mentioned one. The apparent exclusion of farm tourism from

consideration by agents lends further support for the need for training programs and for broadening the perspective from the farm to include the whole community (for a discussion of agricultural and nature-based tourism, see Bender and Davis 2000). It is also telling that nobody mentioned agriculture-based special events, such as Preston County's annual Buckwheat Festival or Buckhannon's Strawberry Festival, as a value-adding activity that benefits the whole community. Such events have a measurable impact on farmers' involvement in direct marketing (Gandee 2003). Taking a broader perspective that includes such events would also align the agriculture community more closely with the new emphasis on community and household asset building and entrepreneurial values that is taking hold in the rural economic development profession (Schaeffer 2002).

In retrospect, we regret that we did not include questions about forests and related products in our survey. In 2000, 78% of West Virginia's land area was forested (US Forest Service 2000) and many farms include significant forest resources. This creates additional opportunities for value-adding activities such as the cultivation of ginseng or fee hunting. In other words, our perspective was too narrow. Therefore, in any further or follow-up study we will change our definition of value-added agriculture to one that encourages respondents to think more broadly of agricultural and farm-related value-added activities. We would also include questions about the entrepreneurs. The owners of Thistledeew Farms moved to West Virginia from suburban Philadelphia and Mr. Sava of Brier Run Chevre is originally from New York state and his wife from Switzerland. Information on why they chose to settle and establish a business in West Virginia could teach useful lessons for identifying potential rural entrepreneurs.

Finally, additional research is necessary to provide farmers, agriculture agents, economic development specialists, and local non-farm entrepreneurs with reliable and current information about potential rural markets and products. Gandee (2003) and a forthcoming article by Brown (2003) are examples

of useful research for this purpose. Brown conducted a random survey of consumers in Missouri about their attitudes toward locally grown farm products. Not all households are willing to pay a premium for locally grown food and those who are do so because of environmental, social, and/or quality concerns. Thus, she concludes that "Marketing local products should stress quality, freshness, and price competitiveness, and appeal to environmentalists and those with a favorable attitude towards family farms." (Brown 2003: p. 1)

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