

**Cooperation in the Delta: A Case Study
of the Arkansas Delta Produce Marketing Association, LLC¹**

Presented

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Abstract

In 2003, a small group of traditional row-crop farmers came together to form the Arkansas Delta Produce Marketing Association, LLC. The founding members are cotton farmers who feel that the future of Arkansas farming lies in sweet potatoes and greens. The farmers opted to form the LLC as a means to expand into processing and other value-added operations, and to directly address the negative reputation associated with cooperatives in the region. Scholars in agribusiness and management (Egerstrom 1994, Frederick 1997, Henehan 2002, Stofferahn 2005) have begun to weigh-in on the debate of new generation cooperatives, and on the merits of conversion from a cooperative to a corporation. Using the case study approach (Sterns et al. 1998), this paper examines the Arkansas Delta Produce Marketing Association, LLC, as an innovative organizational form for newly emerging, small-scale farm operations. Specifically, this paper will examine how the association is organized, and how its members as entrepreneurs seek to differentiate their organization from earlier cooperative failures. Similarly, and perhaps more importantly, a focus will be on barriers and issues that are encountered by small-scale farmers as they attempt to transform agricultural production in the Delta, and to contribute to local economic development efforts.

Introduction

Harvey Williams is anticipating a shift in current national agricultural policies and he is determined to be a step ahead of the rest. In the past, his 100-acre farm in Phillips County, Arkansas, produced large row crops, such as cotton, soybeans and rice. These crops were a staple of Southern agriculture. Due to increased competition and supply problems, the price of row crops has recently fallen to unprofitable levels. In the past, government subsidies had been able to provide these farmers with the extra income they needed to survive. However, the influx of new foreign countries into the World Trade Organization and their growing influence in agricultural economics has magnified the pressure for the US to eliminate subsidies completely. With the inevitability of subsidy reduction growing by the day, Southern farmers have begun to shift from row crop production to vegetable crops – a trend that is anticipated to continue throughout the upcoming decade. Already, farms in both Mississippi and Louisiana have successfully transformed their row crop operations into vegetable production. Unfortunately, a lack of both governmental and individual initiative in Arkansas has brought Harvey Williams and several other local black farmers together to face to this challenge.

Arkansas Delta Marketing Produce – The Beginning

The concerns about the lowering subsidies and the future of small-plot farmers in Arkansas culminated on February 16, 2003, when Harvey Williams and a group of black farmers came together to form the Arkansas Delta Produce Marketing Association Limited Liability Corporation (ADPMA LLC). The founding members are cotton farmers who feel that the future of Arkansas farming lies in sweet potatoes and greens. Thus, they decided to form the LLC, with the goal of expanding into agricultural business activities such as the value-added operations of

blending, canning, packing, warehousing, and processing. Harvey Williams marked the occasion, “if we are to survive as farmers, then we have to strategically reorganize our operations; doing nothing is not an option.” The ADPMA is to serve as a model for the future of other Arkansas farmers.

Harvey’s foresight was justified on February 1st 2006 when the US Congress officially approved the reduction of major cotton subsidies.² Coupled with the continuing fall in global prices since 1995 (see Exhibit 1), Harvey’s predictions about the decline of cotton farming were manifested. Sweet potato production would be the future of Arkansas farming.

The Region

Traditionally, West Helena has been a white, middle-class town overlooking Helena, a mostly poor black community. West Helena’s wealthy white landowners prospered by growing cotton and relied heavily on Helena’s poor black community as a source of cheap labor. Because of these economic and racial inequalities, Helena and West Helena historically experienced political and racial strife between the two communities. In 2005, because of the shrinking population, declining tax revenues, and worsening economic situation, Helena and West Helena merged into one city. Today known as Helena-West Helena, many in the community see this consolidation as a sign that the two cities are willing to put aside past social differences and work together to ensure a sustainable future. The merger also qualifies the city for federal and state development dollars, something neither town received before the merger. Citizens are hopeful that the newly unified government will focus more on the economic development of the region and spearhead the industrial and social revival of the new town.

² US Congress Scraps Cotton Subsidy. BBC NEWS 2006/02/02

Helena-West Helena is located about an hour south of Memphis, Tennessee, in Phillips County, Arkansas (See an area map of the Lower Mississippi Delta Region in Exhibit 2). In 1999, Phillips County was one of the twenty poorest counties in the United States. The median household income was \$22,232, as compared to the national average of \$41,994; also, 32.7% of the county's population lived below the poverty line. Phillips County has also been experiencing a consistent decrease in population of about 18% since 1990, signaling a local economic decline. Agriculture is the largest economic sector in the county with cotton being the main crop. Farmers in Phillips County have historically relied heavily on government subsidies to cushion farm operations. Table 1 shows the amount of subsidies allocated in Phillips County over the past eight years.

Table 1. Payment breakdown for Phillips County, Arkansas

Year	Conservation Subsidies	Disaster Subsidies	Commodity Subsidies	Total Annual USDA Subsidies
1995	\$0	\$0	\$172,697	\$172,697
1996	\$0	\$0	\$1,210,272	\$1,210,272
1997	\$0	\$0	\$1,083,356	\$1,083,356
1998	\$0	\$0	\$2,595,300	\$2,595,300
1999	\$0	\$0	\$4,823,380	\$4,823,380
2000	\$0	\$0	\$7,849,283	\$7,849,283
2001	\$8,059	\$270,600	\$7,740,061	\$8,018,720
2002	\$0	\$0	\$803,022	\$803,022
2003	\$0	\$1,357,236	\$0	\$1,357,236
Total	\$8,059	\$1,627,836	\$26,277,372	\$27,913,267

Helena-West Helena's economy has been on the decline for some time now. The absence of industry in Helena-West Helena is clearly demonstrated by the fact that traditionally, the largest employers in the town have been the school district, the healthcare industry, and Wal-

Mart. The businesses that are still operating in Helena are small and only employ a few workers, mostly consisting of mom-and-pop stores and other small operations. The main reason for the lack of business expansions is that access to capital is extremely difficult. Local banks and a mix of nonprofit and public development foundations mainly provide capital for businesses. However, these financial sources, especially local banks, are extremely selective in distributing and lending money because of the high default rate in the area. For farmers looking to move into sweet potato and vegetable production, this capital problem is compounded by the high sunk costs from existing machinery for planting cotton.

Growing Sweet Potatoes – Overview

The US is a net exporter of sweet potatoes. Exports for 2001 amounted to \$14 million while imports totaled \$4 million (about 1% of domestic sweet potato consumption). Canada remains the main export destination, though recently a growing percentage has gone to the UK market. Increased consumer knowledge about the nutritional qualities and health benefits of sweet potatoes has shifted eating habits among the majority of the US population, leading to an increasing demand domestically for vegetables and greens. Sweet potato growers in the US stand to benefit from such a change in consumer demand and eating behavior.

Besides the increasing demand, there are many other advantages of sweet potato production over other crops. The yield per acre for sweet potatoes is much higher than their traditional row-crop counterparts (see Exhibit 3). Also, sweet potatoes are a favorable and strategic vegetable crop choice because of its continuous demand throughout the year, with the peak selling season occurring during the winter holidays. This feature is the biggest advantage of growing sweet potatoes.

The prevailing weather conditions in Helena-West Helena provide a competitive edge to sweet potato farmers in the region. Since the sweet potato is a tropical plant, both warm days and warm nights are essential to obtain the desired quality and quantity yield. A four to five month outside growing season is desired for optimum yield, a condition easily met by prevailing weather patterns in and around the Deep South. Helena-West Helena has fertile, well-drained sandy soil, which is extremely favorable for sweet potato production. The soil's fertility and richness improves yield per acreage and the overall profitability of operations.

Helena-West Helena also possesses another advantage in its location. It is situated next to several important transportation routes: the Mississippi River and multiple highways. The Mississippi provides a convenient passage for the movement of various goods and services, and a new port is currently under construction to maximize the overall river transport potential. The after effects of Hurricane Katrina, which devastated most parts of Louisiana, has opened up an opportunity for the Helena-West Helena port to become an important hub for transporting goods. Finally, the town is situated close to U.S. Highway 61, Interstates 10, 12, and 4, all important connections to various parts of the country.

Although sweet potatoes have a long selling period, the long layover between harvest season in the summer and the prime selling time in the late fall and winter creates a significant storage problem for the farmers. Like most vegetable crops, sweet potatoes are highly perishable after harvest and do not last long unless refrigerated. Currently, producers have a mere 24 days after harvest to market and sell their sweet potatoes before they spoil.

The usual solution to this problem is the usage of a cold storage facility. These facilities are basically large refrigerated warehouses that allow farmers to store sweet potatoes without spoilage. However, the closest storage facility is 74 miles from Phillips County in Cherry Valley,

Arkansas. The current lack of storage facilities in the area forces farmers to sell all their crops at harvest time when supply is highest and prices are lowest. ADPMA feels that the only viable option is to build its own cold storage facility. This would allow the LLC to capitalize on the heightened price levels of the winter seasons (approximately \$20-\$26 per bushel) and will limit the selling of crops “green” (at a highly discounted price of approximately \$6-\$10 per bushel). However, such a project is both complicated and expensive.

Besides storage problems, sweet potato production also requires the heavy usage of manual labor. Farmers in the Delta have typically relied on migrant workers to provide this service. Farmers usually contract the laborers to come and work a week at a time during planting and harvest seasons. However, the legality and sustainability of this practice are still under review. The federal government H-2A Temporary Agriculture Program regulates the use of such labor. The program allows any farmer who anticipates a shortage of domestic workers to bring nonimmigrant foreign workers to the U.S. to perform agricultural labor or services of a temporary nature. Although the migrant laborers are currently essential for harvesting sweet potatoes, their use increases production costs and also poses significant management problems due to the large numbers that must be employed. Also, local workers do not view the H-2A program favorably; some local workers feel that it is inappropriate for farmers to be bringing in labor when unemployment is so high in the Delta.

The LLC

Agricultural associations typically fall into two categories: cooperatives, which represent the vast majority of these organizations, and limited liability corporations, which have just recently begun to gain popularity. ADPMA is currently legally structured as an LLC, but

operates much like a cooperative. This is common in small, community-based LLCs, but must be addressed by ADPMA in the future.

Besides the method of incorporation, it is also important to understand the internal workings of the organization itself. ADPMA employs a very simple managerial structure. Since all of the founding members are friends, the entity's structure was established with equality between members as one of the foremost considerations. The executive board consists of: Floyd Morrow, president, Harvey Williams, vice-president and public relations, Earnest Cox, treasurer, and Ben Anthony, secretary. In accordance with the Operating Agreement, each farmer contributed \$250 to the LLC's Capital Account and has equal voting privileges within the group. Also, the profits, liabilities, and expenses of the LLC are to be allocated to each member pro rata. The proportions are to be calculated based upon the amount of acreage each individual dedicates to LLC production.

In terms of the decision-making structure, the LLC is currently comprised solely of its executive board; however, should the LLC succeed in its endeavor, the addition of new, non-managing members is highly probable. Already, several local farmers have expressed interest in joining the venture. The executive positions of the LLC were established at its inception and managing members can only be disbanded through a vote of 60% or more. Consequently, the decision-making authority within the LLC is highly entrenched. However, there are ownership limitations in place, barring any individual from having more than 24% of the voting rights. This will ensure relative equality between the managing members.

It is the organizational culture of the LLC that really shapes the group's operations. The Arkansas Delta Produce Marketing Association is as much a business venture as it is a project among friends. Due to the participants' unfamiliarity with operating an LLC, the LLC has a

relatively loose management structure. Meetings are run “off the cuff,” without minutes and formally set agendas. Financial statements are filed through the help of Orlando Jacobs, an extension specialist at the nearby University of Arkansas at Pine Bluff campus, but each individual farmer still keeps their own books, preferring to operate individually instead of consolidating their resources. Thus, each member operates in relative isolation, informing other members about their activities only when necessary.

This individualistic attitude in management also extends to the farming operations. Though profits are distributed in proportion to the acreage each member dedicates, there are no guidelines as to how many acres must be allocated per farmer. Thus, each member operates independently, contributing land and profits based on their own personal assessment. Indeed, the current land contributions are highly skewed, with Mr. Williams and Mr. Anthony dedicating approximately 100 acres each while the other members come in close to the 30-acre mark. The success of the LLC will depend largely on how much control over their individual land farmers are willing to cede – a point that the LLC still has yet to address. The lack of effective managerial leadership as highlighted by the above challenges cannot be overstated.

Another area in which the LLC does not operate as a single force has been in loan procurement. Instead of uniting to present a common front when approaching banks, each LLC member has instead opted to continue seeking loans individually. While this method does isolate risk to each individual member, it ignores the obvious benefits that collective loan bargaining presents. By approaching banks together, the farmers would have increased bargaining power in terms of repayment structure, covenant negotiation, and collateral designation. It is important to note, however, that vegetable crop production is relatively new to the region and that some local banks are unfamiliar with the deal structures appropriate for vegetable crop production. Though

collective bargaining will most likely yield better terms, it may still be improbable due to the unfamiliarity of the local banks with these new crops.

Though each LLC member does farm his own property using his own seeds and equipment, there is a high level of cooperation and synergy between the LLC members. For example, all members of the LLC share the two “diggers” owned by Mr. Williams and Mr. Anthony. These diggers are sweet potato unearthing machines that cost \$20,000 each, used by the group collectively. The LLC also jointly uses Mr. Williams’ two eighteen-wheeler trucks, which come complete with refrigeration units, for their transportation needs. Each truck can hold approximately 50 bushels of sweet potatoes. The LLC has considered jointly purchasing a new piece of equipment called a “shoveler.” The shoveler is five times more efficient at unearthing sweet potatoes and reduces damaged sweet potatoes by about 50%. However, the equipment costs \$70,000 to purchase, and the two current diggers are in good working condition.

Besides the joint use of machinery, the LLC also shares technical information. Since Mr. Williams and Mr. Anthony already have past experience with vegetable production, they have been able to aid in the introduction of these new crops to the other LLC members. Also, the LLC has contracted the expertise of Dr. Mulkey of Louisiana, an expert in sweet potato production, in order to provide agricultural knowledge and other technical assistance to the farmers. With over 30 years of work in agribusiness, Dr. Mulkey comes with a wealth of research experience and knowledge of the sweet potato industry and offers useful contacts in the sector.

The Delta Bridge Project

The people of Phillips County have a vision to make Helena-West Helena an economic and cultural force throughout the region by providing quality job opportunities, housing,

proactive health care and social services, and quality education to all residents. In January 2004, the Phillips County Steering Committee was formed to develop a strategic five-year community plan called the Delta Bridge Project for Phillips County, Arkansas.³ With as many as 300 people working on the five-year community plan, the projects appear far more promising than any past initiatives. The Delta Bridge Project is a written development initiative that was formed with input from residents of Phillips County, the U.S. Department of Agriculture (USDA), Southern Bancorp, and local businesses. The final document is a broad plan that engages the community in a comprehensive process that addresses Helena-West Helena's fundamental needs of: economic development, housing, education, leadership development, and health care:

“The Delta Bridge Project is the most aggressive community development project ever attempted; the success of this project will reverse the negative trends of Helena,” *Phil Baldwin, President & CEO of Southern Bancorp.*

With funding from the Walton Family Foundation and USDA, as well as support from the Delta Regional Authority, the community has adopted a strategy that impacts all levels of Helena-West Helena's cycle of development. During an initial analysis, the project committee identified a long list of weaknesses and threats, including racial tensions, high unemployment, loss of population, and a poorly performing public school system. However, the committee also identified a long list of strengths and opportunities to build upon, including the potential for significant tourism based on Helena-West Helena's historic and cultural heritage, its close proximity to Memphis and the Memphis International Airport, its low cost of living, and the community's willingness to help attract new industries and businesses.

Building a Sweet Potato Cold Storage Facility

³ *Strategic Community Plan: Phillips County, Arkansas 2005-2010.* Southern Bancorp

A major component of the economic development goals in the Delta Bridge Project centers around proliferating sweet potato production in the Delta by building the sweet potato cold storage facility that is critical for optimal distribution. The goal is for this cold storage facility to create jobs and allow local growers to supply distributors year-round. Because there are no nearby storage facilities that can be used, a long-term lease for 20 acres of property was acquired from the County for the construction of this facility. Winrock International, an Arkansas-based nonprofit organization, helped to develop the project by researching two similar storage facilities located in Ohio and Louisiana.

The estimated cost of the storage facility is \$2 million dollars. \$1.8 million has already been secured through federal funding provided by U.S. Senators Blanche Lincoln and Mark Pryor of Arkansas, a \$400,000 contribution from the Walton Foundation, bank loans, and loan guarantees by the USDA Rural Development Program. Once finished, the storage facility will have the capacity to store 300,000 bushels of sweet potatoes and vegetables. Also the facility will be able to ship and receive crops, and contain equipment needed to grade, wash and package the potatoes.⁴ The facility will help control supplies to the market and provide farmers with the ability to streamline their revenue. In addition, the storage facility will provide ADPMA with the option to further expand their operations by processing the sweet potatoes into value-added products, such as prepackaged sweet potato slices or sweet potato French fries. Such an expansion will increase profit margins, as there is a growing preference in the United States for prepackaged and processed foods. In addition, these value-added operations may have a potentially positive impact on local employment.

The facility will be owned by the Central Arkansas Rural Development Corporation (CARDC) and has employed Dr. Mulkey to manage the facility and provide technical assistance

⁴ The Tri-county Sweet potato Storage Facility. CARCDC, October 15, 2004

to members of the ADPMA. The leasing agreement allows CARDC to lease the facility to ADPMA and gives permission for the LLC to further sublease any extra space. There are no cash requirements upfront to store produce until sales are made for such items. Essentially it is a “pay as you sell” agreement, with rents charged based only on the operational cost of the storage facility fee (storage fee: \$3.50 - \$4.00 per bushel). It is agreed upon that ADPMA will eventually take over ownership and management of the facility. ADPMA is anticipated to purchase the facility by 2008.

The Central Role of Management: Learning from a Past Failure

While the farmers of ADPMA are fully optimistic about their sweet potato venture, an examination of similar past projects would help their success. Past studies of successful cooperatives show that it is essential for a cooperative to have a management team that is separate from the farmer members. This enables the cooperative to be more efficient by allowing management to focus on business operations and planning while the farmers can focus on their agricultural operations. Management is responsible for controlling the day-to-day operations of the business, providing adequate information to members about the business, and developing budgets and policy proposals⁵. A manager should also be experienced in accounting and technology. One cooperative specialist has observed in his work with successful cooperatives, “90% of a cooperative’s success lies in management. A competent management team needs to know the market and what the members need from the organization.”⁶

Management must be especially involved in controlling the two areas that most commonly contribute to the failure of cooperatives. First, the quality of produce tends to be a

⁵ Decision Making in Membership Organizations: A Study of Fourteen U.S. Cooperatives. Brian Henehan.

⁶ Brian Henehan, Cooperative Specialist, Professor, Cornell University. February 20, 2006.

major problem if the cooperative is an open cooperative, meaning the members are not required to ship their crops through that cooperative. In this case, their production quality may be low, hurting the brand image that the cooperative needs to retain customers. To ensure member commitment, management should work with the farmers to detail the policies, rules, and procedures of the cooperative. This will allow the farmer members to know and understand what is expected of them, while also building trust throughout the group.

The second major concern that management must monitor is the cooperative's financial situation. It is essential for a cooperative to produce a budget and obtain data on yields, costs of production and price points in the market for their produce. Failed cooperatives often neglect to make cost-benefit and break-even analyses, which determine whether proposals are viable.

These two major factors of failure were exemplified in the collapse of a cooperative called Sweet Potato Growers Association Co-op (SPGAC), which was formed in 1995, by a group of farmers in Mound Bayou, Mississippi. SPGAC consisted of 20 growers with farms ranging from two to 100 acres. There are several striking similarities between SPGAC and ADPMA. Like ADPMA, the farmers of SPGAC were all traditional row crop farmers who wanted to switch to the more profitable vegetable production. Also like ADPMA, the farmers of SPGAC had a dual role in farming and management. And finally, SPGAC was also able to secure federal funding and other resources to build a sweet potato storage and value-added facility in Mound Bayou. The facility was seen as a way to help revitalize the slumping economy by providing jobs for workers at the facility. The anticipated success of the SPGAC would hopefully spawn more vegetable farmers. Many people in the region felt that the Mound Bayou sweet potato facility would be a huge success, especially in 1995, when SPGAC was chosen by Glory Foods Inc., a privately held Southern-style foods marketing company, as its sole supplier

of sweet potatoes. Glory Foods and SPGAC formed a partnership to sponsor a five-year Minority Produce Business Development Program to train growers on how to better grow and distribute quality products and become a larger part of the national produce industry. Over those five years, the program was designed to help farmers develop partnerships with established firms in the produce industry, as well as facilitate relationships with the USDA and other government agencies. Furthermore, SPGAC received managerial and agricultural support from a number of local universities.

"These programs will give us the ability to access additional markets and gain information on the latest production, marketing, storage, and distribution techniques. Having the support of Glory Foods ... will help us make the transition from growers to marketers," *Roger Morris, SPGAC farmer.*

Despite the confidence in the venture, the cooperative was never able to meet the production and quality levels required by Glory Foods. The cooperative was not adequately prepared to compete in the competitive commodity market that required the highest levels of quality produce, reliable shipping, and efficient and disciplined management. Even though SPGAC had the critical elements of a value-added facility and government funding, in the end SPGAC did not have a strong enough management structure to compete in the sweet potato commodity market.

Looking Ahead

As an integral strategy within the Delta Bridge project, the cold storage facility of ADPMA is seen as the first step towards rebuilding the agrarian economy of Helena-West Helena. Thus, there is a near unanimous public tide of approval behind the group. This goodwill has helped ADPMA secure grant money, loans, and other necessary items. The enthusiasm of the

local farmers, CARDC, Southern Bancorp, and the general community for the sweet potato facility is overwhelming. As Steven Murray, chancellor of Phillips Community College commented, “I think we probably have the only strategic plan in the nation that envisions the sweet potato as an agent of social change.”⁷

However, as ADPMA looks ahead to the completion and usage of the cold storage facility, the group has begun to consider several critical issues that might determine the viability of the LLC. Many of these issues are similar to those discussed in the research on new generation cooperatives and transitioning from cooperative to a corporation.⁸ First, the group is considering how to develop a way to improve annual profitability and to gain market share. They currently do not have the sufficient quantity or quality of sweet potatoes to fill the storage space. This year, they are projected to grow 100,000 bushels of sweet potato, only one-third of the facility’s capacity. Meeting quantity and quality demands is especially difficult because sweet potatoes and other vegetable crops require farming and harvesting techniques very different from that of traditional row crops, with which the farmers are more familiar.

Second, the farmers must deal with the lack of accessible capital to finance business operations in Arkansas. As Alan Greenspan once remarked, “an important key to the success of small and large business is having access to capital and credit... the newer the firm, the greater the importance of the equity base.”⁹ Although ADPMA has almost secured enough funds to build the cold storage facility, they have to consider how to finance future expansions given the lack of financing available and the low levels of personal wealth within the region.

⁷ “Hope for Helena? The spud that saved the Delta.” *Arkansas Democrat Gazette*. August 19, 2005

⁸ Egerstrom, L. *Make no small plans: A cooperative revival for rural America*. Rochester, MN: Lone Oak Press. 1994; Stofferahn, Curtis W. *Dakota Growers Pasta Company and the Discourse of Conversion, A Final Report to the USDA Rural Development-Cooperative Programs*, 2005

⁹ Greenspan, Alan, Federal Reserve Chairman. *Business Access to Capital and Credit Conference*, Arlington, VA, March 9, 1999

A third issue is the uncertainty of how the farmers might store their perishable produce if the completion of the facility does not occur by harvest time. Although the farmers have their own individual storage spaces, the storage spaces would only keep their produce fresh for a maximum of one month. In the case that the storage facility is not completed in time, the farmers would suffer a significant loss for the year.

A fourth challenge to the farmers is the lack of technical support that they can receive from current institutions. Although Dr. Mulkey now provides technical support to ADPMA, his role is limited, and in the long-run, ADPMA will need help from large institutions, such as local universities and the Arkansas State Department of Agriculture. However, because the Arkansas State Department of Agriculture was only formed in the last two years, it lacks skilled personnel in the area of sweet potato operations. It is hopeful that in the future, the Department of Agriculture can become a technical resource for the farmers by providing information about cutting edge technology and advancements in the sweet potato industry.

Finally, the ADPMA has to grapple with the lack of skilled managers in the area. The current management setup where the farmers serve as the directors of the LLC is very dangerous since none of the farmers is trained in business operations. They also have a disorganized and disconnected financial situation and have not yet taken advantage of the tax benefits and collective bargaining power to which an LLC entitles them. While the LLC is currently not admitting more members, a foreseen problem of production quality and member dissatisfaction is present due to the lack of a competent management team. However, finding an entirely new and separate management team is difficult because of two factors. First, although some state universities, such as the University of Arkansas at Pine Bluff and Delta State University, have business management programs to train entrepreneurs, most are not focused on agricultural

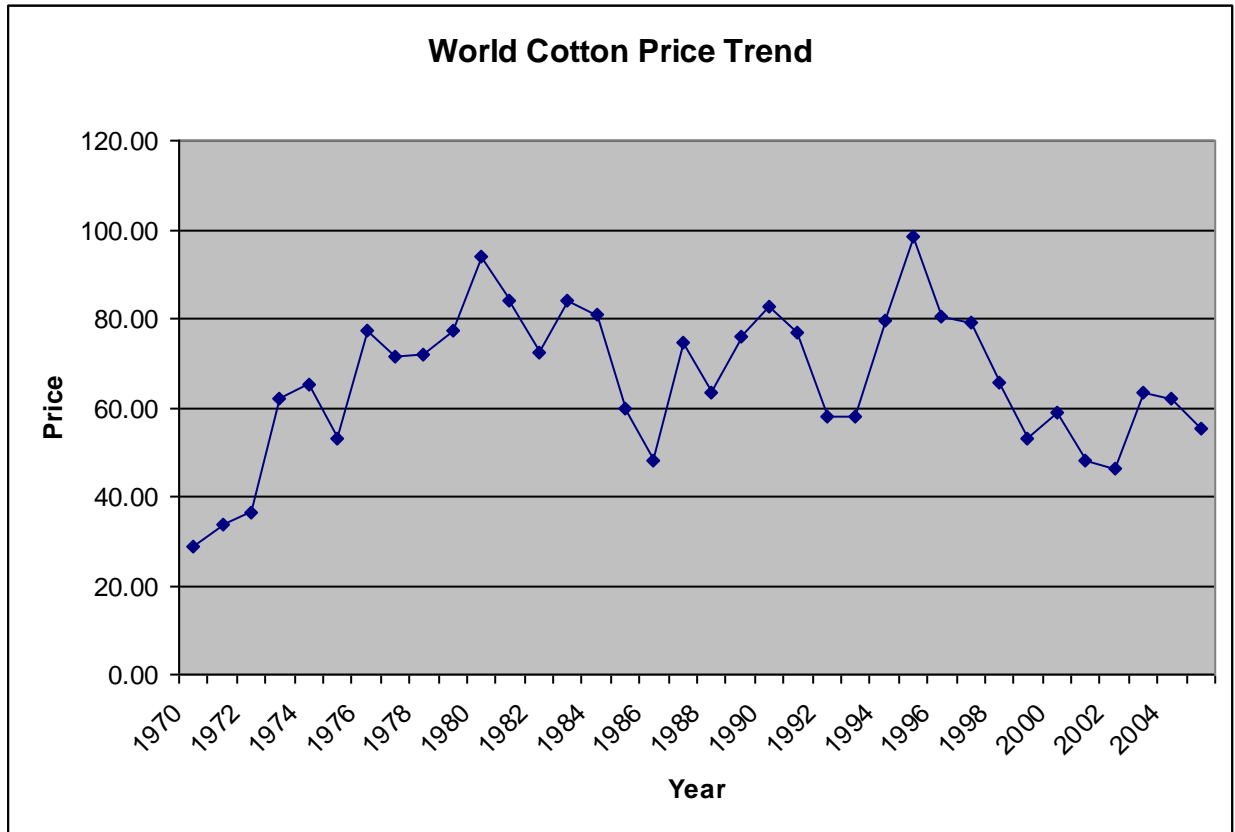
entrepreneurship. Second, at the present venture stage, the farmers cannot afford to hire an outside management team.

In an economically depressed community, the promising development of a sweet potato cold storage facility will provide jobs, stimulate economic activity, and help transform Helen-West Helena into an entrepreneurial hub in Southeast Arkansas. For Harvey Williams and the local farmers of Phillips County, the sweet potato distribution center is a hope and an anchor for the future of their agricultural business. However, for this business venture to succeed and act as a catalyst for the long-term economic growth of the area, the LLC will have to address obstacles internally while adapting to external economical, political, and social structures.

Conclusion

Although farmers have traditionally been an individualistic, independent lot, preferring to work alone or with limited help from family members, through a newly-formed limited liability corporation, the members of the Arkansas Delta Produce Marketing Association have already begun to provide a different model for limited resource farmers across the Arkansas Delta and elsewhere. Determined to be a step ahead, ADPMA has recognized current trends in national agricultural policies to eliminate farm subsidies. Due to a high level of cooperation and synergy among the ADPMA members, the group confidently seeks to transform local agricultural systems by shifting production from row crops to vegetable crops, particularly sweet potatoes and greens, and thereby reducing the region's reliance on farm subsidies. To offset the group's limited experience with vegetable production, members share farming equipment, two eighteen-wheeler trucks, and production and technical information. In addition, members recognize the need to improve the efficiency of the LLC to meet production and quality demands.

Collectively, the group anticipates the day when a \$2 million sweet potato cold storage facility is completed and ADPMA can then compete in value-added operations such as canning, processing, and warehousing. Although this case study recommends that strong management will ultimately determine how successful ADPMA is in producing quality produce and maintaining a sound financial position, the spirit of cooperation that currently exists among ADPMA members holds promise for limited resource farmers in regions like the Delta and their ability to transform agricultural production, and to contribute to local development efforts to reverse negative economic trends.

Exhibit 1: Nominal Price for Cotton in US\$

Source: IMF: <http://ifs.apdi.net/imf/ifsbrowser.aspx?branch=ROOT>

Exhibit 2: Lower Mississippi Delta Region Area Map



Source:

http://www.cr.nps.gov/delta/maps/map_area.htm

Exhibit 3: Sweet Potatoes, estimated revenues., operating expenses, annual ownership expenses, and net return per acre, North Carolina, 1998

Operating Inputs	<i>Units</i>	<i>Price</i>	<i>Quantity</i>	<i>Value</i>
Sweet potato Harvest/Sort	Ctns	1.000	650.000	650.00
40 lb. boxes	Each	1.000	475.000	475.00
Sweet potato plants	Thsd	20.000	14.000	280.00
Pre-Emergence Herbicide	Acre	18.830	1.000	18.83
Post-Emrg. Herbicide	Acre	7.220	1.000	7.22
Pre-Plant Insecticide	Acre	19.230	1.000	19.23
Contact Insecticide	Acre	8.650	4.000	34.60
Nematicide	Acre	44.000	1.000	44.00
Nitrogen Fertilizer	Cwt	38.250	0.650	24.86
Phosphorous Fertilizer	Cwt	27.440	0.260	7.13
Potassium Fertilizer	Cwt	10.240	1.660	17.00
Boron	LBS	0.300	0.500	0.15
Annual Operating Capital	Dol	0.073	174.855	12.68
Machinery Labor	Hr.	8.500	13.121	111.52
Other Labor	Hr.	7.500	5.000	37.50
Machinery Fuel, Lube, Repairs	Dol			145.55
Total Operating Costs				1,885.27
<hr/>				
Fixed Costs		<i>Amount</i>	<i>Value</i>	
	Machinery			
	Interest at 8.00%	743.65	59.49	
	Depr, Taxes, Insurance		87.83	
	Equipment			
	Interest at 8.00%	135.00	10.80	
	Depr, Taxes, Insurance		92.43	
				250.55
Total Fixed Costs				
<hr/>				
Production breakdown:	<i>Units</i>	<i>Price</i>	<i>Quantity</i>	<i>Value</i>
	Fresh-market, 40 lb. cartons	5.00	475.00	2,375.00
	Canning market	3.75	35.00	131.25
	Jumbo size swt potatoes	3.75	35.00	131.25
Total Receipts				2,637.50
<hr/>				
Returns above total operating cost				752.23
Returns above all specified Costs				501.68

Blend price reflects 3/4 of crop sold fresh and 1/4 sold to processors. Excludes grading charge.

Source: Department of Agricultural and Resource Economics, North Carolina State University