

An Evaluation of Agricultural Development Board Investments in Kentucky Agriculture 2007-2014:

KADF Projects, Programs, & the Kentucky Agricultural Finance Corporation

EXECUTIVE SUMMARY



PREPARED BY:

*Dr. Alison Davis, Dr. Richard Maurer, Mr. James Mansfield,
Ms. Chandler Purdom, Ms. Karen Fawcett, and Mr. James Allen IV*

Community and Economic Development Initiative of Kentucky
College of Agriculture, Food, and Environment
University of Kentucky
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A total of \$198 million was invested in programs and projects during the study period.

An Evaluation of ADB Investments in Kentucky Agriculture 2007-2014

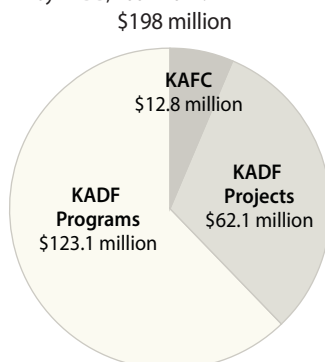
In 2000, the Kentucky General Assembly passed House Bill 611 which created the Kentucky Agricultural Development Board (KADB) and the framework for what is now known as the Kentucky Agricultural Development Fund (KADF). Funding for this program comes from Kentucky's annual share of the Tobacco Master Settlement Agreement (MSA) – which is a contract between cigarette manufacturers and 46 states that settled a number of lawsuits in which the states sought to recover the public health care costs associated with smoking. Other programs that are funded through Kentucky's share of the MSA include healthcare and early childhood development initiatives. Kentucky law provides that 50% of the total MSA funds are distributed through the KADB, which is administered by the Governor's Office of Agricultural Policy (GOAP). MSA funds are further divided primarily between two allocations: 1. County allocations, which are available to support county-level projects and programs, are subdivided among 118 county accounts based on their relative tobacco dependency in 2000; and 2. State allocations, which are available for the KADB to invest in projects and programs that have a regional or statewide impact. In addition to the KADB, the Kentucky Agricultural Finance Corporation (KAFC) – which is a low-cost capital access program for farmers and agribusinesses is also administered by the GOAP.

In November 2014, the KADB and GOAP contracted with the University of Kentucky to conduct a second study to evaluate the Agricultural Development Fund investments including projects, county programs, and the loans made by the KAFC. The first study was presented in 2007 and represented funds distributed from 2001-2007. This current study evaluates investments made from the latter half of 2007 through 2014.

This evaluation was based on the Board's overall investment philosophy and guiding principles for board action (<http://agpolicy.ky.gov/board/pages/default.aspx>):

The Board will invest these funds in innovative proposals that increase net farm income and effect tobacco farmers, tobacco-impacted communities and agriculture across the state by stimulating markets for Kentucky agricultural products, finding new ways to add value to Kentucky agricultural products and exploring new opportunities for Kentucky farms.

Figure 1. Total Direct Investment by KADB, 2007-2014.



Specifically, this evaluation will examine the nearly \$198 million that were directly invested in KADF projects and programs and the KAFC during the study period. The distribution of these funds across projects, county programs, and KAFC is presented in Figure 1. Of the total direct investment by KADB over the study period, 31.4% of funds were allocated for KADF Projects, 62.2% of funds were allocated for KADF Programs and 6.4% of funds were provided to KAFC.

The overall goal of this evaluation is to assess the effectiveness and impact of the KADB investments awarded between 2007 and 2014. The evaluation results are presented in three parts: Part I addresses the impacts of KADF projects, which are those individually funded by the KADB. Part II examines KADF programs, which are a set of standardized programs administered through the counties. The evaluation of the KAFC investments is provided in Part III.



KADF Projects

Over the 2007-2014 evaluation period, the Kentucky Agricultural Development Board (KADB) invested just over \$62 million in State, State & County and County-only funded projects. Figure 2 summarizes investments made in KADF projects between 2007 and 2014.

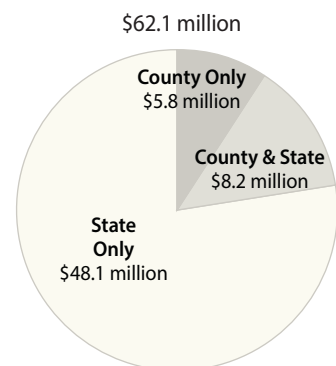
Figure 2 reveals that county-only projects comprise about 9.3% of total project funding (about \$5.8 million). While most county-only funds are invested in the CAIP Program, County Agriculture Councils—which oversee the KADF money sent to counties as part of the Master Settlement Agreement—also have the option to solely fund project proposals with county KADF money as long as the KADB concurs with their decision. While these projects were not prioritized for interviews or site visits, GOAP did provide data related to the county-only projects. Over half of the funding was used to develop multi-purpose pavilions, youth agriculture programs, and commercial kitchens.

Projects receiving some level of state funding comprise 90.7% of total project funding (about \$56.3 million). Specifically, projects receiving funding from both the county and the state comprise 13.2% of total project spending and projects funded solely by the state represent 77.5% of total project expenditures. The evaluation of projects focuses on the use of these state investment dollars. The methodology and findings of these efforts are described below.

Evaluation Criteria for State-Funded Projects

The UK Evaluation Team results and conclusions are based on an analysis of project files supplied by the GOAP, 54 site visits and interviews conducted by the UK Evaluation Team, five expert group meetings and consultation with various persons with subject knowledge. Data were collected and site visits and interviews conducted during the summer of 2015 for all 15 large projects, 20 medium-sized projects and 19 small projects, which represent a 100%, 50% and 25% representation of the total number of projects in each size category, respectively. Therefore, the findings below should only be attributed to the representative sample of projects.

Figure 2. Total KADB Project Investments, 2007-2014.





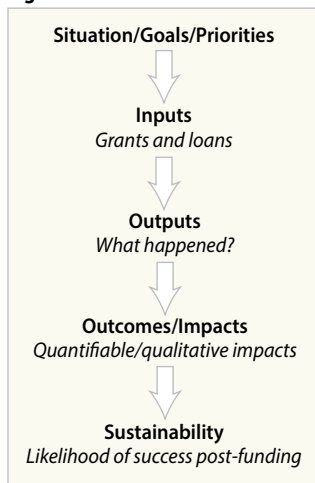
The \$42 million invested in state and county projects has resulted in an estimated \$86 million in additional farm income.

The project evaluation criteria focused on measuring the performance of funded projects in contributing to the overall KADB investment priorities: increasing farm income, stimulating new markets, affecting tobacco growers and tobacco impacted communities, adding value to Kentucky agriculture products and exploring new opportunities for Kentucky farms. In addition, the evaluation also tried to measure the likelihood that the projects would operate beyond the funding period. Figure 3 depicts the model that was developed to guide the evaluation project.

A representative sample from all projects was chosen to be visited and surveyed by the UK Evaluation Team. The team evaluated 15 of the 16 unique large size projects (>\$500,000). The remaining large project was still in the construction phase. In addition, the team evaluated 50% of the medium projects (\$100,000 - \$499,000) and 25% of small projects (<\$100,000). The selection process for the sample projects was proportional to the amount of overall project funds spent on the specific sectors of agriculture. In addition, the team also considered the types of projects funded and the different regions within the state. Figure 4 depicts the geographic distribution of projects in the sample.

A standardized questionnaire was used to identify and assess specific major impacts. Detailed questions were included in the interview form to assess outcome and impacts of all site visited projects. Expert groups were invited to review industry trends and project data, assist in the analysis of impacts as well as to assist in crafting recommendations to the KADB. The following conclusions and recommendations are based on the data from the GOAP files, site visits, and interviews and analysis by expert groups.

Figure 3. Evaluation Model.



The overall impacts of the investments for projects are reported in three ways:

1. KADB's specific major impacts
2. Estimated impacts on key sectors
3. Project performance rankings

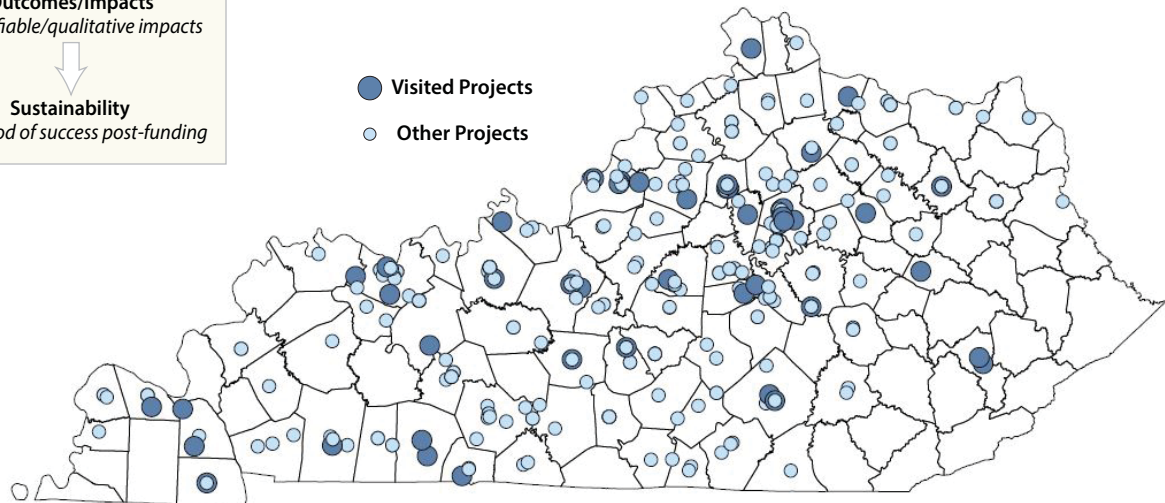


Figure 4. KADB Projects, 2007-2014.

Specific Major Impacts

Almost all of the project recipients (95%) indicated they had achieved “all or some” of their goals when interviewed. These findings are consistent with the UK Evaluation Team’s conclusion that only a few projects were under- or non-performing. A summary of the impacts for the selected projects is provided below.

- New markets or expansion of existing markets** – An estimated 77 new or expanded markets have been created as a result of project funding. These include the MILK program administered by the Kentucky Dairy Development Council, value-added cattle marketing programs by the Beef Network, chia seed production and distribution, markets for Kentucky-grown wine grapes, and several new USDA-inspected slaughter plants that also market beef, pork, chicken, turkey, lamb and goat meat. The Kentucky Proud program’s Udderly Kentucky Milk, Kentucky Proud Popcorn, and Kentucky Proud products are now sold in Kroger and Walmart stores. In addition, numerous county farmers’ markets have been built or expanded and institutional markets (e.g., schools, hospitals and universities) are beginning to purchase locally produced meats and produce. Markets have also been expanded for produce sold to food banks, and meat, produce and dairy products sold to restaurants. A new grain terminal on the Ohio River was funded that lowered the grain transportation costs to area farmers and provided an additional marketing option for grain producers.
- New products** – Over 465 new products have been created by Kentucky agricultural entrepreneurs working on funded projects. Some of the new products are being produced on a large-scale basis such as Udderly Kentucky Milk, Preferred Popcorn, Kentucky Proud Chicken, specialty vegetable and chicken meals tailored to the public school market, and smoked and cured meat products from all Kentucky-raised beef, pork and goat. Additionally, 66 operating wineries in Kentucky are producing dry, sweet and fruit wines, and the University of Kentucky’s Food Systems Innovation Center has helped develop and test many value-added specialty food items. There were also a number of non-food outputs created by funded projects including feasibility studies on a large beef processing facility, bio-mass production for alternative energy use as well as energy efficiency audits for poultry and dairy farms.
- Farm income generation** – The evaluated projects generated an estimated \$2.03 in farm income for every \$1.00 invested by the KADB. The estimated total farm income generated as a result of the projects funded during the 2007-2014 time period is approximately \$85.9 million dollars. This is likely an underestimate as some projects did not have or provide farm income numbers. The livestock projects had the largest impact on additional farm income created at \$44 million, followed by the marketing and promotion sector with \$28.9 million.
- New jobs** – Approximately 708 newly created jobs were related to KADB investments. The Kentucky Center for Agriculture and Rural Development (KCARD) was responsible for creating a large number of jobs by helping establish new businesses and expanding existing businesses. Two meat processors and one organic produce processing business also added a significant number of jobs.
- Leveraged resources** – Most of the project participants contributed additional funds from outside sources to expand the scope of the projects. In large

Table 1. Project Awards by Sector Summary, 2007-2014.

	Amount Awarded <i>(millions)</i>	Percent of Awards
Livestock	\$15.6	37.0%
Marketing & Promotion	\$9.4	22.3%
Horticulture	\$8.7	20.6%
Education, Leadership, Technology	\$5.5	13.0%
Grain & Forage	\$3.1	7.3%
Total	\$42.3	100%



Evaluated projects generated an estimated \$2.03 for every \$1 invested by the KADB.



Marketing projects generated \$28.9 million in estimated total farm income and \$3.07 return per dollar of KADB investment.

projects, \$36.4 million from the KADB was matched with \$38.9 million in participant funds—a \$1.07 match for every dollar invested. The medium and small projects matched the KADF funds at a higher level with \$1.54 and \$1.91, respectively, for every \$1 of KADF investment. The large projects tended to be farm commodity groups with associated non-profit organizations, or government and educational institutions.

- **Farmers, tobacco farmers and impacted communities** – The projects evaluated were estimated to have affected 33,958 farmers, of which an estimated 17,617 are current or former tobacco growers. Projects did not typically keep track of how many farmers had a history of tobacco production. Both beef cattle and dairy farmers were assumed to have a higher rate of historical tobacco production. Projects that affected these types of farm enterprises would also affect the rural communities where they live. Larger numbers of beginning farmers were affected by the marketing sector projects and the education, leadership and technical assistance related projects.

Specific major impacts by project sector and size are summarized in Table 2 below.

Estimated Impacts on Key Sectors

The sampled projects were a diverse set of investments with different goals and strategies. The UK Evaluation Team categorized projects by key sectors of the agricultural industry and analyzed their impact on that sector.

Marketing and Promotion – Just over \$9.4 million dollars was invested in marketing and promotional projects. The Kentucky Department of Agriculture (KDA) was awarded funds to continue a multi-faceted approach to identify, promote, and market Kentucky Proud Products. According to a recent study, statewide brand recognition for the Kentucky Proud logo now stands at 69%. There is some continuing debate about the requirements for Kentucky Proud, particularly the difference between Kentucky-grown versus Kentucky-processed. A rating system may be a solution to clarifying this situation. KDA's Restaurant Rewards program is a success and has grown to include over 350 restaurants that generated an estimated \$2.9 million dollars in new farm income. Tradeshow cost-shares, retail and special event promotions as well as a large advertising campaign round out the project that returned an estimated \$2.94 in farm income for every \$1.00 of KADF investment. Retail grocer promotional efforts were difficult to measure

Table 2. Projects, Specific Impacts by Sector and Size, 2007-2014.

	Number of projects	Amount of Award (millions)	Amount Leveraged (millions)	Farm Income Generated ¹ (2007-2014) (millions)	Income Generated ¹ per \$1 of Investment	New or Expanded:		
						Markets	Jobs	Products
Projects by Sector								
Education, Leadership, Technology	10	\$5.5	\$7.7	\$1.0	\$0.17	14	215	365
Grain & Forage	8	\$3.1	\$6.4	\$1.7	\$0.56	2	7	1
Horticulture	13	\$8.7	\$6.6	\$10.5	\$1.20	18	113	7
Livestock	18	\$15.6	\$18.5	\$44.0	\$2.81	18	365	83
Marketing and Promotion	5	\$9.4	\$9.2	\$28.9	\$3.07	25	8	9
Impacts by Sectors	54	\$42.3	\$48.3	\$86.0	\$2.03	77	708	465
Projects by Size								
Large Projects	15	\$36.4	\$39.0	\$76.1	\$2.09	25	238	73
Medium Projects	20	\$4.9	\$7.5	\$8.8	\$1.79	35	440	386
Small Projects	19	\$1.0	\$1.8	\$1.1	\$1.15	17	30	6
Estimated Total Impact	54	\$42.3	\$48.3	\$86.0	\$2.03	77	708	465

¹Estimated

because sales information was not available. The broad media campaign was estimated using the ROI figure of \$3.19 that was developed in the last KADF Evaluation for the Kentucky Proud state-wide branding program.

The Louisville Farm to Table Project (LFTT) funded a marketing liaison consultant to develop new marketing channels for local food producers to sell into the Louisville Metro area. New markets and marketing links were established with institutional buyers and independent restaurants. New farm income of \$3.2 million in local food sales was documented by the project, making the LFTT project one of the highest returns on investment per dollar of KADF money spent—\$9.70 of farm income per \$1.00 of KADF invested. Overall, the marketing projects generated almost \$28.9 million in estimated total farm income over the 7 year period, or \$3.07 per \$1.00 of KADF invested, the highest ROI of all the sectors funded. However, there is a cautionary tale as well. The Rebekah Grace Food & Supplements for Life, LLC project was funded to serve as a marketing outlet and distributor for Kentucky Proud local products. The company developed cash flow problems and subsequently ceased operations. Unfortunately some farmers suffered financially from the situation.

Horticulture – \$8.7 million was invested in horticulture projects over the period, generating approximately \$10.5 million in new farm income or \$1.20 per \$1.00 of KADF funding. The Kentucky Horticulture Council was funded to provide a comprehensive approach to help producers. This organization provided tradeshow and advertising money for marketing support and contracted with the University of Kentucky's Horticulture Department for Kentucky-specific horticulture crop research and on-farm demonstrations. Both the Kentucky Grape and Wine Council and the Kentucky Vineyard Society were funded at different times for a continued effort to grow the grape and wine industry. Information on the farm income impact of the Horticulture Council and the grape and wine funded programs was not available. An estimate was made by comparing the growth rate of Kentucky's horticulture industry compared to surrounding states. Better data collection from project participants would provide a more direct method to estimate the impacts. Kentucky Association of Food Banks provided a new and significant market for excess produce and often hard to sell second grade produce. Over \$1 million in produce was purchased directly from Kentucky farmers over the period of the study. Several farmers' market investments encouraged local food sales.

Overall, the horticulture industry in Kentucky has continued to grow, particularly with vegetable sales to wholesale markets and farmers' markets. Wholesale sales through produce auctions and local food retailers have also grown. Wine grapes are increasing in demand as the state's many new wineries cannot find enough Kentucky-grown grapes to fill their needs. Kentucky cash receipts for farm sales of fruits, vegetables and nursery crops grew 18.5% with large growth in fruits (54%) and vegetables (67%) and very minor growth in nursery crops (3%).

Livestock – The largest impact of the \$15.6 million dollars invested in the livestock sector came from the beef cattle and dairy industry. Both industries were awarded projects to carry out comprehensive programs that included educational programs for producers, on-farm consultations, targeted marketing programs, leadership development and young farmer programs. The Kentucky Beef Network received \$7.1 million over the period and returned an estimated \$27.7 million in additional farm income. The



Livestock projects had the largest impact on new farm income at \$44 million.



Every \$1 invested in all livestock projects has generated \$2.81 in new farm income.

Kentucky's beef industry is strong and has grown 75% in terms of cash receipts from 2007-2014. Kentucky's cattle income growth is 11.2% above Tennessee and 27% more than Arkansas, two neighboring states with similar beef cattle numbers and farming traditions. Cattle numbers are up in Kentucky as is the state's reputation for producing quality calves. Additionally, the Kentucky Dairy Development Council was awarded \$3.8 million to implement their programs. The MILK program increased production by offering Kentucky dairymen a premium above market price for every hundred weight (cwt) increase in milk produced over the 2007 base number. The MILK program was funded by milk processors in order to reduce the cost of shipping milk from outside of Kentucky. The industry paid over \$5 million in production incentive payments to farmers and increased milk production by 4 million cwt over the production base.

Other livestock industries are performing well in Kentucky. The Kentucky Sheep industry experienced a 41% increase in numbers over the last four years. Part of this growth is the rising interest in hair sheep breeds which are well adapted to the Southeast climate. Demand for lamb and goat is growing with the increased interest in locally produced food and the growing ethnic markets in the East and West coasts. Overall, KADB investments added to the growth of sales of Kentucky beef, pork, lamb, chicken, milk and their value-added products. The return on \$1 of KADB livestock investment was \$2.81 in farm income generated.

Education, Leadership and Technical Assistance – Nearly \$5.5 million has been invested in education, leadership and technical assistance projects across the Commonwealth. Agricultural leadership development has been successfully taught and encouraged through Kentucky Agricultural Leadership Program. Their 271 graduates are prominent leaders in Kentucky agriculture and are strong financial supporters of the program. The Kentucky Center for Agriculture and Rural Development (KCARD) has continued to provide Kentucky agriculture-based businesses with one-on-one consulting services, management audits, feasibility studies, business plans, grant writing and board of director training. KCARD's technical assistance has contributed to the growth and diversity of the agriculture industry in Kentucky. Kentucky State University is developing the Center for Sustainability of Farm Families to act as a resource for small-scale producers and their enterprises. In





addition, the Food Systems Innovation Center at the University of Kentucky has provided assistance to develop 300 new products, helped 1,000 people with food product development or testing, and also provided training to entrepreneurs on wholesale marketing. Moreover, the Kentucky Agricultural Council developed and published a strategic plan, “A Pathway for Kentucky’s Agriculture and its Rural Communities”. The Education, Leadership and Technical Assistance sector has provided a high level of impacts other than monetary ROI. The sector created 215 new jobs, 365 new products, affected 3,725 farmers, including 1,675 tobacco farmers and 1,240 young or beginning farmers, hosted 4,913 educational program attendees, added value to 11 Kentucky agriculture products, and created 90 new businesses.

Grain and Forage – Almost \$3.1 million was invested in grain and forage crop related projects. Grain production and income saw a large increase in recent years. Three projects related to grain were funded: a new river port terminal for grain, an in-depth series of educational workshops for corn growers and an energy efficiency project for a farmer-owned ethanol manufacturing plant. Forage crops have gained importance to support the beef, dairy, sheep and goat industries as those enterprises have grown. In Meade County, KADF funding helped create a River Port Authority, which was the catalyst for the development of a new grain buying and barge loading terminal on the Ohio River. The resulting new market for local corn and soybean production offered a significant transportation savings for local farmers as they haul their crops to a closer location for sale. The grain and forage investments generated an estimated total farm income of over \$1.7 million, resulting in an estimated \$0.56 return on \$1.00 of KADB funding. The low ROI was the result of the large research project on switchgrass as a bio-fuel alternative energy source that did not reach the income generation stage. In addition, the River Port project required a large investment and only had one year to generate farm income results. The port is a longer term project that is expected to generate additional farm income.

Project Performance Rankings

A system was developed to rate the performance of all interviewed projects, utilizing data from the survey and expert group discussions. Each project was rated based on activities initiated, goals achieved, evidence of positive impacts, and sustainability. Table 3 (on the next page) lists the specific projects interviewed.



Education, leadership development and technical assistance projects created 215 new jobs, 365 new products, 90 new businesses and affected 3,725 farmers.



Table 3. Projects—Rated on Goals and Impacts (based on site visits the summer of 2015).

Rating	Award Recipient	Project Description	Award
★★★★	The Kentucky Beef Network	Cattle Industry Development	\$7,090,931
★★★★	KY Dairy Development Council	Dairy Industry Development	\$3,796,448
★★★★	Kentucky Center for Agriculture & Rural Development (KCARD)	Business & Entrepreneurial Support	\$1,479,000
★★★★	KY Ag Leadership Program	Agriculture Leadership Development Course	\$1,000,000
★★★★	UK Research Foundation - Food Systems Innovation Center	Value-Added Food Product Laboratory & Development Center	\$358,904
★★★★	O'Bryan Grain Farm	Innovative Hog Production Facility Construction	\$352,155
★★★★	Louisville Metro - Farm to Table	Regional Food Systems	\$330,000
★★★★	KY Association of Food Banks	Food Distribution & Commodity Purchasing	\$302,000
★★★★	Kentucky Sheep and Goat Development Office	Sheep and Goat Industry Development	\$185,000
★★★★	Marksbury Farm Foods, LLC	Value-Added Meat Processing	\$175,000
★★★★	Webb's Properties, LLC	Value-Added Processing	\$125,000
★★★★	Dossey Vineyards, LLC	Processing, Storage, & Handling Facility Expansion	\$52,000
★★★★	KY Dept. of Agriculture	KY Proud Program	\$8,725,037
★★★★	KY Horticulture Council	Horticulture Industry Development	\$6,882,023
★★★★	Meade County Riverport Authority	Construction of Regional Port Facility	\$2,000,000
★★★★	KY State University	Small Farmer Grants, Organic Farming, & Aquaculture Research	\$998,000
★★★★	JD Country Milk	Milk Processing Facility Expansion	\$487,982
★★★★	Kentucky Horse Council	Comprehensive Statewide Equine Survey Publication	\$300,000
★★★★	UK Research Foundation - Center for Crop Diversification	Web-based Crop Diversification & Marketing Information Resource	\$113,347
★★★★	Trunnell's Farm Market, Inc.	On-Farm Retail Facility Construction	\$74,553
★★★★	Kentucky Corn Growers Association	Corn Growers Educational Workshops	\$35,483
★★★★	Kentucky Specialty Grains, LLC	Chia Feasibility & Market Development	\$33,850
★★★★	KY Grape & Wine Council	Grape and Wine Industry Research and Extension	\$805,000
★★★★	Kentucky Poultry Federation	Poultry House Energy Research	\$683,634
★★★★	Kentucky Forage and Grassland Council	Biomass and Hay Production Research & Demonstration	\$581,972
★★★★	Wolfe County Fiscal Court - The Chop Shop	Value-Added Meat Processing	\$350,000
★★★★	The Weekly Juicery	Value-Added Facility Construction & Improvements	\$310,000
★★★★	Commonwealth Agri-Energy, LLC	Cost-Saving Energy Upgrade	\$220,000
★★★★	KY Agricultural Council	Strategic Planning	\$200,000
★★★★	Kentucky Pork Producers Association, Inc.	State Fair Cooking Facilities	\$164,900
★★★★	Kentucky Goat Producers Association	Forage Research for Goat Production	\$154,748
★★★★	UK Research Foundation- Princeton, Kentucky	Grain Crops Research	\$125,667
★★★★	Owen's Garden Center	Retail Facility Construction & Expansion of Greenhouses	\$94,470
★★★★	Murray State University - Arboretum	Arboretum Construction for Education	\$80,000
★★★★	Harrison County Extension	Farmer's Market Pavilion Construction	\$75,000
★★★★	Nonprofit Dynamics, Inc.	Feral Hog Control	\$55,782
★★★★	Beaver Dam Farmer's Market	Farmer's Market Pavilion Construction	\$50,000
★★★★	Logan County Farmer's Market	Farmer's Market Pavilion Construction	\$26,962
★★★★	Hart County Chamber of Commerce	Farmer's Market Pavilion Construction	\$18,300
★★★★	Mountain Cattlemen's Association	Farmer's Market Marketing	\$4,394
★★★★	Whitley County Farmer's Market	Farmer's Market Pavilion Construction	\$1,809
★★★★	Specialty Food Group	Meat Processing Equipment	\$1,008,140
★★★★	UK KY Entrepreneurial Coaches Institute	Entrepreneur Development Program	\$883,545
★★★★	The Beef Connection	Beef Production Data Management	\$500,000
★★★★	Kentucky Community & Technical College System (KCTCS)	Computers & Training for Farmers	\$267,757
★★★★	Morehead State University	Commercial Kitchen Development	\$90,000
★★★★	Water Works Farm, Inc.	Free Range Poultry Production, Distribution, & Management	\$87,000
★★★★	The Campbell Farm Wool Art Center, LLC	Agri-Tourism	\$50,000
★★★★	Media Working Group, Inc.	Film Documentary	\$50,000
★★★★	Gateway Regional Agri-Tourism Association, Inc.	Regional Marketing Effort	\$50,000
★★★★	Bracken County Agriculture Advancement Council, Inc.	Biofuel Pellet Mill Feasibility Study	\$35,000
★★★★	Kentucky Cattlemen's Association	Large Animal Veterinarian Incentive	\$1,000,000
★★★★	Rebekah Grace Food & Supplements for Life, LLC	Regional Food Marketing & Distribution	\$250,000
★★★★	South Kentucky Rural Electric	Beef Processing Plant Feasibility Study	\$130,000

- ★★★★ All goals accomplished; evidence of sustained positive impacts; indications that benefits are greater than ADB investment.
- ★★★★ All goals accomplished; clear, documented positive impacts.
- ★★★ Most or all goals accomplished; evidence of positive impacts.
- ★★ Most or all project activities or goals attempted; limited evidence of positive impacts.
- ★ Few or no goals accomplished; no impacts.

Conclusions

1. The KADF investments in projects have had a significant positive impact on agriculture and agribusiness. From 2007 to 2014, the \$42.3 million invested has resulted in an estimated \$86 million in additional farm income. On average, every \$1.00 invested from the KADF in projects resulted in \$2.03 of additional farm income.

2. The KADF succeeded in diversifying Kentucky agriculture away from a dependence on tobacco production. The beef, poultry, dairy, swine, grain, produce, sheep, wine and grape industries have all grown and become more important for Kentucky agriculture. The KADF is a successful program that continues to create diversified opportunities for Kentucky farms and farmers.

3. Since the beginning of the KADF, there has been an emphasis on providing assistance to farmers with a history of tobacco production. This was in response to the deregulation of tobacco production and the decreased reliability of tobacco as an income-generating enterprise for a broad section of Kentucky farms. Today, the KADF has succeeded in bringing other enterprises to the forefront. In light of this fact, tobacco production history should not be a significant factor in KADF program requirements.

Recommendation: In order to continue the diversification and expansion of Kentucky agriculture, KADF funding should become available to a wider range of farmers. Additional application points and increased loan amounts based on past tobacco production present an uneven playing field which may hinder growth in non-tobacco enterprises. The scoring system for the KADB Project applications should be revised so that one type of farming (or history of farming) is not favored over another.

4. “Is Kentucky agriculture ready to take things to the next level?” was a question that emerged in more than one expert meeting. There have been strategic planning processes undertaken for Kentucky agriculture by several different organizations; however, the execution of these plans was not evident, primarily because there was not a single entity responsible or funded to implement the identified strategies.

Recommendation: It is recommended that leadership entities for Kentucky agriculture continue to plan for the future by engaging in strategic planning on behalf of all farm and agribusiness enterprises. Adequate resources should be devoted to the coordination of the plan and the execution of prioritized strategies.

5. Kentucky agricultural producers have hit a glass ceiling trying to sell to conventional markets, national distributors and traditional grocery chains. There is a pivotal opportunity now to capitalize on new markets for Kentucky farm products. These new market channels could include large institutions like universities, hospitals, schools, etc. For the KADF to help develop these markets, it must recognize that infrastructure is not the sole answer.

Recommendation: The KADB should consider funding projects that include reasonable salaries for qualified people to build new markets and coordinate opportunities for farmers to reach consumers through innovative market channels.

6. KADB has regularly funded organizations that take a comprehensive approach to developing specific sectors of agriculture. Examples include the Beef Network, the Dairy Development Council, the Horticulture Council and the Sheep and Goat Development Office. Great strides have been made in these



Comprehensive approaches have been effective and have produced broad positive impacts.



KADB investments were estimated to have affected 34,000 farmers.

sectors by offering production and management education, combined with on-farm consultations, practical research, CAIP cost-share programs and targeted marketing opportunities.

Recommendation: Continue to fund coordinated multi-faceted projects that affect targeted sectors of Kentucky agriculture. However, because their outcomes are complex, the KADF should implement more rigorous monitoring and evaluation to better measure the impacts of these organizations' diverse programming.

7. The expert meetings and project interviews indicated a concern that the Kentucky Proud program may have diluted the effectiveness of their brand by not requiring a product be made with a majority of Kentucky-grown ingredients. A rating system that gives a higher score for an all in-state product could provide a boost to consumer confidence in the label and add confidence in the Kentucky Proud label.

Recommendation: A four-star certified rating system should be considered. A product that is born, raised, processed and marketed by a Kentucky company would earn a 4 star while a product made in Kentucky but not with Kentucky ingredients earns 1 star.

8. The Restaurant Rewards Program (RRW) has been a successful stimulus to increase purchases of locally grown foods by restaurants (meat & produce). An estimated \$2.9 million dollars of locally produced food has been marketed during the eight year evaluation period. The monetary incentive accomplishes this without the need for coordination beyond the administration of the cost-share program itself.

Recommendation: Continue the RRW program and consider developing other incentive-based programs, such as a grocer's rewards program and a school lunch rewards program.

9. The current project funding approach of the KADB provides very little direction to potential applicants about what types of projects could be funded, the amount of funds available, or any specific areas of interest that the Board would like to see proposals to address. A Request-For-Proposal (RFP) approach would more clearly delineate the opportunities available through the KADF and the application process.

Recommendation: The KADB should consider publicizing the availability of KADF grants with an RFP approach that identifies the types of proposals the KADF would consider, available funding, and any special areas of interest the Board would like to address. Furthermore, the KADB should carefully define which projects are eligible for grants versus loans.

10. In evaluating the project and program records the GOAP has collected, the evaluators noticed that some of the required reports, including annual reports, do not have enough summary information to quantify the impacts of the program. In some cases the GOAP required form does not specifically ask for the information needed or the applicant did not provide the information even when asked.

Recommendation: Provide funded projects with a standardized spreadsheet that clearly identifies the items that need to be summarized and reported on annually. The matrix provided should offer a way to estimate the return on investment for the KADF money. No project final reports should be accepted if they are incomplete.



KADF Programs

In addition to projects, KADF has also funded several state-level and county-level programs. Table 4 summarizes investments made in KADF programs between 2007 and 2014. Data on County Agricultural Investment Programs (CAIP) were derived from aggregated data for each approved award, while data detailing other programs were provided directly from the Governor's Office of Agricultural Policy (GOAP).

CAIP comprised 86% of KADF program funding between 2007 and 2014. The Kentucky Agricultural Relief Effort (KARE) program was the second largest initiative accounting for 9%. Two notes about the KARE program: 1) While KARE was technically a county cost-share program, it was kept separate from CAIP because it was a one-time initiative offered in 2008 to help farmers recover from the previous year's poor weather conditions, and 2) Investments were awarded to the counties themselves and then distributed to producers within the county explaining why the average amount per award is significantly higher than other programs.

Table 4. KADF Program Statistics, 2007-2014.

	Investments	Awards	Average/ Award	Investment Distribution	Rank	Counties
County Agricultural Investment Program (CAIP)	\$106,460,981	61,038	\$1,744	86.5%	1	108
Kentucky Agricultural Relief Effort (KARE)	\$10,918,948	118	\$92,533	8.9%	2	118
On-Farm Energy	\$3,674,707	361	\$10,179	3.0%	3	61
Shared-Use Equipment	\$1,389,645	119	\$11,678	1.1%	4	50
Deceased Farm Animal Removal (DAR)	\$669,353	126	\$5,312	0.6%	5	49
Total	\$123,113,634	61,762				



119 shared-use equipment grants were awarded in 50 distinct counties.

The On-Farm Energy program has invested over \$3.6 million in Kentucky farm families to provide incentives for making energy-efficiency improvements for existing equipment or facilities. Through 2014, 361 on-farm energy efficiency grants were awarded in 61 distinct counties. Grants were provided directly to farm operations and required a 50/50 match. As energy efficiency investments often require high up front costs that take many years to recover, this program is an effective use of state funds that helps to increase the sustainability of agricultural production on family farms.

The Shared-Use Equipment program has invested over \$1.3 million in purchasing eligible equipment that impacts a large number of producers who cannot individually take on full ownership expenses. Through 2014, 119 shared-use equipment grants were awarded in 50 distinct counties. These grants were administered to a local organization and required a 50/50 match. The program is an important resource to introduce new forage production techniques and livestock management practices. Purchasing specialized new equipment is cost prohibitive. Because these funds allow producers to purchase equipment that they would not be able to purchase otherwise, these grants have been highly successful in helping Kentucky farmers. The UK Evaluation Team considered this an excellent use of state funds for agricultural development.

The Deceased Farm Animal Removal (DAR) program has invested over \$600,000 in facilitating the coordination of environmentally and economically sound disposal of deceased livestock for Kentucky producers. Through 2014, 126 DAR grants were awarded in 49 distinct counties. These grants were administered to a local government agency, provided up to \$7,500 in funding, and strongly encouraged—but did not require—producer contribution and regional coordination. Given that improper disposal of deceased livestock often has negative environmental externalities, this program can help prevent economic damage that reaches beyond an individual farm. Thus, this is an effective program that adds value to Kentucky agriculture and natural resources.

Table 5. CAIP Program Statistics, 2007-2014.

Major Programs	Investments	Awards	Average/ Award	Investment Distribution	Rank	Award Distribution	Rank	Counties
Large Animal	\$30,924,804	19,174	\$1,613	29.0%	1	31.4%	1	107
Farm Infrastructure	\$28,470,356	11,268	\$2,527	26.7%	2	18.5%	3	105
Fencing & On-Farm Water	\$22,482,220	13,618	\$1,651	21.1%	3	22.3%	2	106
Forage & Grain Improvement	\$13,601,101	10,023	\$1,357	12.8%	4	16.4%	4	106
Minor Programs								
Agricultural Diversification	\$5,904,610	3,232	\$1,827	5.5%	5	5.3%	5	103
Technology & Leadership Development	\$2,870,788	2,091	\$1,373	2.7%	6	3.4%	6	94
Small Animal	\$1,262,520	1,179	\$1,071	1.2%	7	1.9%	7	90
Poultry & Other Fowl	\$558,247	247	\$2,260	0.5%	8	0.4%	8	51
On-Farm Energy	\$267,071	123	\$2,171	0.3%	9	0.2%	9	47
Value-Added Marketing	\$119,263	83	\$1,437	0.1%	10	0.1%	10	47
Total	\$106,460,981	61,038	\$1,744					108

The primary focus of the evaluation of the KADB programs focused on CAIP Investments. Investments from the County Agricultural Investment Program (CAIP) were typically small, averaging \$1,744 per award. In total, the Kentucky Agricultural Development Board (KADB) granted over \$106 million in CAIP investments across more than 61,000 awards and 24,500 unique farms. Producers were required to invest at least an equal amount, though the average award was matched 179% by the producer. The remainder of this section provides more detail on our analysis of CAIP investments between 2007 and 2014.

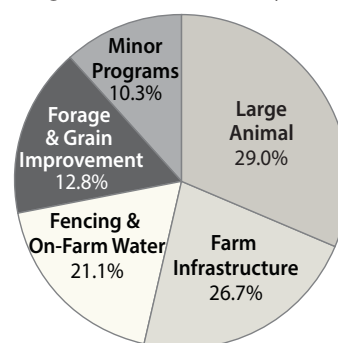
CAIP Methodology and Data

CAIP Data were compiled from program reports completed by producers or farm representatives often assisted by county Cooperative Extension agricultural agents. These reports were submitted electronically to and compiled by the GOAP using Microsoft Excel. While data were only compiled by program area through 2012 due to diverse output measures, data measures and input procedures were made more consistent starting in 2013, allowing all CAIP reports to be compiled in one table. This streamlining of the CAIP reporting system was a recommendation from the previous evaluation and should be continued. Additionally, the UK Evaluation Team coordinated a meeting of eleven experts to discuss CAIP investments offered to farmers.

Overview of CAIP Investments

Table 5 presents some general statistics for the CAIP programs between 2007 and 2014. Programs are listed in nominal order based on the total amount of CAIP investments and number of awards disbursed. Table 5 also displays the wide variety of CAIP investments made in this time period. Individual investment areas are categorized as being a major or minor program. The distribution of investments across program areas is summarized in Figure 5.

Starting in 2009, the GOAP asked CAIP participants about their previous participation in the program. Seventy one percent of the participants claimed that they had previously applied for CAIP funding, and 67.6% of participants claimed that had previously received CAIP funding. In response to a subsequent question, 55.4% claimed that they would have made their investment without the CAIP funding. By program area, the average percentage of investment that would have been made without the CAIP funding ranges from 34.9% (Value-Added Marketing) to 67.8% (Agricultural Diversification); all remaining program areas fall between 52.2% and 58.5%. Interestingly, the only year in which less than half of recipients claimed that their investment would have been made without the CAIP funding was 2013, in which only 6.0% of recipients made this claim.

Figure 5. CAIP Investment by Area.



Investments from the County Agricultural Investment Program were typically small, averaging \$1,744 per award.

Participants of the CAIP expert meeting agreed that KADF has positively impacted Kentucky agriculture by increasing safety in livestock handling methods, changing Kentucky farmers' perceptions of profitable opportunities, encouraging best management practices, protecting natural resources and diversifying Kentucky agriculture. When asked what could be improved about the CAIP programs, experts concurred that the application process needs to be more transparent and should be more inclusive. Some argued that the CAIP scoring system puts many groups at a disadvantage, including beginning farmers, young farmers, part-time farmers, and non-priority groups (e.g., small animal producers). For CAIP to become more inclusive, county councils must also change their mindset about CAIP money being strictly for tobacco producers and full-time farmers.

Geographic Distribution of CAIP Investments

Figure 6 displays the geographic distribution of total CAIP investments by county. The map indicates that CAIP investments are focused in North Central Kentucky and less so in West Central Kentucky. Several counties in far Western and Eastern Kentucky did not receive any CAIP investment funding. This is due to the KADF legislation that allocated Master Settlement Agreement (MSA) funds for agriculture based on the historic amount of tobacco production in each county.

Of Kentucky's 120 counties, 108 received CAIP funding. Across Kentucky, the average distinct farm received 2.4 awards over the time period. One county awarded each distinct recipient farm an average of 4.2 awards, though only 10% of recipient counties awarded each distinct recipient farm more than 3.0 awards, on average.

CAIP Investments by Program Area

Major CAIP investments comprised almost 90% of all CAIP investments across four program areas: Large Animal (29%); Farm Infrastructure (27%); Fencing & On-Farm Water (21%); and Forage & Grain Improvement (13%).

Large Animal was the largest category of CAIP investment, constituting almost one-third of total CAIP investments. These funds were primarily used to support beef and dairy cattle, including the purchase of bulls, heifers, and cattle genetics. A large number of investments were used for cattle and other livestock facilities. Infrastructure improvements, such as cattle handling facilities and equipment, have made Kentucky farms safer for farmers, employees, veterinarians and residents. Improved on-farm facilities have also made it possible for farmers to implement better animal management practices which, in turn, resulted in a significant improvement in the quality of cattle marketed and increased income from sales. The infrastructure investments also lessened the negative environmental impacts of animal agriculture as well.

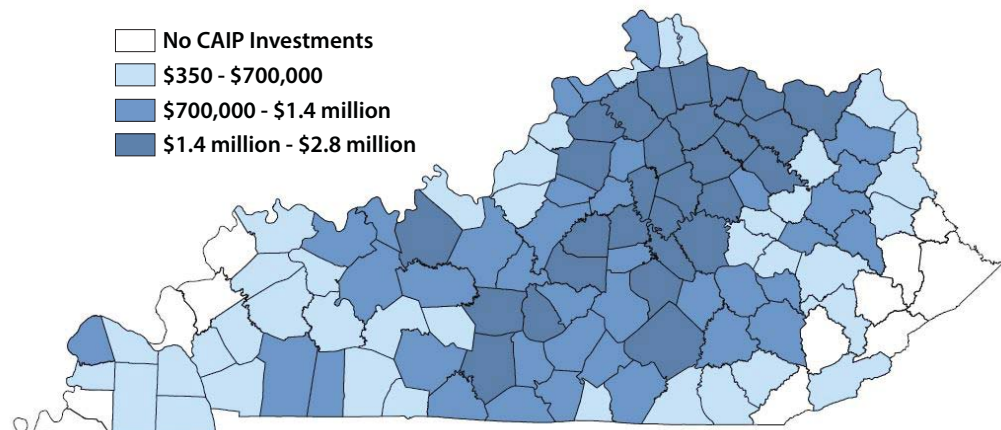


Figure 6. CAIP Investments by County, 2007-2014.

Second, Farm Infrastructure awards constituted over one quarter of CAIP investments. About one half of these awards were used to purchase or enhance hay, straw, or grain storage facilities. Many awards allowed farmers to purchase grain and other commodity handling equipment as well, which are often associated with safety improvements on the farm.

Third, Fencing & On-Farm Water investments comprised over one-fifth of CAIP investments. Over one half of these investments were awarded for fencing or fencing improvement. Another large portion of these investments were devoted to helping secure on-farm water either through a nearby spring, pond, or hookup to the county water supply and adding livestock watering points throughout the farm pasture layout.

Finally, Forage & Grain Improvement was the smallest of the CAIP major programs. Most of these investments were used for forage and pasture development, though investments also helped fund commodity handling and forage equipment, filter fabric pads, and subsurface drainage. It is unknown from award descriptions how many of these projects support sustainable grazing practices, such as rotational grazing. Participants of the CAIP expert meeting agreed that pasture management and rotational grazing are underutilized even as they are one of the strongest factors toward increasing net farm income with livestock production. Forage best management practices can increase farm income and need to be encouraged to improve Kentucky farm profitability. The program guidelines should support the goal of the award and be tailored toward the desired outcome of management and production improvements to increase profitability and sustainability of Kentucky agricultural businesses.

While some investment areas have adopted new names, comparisons can be made between current major programs versus those from the previous evaluation (2001-2006). Large Animal continues to be the most well-funded investment area, though it now combines several previous model programs. Forage Improvement programs have received fewer funds than earlier and Farm Infrastructure and Fencing & On-Farm Water programs have received more.

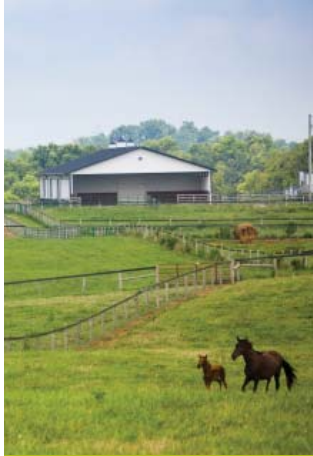
Minor CAIP investments are those seven program areas that separately made up less than 10% of total KADB investments, and thus include Agricultural Diversification (6%); Technology & Leadership Development (3%); Small Animal (1%); and Value-Added Marketing, Poultry & Other Fowl, and On-Farm Energy (less than 1%). Collectively, these seven program areas comprise approximately 11% of all CAIP investments. Relative to model programs highlighted in the previous evaluation, new investment areas like Technology & Leadership Development, On-Farm Energy and Value-Added Marketing have emerged to reflect an evolving agricultural economy.

Conclusions

1. The KADF investments through the CAIP program and other KADF programs have had a significant positive impact on agriculture and agribusiness in the state. In addition, the KADF investments are successfully diversifying Kentucky agriculture following the tobacco buy-out. The KADF investments also are giving viable options to Kentucky farmers, including former tobacco farmers. In fact, today there is sense that KADF funding is more about supporting agricultural diversification and less about supporting the tobacco growers' loss of income. Interviews and the expert group discussions questioned whether CAIP programs should be targeted to a wider distribution of farm types.



New investment areas Technology and Leadership Development, On-Farm Energy and Value-Added Marketing have emerged to reflect an evolving agricultural economy.



Of Kentucky's 120 counties, 108 received CAIP funding.

Recommendation: GOAP should have a strategic discussion about leveling the playing field for CAIP applicants. If it is determined that CAIP funding is primarily to support agricultural diversification, then points awarded based on past tobacco history should be minimized or discontinued. If agricultural diversification is the goal, then the scoring process should not favor one type of farming over another.

2. There is a widespread agreement that the CAIP application process needs to be more transparent. Uncertainty about the scoring criteria provides a disincentive to those unfamiliar with the program and is discouraging to applicants who apply and do not receive cost-share funds.

Recommendation: The KADF should consider reforming the CAIP application process so that the scoring criteria and selection is more transparent. How applications are scored and who the targeted audience is should be clearly stated. Also, the KADF should consider how the county council's ability to set the maximum funding for specific program areas may create bias against those involved in activities regulated as Minor CAIP investment areas.

3. Of Kentucky's 120 counties, 108 received some CAIP funding. About 10% of recipient counties gave each distinct recipient farm more than 3.0 awards, on average, and one county gave each distinct recipient farm an average of 4.2 awards.

Recommendation: While the exception, this latter statistic suggests it would be prudent to look into repeat awards and whether such selection is luck, the nature of the current application, or—at worst—evidence of favoritism to certain farmers.

4. With the expansion of Kentucky's livestock sectors, CAIP investments to forage, fencing, and on-farm water are highly valued. These investments could yield a greater impact if GOAP encouraged rotational grazing—a forage best management practice with much potential to increase the profitability and sustainability of Kentucky livestock farms—and timely notification of award recipients to align with the planting of fall seeded forage crops.

Recommendation: The KADF should consider how to promote rotational grazing, perhaps by developing a rotational grazing CAIP program linked to fencing and forage cost-share efforts. The KADF could also change application scoring to prefer graduates of the Master Grazer educational program. Finally, GOAP should push counties to meet deadlines that notify successful applicants in enough time for them to plant in the most desirable time frame.

5. There is a perception that Minor CAIP investment areas are more competitive due to a lack of funding. However, applicant data are not currently compiled that could compare demand for the Minor CAIP programs versus what is actually being funded.

Recommendation: GOAP should collect and compile data on CAIP applicants' program interests. These data can be used to better track demand for CAIP investment areas. Additionally, GOAP could compare CAIP applicants to the average Kentucky farmer using demographic statistics from the US Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) to ensure that they are marketing to and awarding their target population.



The Kentucky Agricultural Finance Corporation

There are four primary K AFC loan programs funded by the Kentucky Agricultural Development Fund (KADF): the Agricultural Infrastructure Loan Program (AILP), the Beginning Farmer Loan Program (BFLP), the Agricultural Processing Loan Program (APLP), and the Large/Food Animal Veterinary Loan Program. There are two other lesser awarded loans dedicated to diversity through entrepreneurship (DEAL) and new agricultural enterprises (NAEL). Between January 2007 and June 2015, the K AFC approved a total of 533 projects and committed over \$63.5 million in payouts to borrowers.¹ While these funds were derived from a variety of sources, \$12.75 million originated from a direct investment by KADB to the K AFC during the evaluation period.

There has been a substantial amount of leveraging for the K AFC loan funds.

Table 6. Kentucky Agricultural Finance Corporation Loan Statistics as of June 2015.

K AFC Program	Loan Amounts	% Value of Portfolio	Project Costs	% Funded by K AFC
Ag Infrastructure Loans	\$20,044,482	33%	\$61,741,690	32.5%
Beginning Farmer Loans	\$28,653,037	47%	\$96,546,458	29.7%
Ag Processing Loans	\$8,484,582	14%	\$38,016,778	22.3%
Vet Loans	\$979,253	2%	\$2,979,299	32.9%
New Ag Enterprise	\$1,750,000	3%	\$8,852,906	19.8%
Diversification Entrepreneur Loan	\$489,500	1%	\$1,358,350	36.0%
Total*	\$60,400,854	100%	\$209,495,481	28.8%

* Excludes Metco loans

¹There is an overlap in the evaluation of the K AFC between the 2008 UK Evaluation and this current one. However, more data provide a better opportunity to highlight trends and gaps. These loans account for approximately \$7.3 million in AILP loans and \$1.7 million in BFLP loans.

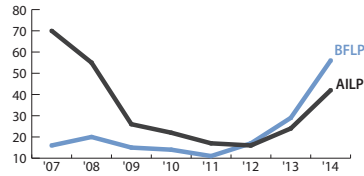


Figure 7. Number of AILP and BFLP Loans by Year.

Table 7. Loan Purpose for KAFc’s Two Largest Programs.

Loan Category	Number of Loans (minimum of 5)
AILP: 292 loans, 54.7% of total	
Grain (dryers, bins, farm shops)	87
Tobacco (barns)	84
Poultry (broiler houses, energy efficiency improvements)	45
Dairy (barns, equipment)	25
Beef (barns, farm shops, bins)	17
Forage (bins and barns)	10
Equine (barns, arena)	10
Horticulture (greenhouse, retail market)	5
BFLP: 198 loans, 37.1% of total	
Poultry (barns, equipment, broiler houses)	51
Beef (farmland, barns, equipment)	47
Grain (farmland, barns, farm shop)	42
Tobacco (farmland, barns)	20
Swine (barns, equipment, land)	14
Dairy (cattle, land)	5

Table 6 provides a summary of the total value of all KAFc loans closed between January 2007 and May 2015 across the state, and Figure 8 illustrates the allocation of loans over time. Figure 7 suggests that, starting in 2011, the number of loans per year for the BFLP has steadily increased since the 2008 recession. In addition, there was a sharp decline in AILP loans from 2007 to 2012, but the number of loans has also started to increase over the last several years.

Table 7 provides an overview of agricultural sectors supported through the KAFc loans for the two largest loan programs in the portfolio: AILP and BFLP. The large majority of AILP loans were allocated for grain and tobacco farms primarily for the construction of dryers, bins, farm shops and barns. BFLP loans were awarded to beginning farmers aiming to produce poultry, beef and grain. The BFLP loans were used to purchase farmland, procure equipment, and build poultry houses and barns.

Evaluation Criteria and Approach

To evaluate the effectiveness of the KAFc loan programs, the UK Evaluation Team examined the list of all 533 loans from January 2007 through May 2015. KAFc provided the UK Evaluation Team data that detailed the applicant name, loan amount, location, enterprise type, description, and net worth of every approved loan over the time period. The UK Evaluation Team developed and distributed a questionnaire to all loan recipients. A separate survey was also developed for lenders and distributed through email. In total, the UK Evaluation Team received 16 borrower and 24 lender surveys. While this is a relatively low response rate, there was a great deal of consistency in responses within both samples. Additionally, the UK Evaluation Team conducted interviews with a sample of the largest lenders in the state.

Analysis of Impacts by Loan Program

The estimated impacts of the KAFc loan program were based on the data for all 533 loans, survey responses from a small sample of borrowers and lenders, and site visits and interviews with lenders across Kentucky.

Agricultural Infrastructure Loan Program

The AILP was the most used loan program both in number and value of loans. These loans were primarily used for barns, bins, farm shops, and equipment. Through the survey, the borrowers responded that the primary reason for using the KAFc loan program was to save on interest payments and to leverage additional credit by combining with the KAFc loan. Respondents were asked to identify the proposed impacts of the KAFc investment using a 1 to 4 Likert scale (1 = no effect and 4 = large effect) for the following 10 criteria. Table 8 summarizes these results.

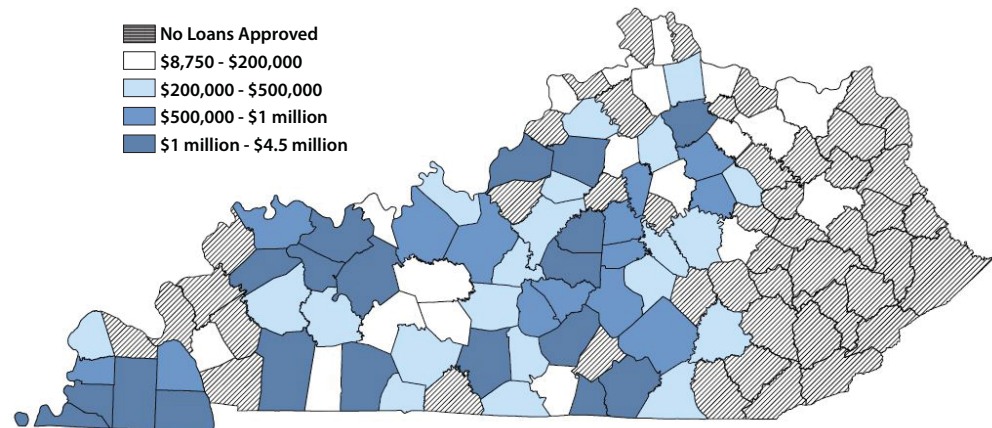


Figure 8. Total KAFc Loans by County, 2007-2015.

Table 8. Survey Responses by KAFC Borrowers.

Impacts of the KAFC Investments	Average Response
Enhanced an existing farm enterprise	3.5
Provided support for agricultural entrepreneurship	3.2
Enhanced the viability of young or beginning farmers	3.2
Enhanced the viability of part-time farmers	3.2
Added value to KY agriculture products	3.0
Increased your farm income	3.0
Expanded an existing market for KY ag products	3.0
Developed a new agriculture related business	2.8
Created a new market for KY agriculture products	2.5
Created new jobs in the local economy	2.5
Developed new products	1.7

When borrowers were asked, “Would this loan have happened without the KAFC program?” 100% of the AILP borrowers said yes. At the same time, all respondents stated that the KAFC loan was still a critical component to financing the project. Most respondents also stated that the loan had a positive impact on the business, but only one respondent described that impact.

Across all 292 AILP loans, the average loan was approximately \$68,000. This represented 3% of the net worth of the average borrower. To mitigate outlier bias, the ratio of median AILP loan to median net worth was 4.5%. The average and median net worth of an AILP borrower was \$2 million and \$1.1 million, respectively. Twenty loans were executed to families where the net worth of the operation was greater than \$5 million.

The 2007 evaluation of the KAFC AILP suggested that this loan program could be a duplication of conventionally available farm credit. Feedback from the borrowers and an analysis of all of the loans suggests that this is likely still true.

Beginning Farmer Loan Program

The Beginning Farmer Loan Program (BFLP) assists individuals with farming experience who want to develop, expand, or buy into a farming operation. Applicants are evaluated based on education and farm experience, current involvement in farming and an available support system either through a family member or formal mentor.

The KAFC completed 198 BFLP loans between January 2007 and June 2015. The majority of the loans were used to purchase land, equipment, and barns. The average BFLP loan amount was \$144,000 and the average net worth of the borrower was \$200,000. There is a net worth cap on this loan at \$500,000.

Two beginning farmers who received loans completed an extensive survey as well as 14 lenders who have experience working with the BFLP program. Both farmers and 11 of the 14 lenders stated that the loan would NOT have happened without the KAFC backing. There were several factors that explained why KAFC was a pivotal part of the investment including:

- Other banks would not grant the loan due to lack of cash flow by borrower
- Loan was too risky for conventional lenders
- KAFC can waive Farm Service Agency (FSA) guarantee fees
- Many borrowers lacked a down payment, but could borrow a down payment from the KAFC

While there were only two responses to the borrower survey for beginning farmers, both respondents answered the impact questions the same suggesting



The Beginning Farmer Loan Program provides access to capital that traditional lenders are not able to offer.



The Vet Loan Program
is a successful
new program that
allows large animal
veterinarians an
opportunity to start a
new clinic or buy into an
existing one.

that the BFLP is designed to support entrepreneurship in agriculture and increase farm income. Both borrowers also stated that the KAFC loan was crucial for the enhanced viability of young or beginning farmers.

The lenders were all very pleased with the program. They saw the BFLP as an easy process that opens the doors for borrowers that would not have access to capital outside of KAFC. Furthermore, many of the lenders stated that this was a program that enhanced the viability for young, beginning and part-time farmers. Some lenders suggested that the net worth cap of \$500,000 is limiting for those whose wealth is locked up in land.

Agricultural Processing Loan Program

The Agricultural Processing Loan Program (APLP) was designed to provide opportunities to companies and individuals in Kentucky interested in adding value to Kentucky-grown agricultural commodities through further processing. Upon further review, it is not entirely clear that the commitment to processing Kentucky-grown commodities is mandatory. There were 12 APLP loans made between January 2007 and May 2015 with only three loans occurring prior to 2011. The APLP loans were used for several meat processing enterprises, cheese making, and processing bundled firewood, among other projects. The APLP financing accounts for only 2.8% of all KAFC loans, but 13.3% of the value of the total KAFC portfolio. The average loan was \$707,000, which is significantly higher than the other loan programs.

Only two of the 15 lenders surveyed made an APLP loan. One of the lenders suggested the risk for these projects is high, and they would not have made the loan if not for the KAFC. The other lender stated that the applicant that he worked with could have received a conventional loan but was capitalizing on the lower interest rate. Both lenders stated that projects within this category can significantly impact new products and markets for agriculture.

The one APLP borrower stated that the project was too large to finance without KAFC's investment. As a result, the company has opened a Kentucky Proud market that features its own products in addition to an assortment of other Kentucky made products including ice cream, cheese, canned vegetables, honey, and jams and jellies. This company was able to double their annual sales.

Large/Food Animal Veterinary Loan Program

The Large/Food Animal Veterinary Loan program is designed to assist individuals licensed to practice veterinary medicine in Kentucky who desire to construct, expand, equip or buy into a practice serving large animal producers including goat, sheep, swine, and other smaller food animals. In total there have been 11 vet loans awarded between September 2009 and July 2014. The average loan is approximately \$89,000 and the average net worth for those borrowers is \$138,000. There is a net worth cap on this loan at \$500,000. Borrowers used these funds to primarily buy into a practice or start their own clinic. Other used the funds for equipment and buildings.

The two borrowers who participated in the Vet program provided very favorable feedback. Both respondents said that they could have gotten financing elsewhere but it would have taken longer, been a bit more of a hassle, and would have cost more through higher interest rates. The Scott County Clinic, which had been closed previously, reported 8 jobs as a result of this investment as well as being able to obtain state-of-the-art technology and an essentially full pharmacy. Both respondents also suggested that KAFC needs to improve the marketing of this program.

Conclusions

1. The BFLP is highly regarded and, more often than not, is a critical component to accessing financing that allows recipients to purchase land to develop into or buy a new farm enterprise. Some lenders have suggested that they would like to see the net worth ceiling raised beyond the current \$500,000 cap. They say high land valuations and accumulated equity in farm equipment may be excluding some applicants. However, other lenders say they think the guidelines are good, do not need revision and are helping the target audience of young and beginning farmers. An analysis of the BFLP shows that only 17% of the borrowers had a net worth within \$100,000 of the net worth ceiling of \$500,000.

Recommendation: Maintain the current net worth ceiling of \$500,000 for BFLP borrowers. The program is highly regarded by borrowers and lenders and a large majority of the beginning and young farmer borrowers have a net worth well under the maximum.

2. The AILP loan appears to be geared towards experienced enterprises with significantly high net worth that are accessing funds at below market rates. Almost all of the AILP loans could have been financed through conventional ag lenders. The current AILP portfolio is very risk-averse.

Recommendation: Staying true to the intent of the KADB, this program should focus more on those loans that could not happen without KAFC involvement while at the same time maintaining a reasonable level of risk. Consider implementing a net worth ceiling on this program and reallocating funds for more entrepreneurial on-farm or value-added activities.

3. KAFC activities are heavily concentrated in Western Kentucky. However, there appears to be a lot of smaller scale farmers and new value-added enterprises emerging in Eastern Kentucky.

Recommendation: Focus outreach efforts and expand KAFC opportunities to other parts of the state. Loan programs might have to be geared more towards new market development. Loans could focus more broadly on livestock, horticulture, and agri-tourism.

4. There were only five Diversification through Entrepreneurship in Agribusiness (DEAL) loans awarded from 2010 to 2015. This program, designed to diversify agriculture, is at the heart of the mission of the KADB. There are coordinated efforts in many parts of the state to nurture new entrepreneurs to improve the regional food system.

Recommendation: Following on the prior recommendation, focus outreach efforts to better market the DEAL program.

5. The Large/Food Animal Veterinary Loan Program emerged from the recommendations of the previous KADB evaluation. This is a relatively small, but successful program and highly valued by those who have used it. The benefits to the farming community from these small businesses will be substantial.

Recommendation: Keep looking for niche areas where the KAFC's lower cost of accessing capital and ability to shoulder additional risk will incentivize entrepreneurs, producers, and businesses to enter the agricultural industry.



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An Evaluation of Agricultural Development Board Investments in Kentucky Agriculture 2007-2014:

KADF Projects, Programs, & the Kentucky Agricultural Finance Corporation

FULL REPORT

PREPARED BY:

*Dr. Alison Davis, Dr. Richard Maurer, Mr. James Mansfield, Ms.
Chandler Purdom, Ms. Karen Fawcett, and Mr. James Allen IV*

Community and Economic Development Initiative of Kentucky
College of Agriculture, Food, and Environment
University of Kentucky
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Table of Contents:

PREFACE	4
CHAPTER 1: KADF Projects.....	6
Evaluation Criteria and Approach for State-Funded Projects.....	6
Overview of Survey Results.....	8
Project Impacts by KADB Priorities	9
Other Project Impacts.....	11
Impacts by KADB Goals	14
Impacts on Key Sectors	17
Livestock Sector	18
Horticulture Sector.....	30
Education, Leadership and Technical Assistance Sector.....	34
Marketing and Promotion Sector	37
Grain and Forage Sector	39
Project Performance Rankings.....	40
County-Only Funded Projects	42
Conclusions	43
CHAPTER 2: KADF Programs	46
CAIP Investments	47
Expert Panel Meeting.....	47
Methodology and Data	47
Overview of CAIP Investments.....	49
CAIP Investments by Investment Area.....	51
CAIP Investments by County	56
Conclusions	58
CHAPTER 3: Kentucky Agricultural Finance Corporation	60
Evaluation Criteria and Approach	62
Analysis of Impacts by Loan Program	62
Agricultural Infrastructure Loan Program.....	63

Beginning Farmer Loan Program	65
Other KAFC Loan Programs.....	67
KAFC Borrower Survey	68
KAFC Lenders Survey.....	72
Conclusions	76
APPENDIX 1: Survey Forms	77
APPENDIX 2: Project Briefs	94
Livestock Project Briefs	94
Horticulture Project Briefs	116
Education, Leadership and Technical Assistance Project Briefs	132
Marketing and Promotion Project Briefs	144
Grain and Forage Project Briefs	152
APPENDIX 3: Expert Meeting Notes.....	160
APPENDIX 4: Sample Impact Spreadsheet	175

PREFACE

In 2000, the Kentucky General Assembly passed House Bill 611 which created the Kentucky Agricultural Development Board (KADB) and the framework for what is now known as the Kentucky Agricultural Development Fund (KADF). Funding for this program comes from Kentucky's annual share of the Tobacco Master Settlement Agreement (MSA)—which is a contract between cigarette manufacturers and 46 states that settled a number of lawsuits in which the states sought to recover the public health care costs associated with smoking. Other programs that are funded through Kentucky's share of the MSA include healthcare and early childhood development initiatives. Kentucky law provides that 50% of the total MSA funds are distributed through the KADB, which is administered by the Governor's Office of Agricultural Policy (GOAP). MSA funds are further divided primarily between two allocations: 1) County allocations, which are available to support county-level projects and programs, are subdivided among 118 county accounts based on their relative tobacco dependency in 2000; and 2) State allocations, which are available for the KADB to invest in projects and programs that have a regional or statewide impact. In addition to the KADB, the Kentucky Agricultural Finance Corporation (KAFC)—which is a low-cost capital access program for farmers and agribusinesses is also administered by the GOAP.

In November 2014, the KADB and GOAP contracted with the University of Kentucky to conduct a second study to evaluate the Agricultural Development Fund investments including projects, county programs, and the loans made by the KAFC. The first study was presented in 2007 and represented funds distributed from 2001-2007. This current study evaluates investments made from the latter half of 2007 through 2014.

This evaluation was based on the Board's overall investment philosophy and guiding principles for board action (<http://agpolicy.ky.gov/board/pages/default.aspx>):

The Board will invest these funds in innovative proposals that increase net farm income and effect tobacco farmers, tobacco-impacted communities and agriculture across the state by stimulating markets for Kentucky agricultural products, finding new ways to add value to Kentucky agricultural products and exploring new opportunities for Kentucky farms.

Specifically, this evaluation will examine the nearly \$198 million that were directly invested in KADF projects and programs and the KAFC during the study period. The distribution of these funds across projects, county programs, and KAFC is presented in Figure P.1. Of the total direct investment by KADB over the study period, 31.4% of funds were allocated for KADF Projects, 62.2% of funds were allocated for KADF Programs and 6.4% of funds were provided to KAFC.

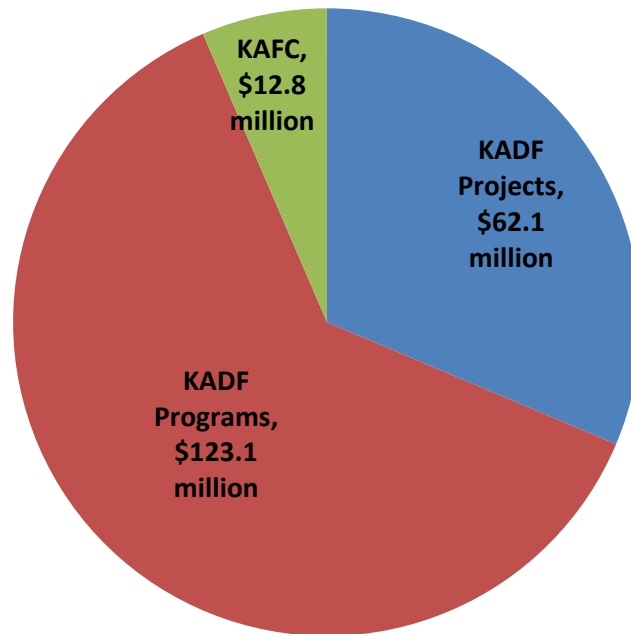


Figure P.1. Total Direct Investment by KADB, 2007-2014, \$198 million.

The overall goal of this evaluation is to assess the effectiveness and impact of the KADB investments awarded between 2007 and 2014. The evaluation results are presented in three parts: Part I addresses the impacts of KADF projects, which are those individually funded by the KADB. Part II examines KADF programs, which are a set of standardized programs administered through the counties. The evaluation of the KAFC investments is provided in Part III.

CHAPTER 1: KADF Projects

Over the 2007-2014 evaluation period, the Kentucky Agricultural Development Board (KADB) invested just over \$62 million in State, State & County and County-only funded projects. Figure 1.1 summarizes investments made in KADF projects between 2007 and 2014.

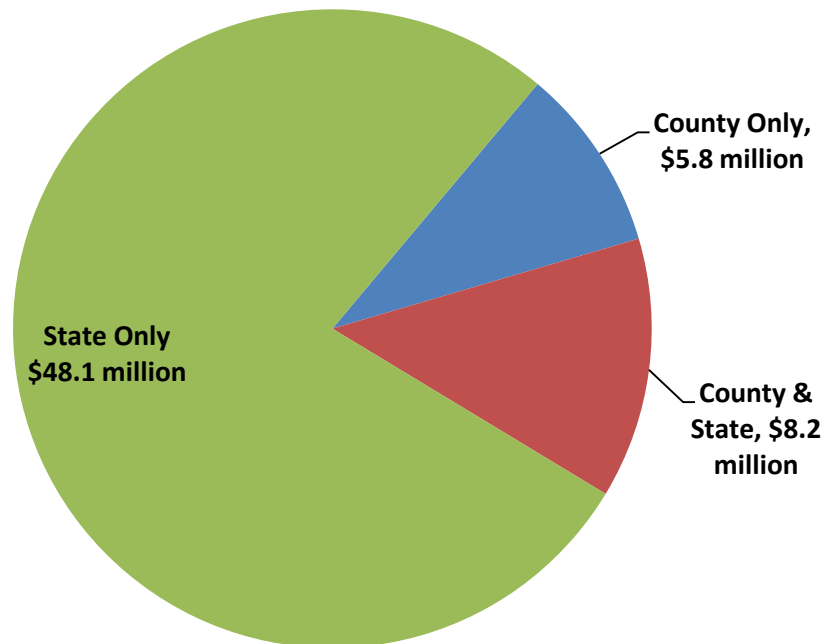


Figure 1.1. KADB Project Investments, 2007-2014, \$62.1 million.

Figure 1.1 reveals that county-only projects comprise about 9.3% of total project funding (about \$5.8 million). While most county-only funds are invested in the CAIP Program, County Agriculture Councils—which oversee the KADF money sent to counties as part of the Master Settlement Agreement—also have the option to solely fund project proposals with county KADF money as long as the KADB concurs with their decision. While these projects were not prioritized for interviews or site visits, GOAP did provide data related to the county-only projects.

Projects receiving some level of state funding comprise 90.7% of total project funding (about \$56.3 million). Specifically, projects receiving funding from both the county and the state comprise 13.2% of total project spending and projects funded solely by the state represent 77.5% of total project expenditures. The evaluation of projects focuses on the use of these state investment dollars. The methodology and findings of these efforts are described below.

Evaluation Criteria and Approach for State-Funded Projects

The UK Evaluation Team results and conclusions are based on an analysis of project files supplied by the GOAP, site visits and interviews conducted by the UK Evaluation Team, four expert group meetings and consultation with various persons with subject knowledge. Data were collected and site visits and interviews conducted during the summer of 2015 for 15 large projects, 20 medium-sized projects and 19 small projects, which represent a 100%, 50% and 25% representation of the total number of projects in

each size category, respectively. Therefore, the findings below should only be attributed to the representative sample of projects.

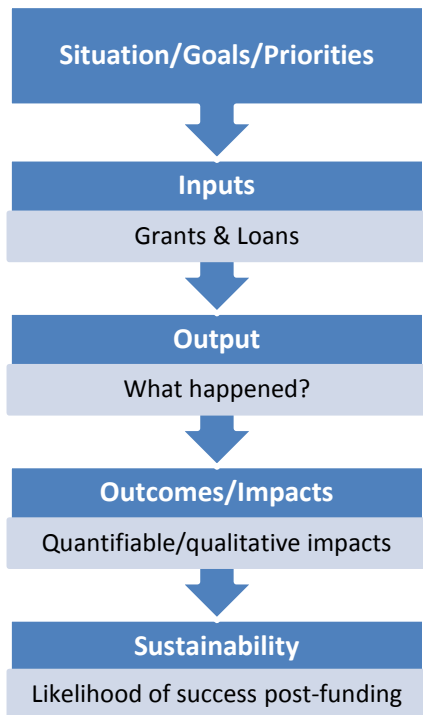


Figure 1.2. Evaluation Model.

The project evaluation criteria focused on measuring the performance of funded projects in contributing to the overall KADB investment priorities: increasing farm income, stimulating new markets, affecting tobacco growers and tobacco impacted communities, adding value to Kentucky agriculture products and exploring new opportunities for Kentucky farms. In addition, the evaluation also tried to measure the likelihood that the projects would operate beyond the funding period. Figure 1.2 depicts the model that was developed to guide the evaluation project.

A representative sample from all projects was chosen to be visited and surveyed by the UK Evaluation Team. The team evaluated 15 of the 16 unique large size projects (>\$500,000). The remaining large project was still in the construction phase. In addition, the team evaluated 50% of the medium projects (\$100,000 - \$499,000) and 25% of small projects (<\$100,000). The selection process for the sample projects was proportional to the amount of overall project funds spent on the specific sectors of agriculture. In addition, the team also considered the types of projects funded and the different regions within the state. Figure 1.3 depicts the geographic distribution of projects in the sample and other projects not selected.

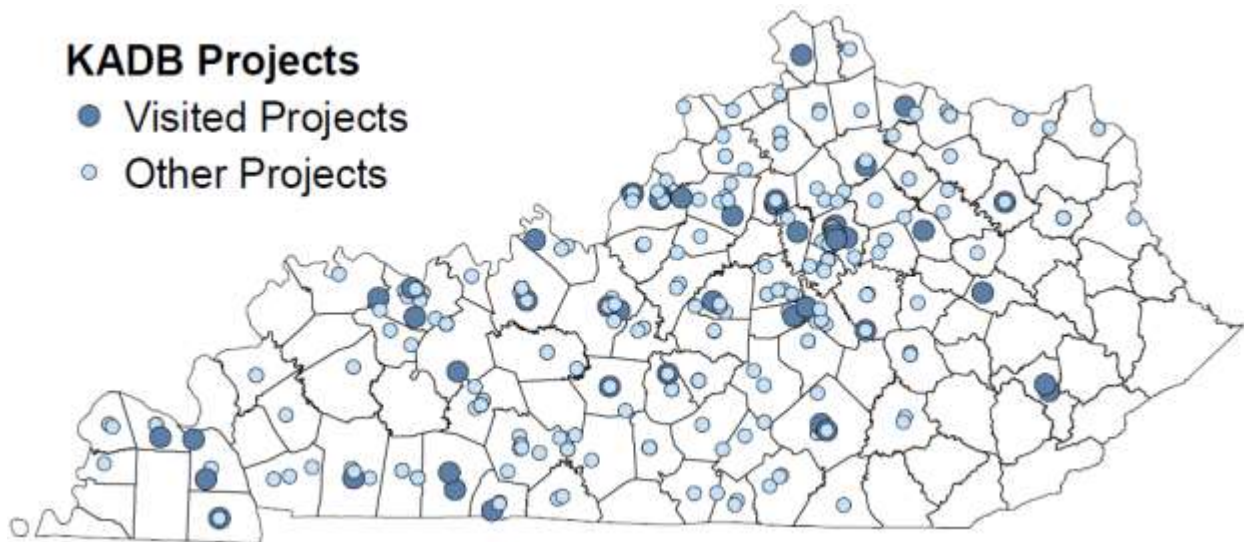


Figure 1.3. KADB Projects, 2007-2014.

A standardized project interview survey was used to identify and assess specific major impacts. Detailed questions were included in the interview form to assess outcome and impacts of all site-visited projects. Each project received the survey in advance of the site visit. The participants' opinions of their projects' impacts and KADF efforts were then gathered at the site visit, during which two to four members of the UK Evaluation Team were present. A copy of the survey is available in the appendix.

Furthermore, expert groups were invited to review industry trends and project data, assist in the analysis of impacts as well as to assist in crafting recommendations to the KADB. Summaries of expert group meeting are also included in the appendix.

This chapter of the evaluation focuses on the outcomes and impacts of the KADF projects. The following analyses and recommendations are based on the data from the GOAP files, site visits, and interviews and analysis by expert groups. The performance of the projects is measured and reported in four separate dimensions:

1. *Overview of the survey results from project site visits*
2. *A look at impacts by specific KADB strategic goals*
3. *Estimated impacts on the large sectors of Kentucky's agricultural economy*
4. *Ranking based on achievement of goals, documented impacts to date and sustainability.*

Overview of Survey Results

In total, 55 project managers contributed responses to the survey. Table 1.1 highlights responses regarding the status of project goals and objectives outlined in the KADF proposal.

Table 1.1. Have you met some or all of your goals and objectives outlined in your KADF proposal?

Response	Large N=15	Medium N=20	Small N=20	Total N=55
Yes	93%	90%	100%	95%
No	7%	10%	0%	5%
TOTAL	100%	100%	100%	100%
All	80%	80%	85%	82%
Some	20%	20%	15%	18%
None	0%	0%	0%	0%
TOTAL	100%	100%	100%	100%

As seen in Table 1.1, 82% of project applicants stated they reached all of their goals and objectives as outlined in their proposal. Interestingly, only 50% of project applicants met all of their goals and objectives from the previous evaluation of KADF investments between 2000 and 2007. This could be a result of understanding the application process better or working more closely with the GOAP staff during the proposal preparation process.

Project Impacts by KADB Priorities

As identified by KADB, six major priorities guided project funding decisions. These six priorities are:

1. Marketing and market development
2. Improving access to capital
3. Financial incentives for environmental stewardship
4. Farm family education and computer literacy
5. Supporting local leadership
6. Research and development

During site visits, respondents were asked which of the main priorities their project addressed. More than one priority could be chosen. The tables below illustrate the respondents' opinions as to how their program fit with KADB investment priorities.

Respondents were also asked to report outcomes and impacts of their KADB investment project. Some programs were very specific to a target goal and as a result it was appropriate to have fewer potential outcomes and impacts than larger, broader programs. For each selected outcome, the UK Evaluation Team asked for additional supporting data. Many of the projects did not have specific impact and outcome numbers or lacked documentation. If proper documentation was not provided, these impacts and outcomes were not included in the analysis.

KADB Priority 1: Marketing and Market Development

The percentage of large, medium-sized and small projects reporting impacts on marketing and market development are detailed in Table 1.2.

Table 1.2. Marketing and Market Development.

Response	Large N=15	Medium N=20	Small N=20	Total N=55
Increase Net Farm Income for local farmers	73%	75%	85%	78%
Enhance an Existing Farm Enterprise	73%	70%	90%	78%
Provided Support for Agricultural Entrepreneurship	80%	70%	70%	73%
Added value to Kentucky Agricultural Products	67%	65%	60%	64%
Expanded an Existing Market for Kentucky Agricultural Products	60%	55%	65%	60%
Create New Jobs in the Local Economy	53%	65%	45%	55%
Created a New Market for Kentucky Agricultural Products	47%	45%	60%	51%
Develop New Products	40%	50%	40%	44%
Developed a New Agriculture Related Business	47%	30%	55%	44%

A significant portion of the large projects said they provided support for agricultural entrepreneurship. Several of the larger projects were comprehensive programs aimed at a particular sector such as the Kentucky Dairy Development Council. Medium-sized projects had the highest percentage of positive responses when asked if their project created new products and new jobs in the local economy. The smaller projects performed better than the medium and large projects in several categories:

- 90% said they enhanced an existing farm enterprise
- 60% said they created new markets for Kentucky agriculture projects
- 55% said they developed a new agriculture related business

KADB Priority 2: Improving access to capital

Improving access to capital is one of the underlying mechanisms of entrepreneurial support. Table 1.3 shows that 33% of large projects were able to offer Kentucky farmers improved access to capital, thus supporting new opportunities for Kentucky farms and farm products.

Table 1.3. Our organization made loans or grants to farmers.

Response	Large N=15	Medium N=20	Small N=20	Total N=55
Yes	33%	10%	5%	15%
No	67%	90%	95%	85%
TOTAL	100%	100%	100%	100%

KADB Priority 3: Financial Incentives for Environmental Stewardship

Kentucky agriculture must do its part to systemically provide the food and water necessary to support an expanding population in a sustainable manner. Table 1.4 suggests that the larger, comprehensive projects that include an educational component are better able to address some of these issues.

Table 1.4. Financial Incentives for Environmental Stewardship.

Response	Large N=15	Medium N=20	Small N=20	Total N=55
Yes, our project provided incentives for environmental stewardship.	40%	30%	30%	33%

KADB Priority 4: Farm Family Education and Computer Literacy

Improving computer literacy is another strategy for developing agricultural markets in the digital age. Table 1.5 tabulates responses regarding computer literacy training. Notably, the Kentucky Community and Technical College System provided an 18 hour computer and software training course. Three hundred and sixteen farmers took advantage of the course offered in various campus locations throughout the state.

Table 1.5. Increase Farmer Computer Literacy.

Response	Large N=15	Medium N=20	Small N=20	Total N=55
Yes, our project increased farmer computer literacy.	33%	5%	35%	65%

KADB Priority 5: Supporting Local Leadership

Leaders are a valuable and important part of community life. Good leadership has the ability to move people toward a shared goal and at the same time encourage individual growth in the process. The large and small projects were more likely to respond that they supported local leadership development as described in Table 1.6.

Table 1.6. Supporting Local Leadership.

Response	Large N=15	Medium N=20	Small N=20	Total N=55
Support Local Leadership Development	67%	40%	70%	58%
Create New Jobs in the Local Economy	53%	65%	45%	55%

KADB Priority 6: Research and Development

As seen in Table 1.7, 50% of the medium-sized projects said they conducted new agricultural research and development and developed new products. In addition, 65% affirmatively responded they provided an innovative solution to a major problem.

Table 1.7. Research and Development.

Response	Large N=15	Medium N=20	Small N=20	Total N=55
Added Value to Kentucky Agricultural Products	67%	65%	60%	64%
Provided an Innovative Solution to a Major Problem	40%	65%	40%	49%
Develop New Products	40%	50%	40%	44%
Conduct New Agricultural Research and Development	40%	50%	30%	40%

Other Project Impacts

Respondents were asked to choose the primary farm size that their project targeted. Farms with receipts less than \$250,000 were considered small farms, mid-size farm receipts were \$250,000 to \$999,999, and farms that sold in excess of \$1 million in sales were considered large farms. The majority of projects served small farms and to lesser degree mid-sized farms as seen in Table 1.8. The grain-oriented projects mostly targeted larger farms as the nature of row crop production requires scale.

Table 1.8. This project primarily has helped small farms, mid-size farms, or large farms?

Farm size	% Responses
Small	61%
Mid-Size	7%
Large	4%
All Sizes	15%
Small and Medium	6%
Medium and Large	7%
TOTAL	100%

The opinions section of the survey included six questions about Kentucky's use of the Agricultural Development Funds and the process of implementing the projects. Participants were asked to choose from five standardized answers: Strongly Agree, Agree, Disagree, Strongly Disagree, and No Opinion. Table 1.9 presents the percent of respondents that answered Strongly Agree or Agree.

Table 1.9. Positive project manager responses to follow-up questions.

Survey Question	% of Respondents
The KADF money was a critical component to starting this project.	95%
This project has helped tobacco impacted communities.	84%
The KADF money has helped leverage other funds for this project.	83%
This project has helped young or beginning farmers.	82%
This business or project will continue after the KADF money has ended.	82%
This project has helped tobacco farmers.	78%

Of the 55 project respondents, 46 (84%) expected the benefits of the program to last more than 10 years, as revealed in Table 1.10.

Table 1.10. How far into the future do you see the benefits of this project reaching?

Response	Large N=15	Medium N=20	Small N=20	Total N=55
Benefits no longer exist (0 years)	0%	5%	5%	4%
Short Term (1-4 years)	0%	0%	5%	2%
Intermediate (5-10 years)	7%	15%	10%	11%
Long Term (Over 10 years)	93%	80%	80%	84%
TOTAL	100%	100%	100%	100%

Furthermore, Table 1.11 reveals 53% of the respondents answered that KADB funding was the deciding factor in starting the project. Of the large funded projects, 67% felt it was the deciding factor; at least five of these were commodity oriented non-profits or government- or university-managed projects.

Table 1.11. The necessity of the KADF investment.

Response: The KADF investment I received....	Large N=15	Medium N=20	Small N=20	Total N=55
1. Was the deciding factor for me in doing the project	67%	40%	55%	53%
2. Allowed me/us to expand the scope of the project originally projected	13%	15%	20%	16%
3. Made it easier for me to do the project	20%	15%	10%	15%
4. Both 2 and 3	0%	25%	10%	13%
5. Had no influence on my decision to do the project	0%	5%	0%	2%
6. Both 1 and 3	0%	0%	5%	2%
TOTAL	100%	100%	100%	100%

The last section of the participant survey included six summary questions. A sample of the comments the UK Evaluation Team received from the project managers are listed underneath each question.

Where would Kentucky's agriculture be without the KADF investment?

- *"KADF money is absolutely critical to supporting Kentucky agriculture business growth and development and is critical to leveraging additional dollars for agriculture support services."*
- *"Kentucky agriculture would be frozen in time to 15-20 years ago. Kentucky would not have support for developing innovative agriculture diversification enterprises."*
- *"It has retooled Kentucky agriculture."*
- *"These funds have been imperative to agriculture development in this state; it has allowed Kentucky agriculture to try new things that they wouldn't have done otherwise."*

What have been the quantitative and qualitative impacts of the KADF investment?

- *"Many tobacco farmers would not be farming. Farmers have felt the support of building local markets. Kentucky Proud helped drive consumption."*
- *"The funds have helped improve the quality of cattle in Kentucky."*
- *"Kentucky is a leader in regional specialty crop resources."*
- *"These funds have helped us to gain access to new markets within Kentucky and outside of the state."*

How have KADF investments leveraged other resources?

- *"State funds are important to help get projects kicked off and has encouraged local investments."*
- *"The KADF money was viewed as an endorsement, which helped bring in outside contributors."*

How have KADF projects affected county leadership and entrepreneurial leadership?

- *"Impacted in creating an entrepreneurial climate throughout the state and has helped to encourage and embrace new possibilities."*
- *"The greatest investment is local and the local leadership."*
- *"KADF funds have helped to bring on more local leadership and local support."*

What best management practices did you learn from this project?

- *"Kentucky has worked together to make these funds happen, people are able to see the future benefits and has created a network of people."*
- *"Requirement for matching funds has helped to promote long-term success."*

Any other ideas about the impacts and consequences of the KADF investments you would like to share with the evaluation team?

- *"We are appreciative of the funds, and it has encouraged us to help others."*
- *"The most innovative program in Kentucky."*
- *"KADF dollars were used to help and we exceeded expectations."*
- *"THE KADF have allowed Kentucky to stay invested in programs that have a huge and healthy impact throughout Kentucky."*

Impacts by KADB Goals

New and Expanded Markets

Fifty-one percent of the visited projects reported creating a new market for Kentucky agricultural products. Sixty percent reported expanding an existing market for Kentucky agriculture products. Some of these new or expanded markets are highlighted in Box 1.1.

Box 1.1. Examples of New and Expanded Markets.

- Kentucky Dairy Development Council – MILK Program
- Beef Network – value-added cattle marketing programs
- Kentucky Grape and Wine Council – Kentucky grown grapes and wine
- O'Bryan Grain Farm – Compost from hog manure
- Kentucky Association of Food Banks –Market for off grade or surplus produce
- UK Food Systems Innovation Center – Value-added food product development center
- Kentucky Department of Agriculture – Kentucky Proud products now in Kroger stores
- Webb's Properties – Smoked and cured meat products
- Louisville Farm to Table – Institutional local food purchasing
- KCARD – Business consulting and feasibility studies leading to new market development

New markets created or existing markets that expanded due to the KADF small, medium and large projects were tallied by category and size of the project award. An estimated 77 markets were created or expanded as a result of the project funding.

The “marketing and promotion sector” created the largest number of markets with 25 new or expanded markets mostly through the medium-sized project investments.

The “livestock” and “horticulture sector” created the second most new or expanded markets with 18 in each sector. The livestock sector created the most new or expanded markets with medium-sized projects. The horticulture sector produced the most new or expanded markets in their small projects, most notably the Farmer’s Markets. The horticulture sector documented new or expanded markets most consistently through most of their funded projects.

The “education and leadership sector” created 14 new or expanded markets. Projects that offered technical assistance were documented in making a difference in expanding markets.

The “grain and forages sector” investments included projects like the Meade County Riverport Project which created a large expanded market for area farmers. Another example includes Kentucky Specialty Grains which provided research and market development for farmers interested in growing chia.

New Products

Forty-four percent of all projects reported the development of a new product, some of which are highlighted in Box 1.2. The KADF funded projects created an estimated 465 new products available in many different types of markets. The education, leadership and technical assistance sector created the largest number of new products followed by the livestock sector.

Box 1.2. Examples of New Products.

- Udderly Kentucky Milk
- J&D Country Milk
- Preferred Popcorn
- Kentucky Proud Chicken
- Purple Toad wine varieties
- Research publications on growing techniques and forage compatibility
- The Food Systems Innovation Center helped entrepreneurs develop 300 new food products

Farm Income Generation

The evaluated projects generated an estimated \$2.03 in farm income for every \$1.00 invested by the KADB as described in Table 1.12. There was an estimated \$85.9 million in total farm income generated as a result of the projects funded during the 2007-2014 time period. This is a conservative estimate due to the lack of complete farm income numbers from many projects. In addition, many of the funded projects had other impact goals that did not include the immediate generation of farm income.

Table 1.12. Estimated Income Generated per \$1 of KADB Investment.

Sector	Amount of Award in Millions	Estimated Income Generated per \$1 of KADB Investment
Marketing and Promotion	\$9.4	\$3.07
Livestock	\$15.6	\$2.81
Horticulture	\$8.7	\$1.20
Grain & Forage	\$3.1	\$0.56
Education, Leadership and Technical Assistance	\$5.5	\$0.17
TOTAL	\$42.3	\$2.03

The largest farm income generator was the livestock sector with an estimate of \$44 million from \$15.6 of KADB investments. The Beef Network, a subsidiary of the Kentucky Cattleman's Association, generated an approximate \$27.7 million for Kentucky cattle producers from a \$7.1 million investment resulting in \$3.90 of income generated for every \$1 invested.

The marketing and promotion sector was the next largest farm income generator with an estimated \$28.9 million dollars in total farm income as a result of \$9.4 million in investments. The marketing and promotion sector also generated the highest return on investment with \$3.07 for every \$1 invested. The Kentucky Department of Agriculture's Kentucky Proud Program was the largest farm income generator for this sector, totaling an estimated \$25.6 million for Kentucky farmers and producers from an \$8.7 million dollar investment resulting in \$2.94 of income generated for every \$1 invested. The Louisville Farm to Table Program that conducted farm to institutional marketing efforts generated the highest return on investment of all projects with an estimated \$9.70 in farm income generated for every \$1.00 of KADF investment.

Education, leadership and technical assistance projects provide other impacts that are important for the future of agriculture in Kentucky but do not have a direct impact on farm income, sales, production or marketing. Nonetheless, these projects could have a significant impact in the long run. For example, the University of Kentucky Agricultural Leadership Program graduates have sharpened their skills and abilities to elevate the image and profitability of agriculture as an industry leader that should create opportunities in the future.

New Jobs

Approximately 708 new jobs were related to KADB investments. This is a conservative number given several interviews respondents indicated jobs had been created but weren't able to provide any specific numbers. These new jobs were created directly as a result of projects; many more jobs have been created indirectly from KADB investments.

The livestock sector created the most new jobs with 365 estimated jobs from \$15.6 million of KADB investments. The medium-sized livestock projects created the most new jobs, many representing part-time jobs at agricultural expositions and others were full-time jobs at multi-species processing plants. The Kentucky Center for Agriculture and Rural Development (KCARD) from the education, leadership and technical assistance sector and The Weekly Juicery from the horticulture sector also documented a large number of jobs directly attributed to the KADB investments.

Tobacco Farmers

One of the main tenets of the KADF is to develop alternative farm enterprises other than tobacco. Therefore, tobacco farmers should be involved in the new agricultural opportunities developed with the KADF investments. It is impossible to get an exact count of how many current or former tobacco farmers have been impacted by the KADF investments; however, project managers documented 17,617 current or former tobacco growers affected by the KADB investments.

Overall, the large projects, investments of \$500,000 and over, have impacted 14,739 former tobacco farmers. Below are projects that impacted more than 400 former and current tobacco farmers:

- The Kentucky Center for Agriculture and Rural Development (KCARD)
- UK Research Foundation—Center for Crop Diversification
- Commonwealth Agri-Energy
- Kentucky Horticulture Council
- The Kentucky Beef Network
- Kentucky Department of Agriculture—Kentucky Proud Program

Leverage of KADF Funds

Ideally, only promising and effective projects receive funding. Therefore, if a start-up business or project is able to get funding from other sources, it supports an evidence of credibility. The amount leveraged from other sources is one measure for likely project success and sustainability. Table 1.13 describes that the livestock sector was able to generate the largest leverage in terms of total dollar amount of funds (other than KADB funds) devoted to KADB investments at \$18.5 million. The grain and forage sector leveraged the most money per \$1 KADB funding at just over a 2:1 ratio.

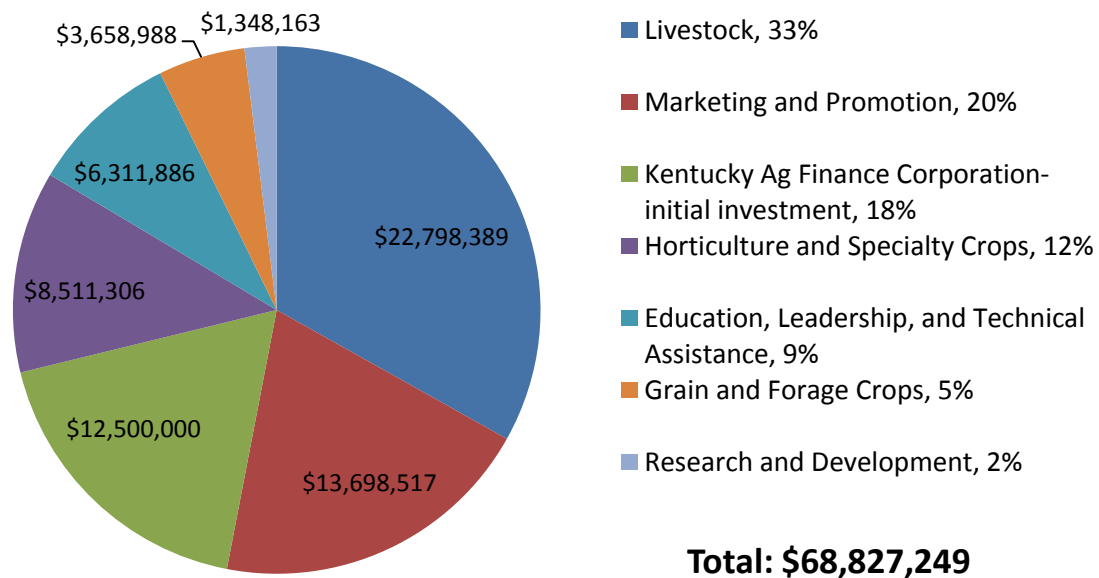
Table 1.13. Leverage Amounts Illustrated by Sector and Project Size.

Projects by Sector and Size	Amount of Award (millions)	Amount Leveraged (millions)	Leverage Ratio
Education, Leadership and Technical Assistance	\$5.5	\$7.7	1.40
Grain and Forage	\$3.1	\$6.4	2.06
Horticulture	\$8.7	\$6.6	0.76
Livestock	\$15.6	\$18.5	1.19
Marketing and Promotion	\$9.4	\$9.2	0.98
TOTAL	\$42.3	\$48.4	1.14
Large Projects	\$36.4	\$39.0	1.07
Medium Projects	\$4.9	\$7.5	1.53
Small Projects	\$1.0	\$1.8	1.80

Large projects across all sectors leveraged an additional \$1.07 match for every KADB dollar invested. The medium and small projects matched the KADF funds at a higher level with 1.53 and 1.80, respectively. The large projects tended to be farm commodity groups with associated non-profit organizations or government and educational institutions.

Impacts on Key Sectors

This section assesses the impacts of KADB investments by key sectors in Kentucky agriculture and attempts to answer the question: “Where would Kentucky agriculture be without the KADB investments?” The UK Evaluation Team analyzed a representative sample of projects that comprised approximately 86% of the total project spending, which is presented by sector in Figure 1.4.

**Figure 1.4. Total Project Spending, by Sector, 2007-2014.**

Livestock Sector

There were 18 projects selected for analysis that related to the livestock sector. These were 6 large projects (\$500K or more), 10 medium-sized projects (\$100-499K), and 2 small projects (<\$100K) as illustrated in Table 1.14.

Table 1.14. Site Visited KADB Livestock Related Investments 2007-2014.

Recipient	Project Description	Award	Year(s) Awarded
Kentucky Beef Network	Cattle industry development	\$7,090,931	2007, 2009, 2010, 2011, 2012
Kentucky Dairy Development Council	Dairy industry development	\$3,796,448	2008, 2010, 2012
Specialty Food Groups, Inc.	Meat processing equipment	\$1,008,140	2007
Kentucky Cattlemen's Association	Food Animal Veterinary Incentive Program	\$1,000,000	2008
Kentucky Poultry Federation	Poultry house energy research	\$683,634	2006
The Beef Connection	Beef production data management	\$500,000	2009
JD Country Milk	Milk processing facility expansion	\$487,982	2007
O'Bryan Grain Farm	Innovative hog production facility construction	\$352,155	2007
Wolfe County Fiscal Court	Value-added meat processing	\$350,000	2011
The Kentucky Horse Council	Comprehensive statewide equine survey publication	\$300,000	2011
Marksbury Farm Foods	Value-added meat processing	\$175,000	2009
Kentucky Pork Producers Association	Kentucky State Fair cooking facilities	\$164,900	2010
Kentucky Goat Producers Association	Forage research for goat production	\$154,748	2006
South Kentucky Rural Electric Cooperative Corp	Beef processing plant feasibility study	\$130,000	2008
Webb Properties, dba Webb's Butcher Block	Value-added processing equipment	\$125,000	2008
Waterworks Farm	Free range poultry management, production and distribution	\$87,000	2007
Campbell Farm Wool Art Center	Agri-tourism	\$50,000	2007
Kentucky Sheep and Goat Development Office	Sheep and goat industry development	\$185,000	2011
TOTAL		\$16,640,938	

Four of the funded projects related to the beef industry, four projects were multi-species meat processing facilities, three funded projects related to sheep or goats (or their products), two projects related to dairy, two projects related to hogs, two projects related to poultry, and one project related to

equine. Overall \$16.6 million was invested in the livestock-related projects the UK Evaluation Team included in the sample. These projects were estimated to have a \$2.81 return for each \$1.00 of KADB funds invested. In addition, the sector created an estimated 365 jobs, 83 new products, 56 new businesses, and started 18 new markets.

The livestock industry is a key sector of Kentucky agriculture. In 2014, Kentucky farms generated \$6.5 billion dollars in cash receipts. The livestock sector was responsible for 56% of the total farm cash receipts, approximately \$3.7 billion in farm gross income. Since 2007, the US livestock industry has shown a positive growth of slightly over 50% in livestock cash receipts (animals & products). In that same time period, Kentucky’s livestock industry grew by 24% (animals & products). Similarly between 2007 and 2014, US meat animal cash receipts had a 66% increase (Figure 1.5), while Kentucky had a 68%, Tennessee a 31% and Arkansas a 41% increase in meat animal cash receipts (see Figure 1.6).

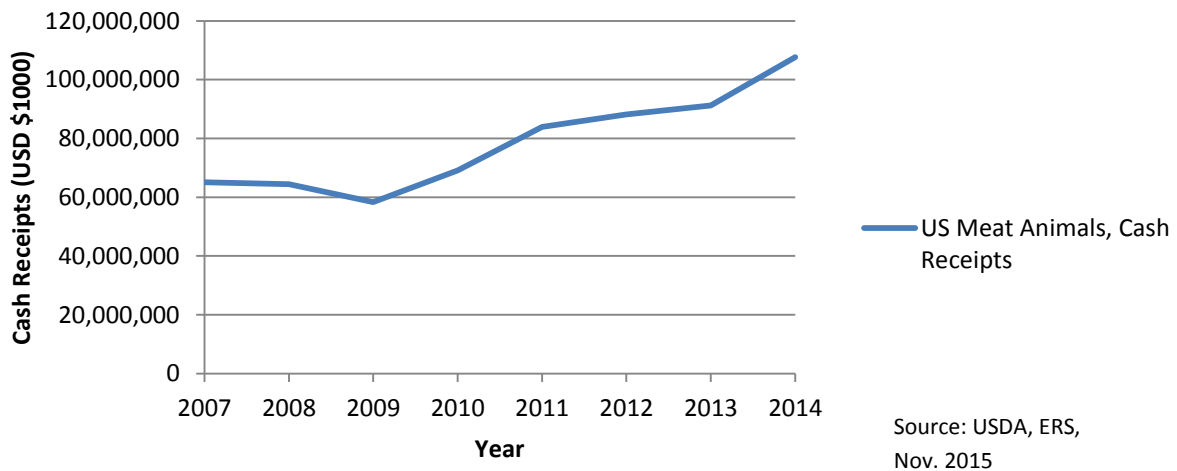


Figure 1.5. US Meat Animals, Cash Receipts 2007-2014.

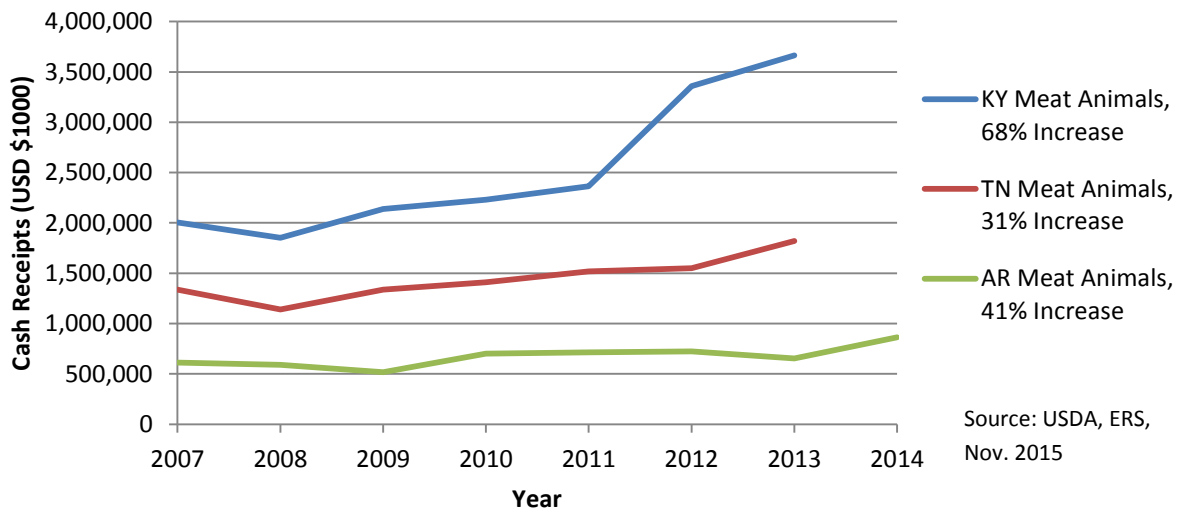


Figure 1.6. KY, TN & AR Meat Animals, Cash Receipts 2007-2014.

Poultry & Eggs

The poultry and eggs sector generated the largest farm cash receipts and showed steady growth of about 43% between 2007 and 2014, as highlighted in Figure 1.7. Combining the poultry and eggs sector with broiler chickens (meat birds) results in poultry being twice as large in gross farm receipts (\$2.4 billion) than the next largest livestock enterprise sector, cattle and calves. The poultry market capacity is increasing in Kentucky. There are six different large poultry companies in the state. These companies are expanding their cage-free chicken and egg production capacity as the demand for cage-free eggs and chicken is coming from end user requests. Kentucky eggs are distributed nationally to between 20 and 30 states. For local pasture-raised birds, the markets are high-end retail, farmers markets and restaurant sales. These are niche markets. Small farm poultry producers are paying \$4 per meat bird for processing, which is too expensive to compete with traditional markets. There has not been a consistent institutional demand for pasture-raised birds.

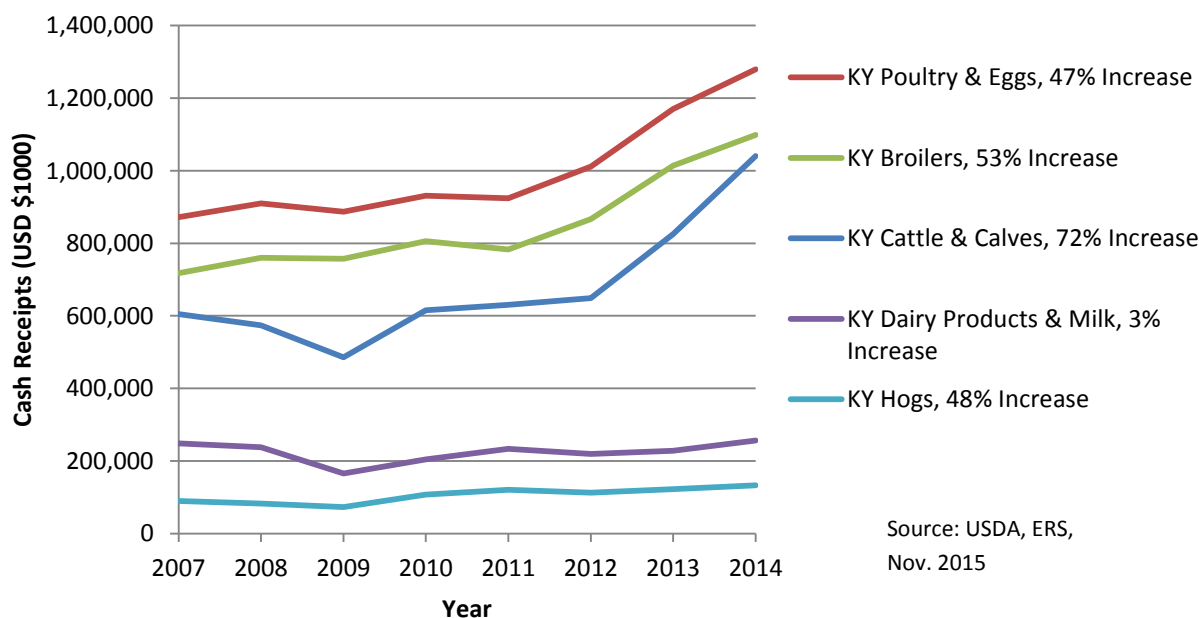


Figure 1.7. Kentucky Livestock, Growth in Cash Receipts 2007 – 2014.

There were two projects funded that related to the poultry industry. The Kentucky Poultry Federation received a grant of \$683,634 to hire a coordinator and facilitate energy audits for poultry houses in an effort to save farms money with more efficient heating, cooling and equipment operations. The other grant was to Waterworks Farm—a pasture-based free-range egg business—to aggregate and market eggs from small farms to retail outlets in Kentucky.

Cattle & Calves

Cattle and calves are the third leading livestock enterprise in Kentucky with sales of \$1.04 billion in 2014. Cattle and calf sales in Kentucky are primarily beef cattle but there are some dairy cattle raised for herd replacements and steers back grounded for beef. A significant effort has been made to assist the beef sector of Kentucky agriculture. This effort has had a large impact in moving the state's beef industry

forward. Kentucky has witnessed a 72% increase in cattle and calves cash receipts from 2007 to 2014. This percent increase is larger than the national figure of a 63% increase in cattle and calves receipts and considerably larger than Tennessee's growth rate of 33% and Arkansas' growth rate of 49%, as detailed in Figure 1.8.

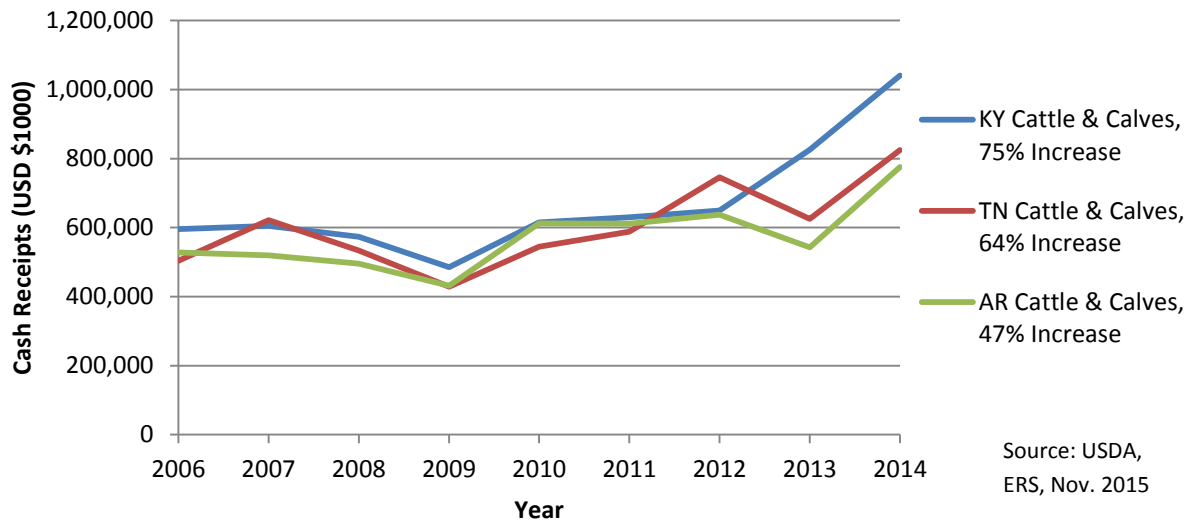


Figure 1.8. Cattle & Calves, Cash Receipts, 2006-2014.

The Kentucky Beef Network (KBN) is a limited liability company whose sole membership is made up of the Kentucky Cattlemen's Association. The Kentucky Beef Network's goal is to improve cattle health, genetics, forages and marketing opportunities for Kentucky beef producers. The Kentucky Cattlemen's Association is a non-profit producer association with 93 member chapters across the state representing the 40,000 or more cattle producers in Kentucky. Together these two organizations received \$8.1 million of KADF grant funds to implement a comprehensive strategy to grow the beef sector of Kentucky agriculture.

The Kentucky Cattlemen's Association received a \$1 million interest free loan to develop a large animal veterinary incentive program to encourage additional new entrants into the large and food animal practices in rural Kentucky. This was a ten-year loan to be matched dollar-for-dollar with outside donations. After several years' effort it was determined that demand for the program was lower than expected and the Kentucky Cattlemen's Association returned the entire loan amount to the KADB. The \$1 million dollar loan figure was not included in our impact estimates or ROI data calculations because the loan was returned in full with interest.

On behalf of the Kentucky Cattlemen's Association, the KBN has pursued a multi-faceted approach to fulfilling its mission of moving the cattle industry forward. KBN has employed between 5 and 7 area facilitators to work directly with cattle producers to assist with genetic selection, artificial insemination, production efficiencies improvements, targeted marketing efforts, data collection and management and cattle grading for value-added sales.

One of the focuses of the KBN is the promotion of Certified Pre-Conditioned for Health (CPH-45) feeder calf sales as a way to add value to Kentucky cattle. A multi-pronged approach was taken by offering on-farm consultations on CPH-45 program requirements, cattle grading, and record keeping. Kentucky livestock auctions were provided cost-share funds to install electronic animal ID readers to efficiently manage CPH-45 sales and other animal ID verified marketing programs.

Through the Cattlemen's Association, CPH-45 sales were heavily promoted to in-state and out-of-state cattle buyers. The sales have gained support of producers and buyers. CPH-45 feeder calf sales numbers have trended down in the last five years as the cattle industry has seen record high prices across the board which lessened the producer's incentives to participate in additional protocols before selling their calves. However, there still was a significant number of Kentucky cattle sold through CPH-45 sales (175,510 head). These cattle had an estimated average additional net return of \$60.46 per head. This amounts to \$5.8 million in additional farm income from CPH sales.

A second market development effort funded and put to use in prior years was an electronic ID system to verify individual animals and their age, origin and any other attributes of interest to buyers and sellers. This Process Verified Program (PVP) was deemed essential to develop export markets for high value cattle. The KBN provided a cost-share program of \$2 million to provide technical assistance and cost-share for upgrades to Kentucky livestock markets and collection points. The new equipment made possible individual animal source verification, internet livestock sales, and the collection of carcass evaluation data for specific feeder cattle. As of June 2007, 21 livestock markets had completed the updates to make them electronic animal ID ready. In conjunction with this equipment, KBN offered data management and ID verification services to Kentucky cattle producers via an internet-based proprietary system. This combined effort resulted in 76,932 head of Kentucky PVP certified cattle sold. KBN estimates farmers received an average premium of \$39.22 per head for an additional \$3,017,273 in farm income.

In previous years, the KBN provided cost-share funds to assist Kentucky stockyards to adopt the latest electronic cattle tracking and data management techniques in order to provide PVP cattle to fulfill specific market demanded opportunities. The ability to track specific cattle from farms to end user sales has facilitated value-added sales such as the CPH-45 and PVP cattle programs and opened the door to additional higher end markets when specific ages, production protocols or other buyer requested specifics are profitable to enact and trace through the marketing chain.

Over the years, KBN has facilitated and funded a multitude of state-wide, in-depth educational programs for Kentucky cattle producers such as the Master Cattlemen (3,000+ participants since inception), Applied Master Cattlemen, Master Grazer, Applied Master Grazer, Master Stocker, Master Marketer, Graze 300, Young Cattlemen and the Cow College workshop series in order to build the human capital of the state's beef industry. These programs graduated 2,122 cattlemen between the years 2007 and 2014. The educational programs have undoubtedly increased the management abilities of Kentucky cattlemen and resulted in cost savings, added income from additional production and cost savings from efficiency improvements. Hand in hand with the increased production management knowledge, the County Agricultural Investment Program (CAIP) help purchase cattle handling equipment, fencing and water

improvements, funds to purchase improved cattle genetics, forage crop improvements and hay and feed storage additions. The combination of increased knowledge and the ability to make on-farm investments in facilities and equipment that enable the new management practices has been an effective combination.

The KBN efforts have had a large, positive impact on Kentucky's beef cattle industry by improving the Kentucky cattlemen's knowledge base, leveraging the impact of CAIP program investments and focusing on value-added markets such as the CPH-45 sales and the PVP cattle sales. The impact of these educational and targeted marketing efforts is illustrative of the success and forward momentum being built by Kentucky's beef industry.

Evidence of Positive Impacts on Kentucky's Cattle Industry:

1) Direct and indirect measures by program area: The most direct measurement of impacts of the KADF-funded KBN and Kentucky Cattlemen's Association projects is the increase in CPH-45 feeder calf sales numbers which generated an additional \$5.8 million in farm income. The Process Verified Program (PVP) cattle added value of \$39.22 per head, resulting in an additional \$3.0 million in farm income. Other smaller programs that generated specific savings included cattle minerals bulk-buying program with an estimated savings of \$95,000 and the MAG 60 program with added income from higher quality calves sold and heifers retained estimated for four years at \$350,000. Estimates from direct measurable sales results total \$9.2 million. These farm income increases are a direct result of the KADF funded programs.

An indirect impact estimate can also be generated from the educational programs developed and conducted by the KBN and its contracted university partners. Over the 2007-2014 period, the KBN has graduated 2,122 cattlemen from in-depth cattle and forage management educational programs. One estimate provided by the KBN was the annual added farm income from management improvements taught amounted to \$4,500. Taking a conservative approach and saying ½ of the annual estimate, multiplied by the 2,122 participants, multiplied by 4 years (½ of the time period) would approximate an additional \$19.1 million in farm income. Adding this management improvement result to the direct income measures results yield an ROI of \$28.2 million from the Kentucky Cattlemen's Association and the KBN investment.

2) Another approach to estimating farm income impact is to compare Kentucky, Tennessee and Arkansas cash receipts for cattle and calves for the period 2006-2014. During that time period Kentucky's cattle and calves cash receipts increased 75%. During the same time period, Tennessee cattle and calves cash receipts went up 64% and Arkansas went up 47%. Taking an average gain between Arkansas and Tennessee and subtracting the difference from that and Kentucky's 75% cash receipts increase leaves a 20% difference in growth. In consultation with livestock experts, the UK Evaluation Team estimates that Kentucky's investments in education, on farm consulting, improved genetics, handling systems, production resources and targeted marketing efforts are attributable for at least 24% of that difference in growth, results in an estimated \$27.7 million in added farm income or a return of \$3.90 for every \$1 of KADF invested.

Other KADB funded projects that affected the cattle industry are The Beef Connection and the South Kentucky Rural Electric Cooperative. The Beef Connection is a privately owned company that offers data collection and management information to help farmers improve their cattle with growth and carcass traits in demand by packers and other wholesale buyers of beef cattle. The other beef-related investment was a feasibility study commissioned by the South Kentucky Rural Electric Cooperative to look at the feasibility of starting a large cattle processing plant. Dr. Rod A. Bowling, Senior Technology Partner of AgriFood Solutions conducted the study and concluded a fed-beef packing plant in South Central Kentucky would not be sustainable in the long-run.

Some of the comments heard in the Livestock Expert Group Meeting include:

- *“Ask veterinarians, they have seen the improved working conditions and animal husbandry practices in Kentucky.”*
- *“The educational programs for producers are most important.”*
- *“More money is made with ‘boots on the ground’. They enhance services and build markets because people are the ones that make a difference.”*

Equine

Kentucky’s horse industry was a significant contributor to farm cash receipts in 2014, and horse sales in Kentucky have been around \$1 billion dollars for a number of years. Unfortunately the USDA, National Agriculture Statistics Service (NASS) does not report horse enterprise cash receipts separately, but instead puts them in the “miscellaneous animals and products” category. The Kentucky Horse Council was awarded the one project related to the equine industry during the period. A \$300,000 grant was awarded to partially fund a baseline study of the horse industry in Kentucky. The purpose of the study was to conduct a statewide census of all horse breeds in the state. The study is being used as a baseline data set for planning purposes by the Kentucky equine industry and state and local policy makers. This study provided much needed current information on the state of the equine industry in Kentucky.

Dairy

Dairy farming is the fourth largest livestock enterprise in Kentucky with cash receipts of \$256.2 million in 2014. Approximately 970 dairy farms are currently operating in the state. There has been a long-term decline in the number of dairy farms in the US as well as Kentucky. Part of the decline can be explained by industry consolidation; there are fewer farms but they are managing a larger number of milk cows. Also, advancements in research and milk production have led to higher milk output per cow. Thus, fewer herd numbers are needed to equal previous production rates. Kentucky cash receipts for dairy products increased approximately 3% during the period while Tennessee decreased 5% and Arkansas decreased 43% as illustrated in Figure 1.9. However, Ohio and Indiana experienced a 32% and 47% increase, respectively, in their cash receipts for dairy products.

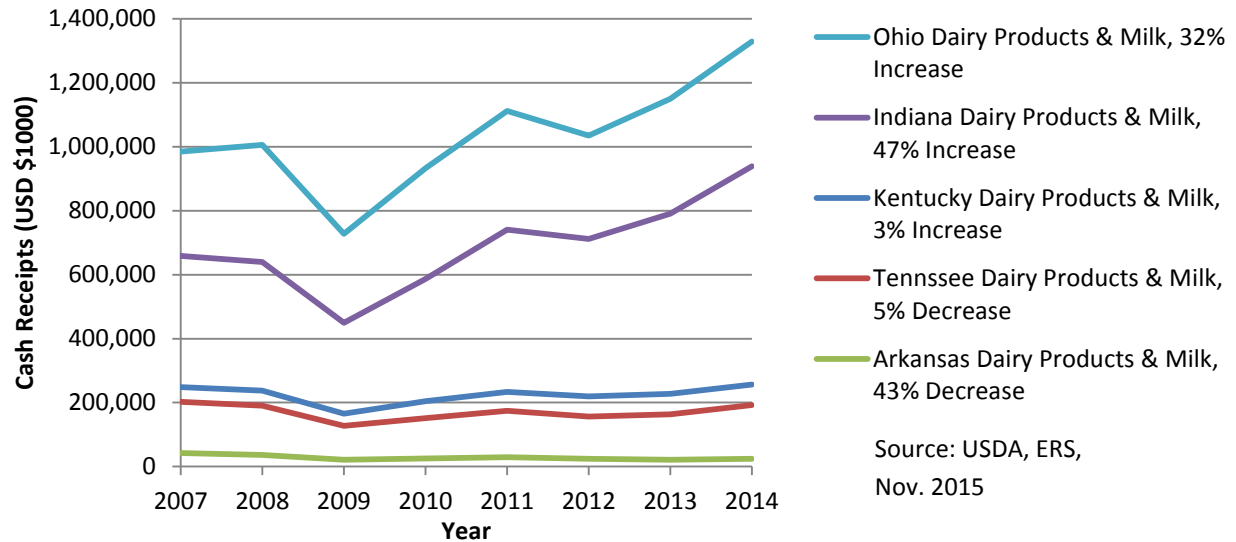


Figure 1.9. Growth in Cash Receipts Dairy Products, Milk 2007-2014.

The dairy sector KADB project awards totaled \$4,284,443 across two projects, the Kentucky Dairy Development Council (\$3,796,448) and JD Country Milk (\$487,982). Dairy projects accounted for 23% of the KADB livestock sector investments.

Dairy farming is a labor and capital intensive enterprise that has faced large swings in milk prices and rising input costs. These two factors make dairy farming a difficult industry for mid-sized farms to compete and for young farmers to get established.

The Kentucky Dairy Development Council (KDDC) is similar to other commodity associations as a non-profit producer organization with a mission to improve the profitability of its statewide industry. The KDDC goals are to increase producer profitability, to improve dairy farmer's competitiveness, to enhance dairy farm families' quality of life, and to assist in the viability of Kentucky's dairy industry. To accomplish its goals, KDDC has assumed responsibility for the education of Kentucky producers on federal milk marketing order issues, improved milk production techniques, better record keeping and being a resource to help individual dairy operations improve net farm income. KDDC employs 3 to 4 regionally based dairy consultants to work one-on-one with Kentucky dairy farmers to increase efficiency, profitability, milk quality and production.

The Milk Incentive Leadership Program (MILK) is an innovative program which provides monetary incentives to dairy farms for increased milk quality and output. Kentucky farmers participating in the MILK Program have been paid \$5,633,450 in premiums since its inception in 2007. The MILK program is funded 50% by the industry (dairy processors) and 50% by the KADF grant. To qualify for the incentive premiums, a participating farmer must increase milk production compared to the average of the same months in the previous two years. The result has been an increase in quality and quantity of milk produced due to increased production per cow. Approximately half of Kentucky's dairy farms are members of KDDC's MILK Program. KDDC field associates coordinate the programs and are primarily responsible for their implementation and success.

The KDDC has focused on young farmers as well. The Young Dairy Producer Initiative Conference enrollment has increased 21% since its inception in 2007. The 2015 conference welcomed 150 attendees in Bowling Green, Kentucky for a full day of speakers covering topics from business planning, farm transitions to production issues, producing quality milk and many other topics.

The KDDC project is having a positive impact on Kentucky's dairy industry and farm economy. Milk production has increased 444,182,955 pounds over the base production rate since KDDC began. Also, Kentucky's milk production per cow has increased from 12,000 pounds in 2006 to nearly 16,000 pounds in 2014. In addition, the overall quality of milk has improved.

The other dairy related project funded was JD Country Milk. JD Country Milk is a privately owned dairy farm which invested the \$487,982 project award to expand their on-farm milk processing facility and dairy sales enterprise. JD currently purchases milk from other Kentucky dairy farmers, pays a premium for their milk and markets JD Country Milk and related products to 57 retail outlets in Kentucky and Tennessee. They produce butter and drinkable yogurt in addition to sales of all-natural, non-homogenized milk in glass bottles.

Evidence of Positive Impacts on Kentucky's Dairy Industry:

- 1) Figure 1.9 demonstrates that there is both growth and decline in regional dairy production, measured by cash receipts. Ohio and Indiana have shown dramatic growth while Tennessee and Arkansas have seen declines. Kentucky has held its own and exhibits growth eight percentage points higher than Tennessee (the most similar state to KY).
- 2) The UK Evaluation Team estimated an \$11.3 million dollar increase in farm income as a result of the KADB investment of \$3.8 million. This represents a \$2.99 return for every \$1 of KADF spent.
- 3) The calculation for the MILK program was estimated as follows: premium payments to farmers were approximately \$5.2 million. This amount was then added to \$75.8 million, which is the value of 4.1 million hundred weight additional milk produced over the base period of 2007 multiplied by the average milk price of \$18.50. The difference between Kentucky and Tennessee growth in income is approximately 8 percentage points. In consultation with livestock experts and others, the UK Evaluation Team estimates that this difference can be attributed to the KDDC effort, results in an estimated \$6.1 million in additional milk sales. The total farm income impact estimate is: \$5.2 million & \$6.1million = \$11.3 million.

Hogs

Kentucky's hog production generated the fifth largest livestock income during the evaluation period with \$133.1 million in cash receipts. Nationally hog cash receipts showed a 79% increase while Kentucky had a 48% increase and Tennessee a 21% increase. The KADB funded two projects related to pork production, O'Bryan's Grain Farm (\$352,155) for an innovative hog barn designed to make compost from manure and the Kentucky Pork Producers Association (\$164,900) to modernize their cooking facilities at the Kentucky State Fair Grounds.

O'Bryan's Grain Farm matched the KADF investment \$2.37 for every \$1.00 received in grant funds. The project funded the construction of several two-story hog barns. This design allows manure and urine from pigs on the second floor to fall through the slatted floor and onto woodchips. O'Bryan's project was to find a practical way to make compost from hog manure and wood chips that would result in a saleable product as a soil amendment and negate the need for the hog farmer to acquire more land to apply hog waste.

Hog production in confinement generates a large amount of manure and environmental regulations require that there be enough cropland to apply manure as a soil amendment and not overload the nutrient holding capacity of the soil. Hog production is sometimes limited due to the environmental regulations. The O'Bryan Project demonstrated a possible solution of turning hog waste into a saleable, nutrient valued solid. If the compost-making process could be done in a practical and economical manor, the O'Brian project results could have a large positive impact for hog producers and the environment.

The Kentucky Pork Producers Association received a grant to expand their cooking facilities at the Kentucky State Fair. The facility is used to cook pork, beef and aquaculture products for events held at the Louisville Exposition Center throughout the year. The Kentucky Pork Producers Association, Kentucky Cattlemen's Association and the Kentucky Aquaculture Association all use the cooking facilities to generate income for their associations. The KADF grant was matched dollar for dollar by the Associations to complete the project. The impacts include \$194,000 of pork purchased annually from a Louisville processor of Kentucky and other state hogs, and a sustainable source of funds the help three producer associations operate on behalf of their members. In total, 265 jobs (mostly part-time) were created to run the cooking enterprises events held throughout the year at the Exposition Center.

Sheep and Goats

Kentucky sheep and goat cash receipts are not tracked annually by the USDA Economic Research Service (ERS). However, the USDA National Agricultural Statistics Service (NASS) does maintain data on sheep and goat inventory numbers, presented below in Figure 1.10.

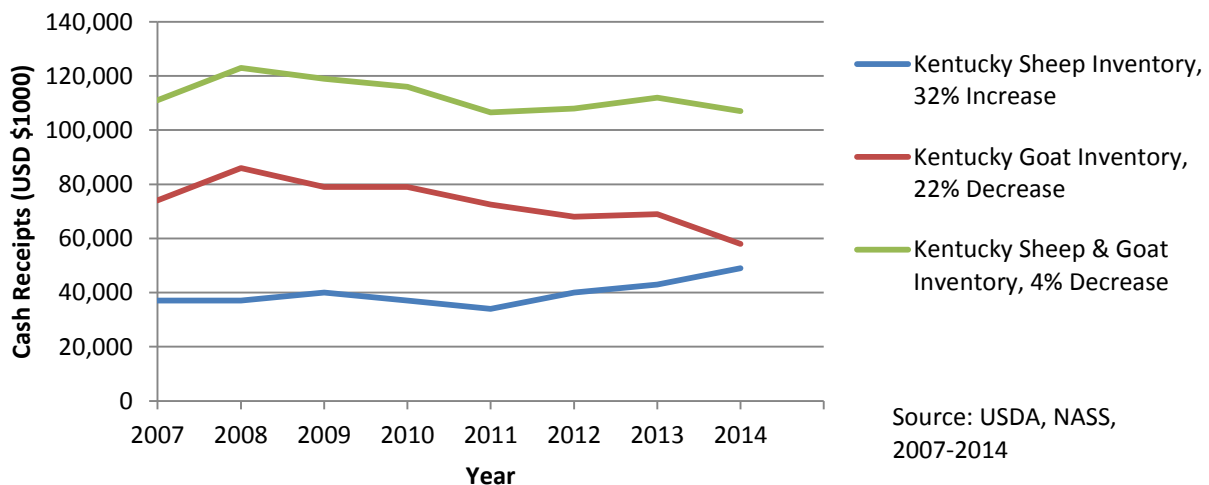


Figure 1.10. Kentucky Sheep & Goat Inventory Trends 2007-2014.

According to NASS, there were 49,000 head of sheep and 58,000 head of goats in Kentucky in 2014. This represents a 32% increase in sheep numbers and a 22% decrease in goat numbers since 2007. Nationally there has been a long-term declining trend in sheep numbers; however, Kentucky is one of a few states witnessing growth. Most of the recent growth in Kentucky sheep numbers comes from the increased popularity of hair sheep breeds in Kentucky. Goat numbers have declined in about the same proportion as sheep numbers have increased. This may be because hair sheep are easier to raise than goats. It could also be that Kentucky's small ruminant production is gradually trending toward the national sheep and goat population proportions. There are approximately twice as many sheep (5.2 M) than goats (2.6 M) in the national inventory.

The KADB funded two projects within the evaluation sample that related to the sheep and goat sector. One was a grant of \$185,000 to the Kentucky Sheep and Goat Development Office (KSGDO) for comprehensive programming and the other was a forgivable loan of \$50,000 to the Campbell Farm Wool Art Center for an agritourism and craft center focusing on fiber art.

The Kentucky Sheep and Goat Development Office (KSGDO) was formed as a joint venture between the Kentucky Sheep and Wool Producers Association and the Kentucky Goat Producers Association. In September 2006, a KADF grant was awarded to fund the office. The two associations hired an Executive Director and an office was established in May 2007. The goals of the KSGDO are to give producers a unified voice, to improve the profitability of sheep and goat production by educating new and existing producers on production and marketing, and to promote sheep and goats products to consumers.

The KSGDO is having a positive impact in Kentucky, having grown into a comprehensive program that offers educational workshops and conferences, in-depth courses on sheep and goat production and marketing, targeted marketing opportunities and a state-wide promotional campaign. The KADF grant was matched \$1.17 for every \$1.00 of KADF money. Approximately \$2.55 in income was generated from direct market sales, festival and conference fees, magazine sales and outside grants.

KSGDO Accomplishments:

- 32% increase in Kentucky sheep numbers while national sheep numbers continue to decline
- Established a Kentucky sheep and goat checkoff program for producers to fund industry promotion, research and development
- Hosts an Annual Sheep and Goat Producers Conference
- Hosts an Annual Kentucky Sheep and Fiber Festival
- Educational programs to new and beginning farmers
- Hoof Print Magazine published quarterly (941 paid subscribers)
- Targeted marketing efforts and promotional events: Kentucky Proud Lamb Jam cook-off at the incredible Food Show, State Fair, etc.
- Media Advertising campaign "Try Something Different Tonight"
- Loans for new and beginning sheep or goat producers
- Mentorship programs for new and beginning farmers
- Small Grants for marketing projects
- Sustainability: Magazine sales, membership fees, conference and festival fees, grants from American Sheep Industry & American Lamb Board, Kentucky Checkoff funds, KADB

The Campbell Farm Wool Art Center is a privately owned art studio located on a historic farm near Springfield, Kentucky. The center offers classes taught by Norman Campbell, a nationally recognized fiber artist whose reputation draws in visitors from around the country. The KADF loan was to renovate a historic building on the farm into a studio to teach fiber art. The Washington County Agriculture Council recommended the funding as an additional agritourism destination for people visiting the area, which leads to tourism dollars being spent in the community.

Multi-species Processing Facilities

Two multi-species processing facilities and one meat processing facility were funded by the KADB during the evaluation period. The Wolfe County Fiscal Court was awarded a \$350,000 grant as part of a project to build The Chop Shop, a multi-species processing facility in Eastern Kentucky. Marksbury Farm Foods was awarded a \$175,000 cost-reimbursement grant as part of a project to build a multi-species processing facility in Central Kentucky. In addition, Webb's Butcher Block was awarded a \$125,000 loan to expand their value-added meat processing and marketing business in Meade County, Kentucky.

The Wolfe County Fiscal Court received a pass-through, cost-reimbursement grant for \$350,000 to help with construction expenses to build The Chop Shop, a privately owned, newly USDA-inspected, multi-species slaughter and processing facility with a retail market. Fresh and frozen processed meats are sold in the retail store, online, wholesale to local grocery stores, and to hotels, restaurants, and institutions. The facility also offers individual custom processing service for farmer customers with animals they wish to have processed. Additionally, The Chop Shop provides private labeling for farmers and other meat marketing companies.

Marksbury Farm Foods opened in 2010 and has been processing beef, pork, chickens, turkeys, lamb and goats in their newly built USDA-inspected plant. Marksbury purchases animals from farms that meet their standards for pasture based-production methods and no use of antibiotics. They market locally raised meats to restaurants, institutions, retailers and distributors in Kentucky and surrounding states. In addition, Marksbury processes animals on a custom basis for farmers who market their own meats. They also operate a restaurant and retail outlet at their facility.

Webb's Butcher Block is a family-owned meat processing facility located in Payneville, Kentucky. Webb's received a zero interest loan of \$125,000 to purchase additional equipment to increase their production capacity. The processing facility does not slaughter animals; instead, they purchase wholesale cuts of beef, pork, bison, elk, and venison from meat distributors and various local producers. Then meats are processed into smoked and cured products that are packaged and sold under the Webb's Butcher Block label through wholesale and retail markets and on their website. Furthermore, Webb's offers custom processing for farmers and marketers wanting to add value to cuts of meats that are lower in price or harder to sell. Meats can be processed into jerky, snack sticks, summer sausage, smoked sausage, or brats.

Horticulture Sector

Table 1.15 describes the 13 projects selected for analysis that related to the horticulture sector. These were two large projects (\$500k or more), two medium-sized projects (\$100-499K), and nine small projects (<\$100K),

Table 1.15. Horticulture Related Investments Evaluated 2007-2014.

Recipient	Project Description	Award	Year Awarded
Kentucky Horticulture Council	Horticulture industry development	\$6,882,023	2007, 2010, 2012
Kentucky Grape and Wine Council	Grape and Wine industry development	\$805,000	2007, 2011
The Weekly Juicery, LLC	Value-added facility construction and storage improvements	\$310,000	2013
Kentucky Association of Food Banks	Commodity purchasing and food distribution	\$302,000	2010, 2012, 2013
Owen's Garden Center	Retail facility construction and greenhouse expansion	\$94,470	2009
Harrison County Extension Office	Farmer's Market pavilion construction	\$75,000	2009
Trunnell's Farm Market, Inc.	On-farm retail facility construction	\$74,553	2007
Dossey Vineyards, LLC	Processing, storage and handling facility improvements	\$52,000	2008
Beaver Dam Farmer's Market	Farmer's Market pavilion construction	\$50,000	2009
Logan County Farmer's Market	Farmer's Market pavilion construction	\$26,962	2007
Hart County Chamber of Commerce	Farmer's Market pavilion construction	\$18,300	2011
Mountain Cattlemen's Association	Promotion of produce sales	\$4,394	2007
Whitley County Farmer's Market	Mobile demonstration grill unit	\$1,809	2013
TOTAL		\$8,696,511	

The largest funded project was the Kentucky Horticulture Council. Additionally, the other funded projects were related to community farmers markets, grape and wine production, nursery crop marketing, vegetable market expansion with an on-farm market, food banks and a juice processing facility.

The graph below (Figure 1.11) presents the overall growth of Kentucky horticulture crops by cash receipts. Different horticulture subsectors are also stacked in Figure 1.12 to show the aggregate trend in horticulture crops as well. The nursery crops sector clearly shows the effect of the 2007 recession, which put a stop to most new home construction and greatly affected sales of nursery stock for landscaping.

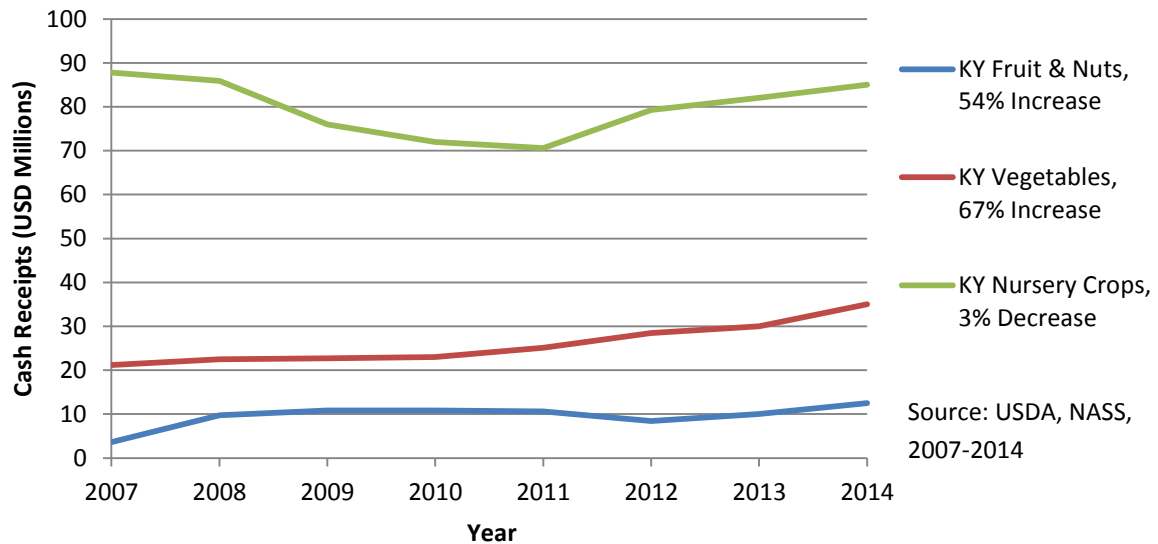


Figure 1.11. Kentucky Horticulture Cash Receipts 2007-2014.

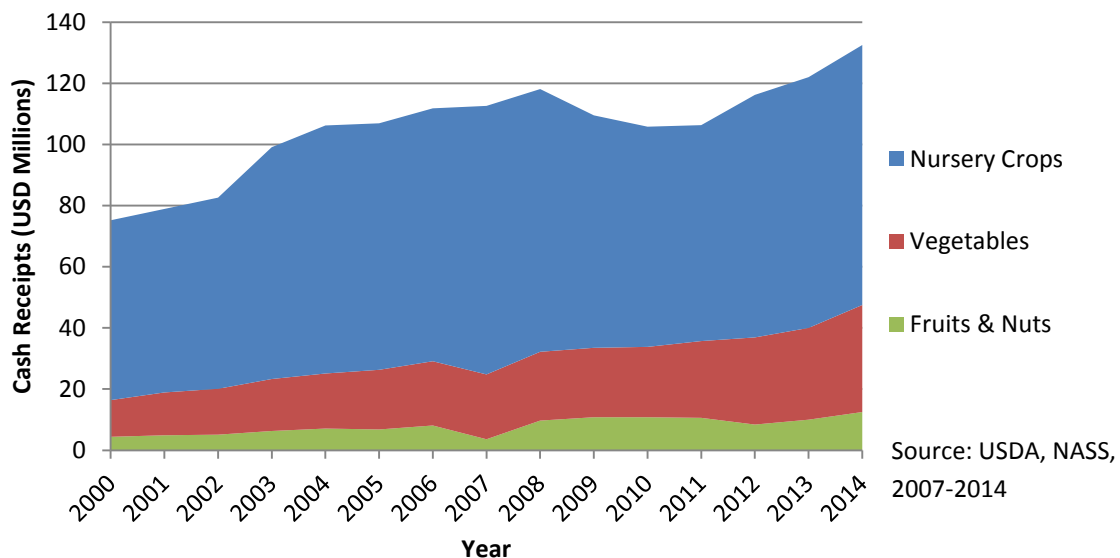


Figure 1.12. Kentucky Horticulture Cash Receipts, Stacked, 2000-2014.

The largest horticulture project funded by KADB is the Horticulture Council which received \$6.9 million over several rounds of funding during the evaluation period. The Horticulture Council is an industry group composed of producer representatives from all of the Kentucky horticulture professional associations. The Horticulture Council received KADF funding for a comprehensive industry development

strategy designed to provide on-farm technical assistance, up-to-date production research, and marketing and advertising assistance. The Horticulture Council contracts most of its services to the University of Kentucky and the Kentucky Department of Agriculture (KDA). New and existing vegetable, fruit, wine grape, wine makers and nursery producers across the state have benefited from the higher level of targeted extension outreach in the form of on-farm consultations, on-farm demonstrations and regional field days. This work has been backed up with ongoing university research into variety selection and production system improvements.

As new production has occurred, KDA has promoted Kentucky grown products through the Kentucky Proud branding campaign. KDA has also offered tradeshow promotional assistance, producer directories and cost-share funds for tradeshow booths and advertising. The comprehensive approach to industry development funded by the KADF has had a significant positive impact on the horticulture industry in Kentucky particularly on the produce industry.

Produce – Kentucky’s produce cash receipts rose 48%, while they increased 37% nationally and by 31% in Tennessee during the period 2008-2014. Kentucky’s produce industry is growing and the implications are the KADF funded projects, particularly the Horticulture Council and the Kentucky Grape and Wine Council investments, are having an impact. Other projects affecting the produce industry in Kentucky are the popularity of community farmers markets, many of which have received KADF money to build or expand covered shelters for vendors on sale days and develop produce auctions in several parts of the state for wholesale sales. Approximately half of Kentucky produce farms participate in some form of direct-to-consumer marketing. The Amish and Mennonite communities have developed several produce auctions into significant outlets for wholesale produce sales.

Grapes and Wine – The grape and wine horticulture subsector has been a focus of investments by the KADB. The Kentucky Grape and Wine Council (KGWC) and the Kentucky Vineyard Society received a total of \$805,000 in grants for grape and wine comprehensive programming over the period.

There has been steady growth in the number of wineries in Kentucky but not a corresponding growth in wine grape production. In 2007, Kentucky was estimated to have 600 to 700 acres of grapes and 44 licensed wineries. This was a substantial growth from the eight licensed wineries operating ten years before that. Since 2007, the number of licensed wineries has continued to climb (73 in 2013) but wine grape production has not grown at a commensurate rate, remaining near the 2007 level. The availability of both wine and grape production, on-farm consultations and educational workshops, coupled with university research trails to identify the best grape varieties and production practices has been instrumental to opening up opportunities for new business start-ups in wine making and in grape growing. Clearly there are opportunities to expand wine grape production in order to supply the growing number of wineries in the state. KDA reported there were 200 grape growers growing 600 acres of grapes in Kentucky in 2013. The average vineyard size is 3 acres. Wine grape production could be done on a larger scale in order to supply Kentucky wineries with Kentucky grown grapes.

The overall purpose of the KGWC is to create a comprehensive program to support and expand the emerging Kentucky grape and wine industry. The KADF award was used to hire a viticulturist and an

enologist (wine making specialist) to work directly with grape growers and wine makers to help them be successful in a new industry. An organization director to coordinate the council activities and carry out promotional activities was also hired. Additional funds were used for grape production research and variety trials completed by the University of Kentucky.

Nursery/Greenhouse Crops – The Horticulture Council provided on-farm consulting to new and existing nursery producers by contracting with the University of Kentucky to supply Cooperative Extension associates to extend research-based knowledge directly with on-farm demonstration plots for new varieties and production techniques. The Extension associates also conducted farm visits to assist with problem solving related to disease and other production issues. Additionally, the Horticulture Council funded new nursery production system research, such as biodegradable pouches to grow nursery stock, the pot-in-pot system of tree production and a prototype new irrigation controller. KDA provided marketing assistance with tradeshow promotions and cost-share for participating growers. The Kentucky nursery industry has benefited from these programs. As the overall economy improves, this sector of horticulture should be able to capitalize on opportunities for growth.

Total Sector Impact – Approximately \$8.7 million was invested in the horticulture-related projects that were analyzed. Both the fruits and nuts subsector and the vegetable production subsector saw significant growth. However, the nursery industry which comprises the largest subsector of Kentucky horticulture did not experience growth (see Figure 1.11). This effectively reduced the ROI estimate since cash receipts from the largest horticulture subsector grew at only a 3% rate from 2008 to 2014. In contrast, fruit and nuts cash receipts grew at a 54% rate and vegetable crops at a 67% rate over the same time period (note figures are from 2008-2014 due to fruit and nut crops having an abnormally low return in 2007, probably due to weather).

Evidence of Positive Impacts on Kentucky's Horticulture Industry:

1) The KADF investments have clearly had a positive impact on Kentucky's horticulture industry. The 13 horticulture-related projects generated an estimated \$10.5 million in additional farm income in relation to the \$8.7 million in KADB funding, resulting in a return of \$1.20 for every \$1 of KADF invested. This estimate is conservative and could be much higher in coming years as the nursery businesses increase production and sales when the economy improves and the housing market recovers.

Moreover, Kentucky horticulture sales have risen about 8% annually during 2007-2014. In discussion with the Expert Group and others, it was considered reasonable to assume slightly less than 50% of the growth in cash receipts over the period are directly attributable to the impact of the KADB investments in horticulture. This amounts to approximately \$10.5 million in new farm income over the period and a ROI of \$1.20 per \$1 of KADF invested.

2) Overall, several successful investments have been made in the horticulture sector. The Horticulture Council has had the largest effect on the industry as a whole. This comprehensive approach to industry development has succeeded by providing on-farm technical assistance, up-to-date production research,

marketing and advertising assistance, all focused on helping new and existing growers produce quality products and open new markets.

The past effort to develop produce marketing co-ops and a nursery cooperative were successful in training new horticulture producers and opening new markets for Kentucky horticulture. Continued efforts in market development and comprehensive technical assistance to the nursery and produce industries will develop additional opportunities for Kentucky agriculture. Over half of Kentucky produce farms are involved in some type of direct marketing venue. There are more opportunities with wholesale marketing to restaurants, institutions and retail grocers. Additional opportunities may be available in wine grape production on a larger scale as well as fruits and vegetables for local wholesale and direct market sales. Continued efforts to expand the horticulture sector are warranted.

Education, Leadership and Technical Assistance Sector

Nearly \$5.5 million have been invested in education, leadership and technical assistance projects across the Commonwealth. The UK Evaluation Team visited, collected data, and assessed four large projects, four medium-sized projects and two small projects as listed in the Table 1.16 below.

Table 1.16. Site Visited KADB Education and Leadership Related Investments, 2007-2014.

Recipient	Project Description	Award	Year(s) Awarded
KCARD - Kentucky Center for Agriculture and Rural Development	Business and entrepreneurial support	\$1,479,000	2008, 2010, 2013
KALP - UK Research Foundation	Agriculture leadership development course	\$1,000,000	2008
Center for Sustainability of Farms and Families - Kentucky State University	Small farmer grants, organic farming and aquaculture research	\$998,000	2012
UK Entrepreneurial Coaches Institute	Entrepreneur development program	\$883,545	2007
Food Innovation System – UK Research Foundation	Value added food product laboratory and development center	\$358,904	2009
Computers for Farmers - KCTCS	Computer and software training for farmers	\$267,757	2007
Kentucky Agricultural Council	Industry development and strategic planning	\$200,000	2008
Center for Crop Diversification – UK Research Foundation	Web-based crop diversification and marketing information resource	\$113,347	2013
Food Technology Lab – Morehead State University	Community commercial kitchen development	\$90,000	2013
Murray State University	Educational arboretum construction	\$80,000	2007
TOTAL		\$5,470,553	

The education, leadership and technical assistance sector do not provide impacts in the same way as the other key sectors. They do not typically have a direct impact on farm income, sales, production or marketing. However, they provided the highest impacts across all sectors on other important outcomes, such as new businesses created and providing innovative solutions to major problems. In addition, the project goals are consistent with the investment priorities of the KADB.

The education and leadership expert group meeting took place on October 13, 2015. Seven experts with very diverse agricultural backgrounds and positions were present to discuss nine projects awarded \$5,470,553. The projects were discussed in descending order of monies awarded starting with Kentucky for Center of Agricultural Development. The group agreed KADF investments in education and leadership were successful because they encouraged people gifted in their field, strengthened diversification avenues, initiated new collaborative efforts, and helped individuals or groups overcome hurdles leading to increased net income working within Kentucky agriculture.

The Kentucky Center for Agriculture and Rural Development (KCARD) has become the primary contact point for majority producer-owned agribusiness development in Kentucky. They were awarded funds for five KADB investment projects to provide services within four programmatic areas: business development support, business maintenance, education and training, and KCARD Administration. In addition, they developed a new agribusiness grant facilitation program.

KCARD has been offering business solutions through technical assistance for the past 12 years as a non-profit organization. They currently maintain a diverse client base of over 250 producers, businesses and organizations in 66 Kentucky counties. KCARD has a proven track record for agribusiness clients documenting a business success rate of 83%. In addition, they are recognized by their peers nationwide for the capabilities and expertise through the Business Management and Operations Analysis Program.

KCARD has been a resource of information and guidance to numerous producers and entrepreneurs throughout the state. KCARD has also consulted with producer assistance organizations, such as The Kentucky Dairy Development Council, Louisville Farm to Table, and Kentucky Horticulture Council and many others. KCARD also provides the business and entrepreneurial support needed to develop and grow a wide diversity of new or expanded agricultural ventures by one-on-one consulting services, management audits, feasibility studies, business plans, grant writing and board of director training. KCARD has proven to be an essential resource for Kentucky agricultural entrepreneurial and diversification efforts.

The University of Kentucky Research Foundation received an award for \$1 million to establish an endowment for the Kentucky Agricultural Leadership Program (KALP). KALP is a two year program designed to prepare participants to accept leadership responsibilities in agriculture, agribusiness, and rural communities, broadens understanding of major policy issues, facilitates participant collaboration with other professionals and encourages lifelong learning and development.

KALP has graduated 10 classes, producing 271 leaders from 69 different counties in Kentucky. In the spring of 2015, they were the recipient of Kentucky Association of State Extension Professional (KASEP)

Outstanding Program Award. The award is given to an outstanding extension program developed and implemented by KASEP members for a period exceeding three years.

Funding was also awarded to Kentucky State University (KSU), an 1890 land-grant university with a tradition of research and extension focused on small farms. The University's Center for Sustainability of Farm Families project was funded in 2012 to foster development and improve profitability of tobacco-dependent small farms, minority farmers and limited resource farmers within the Commonwealth. Matching funds were provided by a \$2.5 million dollar USDA grant to build a conference center at the KSU Research Farm in Frankfort, Kentucky.

The University of Kentucky Research Foundation was approved for \$883,545 in state funds to fund the Kentucky Entrepreneurial Coaches Institute for two eighteen month courses. The purpose of this project was to train coaches to assist entrepreneurs in tobacco-dependent counties establishing new businesses. In total, just over 100 coaches graduated from KECI.

The University of Kentucky also received funding for the development of the Food Systems Innovation Center (FSIC). The FSIC was created to assist processors, producers and entrepreneurs to maximize their market capabilities by having access to the UK's technical and business expertise. MarketReady was honored with the 2012 National Food MarketMaker Innovation Award for Education, Research and Outreach.

The Kentucky Community and Technical College System (KCTCS) Foundation was approved for \$269,757 for the continuation of computer training for tobacco farmers. The 18 month program was used to teach farmers how to effectively use computer technology to communicate through email, keep financial records, track inventory and livestock records, and conduct research on new marketing techniques to improve their business records and profit.

The Kentucky Agricultural Council is a non-profit corporation formed to institute the recommendations put forth in *A Pathway for Kentucky's Agriculture and Its Rural Communities: 2007-2012 Strategic Plan*. Unfortunately, there were not adequate resources devoted to the continuation of this group for the coordination of the plan and the execution of prioritized strategies. However, many of the goals outlined and the partnerships fostered over two years are being utilized today by agricultural leaders in the Commonwealth.

The University of Kentucky's Center for Crop Diversification (KCCD) was awarded \$113,347 to expand web-based marketing and production resources for information available to Kentucky farmers looking to diversify their operations. The personnel associated with KCCD developed new training and information resources for organic, sustainable and conventional production. They expanded existing resources to include online podcasts, webinars, video training, web-based market training, and developed direct market/social media best practices.

Murray State University received an investment from the KADB to help construct an arboretum to serve as an outside classroom, research laboratory, a community garden, recreation area, and house special events. Morehead State University received an investment for the construction and development of a

food technology laboratory for use by students at Morehead State, Maysville Community and Technical College as well as the public

Marketing and Promotion Sector

Table 1.17 details the five projects evaluated in the marketing and promotions category with awards totaling \$9.4 million.

Table 1.17. Marketing and Promotion Related Investments 2007-2014.

Recipient	Project Description	Award	Year Awarded
Kentucky Department of Agriculture	Kentucky Proud Program	\$8,725,037	2008, 2010, 2012
Louisville/Jefferson County Metro Government	Louisville Farm to Table Program	\$330,000	2009, 2011
Rebekah Grace Food and Supplements for Life	Regional food marketing and distribution	\$250,000	2008
Media Working Group	Film production	\$50,000	2008
Gateway Regional Agritourism Association	Agritourism	\$50,000	2008
TOTAL		\$9,405,037	

The largest investment in this sector was funding for the Kentucky Department of Agriculture (KDA)'s Kentucky Proud program of marketing assistance and state branding efforts. The KDA received three separate grants totaling \$8.7 million. The funds went towards the promotion of the Kentucky Proud statewide program. The Kentucky Proud marketing program has five components: Point of Purchase Cost-Share Grants (POP), Restaurant Rewards Incentive Program, branding and advertising campaigns, tradeshow cost-share grants, and cooperative retail projects.

The focus of the Kentucky Proud branding effort is to create consumer demand for Kentucky grown or produced agriculture products. The KDA works directly with retail stores and special event coordinators to highlight Kentucky Proud products. The KDA also promotes the Kentucky Proud program in a statewide media campaign to gain consumer awareness of Kentucky produced food and agriculture products. The Kentucky Proud Program has grown in recognition and popularity since the initial funding for this project at the start of the KADF in 2000.

Some of the accomplishments of the Kentucky Proud program include the growth in membership over time. In 2007 there were approximately 1,035 Kentucky Proud members (producers qualified and licensed to use the logo), and today there are over 3,300 Kentucky Proud members. This represents a membership growth of 219%. Additionally, there have been new products developed that focused on their Kentucky origins including Udderly Kentucky Milk, Kentucky Proud Chicken, Preferred Popcorn, Kentucky wines and numerous Kentucky Proud labeled specialty foods items. As last reported, there are 150 specialty food shelf stable items sold in Kroger stores in a designated Kentucky Proud display.

The expert meetings and project interviews indicated a concern that the Kentucky Proud program may have diluted the effectiveness of their brand by not requiring a product be made with a majority of Kentucky-grown ingredients. Currently a product can be labeled with the Kentucky Proud logo if it is made within the state, regardless of whether the ingredients are Kentucky grown. Yet, there are examples of 100% Kentucky-produced products, including Udderly Kentucky Milk, Kentucky Proud Chicken, locally produced meats and produce. A four-star certified rating system that gives a higher score for an all in-state product could provide a boost to consumer interest in the label and add confidence in the Kentucky Proud brand.

Furthermore, the Restaurant Rewards Program (RRW) has been a successful stimulus to increase purchases of locally grown foods by restaurants (meat and produce). The program offers up to a 20% cost-share reimbursement to restaurants purchases of documented Kentucky grown meats and produce. An estimated \$2.9 million dollars of locally produced food has been marketed due to this program during the eight year evaluation period. In addition to stimulating sales, the RRW program provides a venue for producers to meet restaurant food buyers and establish a relationship to learn more about supply and demand capabilities of each. The monetary incentive accomplishes this without the need for coordination beyond the administration of the cost-share program itself.

Kentucky Proud Impact

Estimated farm income generated for the eight year period is \$25.6 million, representing an ROI of \$2.94 for every \$1 of KADF investment. The farm income estimate was derived from known income generated and then an estimate of the income generated from the media campaign. The known income generated includes RRW sales of \$2.9 million plus \$1.2 million awarded in tradeshow cost-share funds for producer participation and \$300,000 in Udderly Kentucky Milk premiums earned by participating farmers and specialty foods sales at Kroger stores. The broad media campaign was estimated using the ROI figure of \$3.19 that was developed in the last KADF evaluation for the Kentucky Proud statewide branding program. The \$3.19 figure was multiplied by \$6.6 million spent on media and promotional advertising, yielding an estimated \$25.6 million in farm income generated by the Kentucky Proud program. This is a conservative estimate using available information. Retail grocer promotional efforts were difficult to measure because sales information was mostly not available.

The second largest marketing and promotion focused project was the Louisville Farm to Table (LFTT) program, which was funded \$330,000 in several grants starting in 2010 (this includes on-going program funding for 2015). The LFTT funded a marketing liaison consultant to develop new marketing channels for local food producers to sell into the Louisville Metro area. New markets and marketing links were established with institutional buyers and independent restaurants. New farm income of \$3.2 million in local food sales was documented by the project, making the LFTT project the highest return on investment per dollar of KADF money spent—\$9.70 of farm income per \$1.00 of KADF invested.

The LFTT's ROI is a remarkable achievement considering the institutional barriers encountered when trying to match local food producers with large institutions with rigid requirements for volume, safety, and price. Discussions in our expert meetings and interviews brought out a general conclusion that Kentucky agricultural producers have hit a ceiling trying to sell to institutional markets, national

distributors and traditional grocery chains. Institutional buyers are often obligated to national suppliers who contract in advance of sales guaranteeing a price based on a promised volume of sales. This makes it difficult for new and especially lower volume suppliers to get in the game. However, the expert meetings also discussed how the burgeoning local food movement and recent commitments by Kentucky universities may present opportunities to capitalize on institutional markets for Kentucky farm products.

Overall, the KADF marketing projects evaluated generated almost \$28.9 million in estimated total farm income over the seven year period, or \$3.07 per \$1.00 of KADF invested, the highest ROI of all the sectors funded. However, there is a cautionary tale as well. The Rebekah Grace Food & Supplements for Life, LLC project was funded to serve as a marketing outlet and distributor for Kentucky Proud local products. The company developed cash flow problems and subsequently ceased operations. Unfortunately some farmers suffered financially from the situation.

Grain and Forage Sector

Almost \$3.1 million was invested in grain and forage crop related projects as detailed in Table 1.18.

Table 1.18. Grain and Forage Related Investments 2007-2014.

Recipient	Project Description	Award	Year Awarded
Meade County Riverport Authority	Regional port facility construction	\$2,000,000	2013
Kentucky Forage and Grassland Council	Biomass and hay production research and demonstration	\$581,972	2007
Commonwealth Agri-Energy, LLC	Cost-saving energy upgrade	\$220,000	2010
UK Research Foundation - Princeton	Grain crops research	\$125,667	2010
Non-Profit Dynamics, Inc.	Feral hog control	\$55,782	2011
Bracken County Agriculture Advancement Council, Inc.	Biofuel pellet mill feasibility study	\$35,000	2011
Kentucky Corn Growers Association	Corn growers educational workshops	\$35,483	2007
Kentucky Specialty Grains	Chia production feasibility and market development	\$33,850	2012
TOTAL		\$3,087,754	

Three projects related to grain were funded: a new river port terminal for grain, an in-depth series of educational workshops for corn growers and an energy efficiency project for a farmer-owned ethanol manufacturing plant. Forage crops have gained importance to support the beef, dairy, sheep and goat industries as those enterprises have grown. In Meade County, KADF funding helped create a River Port Authority, which was the catalyst for the development of a new grain buying and barge loading terminal

on the Ohio River. The resulting new market for local corn and soybean production offered a significant transportation savings for local farmers as they haul their crops to a closer location for sale. The grain and forage investments generated an estimated total farm income of over \$1.7 million, resulting in an estimated \$0.56 return on \$1.00 of KADB funding. The low ROI was the result of both the large research project on switchgrass as a biofuel alternative energy source that did not reach the income generation stage, and the River Port project which required a large investment and only had one year to generate farm income results. The port is a longer term project that is expected to generate additional farm income in the future.

Project Performance Rankings

The projects evaluated represent a broad array of investments with widely diverse goals and activities. Projects included large and small capital-intensive value-added processing facilities by Specialty Food Group, Marksbury Farm Foods, Webb's Butcher Block, Dossey Vineyards, and The Chop Shop. Technical assistance, education, and marketing assistance for farmers was brought to Kentucky producers through the Kentucky Horticulture Council, The Beef Network, The Dairy Development Council, the Kentucky Center for Agriculture and Rural Development, the Food Systems Innovation Center, the Kentucky Sheep and Goat Development Office, The Center for Sustainability of Farm Families at Kentucky State University and others. Infrastructure construction for establishment and expansion of local and national markets such as Meade County Riverport, Beaver Dam Farmer's Market, Logan County Farmer's Market, Hart County Chamber of Commerce and Whitley County Farmer's Market, and numerous others stretched broadly across the state.

The UK Evaluation Team developed a system to rate the performance of 54 interviewed projects.¹ Each project was rated based on activities initiated, goals achieved, evidence of positive impacts and sustainability by utilizing data from the survey and the expert group discussions. Table 1.19 presents the ratings given to the 54 interviewed projects by the UK Evaluation Team.

The UK Evaluation Team found very few projects that were considered underperforming. The UK Evaluation Team was aware there is a timeframe consideration in the emergence of outcomes. The KADF has not been in existence long enough to determine the final or long term impacts of many of the projects. This rating system should be considered "fluid," recognizing the dynamic nature of the investments and potential outcomes on Kentucky agriculture. The reader should consider this evaluation as a snapshot of activities and progress in the spring and summer of 2015.

¹ One project, Rebekah Grace Food & Supplements for Life, LLC, is included in this ratings table but did not complete a survey. On the other hand, Pennyrile Area Development District completed a survey for a marketing and promotion project but is not included in the ratings table as the project was not yet finished. Finally, the Kentucky Vineyard Society completed a survey but is put together with the Kentucky Grape & Wine Council in the ratings table. These explain why the UK Evaluation Team looked at 55 survey responses and rated 54 projects.

Table 1.19. Project Ratings on Goals and Impacts (based on site visits in Summer 2015)

Rating	Award Recipient	Project Description	Award
*****	The Kentucky Beef Network	Cattle Industry Development	\$7,090,931
*****	KY Dairy Development Council	Dairy Industry Development	\$3,796,448
*****	Kentucky Center for Agriculture & Rural Development (KCARD)	Business & Entrepreneurial Support	\$1,479,000
*****	KY Ag Leadership Program	Agriculture Leadership Development Course	\$1,000,000
*****	UK Research Foundation - Food Systems Innovation Center	Value-Added Food Product Laboratory & Development Center	\$358,904
*****	O'Bryan Grain Farm	Innovative Hog Production Facility Construction	\$352,155
*****	Louisville Metro - Farm to Table	Regional Food Systems	\$330,000
*****	KY Association of Food Banks	Food Distribution & Commodity Purchasing	\$302,000
*****	Kentucky Sheep and Goat Development Office	Sheep and Goat Industry Development	\$185,000
*****	Marksbury Farm Foods, LLC	Value-Added Meat Processing	\$175,000
*****	Webb's Properties, LLC	Value-Added Processing	\$125,000
*****	Dossey Vineyards, LLC	Processing, Storage, & Handling Facility Expansion	\$52,000
****	KY Dept. of Agriculture	KY Proud Program	\$8,725,037
****	KY Horticulture Council	Horticulture Industry Development	\$6,882,023
****	Meade County Riverport Authority	Construction of Regional Port Facility	\$2,000,000
****	KY State University	Small Farmer Grants, Organic Farming, & Aquaculture Research	\$998,000
****	JD Country Milk	Milk Processing Facility Expansion	\$487,982
****	Kentucky Horse Council	Comprehensive Statewide Equine Survey Publication	\$300,000
****	UK Research Foundation - Center for Crop Diversification	Web-based Crop Diversification & Marketing Information Resource	\$113,347
****	Trunnell's Farm Market, Inc.	On-Farm Retail Facility Construction	\$74,553
****	Kentucky Corn Growers Association	Corn Growers Educational Workshops	\$35,483
****	Kentucky Specialty Grains, LLC	Chia Feasibility & Market Development	\$33,850
****	KY Grape & Wine Council	Grape and Wine Industry Research and Extension	\$805,000
***	Kentucky Poultry Federation	Poultry House Energy Research	\$683,634
***	Kentucky Forage and Grassland Council	Biomass and Hay Production Research & Demonstration	\$581,972
***	Wolfe County Fiscal Court - The Chop Shop	Value-Added Meat Processing	\$350,000
***	The Weekly Juicery	Value-Added Facility Construction & Improvements	\$310,000
***	Commonwealth Agri-Energy, LLC	Cost-Saving Energy Upgrade	\$220,000
***	KY Agricultural Council	Strategic Planning	\$200,000
***	Kentucky Pork Producers Association, Inc.	State Fair Cooking Facilities	\$164,900
***	Kentucky Goat Producers Association	Forage Research for Goat Production	\$154,748
***	UK Research Foundation- Princeton, Kentucky	Grain Crops Research	\$125,667
***	Owen's Garden Center	Retail Facility Construction & Expansion of Greenhouses	\$94,470
***	Murray State University - Arboretum	Arboretum Construction for Education	\$80,000
***	Harrison County Extension	Farmer's Market Pavilion Construction	\$75,000
***	Nonprofit Dynamics, Inc.	Feral Hog Control	\$55,782
***	Beaver Dam Farmer's Market	Farmer's Market Pavilion Construction	\$50,000
***	Logan County Farmer's Market	Farmer's Market Pavilion Construction	\$26,962
***	Hart County Chamber of Commerce	Farmer's Market Pavilion Construction	\$18,300
***	Mountain Cattlemen's Association	Farmer's Market Marketing	\$4,394
***	Whitley County Farmer's Market	Farmer's Market Pavilion Construction	\$1,809
**	Specialty Food Group	Meat Processing Equipment	\$1,008,140
**	UK KY Entrepreneurial Coaches Institute	Entrepreneur Development Program	\$883,545
**	The Beef Connection	Beef Production Data Management	\$500,000
**	Kentucky Community & Technical College System (KCTCS)	Computers & Training for Farmers	\$267,757
**	Morehead State University	Commercial Kitchen Development	\$90,000
**	Water Works Farm, Inc.	Free Range Poultry Production, Distribution, & Management	\$87,000
**	The Campbell Farm Wool Art Center, LLC	Agri-Tourism	\$50,000
**	Media Working Group, Inc.	Film Documentary	\$50,000
**	Gateway Regional Agri-Tourism Association, Inc.	Regional Marketing Effort	\$50,000
**	Bracken County Agriculture Advancement Council, Inc.	Biofuel Pellet Mill Feasibility Study	\$35,000
**	Kentucky Cattlemen's Association	Large Animal Veterinarian Incentive	\$1,000,000
*	Rebekah Grace Food & Supplements for Life, LLC	Regional Food Marketing & Distribution	\$250,000
*	South Kentucky Rural Electric	Beef Processing Plant Feasibility Study	\$130,000

- ***** All goals accomplished; evidence of sustained positive impacts; indications that benefits are greater than ADB investment.
- **** All goals accomplished; clear, documented positive impacts.
- *** Most or all goals accomplished; evidence of positive impacts.
- ** Most or all project activities or goals attempted; limited evidence of positive impacts.
- * Few or no goals accomplished; no impacts.

County-Only Funded Projects

A portion of Kentucky Agricultural Development funds is allocated for county-level spending to fund local agriculture development efforts. Each county that receives funds has a County Council composed of local agriculture leaders with assistance provided by Cooperative Extension personnel. Most of the county Agricultural Development Funds are invested in a menu of programs called County Agricultural Investment Program (CAIP). The CAIP program will be discussed in the next chapter of this report. The County Councils can also allocate money for projects of particular interest in their area. A smaller portion of the total county directed KADF money has been spent on projects that did not include any state KADF investment, only county KADF money. The UK Evaluation Team did not include the county only funded projects in the sample of projects that were evaluated in depth. However, the UK Evaluation Team did collect information from the GOAP on the projects funded with county-only money and sorted the projects into categories describing the use of funds. Figure 1.13 depicts the types of projects funded with county-only KADF money, which sums to over \$5.7 million.

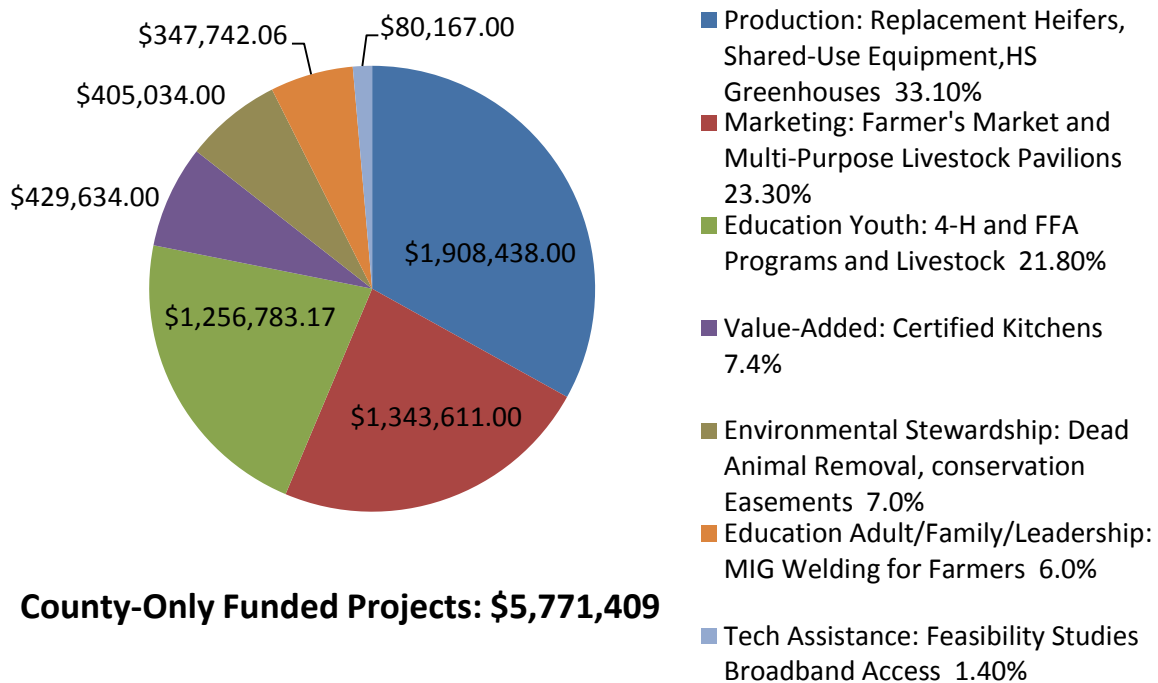


Figure 1.13. County Funded Projects, 2007-2014.

The largest category funded was for projects related to production agriculture. These projects were mostly for beef replacement heifer development programs, and beef cattle related cost-share programs that included a marketing component like the CPH-45 program.

The second largest category was for marketing related projects. Most of these projects were for either construction or improvements to community farmer's market facilities or multi-use livestock facilities for sales and livestock shows. Other county-funded marketing projects included money to support food bank purchases of locally grown produce, a local food marketing and policy coordinator for Fayette County, and an aquaponics project.

Another significant category went toward youth-oriented projects that tended to focus on high school greenhouses, school farms, and FFA and 4-H livestock handling facilities, youth production agriculture cost-share funds and youth heifer chains. Other projects included commercial kitchens for use in agritourism on-farm facilities and certified kitchens for community use to make shelf stable food products for direct market sales were the most popular projects funded. Additionally, county-only funds were used for feasibility studies, adult courses in welding, dead animal removal services and farm land conservation easements.

Conclusions

1. The KADF investments in projects have had a significant positive impact on agriculture and agribusiness. From 2007 to 2014, the \$42.3 million invested has resulted in an estimated \$86 million in additional farm income. On average, every \$1.00 invested from the KADF in projects resulted in \$2.03 of additional farm income.
2. The KADF succeeded in diversifying Kentucky agriculture away from a dependence on tobacco production. The beef, poultry, dairy, swine, grain, produce, sheep, wine and grape industries have all grown and become more important for Kentucky agriculture. The KADF is a successful program that continues to create diversified opportunities for Kentucky farms and farmers.
3. Since the beginning of the KADF, there has been an emphasis on providing assistance to farmers with a history of tobacco production. This was in response to the deregulation of tobacco production and the decreased reliability of tobacco as an income-generating enterprise for a broad section of Kentucky farms. Today, the KADF has succeeded in bringing other enterprises to the forefront. In light of this fact, tobacco production history should not be a significant factor in KADF program requirements.

Recommendation: In order to continue the diversification and expansion of Kentucky agriculture, KADF funding should become available to farmers equally. Additional application points and increased loan amounts based on past tobacco production present an uneven playing field which may be hindering growth in non-tobacco enterprises. Scoring system for the KADB Project applications, the CAIP Program cost-share grants, and the KAFC loan regulations should be revised so that one type of farming (or history of farming) is not favored over another.

4. "Is Kentucky agriculture ready to take things to the next level?" was a question that emerged in more than one expert meeting. There have been strategic planning processes undertaken for Kentucky agriculture by several different organizations including the GOAP and the Kentucky Agriculture Council; however, the execution of these plans was not evident, primarily because there was not a single entity responsible or funded to implement the identified strategies.

Recommendation: The Kentucky Agriculture Council, or a similar umbrella group, should coordinate the creation of an overall strategic plan, ensuring appropriate input from stakeholders, and employ paid staff to follow through to implementation. An Executive Director may be able to provide the focus and follow through for this endeavor.

5. Kentucky agricultural producers have hit a glass ceiling trying to sell to institutional markets, national distributors and traditional grocery chains. There is a pivotal opportunity now to capitalize on new markets for Kentucky farm products. These new market channels could include large institutions like universities, hospitals, schools, etc. For the KADF to help develop these markets, it must recognize that infrastructure is not the sole answer. As marketing locally produced food to mainstream institutional markets has been challenging, money invested to hire good people to work on the problem may be a reasonable investment.

Recommendation: The KADB should consider funding projects that include reasonable salaries for qualified people to build new markets and coordinate opportunities for farmers to reach consumers through innovative market channels.

6. KADB has regularly funded organizations that take a comprehensive approach to developing specific sectors of agriculture. Examples include the Beef Network, the Dairy Development Council, the Horticulture Council and the Sheep and Goat Development Office. Great strides have been made in these sectors by offering production and management education, combined with on-farm consultations, practical research, CAIP cost-share programs and targeted marketing opportunities.

Recommendation: Continue to fund coordinated multi-faceted projects that affect targeted sectors of Kentucky agriculture. However, because their outcomes are complex, the KADF should implement more rigorous monitoring and evaluation to better measure the impacts of these organizations' diverse programming.

7. The expert meetings and project interviews indicated a concern that the Kentucky Proud program may have diluted the effectiveness of their brand by not requiring a product be made with a majority of Kentucky-grown ingredients. Yet there are examples of 100% Kentucky-produced products, including Udderly Kentucky Milk, Kentucky Proud Chicken, locally produced meats and produce. A rating system that gives a higher score for an all in-state product could provide a boost to consumer confidence in the label and add confidence in the Kentucky Proud label.

Recommendation: A four-star certified rating system should be considered. A product that is born, raised, processed and marketed by a Kentucky company would earn a 4 star while a product made in Kentucky but not with Kentucky ingredients earns 1 star.

8. The Restaurant Rewards Program (RRW) has been a successful stimulus to increase purchases of locally grown foods by restaurants (meat & produce). An estimated \$2.9 million dollars of locally produced food has been marketed during the eight year evaluation period. In addition to stimulating sales, the RRW program provides a venue for producers to meet restaurant food buyers and establish a relationship to learn more about supply and demand capabilities of each. The monetary incentive accomplishes this without the need for coordination beyond the administration of the cost-share program itself.

Recommendation: Continue the RRW program and consider developing other incentive-based program, such as a grocer's rewards program and a school lunch rewards program.

9. The current project funding approach of the KADB provides very little direction to potential applicants about what types of projects could be funded, the amount of funds available, or any specific areas of interest that the Board would like to see proposals to address. A Request-For-Proposal (RFP) approach would more clearly delineate the opportunities available through the KADF and the application process.

Recommendation: The KADB should consider publicizing the availability of KADF grants with an RFP approach that identifies the types of proposals the KADF would consider, available funding, and any special areas of interest the Board would like to address. Furthermore, the KADB should carefully define which projects are eligible for grants versus loans.

10. In evaluating the project and program records the GOAP has collected, the evaluators noticed that some of the required reports, including annual reports, do not have enough summary information to quantify the impacts of the program. In some cases the GOAP required form does not specifically ask for the information needed or the applicant did not provide the information even when asked.

Recommendation: Provide funded projects with a standardized spreadsheet that clearly identifies the items that need to be summarized and reported on annually. The matrix provided should offer a way to estimate the return on investment for the KADF money. No project final reports should be accepted if they are incomplete. (A sample spread sheet that could be used to record project impacts annually is included in the appendix).

CHAPTER 2: KADF Programs

KADF has funded several state-level and county-level programs. Table 2.1 summarizes investments made in KADF programs between 2007 and 2014. Data on County Agricultural Investment Programs (CAIP) were derived from aggregated data for each approved award, while data detailing other programs were provided directly from the Governor’s Office of Agricultural Policy (GOAP).

Table 2.1. KADF Program Statistics, 2007-2014.

KADF Programs	Investments	Awards	Average/ Award	Investment distribution		Counties
				%	Rank	
County Agricultural Investment Program (CAIP)	\$106,460,981	61,038	\$1,744.18	86.47%	1	108
Kentucky Agricultural Relief Effort (KARE)	\$10,918,948	118	\$92,533.46	8.87%	2	118
On-Farm Energy	\$3,674,707	361	\$10,179.24	2.98%	3	61
Shared-use Equipment	\$1,389,645	119	\$11,677.69	1.13%	4	50
Deceased Farm Animal Removal (DAR)	\$669,353	126	\$5,312.32	0.54%	5	49
TOTAL	\$123,113,634	61,762				

CAIP comprised 86% of KADF program funding between 2007 and 2014. As this comprises the vast majority of funding, CAIP is the primary focus of the evaluation and is discussed more below.

The Kentucky Agricultural Relief Effort (KARE) program was the second largest initiative accounting for 9%. Two notes about the KARE program: 1) While KARE was technically a county cost-share program, it was kept separate from CAIP because it was a one-time initiative offered in 2008 to help farmers recover from the previous year’s poor weather conditions, and 2) Investments were awarded to the counties themselves and then distributed to producers within the county explaining why the average amount per award is significantly higher than other programs.

The On-Farm Energy program has invested over \$3.6 million in Kentucky farms to provide incentives for making energy-efficiency improvements for existing equipment or facilities. Through 2014, 361 on-farm energy efficiency grants were awarded in 61 distinct counties. Grants were provided directly to farm operations and required a 50/50 match. As energy efficiency investments often require high upfront costs that take many years to recover, this program is an effective use of state funds that helps to increase the sustainability of agricultural production on family farms.

The Shared-Use Equipment program has invested over \$1.3 million in purchasing eligible equipment that impacts a large number of producers who cannot individually take on full ownership expenses. Through 2014, 119 shared-use equipment grants were awarded in 50 distinct counties. These grants were administered to a local organization and required a 50/50 match. The program is an important resource to introduce new forage production techniques and livestock management practices. Purchasing

specialized new equipment can be cost prohibitive. Because these funds allow producers to utilize equipment that they would not be able to purchase otherwise, these grants have been highly successful in helping Kentucky farmers. The UK Evaluation Team considered this an excellent use of state funds for agricultural development.

The Deceased Farm Animal Removal (DAR) program has invested over \$600,000 in facilitating the coordination of environmentally and economically sound disposal of deceased livestock for Kentucky producers. Through 2014, 126 DAR grants were awarded in 49 distinct counties. These grants were administered to a local government agency, provided up to \$7,500 in funding, and strongly encouraged—but did not require—producer contribution and regional coordination. Given that improper disposal of deceased livestock often has negative environmental externalities, this program can help prevent economic damage that reaches beyond an individual farm. Thus, this is an effective program that adds value to Kentucky agriculture and natural resources.

CAIP Investments

The primary focus of the evaluation of the KADF programs focused on CAIP Investments. The section starts by summarizing the CAIP expert panel meeting. It then describes the methodology and data used to examine the KADF program. It provides an assessment of CAIP investments overall, then by program area, and finally by county.

Expert Panel Meeting

The UK Evaluation Team hosted a meeting with 11 experts of the CAIP program. Overall, participants of the CAIP expert meeting agreed that KADF has positively impacted Kentucky agriculture by increasing safety in livestock handling methods, changing Kentucky farmers' perceptions of profitable opportunities, encouraging best management practices, protecting natural resources and diversifying Kentucky agriculture. When asked what could be improved about the CAIP programs, experts concurred that the application process needs to be more transparent and should be more inclusive. Some contended that the CAIP scoring system puts many groups at a disadvantage, including beginning farmers, young farmers, part-time farmers, and non-priority groups (e.g., small animal producers). For CAIP to become more inclusive, county councils must also change their mindset about CAIP money being strictly for tobacco producers and full-time farmers. Further insights from the expert meeting are incorporated into the analysis and interpretation of the CAIP data below.

Methodology and Data

CAIP data were compiled from program reports completed by producers or farm representatives often assisted by county Cooperative Extension agricultural agents. These reports were submitted electronically to and compiled by the GOAP using Microsoft Excel. The UK Evaluation Team obtained these data to conduct the analysis.

The CAIP reporting system had two large overhauls in the evaluation timeframe. In reporting from 2007 and 2008, data for previously name "model programs" were collected on each award recipient's name, farm serial number, and county along with the dollar amount of the CAIP investment and producer match. Then in 2009, the reporting system was expanded to also collect output measures specific to

each program area. As a result, each program's data was kept in a separate workbook with a distinct spreadsheet per year. These data measures and input procedures were made more consistent starting in 2013; while this removed some of the program-specific output reporting, it allowed all CAIP reports to be compiled in one workbook. This streamlining of the CAIP reporting system was a recommendation from the previous evaluation and should be continued.

CAIP program areas were also redefined during each reporting overhaul. For example, dairy was considered its own "model program" in 2007. In 2009, it was grouped in a CAIP program area called Cattle, Poultry, Dairy, and Swine (CPD&S). Then in 2013, cattle and dairy awards fell under the CAIP Large Animal program area, while poultry and swine were included in CAIP's Small Animal program area.

These inconsistencies in the data complicated comparison in CAIP investments over time and between program areas. To compile these data into one dataset, the UK Evaluation Team decided to only keep information that was available for the majority of CAIP awards and thereby dropped program-specific output measures. Additionally, awards from 2007-2012 were reorganized in the most recent classification of CAIP program area by matching award descriptions and investment categories across different years. The result was a dataset representing 61,038 awards categorized by 10 CAIP program areas. Consistent measures across these awards were used to conduct the analysis.

The UK Evaluation Team has some concerns regarding the validity of the data, both in terms of accuracy and proper interpretation, which GOAP should seek to resolve to improve CAIP reporting in the future. For an example of inaccuracy in the dataset, consider that for 2.8% (1,695) of awards the reported total amount invested did not equal the sum of the CAIP investment and matching producer investment despite the fact that there was no other apparent funding source included in the total (this inaccuracy is corrected in the tables below).² This particular inaccuracy seemed to be correlated to county-level administration. While more than half of the counties reported inaccurate totals in less than 2.0% of awards, four counties had inaccurate report totals for more than 10.0% of their awards. This suggests that some counties may benefit from training in monitoring and administration. These and similar administrative errors can complicate monitoring and evaluation processes for the GOAP. The UK Evaluation Team acknowledges that it is very challenging to manage data on the scale of the CAIP programs and hopes to encourage the KADB to devote more resources to monitoring CAIP awards.

As for the issue of interpretation, the UK Evaluation Team is concerned that the primary evaluative questions asked of CAIP recipients—"Would you have made this investment without CAIP funding?"—has two opposing interpretations. If looked at as a measure of investment necessity, then a "Yes" is positive (i.e., the investment was a necessity, so without CAIP funding, the recipient would have eventually made the investment in some other way). However, if seen as a measure of value added by CAIP, then a "Yes" is negative (i.e., the investment would have happened anyways, so the CAIP funding could have been better spent elsewhere). Despite our concerns with interpretation, the results of this question are presented below. Moving forward, the UK Evaluation Team recommends that GOAP asks

² Technically, the ratio of actual total amount invested (i.e., the sum of the CAIP investment and producer match) to the amount reported was less or greater than one by 0.001. So this excluded cases in which the total amount was off by a couple cents and, in most cases, meant that the total amount was off by more than \$1.00.

CAIP recipients about the necessity of their investment for farm profitability and provides more possible responses to the question about the likelihood of investment without CAIP funding. For example, “What do you think would have happened to the investment if CAIP funding were unavailable?” with responses like “Completed with other funds in approximately the same time period; delayed for up to a year; delayed for more than a year; completed on a smaller scale; not have been undertaken.”

Overview of CAIP Investments

In total, the KADB granted over \$106 million in CAIP investments across more than 61,000 awards and 24,500 unique farms (i.e., farms with a unique farm serial number). Investments from CAIP were typically small, averaging \$1,744 per award. Producers were required to invest at least an equal amount, though the average award was matched 179% by the producer.

The KADF typically funds farmers who are committing more than 25 hour per week on the farm. Between 2009 and 2014, 17% of awards went to those committing less than 25 hours per week on the farm, and Figure 2.1 displays this trend over time. This percentage was nearly cut in half following 2009 and has remained significantly lower.

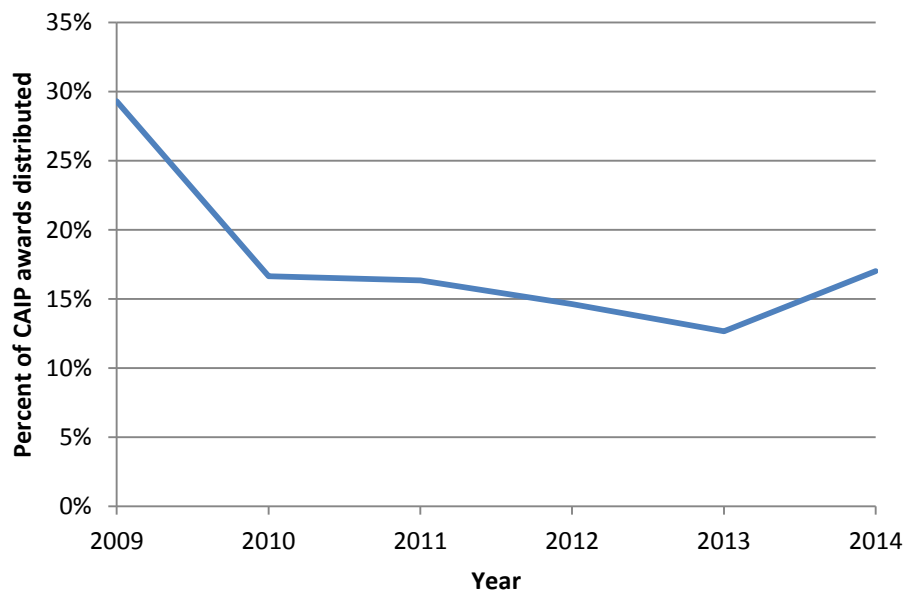


Figure 2.1. Percent of CAIP awards for recipients committing less than 25 hours/week on the farm.

Looking at the most recent year included in the evaluation, Figure 2.2 presents the hours committed on the farm by 2014 CAIP recipients. Over two-thirds of awards were given to farmers committing 40 or more hours per week to their farm, while less than one-third of awards were given to part-time farmers. In the smallest category, farmers committing between zero and 10 hours per week to their farm received 1.5% of 2014 CAIP awards.

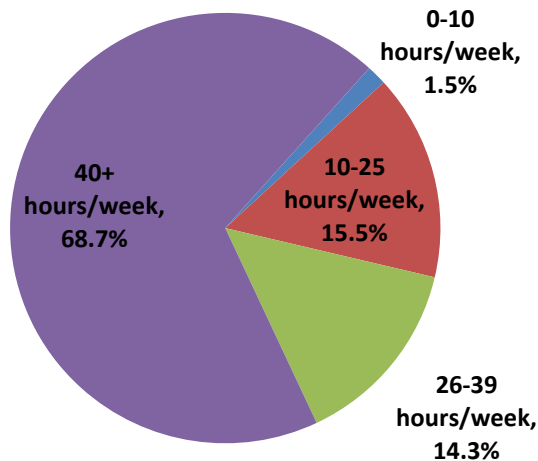


Figure 2.2. Hours committed on the farm by 2014 CAIP recipients.

While it seems intuitive to give most of the CAIP funding to full-time farmers, the UK Evaluation Team also heard from farmers who hoped to use CAIP investment dollars to help them transition into full-time farming. These part-time farmers argued that they had to work additional jobs to supplement their farm income and that this would be unnecessary if CAIP investments could help make their farm more profitable. The KADB may want to consider increasing hours committed to the farm as a potential outcome of their investments and compare the hours committed by award recipients before and after the investment.

Starting in 2009, CAIP participants were also asked a set of evaluative questions. Two questions were whether or not the recipient had ever previously applied for or received CAIP funds. A third question asked whether or not the recipient would have made their investment without CAIP dollars. These simple questions—asked across all program areas—produce some useful insights.

Table 2.2 presents the results of these questions for all CAIP funding. Note that because these questions were first asked in 2009, they only apply to approximately 39,000 of the 61,038 awards. First, Table 2.2 shows that 67.6% of recipients claimed that had previously received CAIP funding, representing over two-thirds of CAIP recipients between 2009 and 2014. Relatedly, the average distinct farm received 2.4 awards between 2007 and 2014. Repeat award recipients are common in the CAIP investment system.

Table 2.2. Summary of Evaluative Questions for CAIP Investments, 2009-2014.

	Previously received CAIP funds		Previously applied for CAIP funds		Would have invested w/o CAIP funding	
	% Yes	# responses	% Yes	# responses	% Yes	# responses
All CAIP programs	67.6%	39,327	71.4%	39,406	55.4%	39,372

Second, 71.4% of recipients claimed that they had previously applied for CAIP funding. Thus, only 3.8% of CAIP recipients between 2009 and 2014 were those who had previously applied but did not receive funding. Compare this to the estimated 28.6% recipients who were first-time applicants (i.e., they had neither previously applied for nor received CAIP funds). In other words, of the 12,738 who claimed not

to have previously received CAIP funds, 87.6% were first-time applicants and only 12.4% had previously applied and were presumably rejected. One possible explanation for this discrepancy that was described in the expert meeting was that previously rejected applicants are discouraged from re-applying and feel like they do not meet the criteria for a successful application and therefore do not apply again. If this is the case, then local CAIP administrators should make a concerted effort to reach out to rejected applicants, provide feedback on the criteria used to make the funding awards and, if possible, encourage them to apply again the next year. However, if few who receive CAIP funds were previously applicants who were presumably rejected, then this may be because of the application scoring system.

Third, Table 2.2 highlights that 55.4% claimed that they would have made their investment without the CAIP funding. Interestingly, the only year in which less than half of recipients claimed that their investment would have been made without the CAIP funding was 2013, in which only 6.0% of recipients made this claim. As previously discussed, a precise interpretation of this measure is unclear to the UK Evaluation Team. While less than half of recipients claimed that they were only able to invest because of CAIP funding, this is not equivalent to saying that CAIP funding was only essential to less than half of recipients. Producers often keep lists of potential investments that they intend to make in the future, and by allowing those investments to occur sooner rather than later, CAIP funding can help to improve farm profitability and productivity.

Next, Table 2.3 compares this last question—would you have invested without CAIP funding—to whether or not the recipient had previously been awarded CAIP funds. Among first-time CAIP recipients, 72.9% claimed that they would not made the investment without CAIP funding while 27.1% claimed that they would have. In contrast, among previous CAIP recipients, 31.3% claimed that they would have not made the investment without CAIP funding, while 68.7% claimed that they would have. Further analysis also found that the statistic for the percentage of CAIP recipients who would have invested without CAIP funding varied significantly by county. Of counties with over 100 recipients, the highest rate was 96.9%, and the lowest rate was 23.3%.

Table 2.3. Comparing Necessity of Investment with Previous Receipt of CAIP Funds.

Previously received CAIP funds	Would have invested w/o CAIP funding					
	No	%	Yes	%	Total	%
No	9,247	72.9%	3,432	27.1%	12,679	100.0%
Yes	8,194	31.3%	18,011	68.7%	26,205	100.0%
Total	17,441	44.9%	21,443	55.1%	38,884	100.0%

CAIP Investments by Investment Area

Table 2.4 presents some general statistics for the CAIP investment areas between 2007 and 2014. Awards were categorized into programs based on the most recent classification of CAIP funding by GOAP. Programs are listed in nominal order based on the total amount of CAIP investments. Table 2.4 also displays the wide variety of CAIP investments made in this time period. Individual investment areas are categorized as being a major or minor program based on whether or not over \$10,000,000 was spent in the investment area. The distribution of investments and awards across program areas is also

summarized in Table 2.4. The ranking of investment distribution and award distribution only differs between Farm Infrastructure and Fencing & On-Farm Water, that latter of which gave out more awards but less overall funding.

Table 2.4. CAIP Investments and Awards by CAIP Investment Area, 2007-2014.

CAIP Investment Areas	CAIP Investments	Awards	Average / Award	Investment distribution		Award distribution		Counties
				Percent	Rank	Percent	Rank	
Major Programs:								
<i>Large Animal</i>	\$30,924,804	19,174	\$1,613	29.0%	1	31.4%	1	107
<i>Farm Infrastructure</i>	\$28,470,356	11,268	\$2,527	26.7%	2	18.5%	3	105
<i>Fencing & On-Farm Water</i>	\$22,482,220	13,618	\$1,651	21.1%	3	22.3%	2	106
<i>Forage & Grain Improvement</i>	\$13,601,101	10,023	\$1,357	12.8%	4	16.4%	4	106
Minor Programs:								
<i>Agricultural Diversification</i>	\$5,904,610	3,232	\$1,827	5.5%	5	5.3%	5	103
<i>Technology & Leadership Development</i>	\$2,870,788	2,091	\$1,373	2.7%	6	3.4%	6	94
<i>Small Animal</i>	\$1,262,520	1,179	\$1,071	1.2%	7	1.9%	7	90
<i>Poultry & Other Fowl</i>	\$558,247	247	\$2,260	0.5%	8	0.4%	8	51
<i>On-Farm Energy</i>	\$267,071	123	\$2,171	0.3%	9	0.2%	9	47
<i>Value-Added Marketing</i>	\$119,263	83	\$1,437	0.1%	10	0.1%	10	47
TOTAL:	\$106,460,981	61,038	\$1,744					108

Figure 2.3 provides a clear illustration of the distribution of CAIP investments across programs between 2007 and 2014. Here, all six CAIP program areas classified above as Minor Programs are grouped together and collectively represent 10.3% of investments. Major CAIP investments comprised almost 90% of all CAIP investments across four program areas: Large Animal (29.0%); Farm Infrastructure (26.7%); Fencing & On-Farm Water (21.1%); and Forage & Grain Improvement (12.8%).

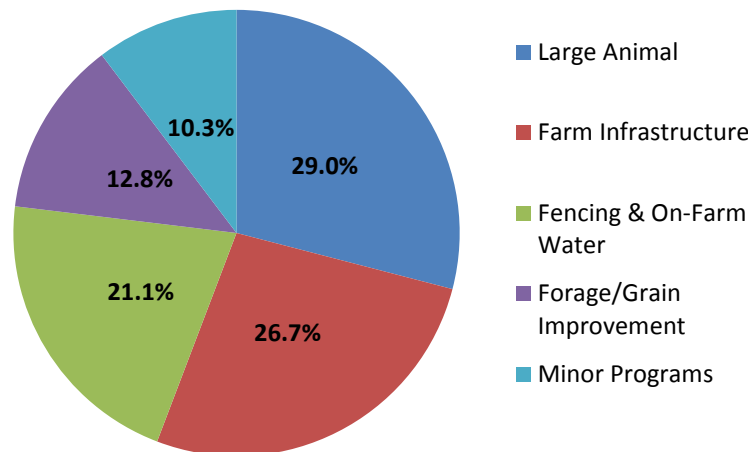


Figure 2.3. CAIP Investments by Program Area, 2007-2014.

Large Animal was the largest category of CAIP investment, constituting almost one-third of total CAIP investments. These funds were primarily used to support beef and dairy cattle, including the purchase of bulls, heifers, and cattle genetics. A large number of investments were used for cattle and other livestock facilities. Infrastructure improvements, such as cattle handling facilities and equipment, have made Kentucky farms safer for farmers, employees, veterinarians and residents. Improved on-farm facilities have also made it possible for farmers to implement better animal management practices which, in turn, resulted in a significant improvement in the quality of cattle marketed and increased income from sales. The infrastructure investments also lessened the negative environmental impacts of animal agriculture as well.

Second, Farm Infrastructure awards constituted over one quarter of CAIP investments. About one half of these awards were used to purchase or enhance hay, straw, or grain storage facilities. Many awards allowed farmers to purchase grain and other commodity handling equipment as well, which are often associated with safety improvements on the farm.

Third, Fencing & On-Farm Water investments comprised over one-fifth of CAIP investments. Over one half of these investments were awarded for fencing or fencing improvement. Another large portion of these investments were devoted to helping secure on-farm water either through a nearby spring, pond, or hookup to the county water supply and adding livestock watering points throughout the farm pasture layout.

Finally, Forage & Grain Improvement was the smallest of the CAIP major programs. Most of these investments were used for forage and pasture development, though investments also helped fund commodity handling and forage equipment, filter fabric pads, and subsurface drainage (tilling). It is unknown from award descriptions how many of these projects support sustainable grazing practices, such as rotational grazing. Participants of the CAIP expert meeting agreed that pasture management and rotational grazing are underutilized even as they are one of the strongest factors toward increasing net farm income with ruminant livestock production. Forage best management practices can increase farm income and need to be encouraged to improve Kentucky farm profitability. The program guidelines should support the goal of the award and be tailored toward the desired outcome of management and production improvements to increase profitability and sustainability of Kentucky agricultural businesses.

Minor CAIP investments are those seven program areas that separately made up less than 10% of total KADB investments, and thus include Agricultural Diversification (5.5%); Technology & Leadership Development (2.7%); Small Animal (1.2%); and Value-Added Marketing, Poultry & Other Fowl, and On-Farm Energy (less than 1%). Collectively, these seven program areas comprise 10.3% of all CAIP investments. Relative to model programs highlighted in the previous evaluation, new investment areas like Technology & Leadership Development, On-Farm Energy and Value-Added Marketing have emerged to reflect an evolving agricultural economy.

Table 2.5 also presents useful information about CAIP Investment Areas, including the producer and total amount invested in each category. Here, total amount investment equals the sum of the CAIP investment and producer investment. While Large Animal was the investment area receiving the most CAIP funds, Table 2.5 details that Farm Infrastructure was actually the program with the greatest total investment due to large amount matched from producers and the overall larger investment required to complete a typical project (average of \$8,166). There was also more total investment in the Poultry & Other Fowl program relative to the Small Animal program; relatedly, the average total investment for Poultry & Other Fowl program was over \$13,000 while this amount was only \$2,430 for Small Animal program investments.

The furthest right column of Table 2.5 details the producer match (i.e., the percent of total amount investment that came from producers). Note that the producer match is generally higher as the average total amount invested increases. While the minimum producer match is 50%, the data show that the producer match is often greater. At 55.9%, the average Small Animal investments have the least producer match; however, they also had the smallest average total project cost at \$2,430. The average for both Poultry & Other Fowl and On-Farm Energy projects are over 80%, and their average project costs were \$13,070 and \$18,066, respectively.

Table 2.5. Producer Match and Total Amount Invested by CAIP Investment Area, 2007-2014.

CAIP Investment Areas	Awards	Producer Investments	Average / Award	Total Amount Invested	Average / Award	Producer Match
Major Programs:						
<i>Large Animal</i>	19,174	\$45,835,344	\$2,390	\$76,760,148	\$4,003	59.7%
<i>Farm Infrastructure</i>	11,268	\$63,542,068	\$5,639	\$92,012,424	\$8,166	69.1%
<i>Fencing & On-Farm Water</i>	13,618	\$33,696,972	\$2,474	\$56,179,192	\$4,125	60.0%
<i>Forage & Grain Improvement</i>	10,023	\$21,147,824	\$2,110	\$34,748,925	\$3,467	60.9%
Minor Programs:						
<i>Agricultural Diversification</i>	3,232	\$9,083,239	\$2,810	\$14,987,849	\$4,637	60.6%
<i>Technology & Leadership Development</i>	2,091	\$6,015,905	\$2,877	\$8,886,693	\$4,250	67.7%
<i>Small Animal</i>	1,179	\$1,602,850	\$1,359	\$2,865,369	\$2,430	55.9%
<i>Poultry & Other Fowl</i>	247	\$2,670,170	\$10,810	\$3,228,417	\$13,071	82.7%
<i>On-Farm Energy</i>	123	\$1,955,090	\$15,895	\$2,222,161	\$18,066	88.0%
<i>Value-Added Marketing</i>	83	\$222,841	\$2,685	\$342,104	\$4,122	65.1%
TOTAL:	61,038	\$185,772,302	\$3,044	\$292,233,283	\$4,788	63.6%

Table 2.6 presents statistics from the evaluative questions by CAIP investment area. These questions asked, starting in 2009, about whether or not the recipients had previously applied for or received CAIP funds and whether or not the recipients would have made their investment without CAIP dollars.

Table 2.6. Summary of Evaluative Questions for CAIP Investments, 2009-2014.

CAIP Investment Areas	Previously received CAIP funds		Previously applied for CAIP funds		Would have invested w/o CAIP funding	
	% Yes	# responses	% Yes	# responses	% Yes	# responses
Major CAIP Programs:						
<i>Large Animal</i>	70.9%	13,758	74.5%	13,851	55.8%	13,661
<i>Farm Infrastructure</i>	68.0%	6,572	71.8%	6,561	52.2%	6,519
<i>Fencing & On-Farm Water</i>	63.1%	9,777	67.8%	9,760	53.0%	9,678
<i>Forage & Grain Improvement</i>	67.5%	5,129	70.5%	5,138	56.9%	5,114
Minor CAIP Programs:						
<i>Agricultural Diversification</i>	69.1%	1,830	72.0%	1,825	67.8%	2,147
<i>Technology & Leadership Development</i>	69.8%	1,243	73.5%	1,240	57.6%	1,232
<i>Small Animal</i>	57.8%	677	62.6%	677	56.4%	676
<i>Poultry & Other Fowl</i>	61.3%	155	65.5%	168	58.5%	159
<i>On-Farm Energy</i>	73.8%	103	73.8%	103	58.3%	103
<i>Value-Added Marketing</i>	33.7%	83	34.9%	83	34.9%	83
TOTAL:	67.6%	39,327	71.4%	39,406	55.4%	39,372

First, Table 2.6 presents the percentage of recipients in each CAIP investment area that claimed to have previously received CAIP funding. At 33.7%, Value-Added Marketing is the only percentage under half, likely because it is a newer program. At 73.9%, On-Farm Energy has the greatest percentage. Overall, the rate is fairly consistent across the 10 program areas.

Similarly, the rates of recipients in each investment area who had previously applied for CAIP funds are fairly consistent with the exception of Value-Added Marketing. The Small Animal program has the greatest difference between those who had previously applied for funding and those who had previously received it at 4.9%, meaning that it had the largest percentage of previously rejected applicants who were awarded funding. In contrast, the On-Farm Energy program has no difference between these two rates, meaning that its only recipients were previous recipients or first-time applicants.

Finally, Table 2.6 reports, by CAIP investment area, the percentage of recipients who claimed that they would have invested without CAIP funding. As previously discussed, the UK Evaluation Team is not convinced that this question provides an accurate measure of investment efficacy. At 34.9%, Value-Added Marketing has the lowest percentage. At 67.8%, the Agricultural Diversification program has the greatest percentage; over two-thirds of Agricultural Diversification recipients claim that they would have made their investments without CAIP funding. Within Agricultural Diversification, further analysis finds

that investments in honeybees, greenhouse construction, and commercial ornamental had the highest statistics—each sub-category had over 100 recipients, over 70% of who claimed they would have invested without CAIP funding. While the overall estimate seems high at 55.4% (as previously discussed), all remaining program areas fall between 52.2% and 58.5%. Therefore, other than these two exceptions, the statistic is consistent across the program areas.

CAIP Investments by County

Figure 2.4 displays the geographic distribution of total CAIP investments by county. Of Kentucky's 120 counties, 108 received CAIP funding. The map indicates that CAIP investments are focused in North Central Kentucky and less so in West Central Kentucky. Several counties in far Western and Eastern Kentucky did not receive any CAIP investment funding. This is due to the KADF legislation that allocated Master Settlement Agreement (MSA) funds for agriculture based on the historic amount of tobacco production in each county. Across Kentucky, the average distinct farm received 2.4 awards over the time period. One county awarded each distinct recipient farm an average of 4.2 awards, though only 10% of recipient counties awarded each distinct recipient farm more than 3.0 awards, on average.

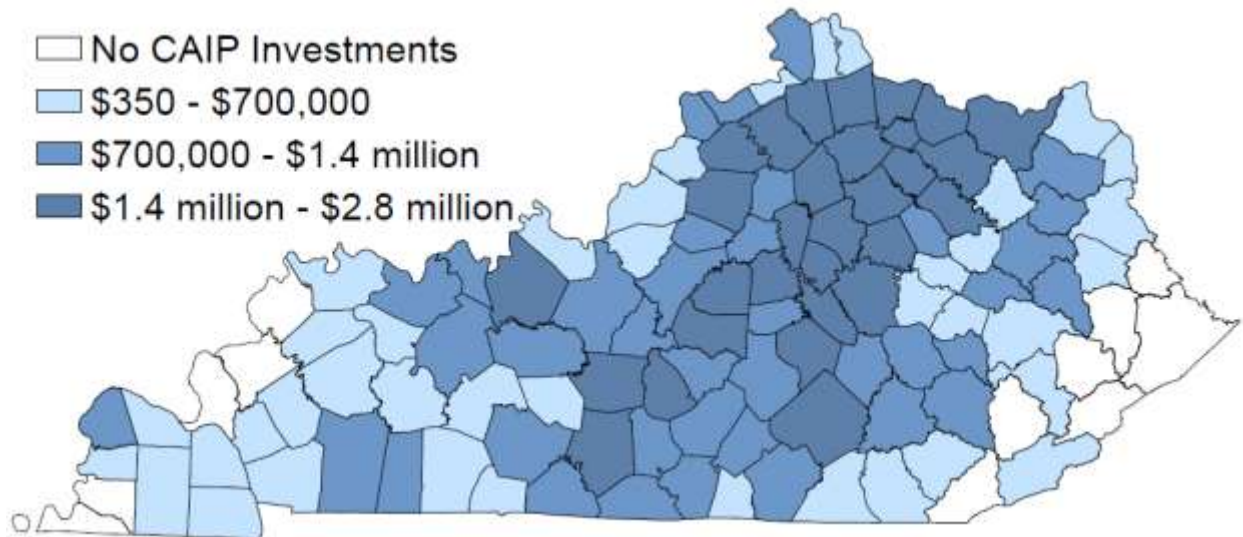


Figure 2.4. CAIP Investment by County, 2007-2014

In addition to looking at the geographic distribution of CAIP investments, the UK Evaluation Team also wanted to compare the evaluative measures by county. Table 2.7 presents statistics for the percent of CAIP recipients, by county, who have previously applied for CAIP funds. Data are listed in descending numeric order based on those who have previously applied for and received CAIP funds. Of counties with over 100 recipients, the highest rate belongs to Clinton County with 89.0% and the lowest rate belongs to Wolfe County with 41.2%.

Table 2.7. Breakdown of recipients who had previously received and applied for CAIP funding, by county.

County	N	Previously applied & received CAIP funds	Previously applied but was rejected	First-time applicant	County	N	Previously applied & received CAIP funds	Previously applied but was rejected	First-time applicant
Clinton	547	89.0%	-0.2%	11.2%	Johnson	141	67.4%	8.5%	24.1%
Franklin	270	87.0%	3.4%	9.6%	Rowan	149	67.1%	5.4%	27.5%
Ballard	124	86.3%	3.2%	10.5%	Grayson	648	66.8%	1.0%	32.1%
Anderson	160	86.3%	3.8%	10.0%	Lee	39	66.7%	5.1%	28.2%
Madison	461	85.5%	6.7%	7.8%	Cumberland	434	66.6%	-0.5%	33.9%
Carlisle	49	83.7%	4.1%	12.2%	Christian	327	66.4%	6.7%	26.9%
Ohio	323	83.2%	0.7%	16.1%	Adair	771	66.2%	3.3%	30.5%
Bullitt	225	82.7%	0.4%	16.9%	Daviess	328	65.5%	0.3%	34.1%
Trimble	646	79.4%	0.2%	20.4%	Knox	52	65.4%	3.8%	30.8%
Wayne	481	79.3%	5.3%	15.4%	LaRue	540	65.1%	7.1%	27.8%
Henry	857	79.2%	0.4%	20.4%	Carter	254	65.0%	7.0%	28.1%
Montgomery	365	78.9%	4.2%	16.9%	Lyon	31	64.5%	12.9%	22.6%
Boone	219	77.6%	7.8%	14.6%	Laurel	348	64.4%	6.0%	29.6%
Todd	367	77.6%	3.3%	19.1%	Clark	383	64.0%	7.3%	28.7%
Bracken	472	77.3%	2.3%	20.3%	McLean	144	63.8%	1.5%	34.7%
Simpson	252	77.3%	10.4%	12.3%	Greenup	134	63.6%	1.3%	35.1%
Caldwell	125	75.2%	12.0%	12.8%	Nelson	740	62.9%	3.6%	33.5%
Elliott	391	74.4%	2.6%	23.0%	Shelby	683	62.9%	6.1%	31.0%
Rockcastle	261	74.1%	1.0%	24.9%	Jackson	447	62.9%	0.9%	36.3%
Fayette	408	74.0%	1.5%	24.5%	Marion	772	62.8%	9.7%	27.5%
Muhlenberg	226	73.9%	0.4%	25.7%	Magoffin	273	62.3%	0.7%	37.0%
Gallatin	178	73.9%	1.4%	24.7%	Grant	402	62.2%	4.5%	33.3%
Pendleton	525	73.7%	2.5%	23.8%	Lawrence	105	61.0%	2.9%	36.2%
Graves	30	73.3%	-3.3%	30.0%	Lincoln	526	60.8%	1.4%	37.8%
Menifee	183	73.2%	3.3%	23.5%	Mercer	385	60.1%	13.5%	26.5%
Nicholas	403	73.2%	2.2%	24.6%	Estill	167	58.7%	1.7%	39.6%
Lewis	368	72.6%	1.0%	26.4%	Green	502	58.3%	1.1%	40.6%
Owen	578	72.5%	3.8%	23.7%	Russell	452	58.2%	1.0%	40.8%
Trigg	162	72.2%	8.6%	19.1%	Breckinridge	833	57.7%	4.2%	38.1%
Boyle	302	71.9%	2.0%	26.2%	Casey	508	57.7%	1.0%	41.3%
Hancock	262	71.8%	0.4%	27.9%	Allen	483	57.6%	18.0%	24.4%
Clay	213	71.6%	1.7%	26.8%	Hardin	286	57.5%	10.3%	32.2%
Powell	218	71.6%	0.0%	28.4%	Logan	115	57.0%	-6.6%	49.6%
Oldham	151	71.5%	2.0%	26.5%	Taylor	628	56.5%	5.9%	37.6%
McCracken	56	71.4%	0.0%	28.6%	Garrard	607	56.3%	3.2%	40.5%
Pulaski	1378	71.2%	2.4%	26.4%	Kenton	181	55.8%	3.3%	40.9%
Monroe	1155	71.2%	3.2%	25.6%	Henderson	68	54.4%	1.5%	44.1%
Washington	616	70.8%	1.9%	27.3%	Jefferson	81	54.3%	3.7%	42.0%
Carroll	416	70.6%	1.7%	27.6%	Butler	91	53.8%	3.3%	42.9%
Bourbon	705	70.6%	4.4%	25.0%	Whitley	112	51.8%	6.3%	42.0%
Meade	414	70.3%	3.1%	26.6%	Warren	296	51.5%	22.5%	26.0%
Mason	449	70.2%	4.8%	25.0%	Webster	70	51.4%	2.9%	45.7%
Robertson	397	70.0%	3.8%	26.2%	Barren	529	49.9%	11.5%	38.6%
Harrison	957	69.8%	3.9%	26.3%	Calloway	29	48.3%	-3.4%	55.2%
Owsley	178	69.7%	3.4%	27.0%	Bath	467	46.3%	6.9%	46.9%
Scott	578	69.2%	6.4%	24.4%	Marshall	49	44.9%	-6.1%	61.2%
Hart	517	68.7%	7.5%	23.8%	Campbell	77	41.6%	9.1%	49.4%
Spencer	313	68.3%	2.7%	29.1%	Wolfe	199	41.2%	4.0%	54.8%
Morgan	736	68.1%	1.3%	30.6%	Perry	15	40.0%	0.0%	60.0%
Jessamine	679	67.9%	1.7%	30.3%	Breathitt	46	34.8%	2.2%	63.0%
Woodford	544	67.8%	0.6%	31.6%	Hopkins	43	30.2%	0.0%	69.8%
Edmonson	601	67.8%	1.1%	31.1%	Boyd	1	0.0%	0.0%	100.0%
Metcalfe	256	67.7%	4.9%	27.3%	Harlan	3	0.0%	0.0%	100.0%
Fleming	1304	67.6%	0.8%	31.6%	TOTAL	39045	67.8%	3.8%	28.4%

The column “Previously applied but was rejected” in Table 2.7 is the percentage-point difference between the percent of recipients who had previously applied and the percent of recipients who had previously received. These represent recipients who applied at least a second time after getting a rejected application. It appears that some counties do a better job attracting this group than others; in Warren County, 22.5% of recipients fall into this category.

Finally, the last column in Table 2.7 is the percentage of county CAIP recipients who were first-time applicants—they had neither applied nor received CAIP funding in the past. Keep in mind that this rate likely decreases over time as each recipient is only a first-time applicant one time before falling into a different category. Still, this statistic shows that some counties have more first-time applicants than others, which likely has to do with the number of eligible producers in a county versus the amount of CAIP funding available.

There is an argument for and against reaching new applicants. In the CAIP expert meeting, some said that CAIP should help diversify Kentucky agriculture by reaching newly full-time farmers, which likely means funding first-time applicants. Another argument is that long-time farmers with a record of profitability and sustainability will likely use CAIP funds most efficiently, which suggests that giving multiple awards to experienced farmers are effective investments. Moving forward, it is ultimately for the KADB and the GOAP to decide who the target audience should be for its CAIP programs.

Conclusions

1. The KADF investments through the CAIP program and other KADF programs have had a significant positive impact on agriculture and agribusiness in the state. In addition, the KADF investments are successfully diversifying Kentucky agriculture following the tobacco buy-out. The KADF investments also are giving viable options to Kentucky farmers, including former tobacco farmers. In fact, today there is a sense that KADF funding is more about supporting agricultural diversification and less about supporting the tobacco growers’ loss of income. Interviews and the expert group discussions questioned whether CAIP programs should be targeted to a wider distribution of farm types.

Recommendation: GOAP should have a strategic discussion about leveling the playing field for CAIP applicants. If it is determined that CAIP funding is primarily to support agricultural diversification, then points awarded based on past tobacco history should be minimized or discontinued. If agricultural diversification is the goal, then the scoring process should not favor one type of farming over another.

2. There is a widespread agreement that the CAIP application process needs to be more transparent. Uncertainty about the scoring criteria provides a disincentive to those unfamiliar with the program and is discouraging to applicants who apply and do not receive cost-share funds.

Recommendation: The KADF should consider reforming the CAIP application process so that the scoring criteria and selection is more transparent. How applications are scored and who the targeted audience is should be clearly stated. Also, the KADF should consider how the county council’s ability to set the maximum funding for specific program areas may create bias against those involved in activities regulated as Minor CAIP investment areas.

3. Of Kentucky's 120 counties, 108 received some CAIP funding. About 10% of recipient counties gave each distinct recipient farm more than 3.0 awards, on average, and one county gave each distinct recipient farm an average of 4.2 awards.

Recommendation: While the exception, this latter statistic suggests it would be prudent to look into repeat awards and whether such selection is luck, the nature of the current application, or—at worst—evidence of favoritism to certain farmers.

4. With the expansion of Kentucky's livestock sectors, CAIP investments to forage, fencing, and on-farm water are highly valued. These investments could yield a greater impact if GOAP encouraged rotational grazing—a forage best management practice with much potential to increase the profitability and sustainability of Kentucky livestock farms—and timely notification of award recipients to align with the planting of fall seeded forage crops.

Recommendation: The KADF should consider how to promote rotational grazing, perhaps by developing a rotational grazing CAIP program linked to fencing and forage cost-share efforts. The KADF could also change application scoring to prefer graduates of the Master Grazer educational program. Finally, GOAP should push counties to meet deadlines that notify successful applicants in enough time for them to plant in the most desirable time frame.

5. There is a perception that Minor CAIP investment areas are more competitive due to a lack of funding. However, applicant data are not currently compiled that could compare demand for the Minor CAIP programs versus what is actually being funded.

Recommendation: GOAP should collect and compile data on CAIP applicants' program interests. These data can be used to better track demand for CAIP investment areas. Additionally, GOAP could compare CAIP applicants to the average Kentucky farmer using demographic statistics from the US Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) to ensure that they are marketing to and awarding their target population.

CHAPTER 3: Kentucky Agricultural Finance Corporation

There are four primary Kentucky Agricultural Finance Corporation (KAFC) loan programs funded by the KADF: the Agricultural Infrastructure Loan Program (AILP), the Beginning Farmer Loan Program (BFLP), the Agricultural Processing Loan Program (APLP), and the Large/Food Animal Veterinary Loan Program. There are two other lesser awarded loans dedicated to diversity through entrepreneurship (DEAL) and new agricultural enterprises (NAEL).

Between January 2007 and June 2015, the KAFC approved a total of 533 projects and committed over \$63.5 million over this 8.5 year period.³ These commitments are detailed in Table 3.1. During this time period, the KADB made \$12.75 million of direct investments into the KAFC. While the KAFC distributed \$63.5 million in payouts to borrowers, these funds came from a variety of sources (including loan repayments) and only \$12.75 million can be directly attributed to KADB spending.

Table 3.1. KAFC Loan Programs, January 2007 - May 2015.

Loan Program	Total Number of Loans	Total Value of Loans
Agricultural Infrastructure Loan Program (AILP)	292	\$ 20,044,483
Agricultural Processing Loan Program (APLP)	12	\$ 8,484,582
Beginning Farmer Loan Program (BFLP)	198	\$ 28,653,037
Diversification through Entrepreneurship Investment Fund	6	\$ 489,500
	2	\$ 82,530
Large/Food Animal Veterinary Loan Program	11	\$ 979,253
New Agriculture Enterprise Loan Program	8	\$ 1,750,000
Transferred from KADB	4	\$ 3,105,000
TOTAL:	533	\$ 63,588,385

³ There is an overlap in the evaluation of the KAFC between the 2008 UK Evaluation and this current one. However, more data provide a better opportunity to highlight trends and gaps. These loans account for approximately \$7.3 million in AILP loans and \$1.7 million in BFLP loans.

Figure 3.1 provides a summary of the total value of all KAFC loans closed between January 2007 and May 2015 across the state, and Figure 3.2 illustrates the allocation of loans over time. Figure 3.2 suggests that, starting in 2011, the number of loans per year for the BFLP has steadily increased after a decline following the recession. In addition, there was a sharp decline in AILP loans from 2007 to 2012, but the number of loans has also started to increase over the last several years.

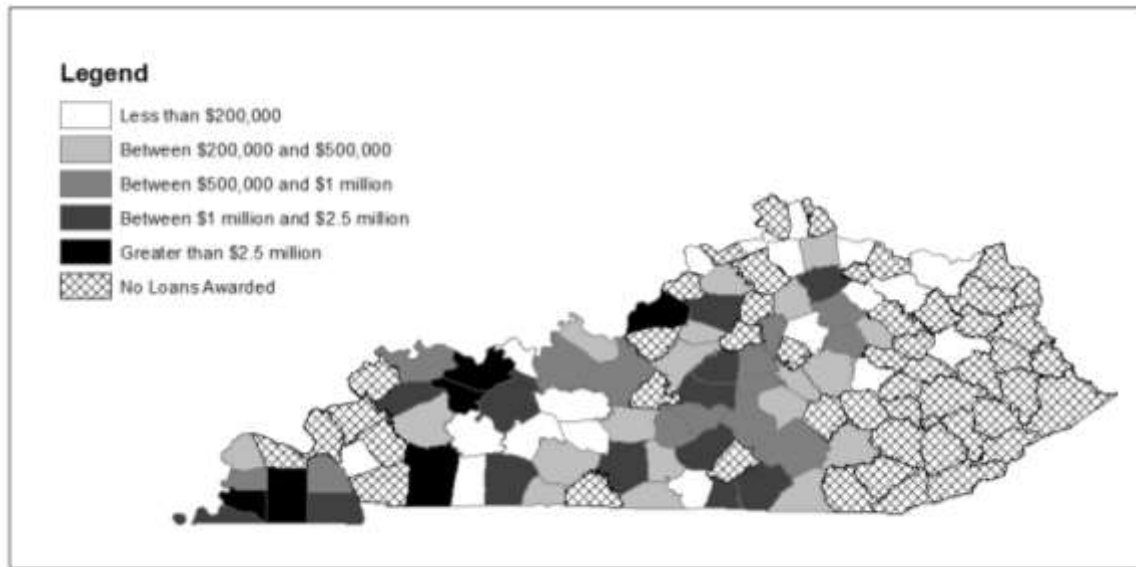


Figure 3.1. Total KAFC Loans by County 2007-2015.

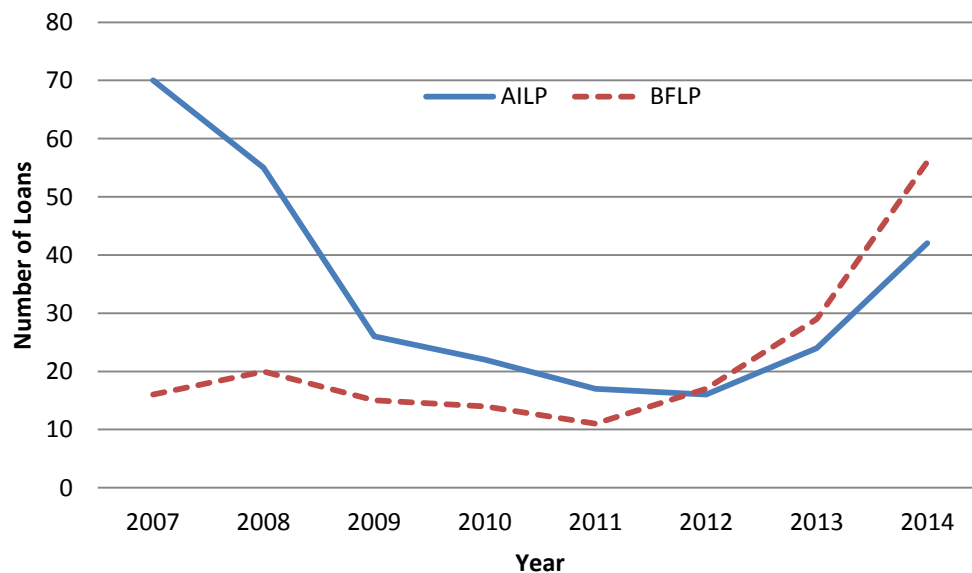


Figure 3.2. Number of AILP and BFLP Loans 2007-2015.

Evaluation Criteria and Approach

To evaluate the effectiveness of the KAFC loan programs, the UK Evaluation Team examined the list of all 533 loans from January 2007 through May 2015. KAFC provided the UK Evaluation Team data that detailed the applicant name, loan amount, location, enterprise type, description, and net worth of every approved loan over the time period. The UK Evaluation Team developed and distributed a questionnaire to all loan recipients. A separate survey was also developed for lenders and distributed through email. In total, the UK Evaluation Team received 16 borrower and 24 lender surveys. While this is a relatively low response rate, there was a great deal of consistency in responses within both samples. Additionally, the UK Evaluation Team conducted interviews with a sample of the largest lenders in the state.

Analysis of Impacts by Loan Program

The estimated impacts of the KAFC loan program were based on the data for all 533 loans, survey responses from a small sample of borrowers and lenders, and site visits and interviews with lenders across Kentucky.

Table 3.2 provides an overview of agricultural sector the KAFC loan was used to support for the two largest loan programs in the KAFC portfolio (AILP and BFLP). The large majority of AILP loans were allocated for grain and tobacco farms primarily for the construction of dryers, bins, farm shops and barns. BFLP loans were awarded primarily for poultry, beef and grain beginning farmers to purchase farmland and to build poultry houses and barns and purchase equipment.

Table 3.2. Loan Purpose for KAFC's Two Largest Programs.

Loan Category	Number of Loans (minimum of 5)
AILP: 292 loans 54.7% of total	
<i>Grain (dryers, bins, farm shops)</i>	87
<i>Tobacco (barns)</i>	84
<i>Poultry (broiler houses, energy eff improvements)</i>	45
<i>Dairy (barns, equipment)</i>	25
<i>Beef (barns, farm shops, bins)</i>	17
<i>Forage (bins and barns)</i>	10
<i>Equine (barns, arena)</i>	10
<i>Horticulture (greenhouse, retail market)</i>	5
BFLP: 198 loans 37.1% of total	
<i>Poultry (barns, equipment, broiler houses)</i>	51
<i>Beef (farmland, barns, equipment)</i>	47
<i>Grain (farmland, barns, farm shop)</i>	42
<i>Tobacco (farmland, barns)</i>	20
<i>Swine (barns, equipment, land)</i>	14
<i>Dairy (cattle, land)</i>	5

Agricultural Infrastructure Loan Program

The AILP was the most used loan program both in number and value of loans. These loans were primarily used for barns, bins, farm shops, and equipment.

Table 3.3 highlights that across all 292 AILP loans, 87 loans were executed for grain enterprises, 84 for tobacco farms and 45 for poultry houses. These three categories accounted for approximately 75% of the value of all AILP loans. The average loan amount (\$68,000) represented 3% of the net worth of the average borrower. To mitigate outlier bias, the ratio of median AILP loan to median net worth was 4.5%. The average and median net worth of an AILP borrower was \$2 million and \$1.1 million respectively. Twenty loans were executed to families where the net worth of the operation was greater than \$5 million.

Table 3.3. Agricultural Infrastructure Loans by Enterprise.⁴

Enterprise	Total Number of Loans	Average Loan Amount	Total Loan Amount
Timber	1	\$ 25,000	\$ 25,000
Winery	2	\$ 100,000	\$ 200,000
Swine	4	\$ 183,907	\$ 735,628
Horticulture	5	\$ 49,500	\$ 247,500
Other	5	\$ 67,358	\$ 336,791
Equine	6	\$ 69,727	\$ 418,359
Forage	10	\$ 37,214	\$ 372,135
Beef	17	\$ 46,958	\$ 798,292
Dairy	25	\$ 87,810	\$ 2,195,241
Poultry	45	\$ 116,080	\$ 5,223,603
Tobacco	84	\$ 39,100	\$ 3,284,391
Grain	87	\$ 70,989	\$ 6,176,043
TOTAL	292	\$ 68,773	\$ 20,044,482

⁴ One AILP loan did not list a specific enterprise

Figures 3.3 and 3.4 suggest that the bulk of AILP loans were administered in Central to Western Kentucky. There were essentially zero loans executed east of the Bluegrass Region. The largest loans were provided to farms in Christian, Calloway, and Graves Counties.

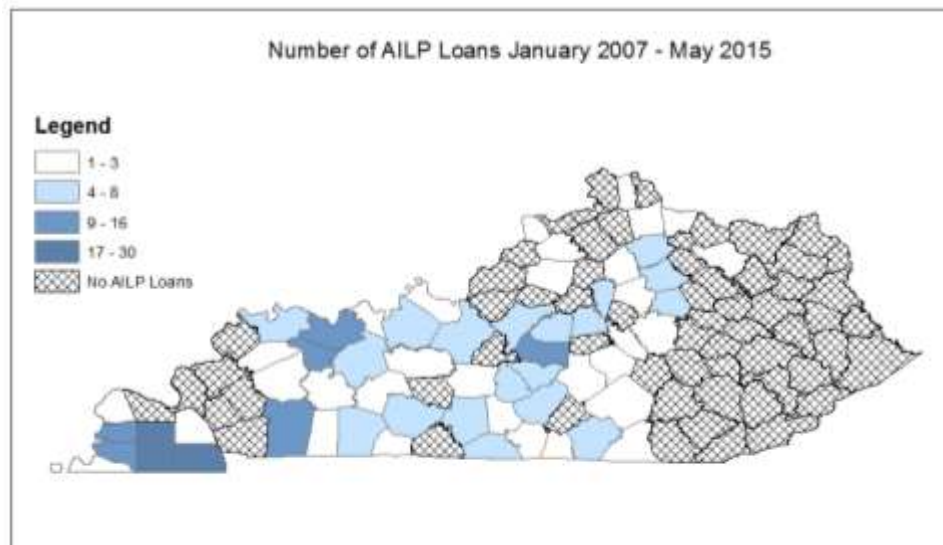


Figure 3.3. Number of AILP Loans across Kentucky 2007-2015.

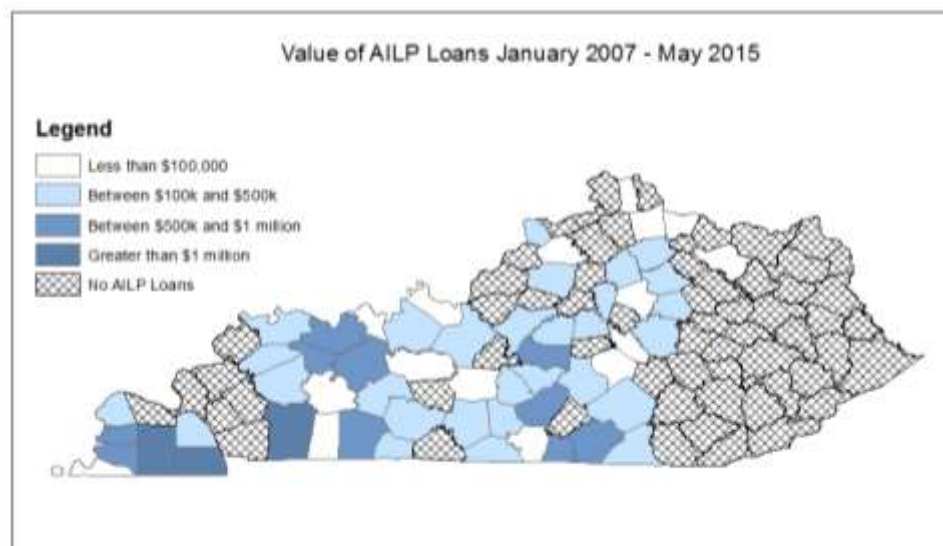


Figure 3.4. Value of AILP Loans across Kentucky 2007-2015.

Beginning Farmer Loan Program

The Beginning Farmer Loan Program (BFLP) assists individuals with farming experience who want to develop, expand, or buy into a farming operation. Applicants are evaluated based on education and farm experience, current involvement in farming, and an available support system either through a family member or formal mentor. BFLP loans by enterprise are detailed in Table 3.4.

Table 3.4. Beginning Farmer Loans by Enterprise.⁵

Enterprise	Total Number of Loans	Average Loan Amount	Total Loan Amount
Forage	1	\$ 153,000	\$ 153,000
Horticulture	1	\$ 85,000	\$ 85,000
Vegetable	1	\$ 216,000	\$ 216,000
Winery	1	\$ 30,000	\$ 30,000
Equine	2	\$ 47,468	\$ 94,936
Turkey	3	\$ 250,000	\$ 750,000
Dairy	5	\$ 67,269	\$ 336,347
Other	8	\$ 70,681	\$ 565,445
Swine	14	\$ 190,286	\$ 2,664,000
Tobacco	20	\$ 125,559	\$ 2,511,176
Grain	42	\$ 113,003	\$ 4,746,130
Beef	47	\$ 96,390	\$ 4,530,320
Poultry	51	\$ 227,852	\$ 11,620,434
TOTAL	198	\$ 147,410	\$ 28,563,037

The K AFC completed 198 BFLP loans between January 2007 and June 2015. The majority of the loans were used to purchase land, equipment, and barns. The average BFLP loan amount was \$147,000 and the average net worth of the borrower was \$200,000. There is a net worth cap on this loan at \$500,000. Approximately 50% of the BFLP loans were provided for poultry and beef production, and 21% of the loans were granted for grain enterprises.

⁵ Two BFLP loans did not list a specific enterprise

Figures 3.5 and 3.6, similar to the Agricultural Infrastructure Loan Program suggest that the majority of BFLP loans were provided to individuals in Central and Western Kentucky. There were no loans granted to anyone east of Mt. Sterling (Montgomery County). The greatest number of awards was given to beginning farmers in Graves and McLean counties. The largest awards were given to Daviess, McLean, Wayne, Clinton, Graves, Hickman, and Fulton counties.

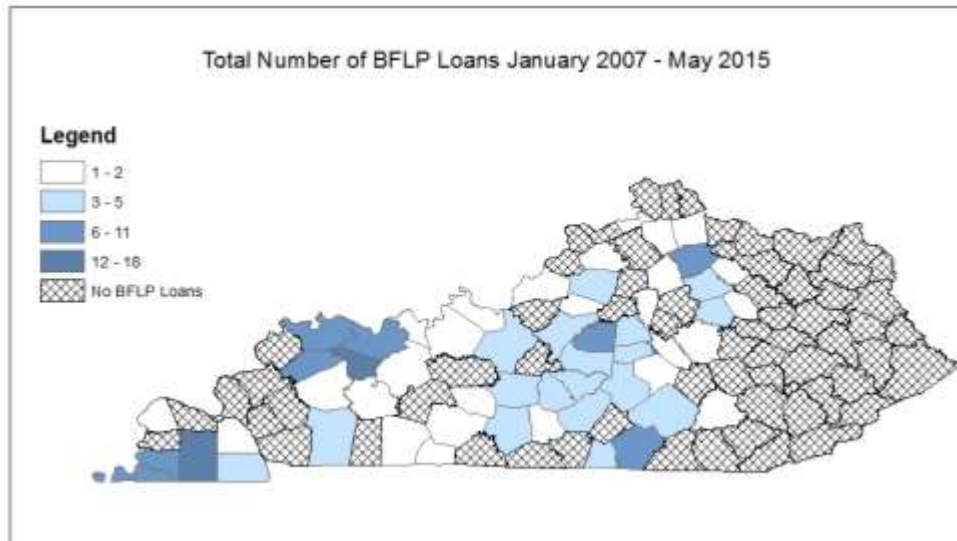


Figure 3.5. Number of BFLP Loans Across Kentucky 2007-2015.

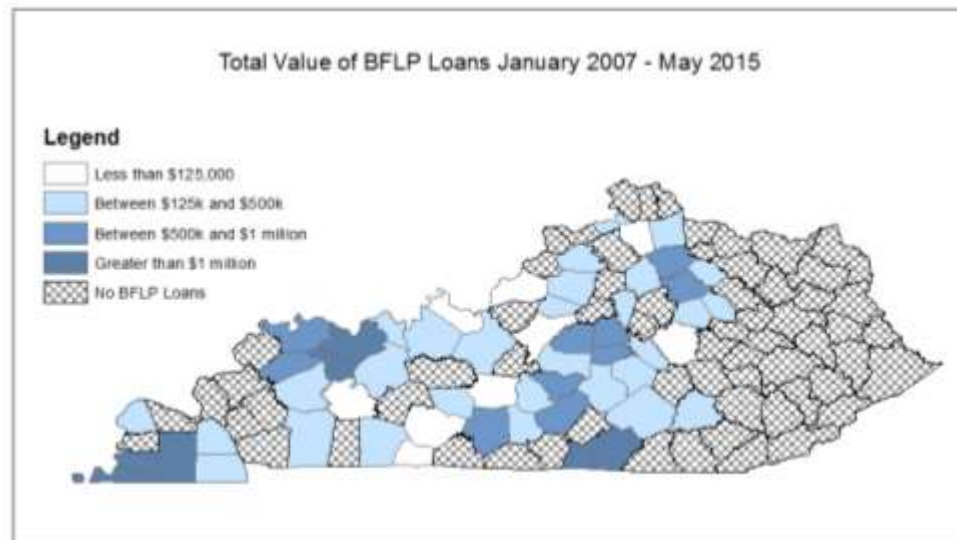


Figure 3.6. Value of BFLP Loans Across Kentucky 2007-2015.

Other K AFC Loan Programs

The Agricultural Processing Loan Program (APLP) was designed to provide opportunities to companies and individuals in Kentucky interested in adding value to Kentucky-grown agricultural commodities through further processing. Upon further review, it is not entirely clear that the commitment to processing Kentucky grown commodities is mandatory. There were twelve APLP loans made between January 2007 and May 2015 with only three loans occurring prior to 2011. Figure 3.7 provides a location and name of each of the APLP loans. These APLP loans were used for several meat processing enterprises, cheese making, and processing bundled firewood, among other projects. The APLP financing accounts for only 2.8% of all K AFC loans but 13.3% of the value of the total K AFC portfolio. The average loan was \$707,000, which is significantly higher than the other loan programs.



Figure 3.7. Locations of APLP Loans, 2007-2015.

The Large Animal Vet program is designed to assist individuals licensed to practice veterinary medicine in Kentucky who desire to construct, expand, equip or buy into a practice serving large animal producers including goat, sheep, swine, and other smaller food animals. In total, there have been 11 of these loans awarded between September 2009 and July 2014. The average loan is approximately \$89,000 and the average net worth for those borrowers is \$138,000. There is a net worth cap on this loan at \$500,000. Borrowers used these funds to primarily buy into a practice or start their own clinic. Others used the funds for equipment and buildings.

K AFC Borrower Survey

Surveys were distributed through the K AFC administration to all borrowers of any of the K AFC programs. In total, there were 16 respondents representing 14 counties (13 completed surveys). Table 3.5 below provided a breakdown of responses by type of K AFC program. There were no responses for any borrowers through the Diversity through Entrepreneurial Agricultural Loan (DEAL) program.

Table 3.5. K AFC Borrower Survey Responses by Program.

K AFC program	Response	%
Agricultural Infrastructure Loan Program	6	46%
Agricultural Processing Loan Program	1	8%
Beginning Farmer Loan Program	3	23%
Large Animal Veterinary Loan Program	2	15%
New Agriculture Enterprise Loan	1	8%

Borrowers represented poultry, livestock and grain producers as well as several vet clinics and one agriculture education teacher. Below is a sample of loan purposes for these respondents:

- Construction of a cow/calf confinement barn
- To reestablish a veterinary practice in an underserved area
- Purchase property to start a small chicken farm in the short term and start a cattle enterprise long term.
- To house tobacco in central location.
- Acquire farm land.
- Purchase remaining partnership share of an ongoing mixed animal practice so the business could continue after the death of one of the partners.
- K AFC loan was part of a package of loans sculpted to assist in placement of a livestock market in an underserved area.
- To cost share the cost of an Educational Greenhouse for the Washington County High School Ag Department.
- Upgrade to more efficient on demand water heater.
- Increase milk capacity and improve energy efficiency.

Through the survey, the borrowers responded that the primary reason for using the K AFC loan program was to save on interest payments and to leverage additional credit by combining with the K AFC loan, as presented in Table 3.6.

Table 3.6. Primary Reason for Using K AFC Loan.

Primary reason for using K AFC loan program:	Response	%
Save on interest	7	54%
Access credit	1	8%
Leverage additional credit by combining with K AFC loan	3	23%
Other	2	15%
TOTAL	13	100%

Respondents were asked to identify the proposed impacts of the KAFC investment using a 1 to 4 Likert scale (1 = no effect and 4 = large effect) for the 10 criteria presented in Table 3.7. The impact with the largest effect was “enhanced an existing farm enterprise” and borrowers responded that there were likely three other large impacts including “provided support for agricultural entrepreneurship”, “enhanced the viability of young or beginning farmers”, and “enhanced the viability of part-time farmers.” Borrowers did not see the KAFC loans as a tool to develop new agricultural products.

Table 3.7. Borrower Stated KAFC Investment Impact.

Impacts of the KAFC investments	Average response
Enhanced an existing farm enterprise	3.5
Provided support for agricultural entrepreneurship	3.2
Enhanced the viability of young or beginning farmers	3.2
Enhanced the viability of part-time farmers	3.2
Added value to KY agriculture products	3.0
Increased your farm income	3.0
Expanded an existing market for KY ag products	3.0
Developed a new agriculture related business	2.8
Created a new market for KY agriculture products	2.5
Created new jobs in the local economy	2.5
Developed new products	1.7

AILP Borrower Survey Responses

When borrowers were asked “Would this loan have happened without the KAFC program?” 100% of the AILP borrowers said yes. However, at the same time all respondents stated that the KAFC loan was still a critical component to financing the project. Most respondents also stated that the loan had a positive impact on the business, but only one respondent could state what the impact was. The 2007 evaluation of the KAFC AILP suggested that this loan program could be a duplication of conventionally available agricultural credit. Feedback from the borrowers and an analysis of all of the loans suggests that this is likely still true.

BFLP Survey Responses

Two beginning farmers who received loans completed an extensive survey as well as 14 lenders who have experience working with the BFLP program. Both farmers and 11 of the 14 lenders stated that the loans would NOT have happened without KAFC. There were several factors that explained why KAFC was a pivotal part of the investment including:

- Other banks would not have granted the loan due to lack of cash flow by borrower
- Loan too risky for conventional lenders
- KAFC can waive Farm Service Agency (FSA) guarantee fees
- Lack of down payment, borrowers can borrow down payment from KAFC

While there were only two BFLP responses to the borrower survey, both respondents answered the impact questions the same suggesting that the BFLP is designed to support entrepreneurship in agriculture and increase farm income. Both borrowers also stated that the KAFC loan was crucial for the enhanced viability of young or beginning farmers.

Overall Borrower Survey Findings

Additional questions asked of borrowers are summarized in the tables below. Tables 3.8 and 3.9 explore the KAFC loan program as a new opportunity for accessing new lenders and funds.

Table 3.8. Working with new lenders.

Did you work with a different lender than you normally would have for this loan?	Response	%
Yes	5	38%
No	8	62%
TOTAL	13	100%

Table 3.9. New opportunities through KAFC program.

Has KAFC loan program provided anything that you normally could not get using your regular Ag lender?	Response	%
Yes	10	77%
No	3	23%
TOTAL	13	100%

An additional purpose of the borrower survey was to determine the impact of the loan on the business as well as the ability of the borrower to leverage additional funds because of the KAFC program. The results provided in Table 3.10 suggest that 77% of the respondents believed that the KAFC loan had a positive impact on the business. Seventy percent of the respondents stated that the KAFC investment helped leverage other funds for the project, as presented in Table 3.11.

Table 3.10. KAFC investment positive effect on own business.

KAFC loan has had a positive effect on my business	Response	%
Strongly Disagree	3	23%
Disagree	0	0%
Agree	6	46%
Strongly Agree	4	31%
TOTAL	13	100%

Table 3.11. KAFC helped leverage other funds.

KAFC loan helped me leverage other funds for this project	Response	%
Strongly Disagree	3	23%
Disagree	1	8%
Agree	8	62%
Strongly Agree	1	8%
TOTAL	13	100%

As detailed in Table 3.12, all respondents believed that the benefits from the K AFC investments would be observed for at least five years, and 92% of the respondents said that benefits were anticipated to more than 10 years.

Table 3.12. Benefits of project over time.

How far into the future do you see the benefits of this project reaching?	Response	%
Short Term (1-4 years)	0	0%
Intermediate (5-10 years)	1	8%
Long Term (10 years+)	12	92%
TOTAL	13	100%

In addition, Tables 3.13 and 3.14 illustrate the impact of the K AFC investments on tobacco farmers and tobacco-impacted communities. Approximately 46% stated that the project helped tobacco farmers and 77% believed that the project helped tobacco-impacted communities.

Table 3.13. Project impact on tobacco farmers.

Has this project helped tobacco farmers?	Response	%
Yes	6	46%
No	7	54%
TOTAL	13	100%

Table 3.14. Project impact on tobacco-impacted communities.

Has this project helped tobacco-impacted communities?	Response	%
Yes	10	77%
No	3	23%
TOTAL	13	100%

Below are selected comments about the BFLP and the AILP loan programs when borrowers were asked to specify any open ended comments they wished to share.

Beginning Farmer Loan Program (BFLP):

- *“K AFC made possible for us a dream that was still years from fruition. Having it was integral to the current success we are experiencing as first-time farmers and for that we will be forever grateful.”*
- *“This program is an excellent resource for beginning farmers. One of the greatest hurdles for any beginning farmer is land. The cost of land is not always reflective of the income that can be produced from it. This program gives young farmers the access to capital and at cash flow friendly rate.”*
- *“A good program to help young agriculturists get a foundation built so they can live a life dedicated part-time or full-time to agriculture.”*

Agricultural Infrastructure Loan Program (AILP):

- *“It is a program that will allow for farmers to expand and enhance their farming operations.”*
- *“It is greatly appreciated for those of us that have been operating a part-time farm operation for many years. We feel that it is great that the state of Kentucky has segregated these funds to aid in the future of agriculture in Kentucky.”*

- *“Seemed a lot of farmers were unaware of availability. Some lending institutions did not want to be bothered by something different and did not share the possibility with borrowers.”*
- *“It is logical and critical for tobacco settlement monies to be utilized to develop or improve infrastructure in the processing and marketing arena. The funds have had a profound impact on the production side of agriculture and improving processing and marketing closes the loop and provides the farmer not only the opportunity to be more productive and efficient but also progressive in their marketing of those products.”*

Agricultural Processing Loan Program (APLP):

- *“This is a wonderful program. The folks involved have always been extremely available, helpful, and truly care about improving Kentucky’s agriculture business community.”*
- *“The project was too large to finance without K AFC’s investment. The company has now opened a Kentucky Proud market that features its own products in addition to an assortment of other Kentucky made products including ice cream, cheese, canned vegetables, honey, and jams and jellies. This company was able to double their annual sales.”*

Large Animal Veterinary Loan Program:

- *“This loan allowed a new young veterinarian to leave a practice as an employee and move to Kentucky to be an owner/operator. It provided a great opportunity for me.”*
- *“Excellent program that fills a need in our state.”*
- *“K AFC needs to improve the marketing of this program.”*
- *“Could have gotten financing elsewhere but it would have taken longer, been a bit more of a hassle, and would have cost more through higher interest rates.”*
- *“A clinic, which had been closed previously, reported 8 jobs as a result of this investment as well as being able to have state-of-the-art technology and essentially a full pharmacy.”*

K AFC Lenders Survey

A similar survey instrument was sent to all K AFC lenders. In total, 22 useable responses were received. The lenders were all very pleased with the program. Table 3.15 highlights that 68% of the respondents stated that the K AFC program allowed them to work with new clientele that they did not typically work with their conventional loans.

Table 3.15. New Clientele.

Do K AFC loan programs allow you to work with new or different clientele than normal?	Response	%
Yes	15	68%
No	7	32%
TOTAL	22	100%

The primary reasons banks became involved in loan participation with KAFC are listed below (the number in parentheses equals the number of times the specified reason was mentioned).

- To provide financial assistance and ease to beginning and new, young farmers (7)
- To provide lower interest rates for customers (7)
- To help serve the goals and financial needs of the customers (5)
- The participation helped reduce the bank's risks (3)

One of the common threads among the respondents was the ease of the KAFC loan process. Ninety-five percent of the lenders surveyed said that the KAFC loan process was either very easy or easy, as detailed in Table 3.16. There were some that stated that the approval time was a bit longer than they hoped for, primarily because the board only meets once per month.

Table 3.16. Ease of KAFC Loan Process.

Description of KAFC loan process	Response	%
Very Easy	6	27%
Easy	15	68%
Difficult	1	5%
Very Difficult	0	0%
TOTAL	22	100%

The survey utilized the same list of potential KAFC impacts for both borrowers and lenders to determine the potential impacts from the KAFC program; results of the lender survey are in Table 3.17. The lenders thought the largest impact was that the KAFC program enhanced the viability of young farmers (on a scale of 1-4). Other top impacts include: "enhanced an existing farm enterprise", "increased the borrower's farm income", "provided support for agricultural entrepreneurship" and "enhanced the viability of part-time farmers." These responses were similar to the borrowers' perceived impacts.

Table 3.17. Lender observed potential impacts from KAFC program.

Potential Impacts	Mean
Enhanced the viability of young farmers	3.50
Enhanced an existing farm enterprise	3.41
Increased the borrower's farm income	3.41
Provided support for agricultural entrepreneurship	3.27
Enhanced the viability of part-time farmers	3.27
Added value to KY agriculture products	3.00
Expanded an existing market for KY ag. products	2.73
Created a new market for KY agriculture products	2.59
Created new jobs in the local economy	2.59
Developed new products	2.52
Developed a new agriculture related business	2.50

Additionally, Table 3.18 highlights that approximately 81% of lenders believed that the K AFC investment was a critical component to making a loan. This suggests again that some borrowers had other opportunities to gain access to capital for new projects.

Table 3.18. K AFC investment was critical component.

K AFC money was a critical component to making these loans	Response	%
Strongly Disagree	3	14%
Disagree	1	5%
Agree	9	43%
Strongly Agree	8	38%
TOTAL	21	100%

Tables 3.19 and 3.20 present the lender survey results relating to tobacco farmers. Eighty-one percent of the lenders believed that the K AFC program helped tobacco farmers, and about 80% believed that the program helped tobacco-impacted communities. These results are also consistent with the borrower responses.

Table 3.19. Lenders perception of K AFC program impacting tobacco farmers.

Project helped tobacco farmers?	Response	%
Yes	17	81%
No	4	19%
TOTAL	21	100%

Table 3.20. Lenders perception of K AFC program impacting tobacco-impacted communities.

Project helped tobacco-impacted communities	Response	%
Yes	16	80%
No	4	20%
TOTAL	20	100%

More broadly, lenders were asked to comment on the comprehensive impact of the K AFC program on agricultural lending in Kentucky. Ninety-five percent of the lenders stated that they believed that the K AFC program is having a positive impact on agricultural lending in Kentucky, as detailed in Table 3.21. Only one respondent strongly disagreed with this statement. In addition, lenders answered the question “K AFC is filling a unique and needed role in the Kentucky agricultural finance industry” similarly, as revealed in Table 3.22. The same respondent strongly disagreed with this statement.

Table 3.21. K AFC positive impact on agricultural lending in Kentucky.

K AFC is having a positive impact for Ag lending in KY	Response	%
Strongly Disagree	1	5%
Disagree	0	0%
Agree	7	33%
Strongly Agree	13	62%
TOTAL	21	100%

Table 3.22. KAFC is filling a unique role in the agricultural finance industry in Kentucky.

KAFC is filling a unique and needed role in the KY Ag Finance Industry	Response	%
Strongly Disagree	1	5%
Disagree	0	0%
Agree	8	38%
Strongly Agree	12	57%
TOTAL	21	100%

Lenders were asked to state any open-ended opinions about each of the KAFC Loan programs. Paraphrased responses are provided below (with the number of similar response in parentheses).

Beginning Farmer Loan Program (BFLP):

- *Great for getting new farmers started and into an Ag related industry or business (4)*
- *Allows for young farmers the much needed financing to continue to farm (3)*
- *Great resource/ program for borrowers and lenders in Kentucky (3)*

Agricultural Infrastructure Loan Program (AILP):

- *Enables customers to finance projects with affordable payments (4)*
- *Helps farmers expand and improve operations (3)*
- *Has low-interest financing (2)*
- *Helps big time with grain and poultry industries (2)*
- *Staff is great to work with (2)*

Agricultural Processor Loan Program (APLP):

- *Not enough research in this area. KAFC gets involved in projects with large chance of failure. (1)*

Large Animal Veterinary Loan Program:

- *Extremely beneficial in helping sustain existing operations and allows new entrants into industry (1)*
- *Helped a young veterinarian own their own practice that would've taken years without*

The main positive aspects with working with the KAFC loan programs:

- *The ease of application (7)*
- *Lower interest rates and financing (7)*
- *Helps improve farmers' cash flow (5)*
- *Working with a knowledgeable, helpful and supportive staff (5)*

The main negative aspects with working with the KAFC loan programs:

- *None (6)*
- *Timing of approvals is too long; board should meet more regularly because timing can be critical (4)*

Main suggestions to improve KAFC financing:

- *None at this time/ I was pleased (8)*
- *Continue getting the word out to farmers (2)*
- *Get more young people into farming; possibly offer a line of credit for young farmers (2)*
- *Reach out to lenders each year to make sure sales staff is familiar with the programs because of employee turnover happening. (1)*
- *If loan is pending, spell out exactly what needs to be done to make it work (1)*
- *Raise servicing allowed to the bank to 1% (1)*

Conclusions

1. The BFLP is highly regarded and, more often than not, is a critical component to accessing financing that allows recipients to purchase land to develop into or buy a new farm enterprise. Some lenders have suggested that they would like to see the net worth ceiling raised beyond the current \$500,000 cap. They say high land valuations and accumulated equity in farm equipment may be excluding some applicants. However, other lenders say they think the guidelines are good, do not need revision and are helping the target audience of young and beginning farmers. An analysis of the BFLP shows that only 17% of the borrowers had a net worth within \$100,000 of the net worth ceiling of \$500,000.

Recommendation: Maintain the current net worth ceiling of \$500,000 for BFLP borrowers. The program is highly regarded by borrowers and lenders and a large majority of the beginning and young farmer borrowers have a net worth well under the maximum.

2. The AILP loan appears to be geared towards experienced enterprises with significantly high net worth who are accessing funds at below market rates. Almost all of the AILP loans could have been financed through conventional ag lenders. The current AILP portfolio is very risk-averse.

Recommendation: Staying true to the intent of the KADB, this program should focus more on those loans that could not happen without KAFC involvement while at the same time maintaining a reasonable level of risk. Consider implementing a net worth ceiling on this program and relocating funds for more entrepreneurial on-farm or value-added activities.

3. KAFC activities are heavily concentrated in Western Kentucky. However, there appears to be a lot of smaller scale farmers and new value-added enterprises emerging in Eastern Kentucky.

Recommendation: Focus outreach efforts and expand KAFC opportunities to other parts of the state. Loan programs might have to be geared more towards new market development. Loans could focus more broadly on livestock, horticulture, and agri-tourism.

4. There were only five Diversification through Entrepreneurship in Agribusiness (DEAL) loans from 2010 to 2015. This program, designed to diversify agriculture, is at the heart of the mission of the KADB. There are coordinated efforts in many parts of the state to nurture new entrepreneurs to improve the regional food system.

Recommendation: Following on the prior recommendation, focus outreach efforts to better market the DEAL program.

5. The Veterinarian program emerged from the recommendations of the previous KADB evaluation. This is a relatively small, but successful program and highly valued by those who have used it. The benefits to the farming community from these small businesses will be substantial.

Recommendation: Keep looking for niche areas where the KAFC's lower cost of accessing capital and ability to shoulder additional risk will incentivize entrepreneurs, producers, and businesses to enter the agricultural industry.

APPENDIX 1: Survey Forms

Agriculture Development Fund – Evaluation Project II Project

Interview Form

Date _____

Project Title _____

Project # _____

Person(s) interviewed _____

Interview team members _____

Section I). Background Information

1) Nature of the business

2) Brief summary of company or project's history. Start date: _____

3) Amount of ADF award and purpose. Award \$ _____

Purpose: _____

Section II). Implementation

1) How did project implementation differ from the proposed plan submitted to the ADB?

2) What went wrong or didn't work out as you originally planned?

Explain: _____

3) Review and discussion of goals and objectives from legal agreement (Attached Separately)

4) Have you met the goals and objectives outlined in your ADF proposal and legal agreement? ___Yes

___No

- All
 Some
 None

Section III). Impacts

1) The evaluation team is assessing outcomes and impacts of the ADB investments. Below are some potential impacts. Please identify which ones apply to your project and explain the nature/extent of that impact. Include numerical measures when possible.

a) Created a NEW market for KY agriculture products Yes___ No ___

Description: What, Where & How

b) Helped our organization make loans or grants to farmers. Yes___ No ___

Description: What, Where & How

c) Provided incentives for environmental stewardship Yes___ No ___

Description: What, Where & How

d) Provided support for agricultural entrepreneurship Yes___ No ___

Description: What, Where & How

e) Increased farmer computer literacy Yes___ No ___

Description: What, Where & How

f) Supported local leadership development Yes___ No ___

Description: What, Where & How

g) Conducted NEW ag research and development Yes___ No ___

Description: What, Where & How

- h) Increased net farm income for local farmers Yes ___ No ___
Description: What, Where & How

- i) Developed NEW products Yes ___ No ___
Description: What, Where & How

- j) Added value to KY agriculture products Yes ___ No ___
Description: What, Where & How

- k) Expanded an existing market for KY ag products Yes ___ No ___
Description: What, Where & How

- l) Developed a NEW agriculture related business Yes ___ No ___
Description: What, Where & How

- m) Enhance an existing farm enterprise Yes ___ No ___
Description: What, Where & How

- n) Created NEW jobs in the local economy Yes ___ No ___
Description: What, Where & How

- o) Provided an innovative solution to a major problem Yes ___ No ___
Description: What, Where & How

Impact Results Table:

Record Quantifiable Results of This Project:	Amount: # of units	Dollar Value Calculation: Sales, Payroll, Increased Production, etc.
NEW Jobs Created		
NEW Markets Developed		
Increased Agriculture Sales		
Increased Farm income		
New Ag Products Developed		
Added Value to KY Ag Products		
Expanded Markets for KY Ag Products		
Developed NEW Ag Business(s)		
Found NEW ways to add Value to KY Ag Products		
Provided an Innovative Solution to a Major Problem		
Provided education or leadership training to KY farmers and agriculturalists		

2) Primarily this project has helped (choose one):

- Small Farms (<\$250,000 in sales)
- Mid-Size Farms (\$250,000 to \$999,999 in sales)
- Large Farms (\$1 million and up in sales)

3) Which counties have been affected by this project?

4) Do you have written documentation of results that you could share with the evaluation team? If yes, what documents?

Section IV). Opinions

For the following questions, do you Strongly Agree, Agree, Disagree, or Strongly Disagree?

1) This project has helped tobacco farmers.

- Strongly Agree
- Agree
- No opinion
- Disagree
- Strongly Disagree

Explain and quantify:

2) This project has helped tobacco impacted communities.

- Strongly Agree
- Agree
- No opinion
- Disagree
- Strongly Disagree

Explain and identify communities impacted:

3) This project has helped young or beginning farmers.

- Strongly Agree
- Agree
- No opinion
- Disagree
- Strongly Disagree

Explain and quantify:

4) The ADF money was a critical component to starting this project.

- Strongly Agree
- Agree
- No opinion
- Disagree
- Strongly Disagree

Explain:

5) This business or project will be able to continue after the ADF money has ended.

- Strongly Agree
- Agree
- No opinion
- Disagree
- Strongly Disagree

Explain:

6) How far into the future do you see the benefits of this project reaching?

- Benefits no longer exist (0 Years)
- Short term (1-4 Years)
- Intermediate (5-10 Years)
- Long term (over 10 Years)

Explain:

7) The ADF money helped leverage other funds for this project.

- Strongly Agree
- Agree
- No opinion
- Disagree
- Strongly Disagree

Explain:

8) Please choose the phrase that most accurately reflects your situation;

The ADB (KADF) investment I received;

- A) Made it easier for me to do the project
- B) Allowed me/us to expand the scope of the project originally projected
- C) Was the deciding factor for me in doing the project
- D) Had no influence on my decision to do the project

Section V). In Summation

1) Help us to summarize the results from this project...

A) Where would Kentucky’s agriculture be without the ADF investment?

B) What have been the quantitative and qualitative impacts of the ADF investment?

C) How have ADF investments leveraged other resources?

D) How have ADF programs affected county leadership and entrepreneurial leadership?

2) What best management practices did you learn from this project?

3) Is there anything else you would like to share with the Evaluation Team about the impacts and consequences of the ADF investments?

Agriculture Development Fund – Evaluation Project

KAFC Evaluation Survey – Borrower _____

Interview Team Members _____

Section I). Background Information

1) Nature of the business

2) Purpose, amount and goals of KAFC loan

Section II). Implementation

1) Which KAFC program did you participate in?

- Agricultural Infrastructure Loan Program
 Agricultural Processing Loan Program
 Diversification Through Entrepreneurship in Agribusiness Loan Program
 Beginning Farmer Loan Program
 Large Animal Veterinary Loan Program

2) Primary reason for using KAFC loan program?

- Save on interest
 Access credit
 Leverage additional credit by combining with KAFC loan
 Other

Explain: _____

3) Would this loan have happened without the KAFC loan program? Yes _____ No _____

Explain: _____

4) Did you work with a different lender than you normally would have for this loan? Yes _____
No _____

Explain: _____

5) Has the KAFC loan program provided anything that you normally could not get using your regular agricultural lender?
Yes _____ No _____

Explain: _____

6) Have you accomplished the purpose of your KAFC loan? Yes _____ No _____

Explain: _____

7) In a sentence or two, please tell us your opinion of the following KAFC programs

Beginning Farmer Loan Program

Agricultural Infrastructure Loan Program

Agricultural Processing Loan Program

Diversification through Entrepreneurship Loan Program

Large Animal Veterinary Loan Program

8) What are the good and bad aspects of the KAFC loan program?

2) Has this project helped:

a) Tobacco farmers? ___Yes ___No How many farmers? _____

b) Tobacco-impacted communities? ___Yes ___No How many communities?

c) What counties have been affected?

Section IV). Opinions

Questions concerning the Kentucky Agriculture Finance Corporation:

For the following questions, do you Strongly Agree, Agree, Disagree, or Strongly Disagree?

1) The KAFC loan was a critical component to financing this project.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Explain: _____

2) The KAFC loan has had a positive effect on my business

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Explain: _____

3) How far into the future do you see the benefits of this project reaching?

- Short Term (1-4 Years)
- Intermediate (5-10 Years)
- Long term (over 10 Years)

How? _____

4) The KAFRC money helped me leverage other funds for this project.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Explain: _____

Questions concerning the Agricultural Development Fund as a Whole:

6) Have you applied for any ADF grant or loan funds? Yes _____ No _____

7) Have you received any ADF grant or loan funds? Yes _____ No _____

If yes, describe

State ADF
\$ _____

County ADF
\$ _____

V). Is there anything else you would like to share with the Evaluation Team about the impacts and consequences of the ADF investments including the Kentucky Agricultural Finance Corporation?

Agriculture Development Fund – Evaluation Project

KAFC Evaluation Survey – Lender

Name of Bank _____

Name of Respondent _____ Work Phone _____

Interview Team _____

Section I). Qualitative Information

1) How many loans have you made in participation with KAFC?

- _____ Agricultural Infrastructure Loan Program (AILP)
- _____ Agricultural Processing Loan Program (APLP)
- _____ Diversification Through Entrepreneurship in Agribusiness Loan Program
- _____ Beginning Farmer Loan Program (BFLB)
- _____ Large Animal Veterinary Loan Program (VET)
- _____ New Agriculture Enterprise Loan (NAEL)

2) When did you become involved in loan participation with KAFC?

3) Why did you become involved in loan participation with KAFC?

4) Would these loans have happened without the Kentucky Agricultural Finance Corporation participation? Yes _____ No _____

Please explain your
response: _____

5) Do the KAFC loan programs allow you to work with new or different clientele than you normally would? Yes _____ No _____

Explain: _____

6) How would you describe the loan process for KAFC loans?

- Very Easy
- Easy
- Difficult
- Very Difficult

Explain: _____

Section III). Quantitative Information

1) The evaluation team is assessing outcomes and effects of the KAFC investment. Below is a list of potential impacts. In your opinion, please identify which (if any) outcomes may have happened as a result of KAFC loans made by your bank. Include numerical measures if possible.

KAFC Loans:

- l) Created a new market for KY agriculture products Yes ___ No ___
- m) Provided support for agricultural entrepreneurship Yes ___ No ___
- n) Increased the borrowers farm income Yes ___ No ___
Estimate:
- o) Developed new products Yes ___ No ___
- p) Added value to KY agriculture products Yes ___ No ___
- q) Expanded an existing market for KY ag. products Yes ___ No ___
- r) Developed a new agriculture related business Yes ___ No ___
- s) Enhanced an existing farm enterprise Yes ___ No ___
- t) Created new jobs in the local economy Yes ___ No ___

u) Enhanced the viability of young farmers Yes ___ No ___

v) Enhanced the viability of part-time farmers Yes ___ No ___

Explain _____

2) Have KAFC loans helped:

a. Tobacco farmers? ___Yes ___No How many farmers?

b. Tobacco-impacted communities? ___Yes ___No How many communities?

Section IV). Opinions

Questions concerning the Kentucky Agricultural Finance Corporation:

1) In a sentence or two, please tell us your opinion of the following KAFC loan programs:

Beginning Farmer Loan Program

Agricultural Infrastructure Loan Program

Agricultural Processor Loan Program

Diversification Through Entrepreneurship in Agribusiness Loan Program

Large Animal Veterinary Loan Program

New Agriculture Enterprise Loan Program

For the following questions, do you Strongly Agree, Agree, Disagree, or Strongly Disagree?

1) The KAFC money was a critical component to making these loans.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Explain _____

2) KAFC is having a positive impact for agricultural lending in Kentucky.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Explain _____

3) KAFC is filling a unique and needed roll in the Kentucky Ag. Finance Industry

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Explain _____

4) Based on your experience, what are the positives and negative aspects of the KAFC loan programs?

5) Do you have any suggestions on how to improve the KAFC financing?

Section V). Is there anything else you would like to share with the Evaluation Team about the impacts and consequences of the ADF investments including the Kentucky Agricultural Finance Corporation?

Outcomes:

1. Effect on Kentucky Agriculture: The KBN efforts have had a large, positive impact on Kentucky's beef cattle industry by improving the Kentucky cattlemen's knowledge base, leveraging the impact of CAIP program investments and focusing on value-added markets such as the CPH-45 sales and the PVP cattle sales. The impact of these educational and targeted marketing efforts is illustrative of the success and forward momentum being built by Kentucky's beef industry. The KBN programs implemented reached 109 counties in Kentucky.
2. Quantitative and Qualitative Impacts:
 - a. **Direct Impacts:** A direct measure of impact from the KBN is farm income generated from targeted marketing programs, CPH-45 feeder cattle premiums added \$5.8 million in farm income, and PVP cattle net premiums added \$3.0 million in farm income. In addition the MAG 60 program generated \$350,000 in known additional income and well as the bulk mineral purchasing program with \$95,000. Direct Farm Income generated from KBN programing was estimated to be \$9.2 million.
 - b. **Indirect Impacts:** An indirect impact estimate can be made from the educational programs developed and conducted by the KBN and its contracted university partners. Over the 2007-2014 period, the KBN has graduated 2,122 cattlemen from in-depth cattle and forage management educational programs. An estimate provided by the KBN was the annual added farm income from management improvements taught amounted to \$4,500. Taking a conservative approach and saying ½ of the annual estimate, multiplied by the 2,122 participants, multiplied by 4 years (½ of the time period) would approximate an additional \$19.1 million in farm income. Adding this management improvement result to the direct income measures result, yields a return on investment of \$28.2 million from the KBN, or \$3.90 in farm income for every \$1 of KADF invested.

Organization: Kentucky Dairy Development Council (KDDC)

Project Title: Infrastructure Development, Technical Assistance Programs, and a comprehensive market study of Kentucky's dairy industry

Description: KDDC is a non-profit organization that was formed to give Kentucky dairy producers a unified voice. KDDC's mission is to educate, represent and promote dairy farmers and foster an environment of growth for Kentucky's dairy industry. The KDDC's main focus is to: educate KY producers on federal milk marketing order issues, improve milk production techniques and be a resource to help individual dairy operations improve net farm income. The purpose of the KADF grant was to fund a comprehensive set of programs and incentives that would foster the growth of the dairy industry in Kentucky. Each program generates funds through membership fees, educational classes, demonstrations, newsletters, and their website.

Goal/Objectives:

1. Implement the following programs: Kentucky Dairy Improvement Program (KDIP), Market Incentive Leadership for Kentucky (MILK), and Young Dairy Producer initiative (YDPI) to benefit Kentucky dairy farmers.
 - Increase producer profitability
 - Create sustainability for Kentucky dairy farms
 - Improve producer well being

Funding:

- Type: Grants
- ADB Investment: \$3,796,448
- Grants: A2008-043 \$291,453; A2010-010 \$1,641,095; A2012-028 \$1,863,900
- Matched Funds: \$2,815,217 From: MILK Marketing Quality Program
- Total Expenditures: \$6,611,665

Funds were used for:

1. Salaries and benefits for Executive Director, 4 Dairy Consultants and 2 part-time staff.
2. Accounting, legal and insurance expenses
3. Program promotion for each initiative
4. Equipment purchases for each program
5. Funding for KDIP, MILK, and YDPI programs

Outputs:

1. Previous ADB funding helped to establish the KDIP, MILK, and YDPI programs which are ongoing.
2. KCCD offers on farm consulting, milk production premium incentives, special programs for young dairy farmers, industry conferences and tours.
3. Since the inception of KDDC in 2005, KY dairy farmers have increased their farm income by \$94.4 million. The increase was due to direct incentive payments for increased milk production and increased milk quality (\$5.6 million) and from the sales of the additional milk produced (\$88.8 million).
4. The ADB funding helped leverage sponsorships and MILK program premiums from 7 milk marketing organizations.

Outcomes:

1. Effect on Kentucky agriculture: This project has increased the Kentucky dairy producers income and has provided greater access to educational resources.

2. Quantitative and Qualitative Impacts: Milk production has increased 444,182,955 lbs over the base production rate since KDDC began. Kentucky milk production per cow has increased from 12,000 lbs in 2006 to nearly 16,000 lbs in 2014. And the overall quality of milk has improved.
3. Resources Leveraged: The KDDC was able to leverage an additional \$8,780,665 from the MILK Marketing Quality Program.
4. Effect on county and entrepreneurial leadership: The young Dairy Producer Program provides leadership skills, public speaking skills, tours and management seminars.

Organization: O'Bryan Grain Farm, Inc.

Project Title: Development and Implementation of High-Rise Swine Manure Composting Facility

Description: O'Bryan Grain Farms received a grant to construct and evaluate a swine facility that would allow producers to turn hog manure into sellable compost. The facility is a "high-rise" two-story building where the top floor is a ventilated, slotted floor swine finishing barn that can house up to 4000 head of swine. The lower floor is a nine foot deep basement with a solid concrete floor which has wood chip or other organic material placed to catch the manure from the second floor. Roosters have been added to the bottom floor to help eliminate flies. A separate compost pad was put into place to store and compost the organic material removed from the two-story building. O'Bryan Grain Farm constructed and tested an innovative facility resulting in an enterprise that generates an additional saleable product (compost) out of a former non-transportable and therefore non-marketable product (liquid manure).

Goal/Objectives:

1. Develop a feasible, working swine production facility that provides for the economical composting of manure within the production unit to be implemented by current producers or individuals desiring to become involved in swine production.
 - Determine the facility requirements that are needed to successfully implement manure composting within the production unit.
 - Evaluate different types of compost stirring machinery to determine the most effective and economical machinery that is needed.
 - Determine how to properly manage the compost material within the production unit to minimize labor and cost.
 - Evaluate the nutrient content and stability of the compost to determine if further composting is needed.

Funding:

- Type: Grant
- ADB Investment: \$352,155 grant: A2007-0487
- Matched Funds: \$ 833,559 from: O'Bryan Grain Farm
- Total Expenditures: \$1,185,714

Funds were used to buy:

1. Travel associated with research
2. Equipment, materials, and supplies for composting
3. Analysis of project
4. Waste removal fee

Outputs:

1. The construction of the facility is 100% complete and the facility is producing and marketing compost to local farms for use as a soil amendment.
2. Through the added efficiency of the swine production facility, O'Bryan Grain Farm increased their production of sows and increased annual corn usage by 112,625 bushels for added swine production.
3. O'Bryan Grain Farm is currently producing 2,866 tons of compost for sale annually.

Outcomes:

1. Effect on Kentucky agriculture: The compost product produced is helping local farm enterprises reduce fertilizer costs; it is also providing additional income to the hog farm enterprise. The project is possibly a

model for reducing the land requirements needed for traditional confined hog feeding operations that utilize liquid manure handling systems.

2. Quantitative and Qualitative Impacts: 70 producers in 3 counties have purchased compost.
3. Resources Leveraged: O'Bryan Grain Farm was able to leverage an additional \$833,559 for the project from their operation.

Effect on county and entrepreneurial leadership: Encourage other farm enterprises to utilize economically and environmentally friendly practices and to explore innovative ideas.

Organization: Webb's Properties, LLC

Project Title: Webb's Butcher Block

Description: Webb's Butcher Block is a family owned meat processing facility located in Payneville, Kentucky. The processing facility directly and indirectly benefits KY farmers by providing value added processing. Directly: Farmer's bring their meat to be processed into jerky, snack stick, summer sausage, smoked sausage, or brats. Indirectly: Webb's Butcher Block purchases Kentucky Proud raw material (beef, pork, bison, elk, venison) from Swift, Critchfield Meats, and other various local producers. They sell their products through wholesale and retail markets and their website. The grant went towards a smokehouse and other processing equipment to produce value added meat products.

Goal/Objectives:

1. Expand the value-added processing business to meet customer/market demand
 - Upgrade and modernize packaging and slicing equipment
2. Increase farm income and provide a viable market outlet for Kentucky farmers
 - Purchase more Kentucky grown animals and meat products

Funding:

- Type: Zero Interest Loan
- ADB Investment: \$125,000 loan: A2008-0126
- Matched Funds:\$175,000 from: Webb's Butcher Block
- Total Expenditures: \$300,000

Funds were used to buy:

1. Packaging Equipment
2. Vortron Smokehouse
3. Trief Slicer

Outputs:

1. The equipment is now paid in full and used for processing jerky, snack sticks, summer sausage, smoked sausage and brats.
2. Webb's Butcher Block buys and processes meat from 10 producers.
3. Webb's have products in 160 retail outlets in Kentucky and Southern Indiana.
4. Over half of their business is with Kentucky farmers to process end cuts and produce value added products to sell.

Outcomes:

1. Effect on Kentucky Agriculture: Webb's Butcher Block provides producers with the opportunity to participate in the local food movement by offering processing to create value added products.
2. Quantitative and Qualitative Impacts: Webb's Butcher Block sales and production volume have increased due to the purchase of the updated equipment.
3. Resources Leveraged: The Butcher Block was able to leverage an additional \$175,000 from company funds for this project as well as adding several other equipment pieces that are required for processing (slicing equipment).
4. Effect on county and entrepreneurial leadership: Webb's Butcher Block is an example of successful services created to facilitate value-added agriculture enterprises.

Organization: Kentucky Horse Council

Project Title: Statewide Equine Study to Measure Economic Impact

Description: The Kentucky Horse Council is a non-profit organization involved in education and leadership development in the equine industry in Kentucky. This project focused on conducting a state-wide survey of all horse breeds found throughout Kentucky. The Kentucky Horse Council contracted with various professionals and industry experts to complete the project. The results of the study will be summarized in presentation materials, available on an internet website in a printable document form and a hardcopy.

Goal/Objectives:

1. Design and develop the database to capture and validate data.
2. Enter collected data into the system in a timely manner.
3. Hire field enumerators to travel the state and collect data.
4. Produce various reports and allow for data queries.

Funding:

- Type: Grant
- ADB Investment:\$300,000 grant: A2011-0159
- Matched Funds: \$221,875 from: Multiple Association/Business Donors
- Total Expenditures: \$521,875

Funds were used for:

1. National Agricultural Statistics Service data analysis
2. Personnel
3. Supplies/Services
4. Travel
5. Kentucky Horse Council staff compensation
6. University of Kentucky faculty compensation

Outputs:

1. The state-wide study was completed and released September 6, 2013 and includes county-wide information.
2. The information from the study has reached an estimated 24,500 producers (number of equine operations estimated minus personal operations).

Outcomes:

1. Effect on Kentucky Agriculture: The published study is a resource to equine professionals by serving as a guide for more informed decisions and strategic planning for the equine industry.
2. Quantitative and Qualitative Impacts: The results from the study have informed producers and industry professionals at the county level and state level. The study is being used as a baseline data set for planning purposes by state and local policy makers and the Kentucky horse industry in general.
3. Resources Leveraged: The Kentucky Horse Council was able to leverage funds from 44 associations and 19 individuals.
4. Effect on county and entrepreneurial leadership: The final publication has reached as many as 7,800 Future Farmers of America Equine members and 4-H Equine members.

Organization: Marksbury Farm Foods, LLC

Project Title: Meat Processing Facility Development

Description: Marksbury Farm (MB) received a \$175,000 cost reimbursement grant towards building a USDA-inspected meat and poultry processing facility. The facility will include a local food retail market and butcher shop. The business serves as a custom processing plant for farm enterprises in the area. Marksbury plans to sell more local meat in the marketplace and to provide access to custom processing for local producers. The plant markets meat to local restaurants, grocery stores and institutions. Marksbury encourages agricultural entrepreneurs in pasture raised food animal production and purchases animals locally.

Goal/Objectives:

1. Build a multi-species USDA inspected animal processing facility
2. Market a wide-variety of locally produced meat to wholesale buyers and operates a retail store for direct to consumer sales.

Funding:

- Type: Cost reimbursement grant – \$.50 per \$1.00 of approved documented expenses to purchase equipment or capital expenditures to build the plant.
- ADB Investment: \$175,000 grant: A2009-0023
- Matched Funds: \$1,653,153 from: Marksbury
- Total Expenditures: \$1,828,153

Funds were used to buy:

1. Small-Scale USDA-Inspected Processing Facility
2. Various Processing Equipment

Outputs:

1. MB's processing facility is complete. MB locally purchases live animals and various other farm products from more than 50 Kentucky farmers in 22 counties and provides processing services to another 314 farmers in 26 counties.
2. Offer custom processing and sell local meat to 70 restaurants, grocery stores, and institutions throughout the state.
3. MB enforces strict production standards of interest to their customers including marketing only grass-fed beef, pastured poultry and meats that are antibiotic-free and steroid-free.

Outcomes:

1. Effect on Kentucky Agriculture: The KADF investment has created an opportunity for sales, specifically for local meat in the market place. Also farm enterprises have easier access to custom processing.
2. Quantitative and Qualitative Impacts: \$2.3 million in farm sales from purchased animals.
3. Resources leveraged: Marksbury contributed an additional \$1.6 million dollars towards the project.
4. Effect on county and entrepreneurial leadership: Marksbury Farm has sponsored local and regional youth livestock shows and hosted interns. They also host a staff based leadership seminar "Farming Food and Health", and provide tours of the facility to interested agricultural groups.

Organization: Kentucky Poultry Federation

Project Title: Poultry Education and Evaluation

Description: The Kentucky Poultry Federation received a grant to research poultry houses and how to reduce energy use and costs. By researching energy reduction, the Federation was hoping to find a way to increase producer income through decreased producer costs. The Federation also works through educational programming to provide and develop new educational materials poultry producers can utilize to increase their knowledge base of information on topics such as management and energy usage.

Goal/Objectives:

1. The Poultry House Evaluation Service was implemented to identify areas where there may be potential for growers to reduce their energy costs, and in some cases to increase their income through improved production.
 - Assist producers to properly operate and maintain their equipment.
 - Reduce energy costs by adopting energy saving practices through maintenance and cost effective upgrades.
 - Develop educational workshops for 6 participating integrator producer groups.

Funding:

- Type: Grant
- ADB Investment: \$683,634 grant: A2006-0461
- Matched Funds: \$409,142 from: Producer energy audit fees and USDA Rural Energy for America Program (REAP) grants
- Total Expenditures: \$1,092,776

Funds were used for:

1. Poultry House Evaluation Service (Employees, Travel Expenses, Disposal Supplies, and Maintenance)
2. Equipment and supplies (Cellphone Service, Thermal Camera, Laptop, and Toolbox Instruments)
3. Statewide educational programming
4. Integrator educational advisory committee
5. Administration costs

Outputs:

1. The federation has worked with 42 growers in 20 Kentucky counties through the Poultry House Evaluation Service.
2. An estimated 275 growers attended and participated in the statewide Grower Educational Conference.
3. Eight Poultry House Evaluation workshops have been completed with five production complexes which have included: Pilgrim's Pride, Tyson Foods, and Cobb-Vantress.
4. Five Integrator Educational Advisory Committees have held workshops benefiting their grower communities: Perdue Farms, Pilgrim's Pride, Tyson Foods, and Cobb-Vantress.
5. A Cold Weather Ventilation Workshop was held at seven different locations across the state.

Outcomes:

1. Effect on Kentucky Agriculture: The funds provided educational resources and support for 317 poultry producers throughout the state.
2. Quantitative and Qualitative Impacts: The research has brought more energy awareness to Kentucky producers and has identified potential savings of up to \$1 million per year in reduced energy costs. They have also provided producers with more resources and educational opportunities through workshops and publications.

3. Resources Leveraged: Participating poultry growers provided cost-share funds of \$93,096 for energy audits and \$316,046 in USDA Rural Energy for America Program (REAP) grant funds were received by participants in the program.
4. Effect on county and entrepreneurial leadership: Poultry producers are more aware of industry issues and how they play a role in the global food market.

Organization: Wolfe County Fiscal Court

Project Title: The Chop Shop

Description: Wolfe County Fiscal Court received a pass through, cost reimbursement grant for \$350,000 to help with construction and establishment of The Chop Shop, a privately owned, new USDA inspected, multi species slaughter and processing facility with a retail market. Fresh and frozen processed meats are sold in the retail store, online, wholesale to local grocery stores, and to HRI customers (hotels, restaurants, and institutions). The facility also offers individual custom processing service for farmer customers with their own farm animals they wish to have processed. The Chop Shop also provides “private labeling” for other meat companies. The Chop Shop is in full operation and services customers from 70 counties in Kentucky.

Goal/Objectives:

1. Develop a USDA-approved livestock processing facility which will employ approximately 30-35 people and provide custom harvest services, and retail, and wholesale purchasing opportunities.
2. Create new opportunities for farmers in eastern Kentucky and promote growth in the area of farm-fresh, local meat products.

Funding:

- Type: Cost Reimbursement Grant \$1 per \$1 of approved documented expenses
- ADB Investment: \$350,000 Grant: A2011-0164
- Matched Funds: \$1.5 Million From: JSW Farms dba The Chop Shop
- Total Project Estimated Cost: \$3.2 Million

Funds were used for:

1. Meat Cold Storage Facility
2. Finish Construction of Slaughtering and Processing Facility

Outputs:

1. The project is 100% complete.
2. The Chop Shop has added approximately 23 jobs in Wolfe County.
3. They offer over 50 varieties of value added meat products, such as flavored beef jerky, snack sticks, bacon, sausage, etc.
4. The Chop Shop is integrating different species of meats, such as bison, into production.

Outcomes:

1. Effect on Kentucky Agriculture: The Chop Shop offers opportunity for producers to sell direct to a new local wholesale market or have their animals custom processed in order to market locally produced meat as a value-added product. The Chop Shop is working with the University of Kentucky Cooperative Extension Service to educate more producers on the potential to raise and sell finish weight animals for local processing and marketing purposes.
2. Quantitative and Qualitative Impacts: The Chop Shop’s general business operation and partnerships with producers has created new opportunities. The expected customer base is 20% retail, 20% wholesale and 60% custom processing services.
3. Resources Leveraged: The ADB investment has leveraged a \$3.2 million project in Eastern Kentucky thereby creating new opportunities for farmers and employees.
4. Effect on county and entrepreneurial leadership: The Chop Shop has offered classes and internships to students who want to learn more about meat processing and the business operation of the facility.

Organization: Kentucky Pork Producers Association, Inc.

Project Title: Kentucky State Fair Cooking Facility

Description: The Kentucky Pork Producers Association (KPPA) received grant funds totaling \$164,900 to expand the existing Kentucky Pork Producers cooking building and construct a new building for the Kentucky Cattlemen's Association (KCA) and the Kentucky Aquaculture Association (KAA) at the State Fair Grounds in Louisville, Kentucky. The new kitchen facility would serve as a fund generator for the KPPA, KCA, and KAA. It was also built to promote a local food movement with marketing and processing. The facility has been built and is used annually at the fair as well as rented to different youth organizations throughout the year such as Future Farmers of America and 4-H students.

Goal/Objectives:

1. Market cooked food products to generate income for three KY Farmer Associations, KPPA, KCA, and KAA, through the use of a permanent cooking facility at the Kentucky State Fair Grounds.

Funding:

- Type: Grant
- ADB Investment: \$164,900 grant: A2010-0055
- Matched Funds: \$165,000 from: KPPA, KCA, and KAA
- Total Expenditures: \$329,900

Funds were used for:

1. Construction of two new cooking facilities
2. Expansion and addition of existing permanent cooking facility

Outputs:

1. The Association supported various in-state and out-of state producers by purchasing 2,534 cases of chops, 1390 cases of burgers, 71 cases of ham, 199 cases of hotdogs, 727 cases of BBQ, and 402 cases of brats during the 2014 year.
2. KPPA also purchased product from JBS meat processor in Louisville to support local producers, totaling \$194,000 in 2014.
3. The facility at the fairgrounds has provided 250 part -time jobs to both youth and adults.

Outcomes:

1. Effect on Kentucky Agriculture: The constant flow of income helps each association to provide support to their sector of Kentucky agriculture through producer services, educational efforts and legislative interaction.
2. Quantitative and Qualitative Impacts: Kentucky is the only state with a pork cooking enterprise permanently situated at the state fair year-round. It has promoted agriculture products for all three associations as well as provided jobs for people in the local community.
3. Resources Leveraged: The KADF investment helped to leverage an additional \$155,000 from the KPPA, KCA, and KAA.
4. Effect on county and entrepreneurial leadership: The associations work closely with FFA and 4-H students, across the state encouraging entrepreneurial leadership. The part-time positions associated with the cooking facility and the state fair employ youth from the local community.

Organization: Kentucky Goat Producers Association

Project Title: Improving the goat production in Kentucky with forages

Description: The Kentucky Goat Producers Association (KGPA) received a grant for \$154,748 to conduct a Goat Forage Applied Research and Demonstration Project. The KGPA has contracted with UK Department of Plant and Soil Sciences to help improve forage selection for increased goat production in Kentucky, The association helps market, encourage production, and educate goat producers across the state.

Goal/Objectives:

1. Continue the current goat forage research effort
2. Initiate new multi-county goat forage research and demonstrations.
3. Disseminate research outcomes to goat producers through the Extension offices at the University of Kentucky and Kentucky State University.

Funding:

- Type: Grant
- ADB Investment: \$154,748 Grant: A2006-0430
- Matched Funds: No Match Listed
- Total Expenditures: \$154,748

Funds were used to buy:

1. Salaries and benefits of researchers and directors
2. Travel expenses
3. Various other production and testing materials

Outputs:

1. The project is 100% complete and KGPA is educating producers throughout Kentucky.
2. The research and educational materials have reached over 1,000 goat producers.
3. This grant helped fund at least 5 research trials: Goat Grazing Systems Study in Greenup County, Mixed Species Grazing Study in Breathitt County, Goat Forage Preference Study and Chicory Variety and Phosphorus Fertility study at UK Robinson Station, Tall Fescue Grazing Study at Berea College, and Kudu Eradication Study in Whitley County.
4. Two Extension publications have been released for producers: Forages for Goat Production and Vegetation Management with Goats.

Outcomes:

1. Effect on Kentucky agriculture: Goat producers across Kentucky have benefited by additional resources and educational material to help their individual farm enterprise.
2. Quantitative and Qualitative Impacts: Kentucky is ranked 5th in the nation for goat production. The Extension publications and research trial results have reached 1,000 goat producers in 22 counties.
3. Resources Leveraged: The Kentucky Goat Producers Association was able to leverage additional funds from Berea College to help with the Tall Fescue Grazing Study and from the Agricultural Research Service (no amount was given on how much leverage).
4. Effect on county and entrepreneurial leadership: The Kentucky Goat Producers Association encourages producers to incorporate new techniques and ideas into their farm enterprise and be more involved with research and publications.

Organization: Specialty Food Groups, Inc. (SFG)

Project Title: Hot Dog Line Project

Description: SFG received funding for a forgivable loan to fund a portion of a hot dog line and blast freezer at the Owensboro facility. The equipment purchased would be utilized for manufacturing 20 million pounds of natural and further processed beef, pork, and poultry items in Kentucky. The forgiveness of the loan was intended to be achieved by processing Kentucky produced meat. The forgiveness amount is equal to one cent per pound of beef, poultry, and pork product purchased and processed through the hot dog line. Specialty Food Group struggled to find enough Kentucky raised meats in the form needed for processing at the volume required. An alternate arrangement was made with SFG to pay back the loan amount over 10 years by splitting the annual payments between the three Kentucky commodity organizations based upon the percentage that each commodity was purchased that year. Specialty Foods Groups was not able to incorporate Kentucky meat into their hotdogs. However, they are repaying the loan with payments to Kentucky Pork Producers Association, Kentucky Poultry Federation and the Kentucky Cattlemen's Association.

Funding:

- Type: Forgivable Loan- \$0.01 per pound of KY beef, poultry, and pork product purchased and processed
- ADB Investment:\$1,008,140 Project: A2007-0301
- Matched Funds:\$1,703,434 from: Specialty Food Groups
- Total Expenditures: \$2,711,574

Funds were used to buy:

1. Hot Dog Processing Equipment (manufacturing equipment for up to 20 million pounds of hotdogs)

Outputs:

1. The processing unit can produce 10-20 million pounds of hotdogs.
2. So far, a total of \$500,000 has been dispersed to Kentucky Pork Producers, Kentucky Poultry Federation, and the Kentucky Cattlemen's Association.

Outcomes:

1. Effect on Kentucky agriculture: The installation of a hotdog processing unit and the loan forgiveness agreement attempted to expand the market for Kentucky produced meats. Unfortunately, the amounts and specific meat products were not available from strictly Kentucky sources.
2. Quantitative and Qualitative Impacts: The loan payments sent to the Kentucky commodity groups have been used to finance an agriculture education and awareness campaign directed to consumers.
3. Resources Leveraged: The ADB funds leveraged an additional 1.7 million dollars from Specialty Food Groups to purchase and install the necessary equipment.
4. Effect on county and entrepreneurial leadership: Due to the loan repayment arrangement, the project has funded consumer awareness campaigns to benefit Kentucky agriculture.

Organization: The Beef Connection, LLC

Project Title: The Beef Connection

Description: The Beef Connection received a zero interest loan for \$500,000 to provide commercial cattle producers with more efficient methods of raising superior animals for greater profits. The company offers performance analysis, marketing plans, access to the latest advancements in genetics and nutrition, and information on proven scientific technologies and practices.

Goal/Objectives:

1. Validate and compare the performance of Kentucky beef cattle fed in a Confined Animal Feeding Operation in Kentucky or similar environment and validate and compare the feasibility of processing fed/fat cattle in Kentucky.
 - Target 5 potential Kentucky based agricultural product supply companies to become Strategic Partners.
 - Increase membership numbers (500 in the first year)
 - Build a foundation for long term sustainability.

Funding:

- Type: Zero Interest Loan
- ADB Investment: \$500,000 Grant: A2009-0247
- Matched Funds: \$917,234 From: The Beef Connection
- Total Expenditures: \$1,417,234

Funds were used to buy:

1. Professional Fees
2. Marketing and Tradeshow
3. Travel
4. Director Salary

Outputs:

1. The project is 100% complete.
2. The Beef Connection has worked with producers from 36 different counties in Kentucky.
3. They were not able to meet their membership goal of 500 members the first year. However, as of today an estimated 810 producers have received guidance for their farm enterprises through data analysis and marketing.
4. The Beef Connection's database system is used by producer members, corporate members, and strategic partners.
5. They have strategic partnerships with Alltech and Select Sires.
6. Over 1,514 producers have enrolled with The Beef Connection through these partnerships.

Outcomes:

1. Effect on Kentucky agriculture: The Beef Connection provides cattlemen throughout Kentucky with resources to help increase production and improve beef quality.
2. Quantitative and Qualitative Impacts: Since the start of the program, producers have been able to increase herd counts and the quality of beef has improved.
3. Resources Leveraged: The ADF investment leveraged \$917,234 of additional funds provided by the applicant.
4. Effect on county and entrepreneurial leadership: The Beef Connection encourages producers to develop new marketing techniques and to utilize data collection and analysis in order to increase their efficiency and profitability.

Organization: The Campbell Farm Wool Art Center, LLC

Project Title: Campbell FWAC, LLC

Description: The Campbell Farm Wool Art Center received a \$50,000 forgivable loan to help with the historic preservation and renovation of the 1784 home of Matthew Walton, a political figure from Washington County, Kentucky. The center was established to teach wool and fiber art classes as well as local history to people throughout the Commonwealth. It is viewed as an agri-tourism asset for the county and attracts people interested in learning the craft of wool art and 4-H participants.

Goal/Objectives:

1. Establish a wool and fiber arts teaching and display center.
 - Preservation and teaching of ancient skills of wool and fiber arts, beginning with raising sheep, cleaning and processing wool, production and use of natural dyes, spinning, weaving, felting, and needle sculptures.
 - Restoration of 1784 historic building listed on National Register of Historic Places, for use as a classroom, display and work space for wool and fiber arts.
 - Expand and encourage knowledge of community history and fiber arts and crafts.
 - Preserve a historic family farm and protect it by making it an agri-tourism destination.

Funding:

- Type: Forgivable Loan
- ADB Investment: \$50,000 Loan: A2007-0404
- Matched Funds: \$50,000 From: Generating Funds from Campbell Farm Wool Art Center
- Total Expenditures: \$100,000

Funds were used to buy:

1. Renovation and Updates to a 1784 Historic Building

Outputs:

1. The project is 100% complete and the building is used for numerous arts and crafts classes.
2. In 2014, 1,169 people participated in educational tours hosted at the center.
3. Through numerous classes and educational tours the Campbell Farm Wool Art Center has been able to reach \$5,718 in forgiveness.
4. By working with 4-H groups and various other school groups, 635 youth have been able to take part in classes and educational tours held at the center.

Outcomes:

1. Effect on Kentucky Agriculture: The Campbell Farm Wool Art Center serves as an agritourism asset for the county and attracts 4-H participants and people interested in learning the craft of wool art.
2. Quantitative and Qualitative Impacts: This project provides educational resources to the community through the historic buildings, youth leadership activities, landscape, art, and cultural lessons.
3. Resources Leveraged: The Campbell's were able to leverage match of \$50,000 by membership and enrollment of the classes.
4. Effect on county and entrepreneurial leadership: This project has helped 635 Kentucky students become more involved in groups such as 4-H, contests, arts and crafts, student leadership and engagement.

Organization: Kentucky Cattlemen's Foundation

Project Title: Kentucky Food Animal Veterinary Incentive Program

Description: The Kentucky Cattlemen's Foundation is a non-profit organization affiliated with the Kentucky Cattlemen's Association. The Kentucky Cattlemen's Association's mission is to "provide a strong, proactive voice for all of Kentucky's beef farm families, serve as a resource for information and education for producers, consumers and the industry and be a catalyst for enhancing producer profitability." This specific project through the Cattlemen's Foundation was to provide veterinary support for Kentucky's large animal/food animal production industry. The Foundation sought funds to establish a student loan payback program for new veterinarians who agree to practice in Kentucky. The program lasted four years and then was discontinued due to low participation rates from new veterinarians and technicians.

Goal/Objectives:

1. The goal of the incentive program is to encourage veterinarians/technicians to practice large animal/food animal medicine in Kentucky.
 - Intended to ease some of the financial burden of vet school, strengthen the veterinary community focused on agriculture and ease the shortage of large animal/food animal veterinarians within the state.

Funding:

- Type: Zero Interest, 10 Year Loan
- ADB Investment:\$1,000,000 grant: A2008-0461
- Matched Funds:\$135,000 from: Kentucky Cattlemen's Foundation Vet Incentive Donations
- Plus a requirement to match the KADF investment dollar for dollar within a 10 year period
- Total Project Cost: \$1,135,000 with \$1,000,000 with interest returned when program was discontinued

Funds were used for:

1. Scholarships and a student loan payback program for veterinary students who plan on practicing in Kentucky

Outputs:

1. A total of nine students participated in the scholarship program.
2. Recipients of the funds received \$6,000 per year to be paid to their lending institute; they could have received up to \$18,000 total over a three year period.
3. At least six of the nine veterinarians received funding to help payback student loans.
4. All six participants practice in clinics located throughout the state of Kentucky and at least 50% of their business is dedicated to large animal or food animal services.

Outcomes:

1. Effect on Kentucky Agriculture: Encouraged veterinarians to focus on large animal or food animal veterinary services for producers in Kentucky. Local producers would benefit from the availability of large animal veterinary services.
2. Quantitative and Qualitative Impacts: A total of 9 vets participated in the program which operated for 4 years. The program was discontinued due to lack of applicants and difficulty raising matching funds. The \$1 million loan was paid back in full.
3. Resources Leveraged: Private donations from cattlemen have funded a smaller program to provide scholarships for veterinary students totaling \$135,000.
4. Effect on county and entrepreneurial leadership: The funds provided incentives for student veterinarians who are interested in practicing large animal or food animal veterinary medicine.

Organization: South Kentucky Rural Electric

Project Title: Kentucky Beef Processing Plan

Description: South Kentucky Rural Electric (SKRECC) was awarded a \$130,000 grant to commission a feasibility study on the development of a beef processing facility in Kentucky. The study covered operations, marketing, financial projections and suggests the most suitable location. Dr. Rod A. Bowling, Senior Technology Partner of AgriFood Solutions conducted the study and concluded a fed-beef packing plant in South Central Kentucky would not be sustainable in the long-run. However, a new focus of a processing plant could be snack foods; this includes everything from jerky to protein snack foods processed from the harvest of cows and sows. Most of the objectives and goals were met by SKRECC for this project. The potential may be there but it lacks interest and funding (projected \$110,000,000 investment).

Goal/Objectives:

1. Develop an in-depth business plan for a beef processing facility located in South Central Kentucky.
 - Contract industry professionals to conduct a feasibility study and to develop a comprehensive business plan detailing, planning, and startup of a beef/pork snack foods manufacturing facility.
 - The plan will include operations, marketing, and financial projections.

Funding:

- Type: Grant
- ADB Investment: \$130,000 grant: A2008-0469
- Matched Funds: \$108,512 from: SKRECC
- Total Expenditures: \$238,512

Funds were used to buy:

1. Conduct a Feasibility Study for a Beef Processing Plant

Outputs:

1. The feasibility study has been completed and was published in 2009.
2. The published study includes a comprehensive business plan detailing the design, planning, startup, of a beef/pork snack foods manufacturing facility.
3. The study found that a snack foods beef processing would be more profitable than a fed-beef packing plant.
4. The study proposed an \$110,000,000 investment that would potentially hire 750 employees.
5. The size and feasibility of this type of processing plant could potentially cut down on raw materials and finished product costs, a net cost savings of 39%.

Outcomes:

1. Effect on Kentucky agriculture: Currently, there is no direct effect because the study was not put into action.
2. Quantitative and Qualitative Impacts: The overall plan states there is potential for a new market and new products to be developed within Kentucky. The projected gross profit for the first year is estimated to be \$78.8 million if the plant was built to scale.
3. Resources Leveraged: SKRECC was able to leverage a match of \$130,000 from McCreary County Industrial Authority and SKRECC.
4. Effect on county and entrepreneurial leadership: The project resulted in getting local, regional, and state community development agencies to work together.

Organization: Dossey Vineyards, LLC

Project Title: Purple Toad Winery

Description: The Purple Toad Winery received a zero interest loan for \$52,000 from the KADF. The funds for this project went to help finance winery equipment and provide continued growth of product and retail sales. The winery business has plans to expand the processing unit of the winery and build a more agritourism friendly building for tastings and retail. Purple Toad Winery produces and sells several varieties of wine consisting of dry, sweet, and fruit.

Goal/Objectives:

1. Build a viable and profitable business that will benefit the Dossey family and others.
 - To be one of the top three wine producers in the state.
 - To attract tourists to the town, region, and state.
 - To facilitate the growth and knowledge of grape growers and to work with others to develop a wine industry in our region.
 - To produce a quality product and experience that will keep customers coming back.
 - To encourage farmers to grow grapes therefore reducing their dependency on tobacco crops.

Funding:

- Type: Zero Interest Loan
- ADB Investment: \$52,000 loan: A2008-0439
- Matched Funds: \$58,000 from: Purple Toad Winery
- Total Expenditures: \$110,000

Funds were used to buy:

1. Various Wine Processing Equipment
2. Wine Tanks
3. Filter Pumps
4. Cooling System
5. Coolers

Outputs:

1. The initial investment helped to start the production and processing facility at Dossey Vineyards.
2. Purple Toad has had a \$200,000 increase in sales since the initial funding.
3. They buy and process grapes and various fruit varieties from 3 Kentucky and 7 out of state producers.
4. Purple Toad wine retails in stores, restaurants, and liquor stores in Kentucky and Tennessee.

Outcomes:

1. Effect on Kentucky agriculture: This project helped to create a new unique business in Western Kentucky and a successful model for the state as well.
2. Quantitative and Qualitative Impacts: The investment has allowed for growth of the winery and Kentucky wine culture in general. Purple Toad has created new market opportunity with Kentucky farmers and producers by using 30% of Kentucky product.
3. Resources Leveraged: Purple Toad Winery was able to leverage \$58,000 in additional funds from Dossey Vineyards to help with the completion of this project.
4. Effect on county and entrepreneurial leadership: Purple Toad has cooperated with Western Kentucky University and Murray State University for students to learn more about the viticulture side as well as the enology side of wine and wine making. Mr. Dossey hopes that these partnerships will encourage students to get more involved in wine making and the wine culture, locally and state wide.

Organization: Kentucky Horticulture Council

Project Title: Kentucky Horticulture Project

Description: The Kentucky Horticulture Council is a coalition of fourteen horticultural organizations organized as a non-profit 401-C3 organization for the purpose of speaking in a unified voice and carrying out industry directed educational events, basic and applied research, on-farm demonstration projects, and cost-share grants to assist with marketing and promotion. The Horticulture Council partners with the University of Kentucky, College of Agriculture and the Kentucky Department of Agriculture for research, educational programming and cost-share programming in order to enhance the growth of the Kentucky horticulture industry. The purpose of the KADF grant was to fund a comprehensive set of programs and incentives that would foster the growth of the horticulture industry in Kentucky.

Goal/Objectives:

1. Conduct on-farm demonstrations and consultation.
2. Develop and evaluate production and marketing systems.
3. Conduct Horticulture Market Research, Analysis, and Marketing Education.
4. Sustain market access and demand for horticulture products.

Funding:

- Type: Grant
- ADB Investment: Total of \$6,882,023 grants: A2006-0337, A2010-0106, A2012-0194
- Matched Funds: \$4,379,323 from: in-kind staff and research costs University of Kentucky
- Total Expenditures: \$11,261,346

Funds were used for:

1. On-Farm Demonstrations and Consultations (Coordinated with the Cooperative Extension Service and Land Grant Institutions)
2. Development and Evaluation of Production and Marketing Systems
3. Horticulture Market Research, Analysis, and Marketing Education
4. Promotion of Market Access and Demand for Horticultural Products
5. Kentucky Horticultural Council Operations

Outputs:

1. This project is completed and resulted in a comprehensive industry development approach using university research, on-farm demonstrations, educational events, tradeshow promotions and farm field days.
2. The project has resulted in 220 on farm demonstrations since 2007 in 98 KY counties, 52 field days, 864 farm visits and 2,377 educational workshop attendees.
3. Research is on-going for the horticulture industry examining marketing trends, strategies, and opportunities.
4. Kentucky focused information is shared with publications and on-line resources reaching 98 counties and 83,104 website viewers.

Outcomes:

1. Effect on Kentucky agriculture: Kentucky has seen an expansion of fruit and vegetable sales, 154% and 37% respectively, from 2007 to 2012. Some of the increase is attributable to the KADF investments in horticulture research, extension and market promotion. There was a significant decline in nursery crop, floriculture and sod sales from 2002 to 2012. This may be attributable to the slowdown in the US economy and resulting housing construction slump.

2. Quantitative and Qualitative Impacts: The quality of information that is dispersed to Kentucky producers has increased and more easily accessible. 80% of small farms have been affected through farm demonstrations, field days, and publications.
3. Resources Leveraged: Horticulture Council grants have been matched with University of Kentucky staff time and agricultural research resources, individual matches for cost-share tradeshow marketing funds and USDA funding of additional market research based on initial KHC funded research results.
4. Effect on county and entrepreneurial leadership: Over 50% of Kentucky horticulture producers sell some of their products direct to consumers. KADF's support for building local markets and promoting KY Proud products has expanded opportunities for Kentucky producers, many of which are former tobacco growers. The Horticulture Council sponsored research, education and promotional opportunities have allowed Kentucky producers to learn new crops and access additional markets.

Organization: Trunnell's Farm Market, Inc.

Project Title: Farm Market

Description: Trunnell's Farm Market received a forgivable loan for \$74,553 to go towards the construction and development of an agritourism on-farm market. The facility provides fresh fruits, vegetables, meat, dairy products, flowers, and other Kentucky Proud products that have been grown or made throughout Kentucky while offering value added products of all types. The business focuses on four income streams that include spring flowers and produce, summer produce, fall decorations, and Christmas/holiday baskets. Trunnell's also offers a variety of agritourism activities such as hay rides, corn maze, farm tours, you pick pumpkin patch, etc.

Goal/Objectives:

1. Construct a permanent facility for a retail store and agritourism venture.

Funding:

- Type: Cost Reimbursement Grant – \$.50 per \$1.00 for Every One Dollar of Kentucky Products Purchased
- ADB Investment: \$74,553 grant: A2007-0098
- Matched Funds: \$103,275 from: Trunnell's Farm Market
- Total Expenditures: \$177,828

Funds were used for:

1. Construct and Develop a Small Retail Facility
2. Add a Kitchen and Cold Storage Equipment

Outputs:

1. Trunnell's Farm Market Construction is 100% complete and opened in 2008.
2. Trunnell's Farm Market has worked with 60 farmers in 26 counties selling Kentucky Proud Products.
3. The market provides fall farm tours for local school groups and various other community youth groups, attracting up to 10,000 youth per year.
4. An estimated \$200,000 of value-added Kentucky products are sold annually through the retail store.

Outcomes:

1. Effect on Kentucky agriculture: Trunnell's Farm Market provides Kentucky producers with a market for Kentucky Proud products while also being able to teach Kentucky youth the importance of agriculture.
2. Quantitative and Qualitative Impacts: Trunnell's Farm Market attracts consumers and producers from 26 Kentucky counties. The market enhances the opportunity to provide quality Kentucky Proud and products to aid the local food movement.
3. Resources Leveraged: Trunnell's Farm Market was able to leverage an additional \$103,275 of funds towards the project.
4. Effect on county and entrepreneurial leadership: Trunnell's Farm Market and agritourism venture educates youth groups and the general public about the importance of local agriculture through their various tours, fresh produce offerings and sales of Kentucky Proud products.

Organization: Kentucky Grape and Wine Council (KGWC)

Project Title: Infrastructure Support for Growth of Kentucky's Grape and Wine Industry

Description: The KGWC was established by legislation in 2002 "to promote and facilitate the development of a grape industry in the Commonwealth of Kentucky" (KRS Chapter 206). The KGWC consists of the Commissioner of Agriculture or his/her designee, and nine members appointed by the Governor. Seven are chosen from a list of candidates submitted by the Director of the Ag Experiment Station (1), the Secretary of the Tourism Cabinet (1), and the Kentucky Vineyard Society (5). The Governor appoints two members from citizens-at-large. The Kentucky Department of Agriculture provides administrative support.

Goal/Objectives:

1. Increase the number of growers, particularly previous tobacco growers, who are producing and marketing grapes at a profit. Also, Increase profitable grape acreage, through proper site selection, plant matching, and producer education.
2. Increase winery numbers, winery production capacity, winery sales, and the quality of wines that are produced so Kentucky can become recognized as a producer of premium wines.
 - Increase total grape and wine sales in Kentucky by at least 10% annually through agritourism with the Kentucky Department of Agriculture and the Kentucky Tourism Development Cabinet.

Funding:

- Type: Grant
- ADB Investment: \$290,000 grant: A2007-0090
- Matched Funds: \$105,366 from: USDA Viticulture Consortium, USDA New Crop Opportunities Center, University of Kentucky
- Total Expenditures: \$395,366

Funds were used for:

1. Salary and Benefits for a Viticulturist, Enologist, and Technical Support
2. Operating Expenses

Outputs:

1. The KGWC started an on-line course in viticulture that educates growers across the state.
2. Farms and wineries from 29 counties participated in extensive viticulture and enology programs.
3. Construction for a wine lab to study the best grapes for Kentucky's climate.
4. Publication guide of Kentucky wineries to distribute to producers throughout Kentucky.
5. Provide education and development opportunities with marketing promotions to over 200 producers throughout the state.
6. The grant paid the salaries of the state viticulturist and a cooperative extension enologist, and provided an additional \$12,000 for project support.

Outcomes:

1. Effect on Kentucky agriculture: The viticulture industry in Kentucky currently has access to research, education, crop production techniques, and marketing opportunities.
2. Quantitative and Qualitative Impacts: There are now 500-600 acres of grapes grown in Kentucky compared to 115 acres grown in 2002. Quality and quantity of wine and grapes has increased.
3. Resources Leveraged: A match of \$105,366 was provided by leveraging USDA funding for viticulture research and new crop production and economic analysis publications. The funding for this project acted as a bridge-grant that followed a previous ADF grant of \$785,125 in 2003.
4. Effect on county and entrepreneurial leadership: KGWC acts as a resource for producers to become more involved in the grape and wine industry in Kentucky.

Organization: Kentucky Vineyard Society (KVS)

Project Title: The Kentucky Viticulture and Enology Extension and Research Program

Description: The Kentucky Vineyard Society received a \$515,000 grant towards providing winegrape growers and winemakers services that include: consultations, planning, education, field days, publications, and applied research projects. A portion of the funding went towards new and novice producers education in production and marketing. The project also allowed for new technologies to enable producers to utilize new techniques and increase profitability. The University of Kentucky and the Kentucky Wine and Grape Council took over the oversight and activities of the grant because the Kentucky Vineyard Society ceased operations.

Goal/Objectives:

1. Improve the grape and wine industry in Kentucky through collaborative efforts of the University of Kentucky and the Kentucky Vineyard Society.
 - Offer services through both an educational institution and industry society.
 - Provide extension activities to educate wine grape growers and winemakers in all facets of production of high quality wine grapes and wines.
 - Apply research to identify the best wine grape cultivars and optimum sustainable production practices.
 - Host more KVS supported educational events.
 - Provide more membership benefits that will directly impact vineyard and winery owners.

Funding:

- Type: Grant
- ADB Investment: \$515,000 grant: A2011-0124
- Matched Funds: \$180,524 from: KVS Generated Funding (listed below)
- Total Expenditures: \$695,524

Funds were used for:

1. Salary for Executive Director
2. Meeting Expenses, Newsletter, Website
3. Extension Enologist
4. Viticulture and Enology Technician
5. Vineyard Field Technician
6. Operating Expenses

Outputs:

1. The project is complete.
2. More than 300 farmers and wine producers have been affected by this specific project through the society's list serve account.
3. An average of 80 students attended various pruning and winemaking workshops held annually and 60-70 producers have attended the summer conference on grape production and winemaking.
4. KVS has partnered with Southern States to create a bulk chemical program for KVS members; they offer discounts and better pricing on chemicals used in production.
5. The University of Kentucky partnered with the KVS to conduct over 15 cultivar trials on American/hybrid wine grapes, seedless table grapes, vinifera wine grapes, and organic grapes.

Outcomes:

1. Effect on Kentucky agriculture: Expanded winegrape growing interest and production throughout Kentucky. They provided infrastructure for Kentucky producers to learn more about wine grape production and how to strengthen their farm enterprise.
2. Quantitative and Qualitative Impacts: There are now 500-600 acres of grapes grown in Kentucky compared to 115 acres grown in 2002. The quality and quantity of wine and grapes has increased since the start of the project.
3. Resources Leveraged: KVS was able to leverage an additional \$180,524 of funds from membership fees, conferences/field day event income, sponsor fees, vendor fees, and marketing and advertising grants.
4. Effect on county and entrepreneurial leadership: The University of Kentucky continues research, enology, and viticulture classes and extension programs to encourage best practices within the grape and wine sector.

Organization: The Weekly Juicery, LLC

Project Title: Expansion of building and kitchen equipment for central kitchen

Description: The Weekly Juicery is locally owned juice bar located in Lexington, Kentucky. The juice bar focuses on cold pressing vegetables and fruits into unpasteurized drinks and smoothies for purchase. The funds for this specific project were used to help expand the central kitchen in Lexington, Kentucky by investing in kitchen equipment and expanding the building space. The juicery now has locations in Lexington, Louisville, and Cincinnati.

Goal/Objectives:

1. Implement initial expansion plan outlined in the business plan.
 - Open 5 new retail stores throughout Kentucky
 - Develop a centralized manufacturing facility that can produce 25,000 bottles of juice per year
 - Create 75 new jobs

Funding:

- Type: Cost Reimbursement Grant – \$1.00 per \$1.00 of approved documented payments.
- ADB Investment:\$310,000 grant: A2013-0275
- Matched Funds:\$655,000 from: The Weekly Juicery
- Total Expenditures: \$965,000

Funds were used for:

1. Construction for Retail Juice Bar and Other Various Equipment
2. Refrigerated Delivery Trucks
3. Juice Press
4. Marketing and Advertising Costs

Outputs:

1. The Weekly Juicery opened its operation in May 2012; the main office and central kitchen are located in Lexington, Kentucky
2. The Juicery operates in 3 different markets throughout Kentucky and Ohio (2 locations in Louisville, Lexington, and Cincinnati)
3. The retail store carries raw pressed juices, smoothies, and raw food items.
4. The operation buys and processes fruits and vegetables from 6 Kentucky producers.
5. The facility is able to process organic and non-organic fruits and vegetables.

Outcomes:

1. Effect on Kentucky agriculture: The Weekly Juicery has contracted with 6 Kentucky produce farms and was able to process \$42,000 of locally grown fruits and vegetables in 2014.
2. Quantitative and Qualitative Impacts: The Juicery provides producers a place to market their #2 grade imperfect produce, which cuts down on waste and helps Kentucky producers with an additional sales opportunity. They also encourage farm enterprises to grow new specialty crops that can be incorporated into their juices.
3. Resources Leveraged: The Juicery was able to leverage an additional \$655,000 from private investors as well as general funds from their business operation.
4. Effect on county and entrepreneurial leadership: The Weekly Juicery encourages Kentucky farmers to try growing new and unique specialty crops. The Weekly Juicery is an example of a unique entrepreneurial enterprise.

Organization: Owen's Garden Center

Project Title: Expansion of Greenhouses and Retail Facility

Description: Owen's Garden Center was awarded a \$94,470 zero percent interest loan to go towards the expansion and construction of a full retail nursery market. The market sells items from a number of local producers as well as Owen's own products. The whole sale nursery is located in Somerset, Kentucky and services up to 6 counties throughout the state. The market expanded their greenhouse facility and their retail store with the KADF loan funds. Owen's Garden Center focuses on marketing a wide variety of whole sale nursery products, such as: trees, woody ornamentals, perennials, and a variety of garden trinkets. The Owen's Garden Center expansion has led to a number of new partnerships with producers from across the state.

Goal/Objectives:

1. Provide a market outlet for Kentucky producers of nursery products, such as trees, woody ornamentals, and perennials.
2. To become the premier garden center in Southeastern Kentucky.
3. Build a viable, profitable, business that is available for the next generation.

Funding:

- Type: Zero Interest Loan
- ADB Investment: \$94,470 loan: A2009-0028
- Matched Funds: \$406,036 from: Loans, grants, owner financing
- Total Expenditures: \$500,506

Funds were used for:

1. Greenhouse Structure and Installation
2. Concrete and Paving for Parking Lot
3. Electrical and Plumbing
4. Various Retail Items and Fixtures

Outputs:

1. The expansion and the construction of the greenhouse facility and retail market is 100% complete.
2. Before the expansion and new greenhouse, the garden center only sold annuals such as vegetable plants, bedding plants, and hanging baskets. Now, the center has expanded its retail line to include: perennials, scrubs, and trees that are grown by the Owen family or other Kentucky farmers.
3. The operation was able to achieve approximately \$130,700 in total sales in its opening year.
4. Owen's Garden Center purchases over \$50,000 worth of Kentucky horticulture products from local producers every year.
5. The center has bought and sold Kentucky horticulture products from over 15 producers.

Outcomes:

1. Effect on Kentucky agriculture: Kentucky producers found new opportunities with the Owen family to allow for more sales of their products into local markets.
2. Quantitative and Qualitative Impacts: Owen's Garden Center has helped over 15 local producers with increased sales opportunity. The expansion of the facility helped bring in more diverse products at greater volumes.
3. Resources Leveraged: Owen's Garden Center was able to leverage an additional \$406,036 from various sources.
4. Effect on county and entrepreneurial leadership: Owen's Garden Center is an example of entrepreneurial leadership in Kentucky. Their demand for quality wholesale Kentucky nursery products may encourage addition production of these crops.

Organization: Harrison County Extension

Project Title: Harrison County Farmer's Market

Description: The Harrison County Farmer's Market received a cost reimbursement grant for \$75,000 to go towards the development and construction of a new farmer's market pavilion. The pavilion was finished on October 12, 2010 and has continued to be in use. The pavilion provides shelter and a common area for producers and residents of Harrison and surrounding counties to purchase fresh, local produce and value added goods. The facility hosts a market twice a week. Participation numbers have grown beyond the starting membership.

Goal/Objectives:

1. Build a community shelter to market produce grown by producers in Harrison and surrounding counties.
 - Plan, construct, and promote the Farmer's Market.

Funding:

- Type: Cost Reimbursement Grant – \$1.00 per \$1.00 of approved documented payments.
- ADB Investment:\$75,000 grant: A2009-0120
- Matched Funds:\$72,000 from: Harrison County Fiscal Court and Harrison County Extension District
- Total Expenditures: \$147,000

Funds were used to buy:

1. Construction and Development of a 30' by 145' Pavilion
2. Cooler (to house chilled products sold)
3. Sewer service

Outputs:

1. The construction of the facility is 100% complete.
2. The number of producers enrolled in the market has increased to 35 since the construction of the pavilion.
3. The market has participation from four counties (Harrison, Roberson, Nicholas, and Bourbon)
4. One local farmer started a tomato enterprise to support the demand at the market.

Outcomes:

1. Effect on Kentucky agriculture: The funds for this project support the local food movement and provided opportunities for agricultural entrepreneurship.
2. Quantitative and Qualitative Impacts: This project provided a market for new products, such as arts and crafts, which has helped increase involvement in the market by 10% the first year.
3. Resources Leveraged: The initial funding helped leverage an additional \$72,000 to help with construction.
4. Effect on county and entrepreneurial leadership: The farmer's market operates and makes decisions through a board of farmer's market vendors. This board allows leaders within the agriculture community to participate in decisions concerning the Harrison County Farmer's Market.

Organization: City of Beaver Dam

Project Title: Farmer's Market

Description: The City of Beaver Dam started their Farmer's Market in 2010. The funding for this project was put towards the development and construction of a covered shelter giving farm families a location that is safe, permanent, and accessible for direct to consumer food sales. This will provide an outlet and opportunity for farmers and consumers in the Ohio County area to produce, market and purchase locally raised food.

Goal/Objectives:

1. **Construct and develop a permanent shelter to support the farmer's market where local farm families sell local produce and value-added goods.**
 - Provide more diverse opportunities for farm families in Ohio and surrounding counties.
 - Create more opportunity for farm to consumer marketing.
 - Be able to run a year round outlet for products and produce.
 - Allow for other agriculture related activities that will spur economic development in the depressed local economy.

Funding:

- Type: Cost Reimbursement Grant – \$.50 per \$1.00 of approved documented payments.
- ADB Investment: \$50,000 grant: A2009-0124
- Matched Funds: \$66,172 from: General Fund from City of Beaver Dam
- Total Expenditures: \$116,172

Funds were used to buy:

1. Construction and Development of Steel Pavilion
2. Concrete Foundation

Outputs:

1. The pavilion and facility is 100% complete and attracts consumers and producers from Ohio County and Butler County.
2. The facility is opened twice a week for the public to buy fresh produce and value added goods.
3. From 2011 to 2015 the enrollment of producers has increased from 10 to 23 and membership income has increased as well.

Outcomes:

1. Effect on Kentucky agriculture: The new facility gives Kentucky producers a permanent outlet to sell their fresh produce and value added goods increasing the local food movement.
2. Quantitative and Qualitative Impacts: The new pavilion has attracted 13 new producers and increased the diversity of products offered.
3. Resources Leveraged: Beaver Dam was able to leverage \$66,172.26 in additional funds.
4. Effect on county and entrepreneurial leadership: The market provides a waived membership fee for producers less than 18 years of age to encourage youth involvement. There is also a Farmer's Market Board that allows local producers to make decisions about the market.

Organization: Logan County Farmer's Market

Project Title: Farmer's Market Pavilion

Description: The Logan County Farmer's Market received a \$26,962 grant for the construction and development of a new farmer's market pavilion. The Logan County Farmers market is held 2 days per week and currently has 20-25 participating producers. The market encourages community involvement, entrepreneurship opportunities and an opportunity to bring market local produce direct to consumers.

Goal/Objectives:

1. Build and construct a facility that would be available to small farmers with diversified crops to establish a competitive market place.
 - The facility will provide shared use for agricultural and 4-H groups for meetings and shows.
 - New opportunities will be created for local producers through the availability of this facility.

Funding:

- Type: Grant
- ADB Investment: \$26,962 grant: A2007-0079
- Matched Funds: \$31,456 from: Logan County
- Total Expenditures: \$58,418

Funds were used to buy:

1. Construction of Pavilion
2. Blacktop and Pavement
3. Outside Lighting
4. Additional Construction and Fixtures

Outputs:

1. The pavilion and construction is 100% completed.
2. After construction of the pavilion, farmer's market sales increased by 30%.
3. An estimated 300 farmers or producers have been able to use the facility through the market or other special events.

Outcomes:

1. Effect on Kentucky agriculture: The structure provides an outlet for Kentucky producers to sell fresh produce and value added products to local customers.
2. Quantitative and Qualitative Impacts: The pavilion and market encourages more producers to become involved in the local food movement.
3. Resources Leveraged: The Logan County Farmer's Market was able to leverage an additional \$31,456 from the county general fund.
4. Effect on county and entrepreneurial leadership: The new facility has been used by 4-H and Future Farmers of America; an estimated 100 youth have been able to utilize the pavilion for special events.

Organization: Hart County Chamber of Commerce

Project Title: Hart County Farmer's Market

Description: The Hart County Chamber of Commerce received a cost reimbursement grant to go towards the construction and development of a farmer's market pavilion. In 2013 Hart County received an additional \$5,000 to help complete the ceiling construction and add gutters on the pavilion. The facility serves as an open aired market for farmers to sell their produce and value added products.

Goal/Objectives:

1. Construct a 40' by 80' foot frame building to host the weekly farmer's market in Hart County.
 - Serve and attract more farmers with a venue to market and sell their produce
 - Allow for a longer selling season and additional hours of operation

Funding:

- Type: Cost Reimbursement Grant – \$.50 per \$1.00 of Products Sold at the Farmer's Market
- ADB Investment: \$18,300 grant: A2011-0101
- Matched Funds: \$ 13,500 from: Local Fundraisers and Cash Donations
- Total Expenditures: \$31,800

Funds were used to buy:

1. Construction of a '40 by '80 ft. Open Frame Building
2. Electricity
3. Gravel and Concrete

Outputs:

1. The construction of the pavilion is 100% complete and hosted its first market in 2013.
2. The farmer's market has helped over 58 Kentucky producers market their products.
3. The new structure has provided a space to incorporate special events into the weekly farmer's market including: Tomato Fest, Vegetable Day, Melon Day, live music and square dancing. In addition, they have hosted cooking demonstrations and grilling shows.

Outcomes:

1. Effect on Kentucky agriculture: The Hart County Farmer's Market has increased involvement in the local food movement by providing a new market for Kentucky producers as well as bringing local residents together through special events and themed markets.
2. Quantitative and Qualitative Impacts: The enrollment of producers has increased since the opening of the new pavilion.
3. Resources Leveraged: Hart County was able to match the initial investment: \$13,500. They received an additional \$5,000 to help finish the construction on the ceiling and to add gutters.
4. Effect on county and entrepreneurial leadership: The Hart County Farmer's Market utilizes a shared use agreement allowing 4-H and Future Farmers of America (both support youth leadership) to use the pavilion for special events and meetings.

Organization: Mountain Cattlemen's Association

Project Title: Perry County Farmer's Market

Description: The Mountain Cattlemen's Association received a grant for \$4,394 to promote local produce sales at the Perry County Farmer's Market. Producers at the market sell their own farm raised produce and value added goods to local customers. The market is located in Perry County and brings business from an additional three neighboring counties.

Goal/Objectives:

1. Encourage the production of crops by farmers by providing a nonprofit market through which they can sell their own farm raised produce.
2. Offer healthy, fresh food choices to the residents in their community.
3. Stimulate the economy and provide needed information to the Kentucky Department of Agriculture on market sales and produce in this region of Kentucky

Funding:

- Type: Grant
- ADB Investment: \$4,394 grant: A2007-0070
- Matched Funds:\$4,394 from: Hazard/Perry County Tourism
- Total Expenditures: \$8,788

Funds were used to buy:

1. Advertisement (printed bags, posters, and flyers)
2. Administration
3. Special Events

Outputs:

1. The funding of this project has helped to market and advertise fresh produce sales for over 25 local producers.
2. The Perry County Farmer's Market has had participants from four counties in Kentucky including: Laurel, Breathitt, Owsley, and Perry.
3. The advertising and promotional aspects of the market have encouraged people to buy local. The number of vendors has increased to over 20 due to the higher demand from customers.
4. The market provides senior citizens with SNAP and WIC vouchers an opportunity to purchase fresh produce. This has encouraged greater consumer attendance and improved healthy food choices.

Outcomes:

1. Effect on Kentucky agriculture: The marketing and advertising have helped expand and open new market opportunities for Kentucky farm entrepreneurs.
2. Quantitative and Qualitative Impacts: The promotion and advertisement of the market has encouraged more participation in the local food movement. Some producers noted their profit from the market provides necessary cash for their weekly budget.
3. Resources Leveraged: The Perry County Farmer's Market was able to leverage a match of \$4,393.87 from the Hazard/Perry County Tourism Office.
4. Effect on county and entrepreneurial leadership: The funds used for advertisement provided an incentive for producers to become more involved with the farmer's market and encouraged them to act as leaders in the local food movement.

Organization: Whitley County Farmer's Market

Project Title: Farmer's Market Mobile Trailer

Description: Whitley County Farmers Market provides farmers an outlet to sell their locally raised produce, meats, artisan goods, and value added items to residents of Whitley County at three markets per week in three different locations within Whitley County. The purpose of this grant was to fund a mobile grill and kitchen trailer stocked with kitchen demonstration supplies. The grill and kitchen supply trailer will allow the farmers market vendors to cook and sample meats and other value added cooked items thereby creating additional sales opportunities in more than one market location.

Goal/Objectives:

1. Obtain a mobile cooking facility to:
 - Enable the market to offer samplings of vendors' cooked products
 - Perform cooking demonstrations
 - Enable vendors to market their local farm raised meats
 - Produce cooked snacks and meals under a Farmer's Market Temporary Food Service Permit

Funding:

- Type: Cost Reimbursement Grant – \$.50 per \$1.00 of approved documented payments.
- ADB Investment: \$1,809 grant: A2013-0197
- Matched Funds: \$1740 from: Whitley County Farmer's Market
- Total Expenditures: \$3549

Funds were used for:

1. Demonstration/Marketing Mobile Grill Unit

Outputs:

1. The mobile grill and sampling trailer is 100% complete and operational.
2. The mobile kitchen helped to increase revenue at the farmer's market.
3. The project has allowed the opportunity to host cooking demonstrations and to hold special events such as: Taste of the Market and Roasting Events.
4. Due to the mobility of the kitchen it has helped to open 5 new markets at different locations.

Outcomes:

1. Effect on Kentucky agriculture: Whitley County Farmer's Market has been able to open 5 new markets due to the mobility of the kitchen. The equipment has also helped further the growth of the Whitley County Farmer's Market in multiple locations.
2. Quantitative and Qualitative Impacts: The cooking trailer has helped to increase revenue and sales at the farmer's market up to \$4,212 in the first year of operation. It also was an enabling asset to conduct special events and cooking demonstrations thereby creating more awareness to local producers and the local food movement.
3. Resources Leveraged: Through the initial investment, Whitley County was able to leverage an ARC Livable Communities Grant and Kentucky Proud Grant to place signage and Kentucky Proud logos on the mobile trailer.
4. Effect on county and entrepreneurial leadership: With both the market organization and the cooking trailer they are able to provide opportunities to new producers and encourage existing ones.

Education, Leadership and Technical Assistance Project Briefs

Organization: The Kentucky Center for Agriculture and Rural Development (KCARD)

Project Title: Center for Cooperative Development and Business Assistance

Description: The Kentucky Center for Agriculture and Rural Development (KCARD) provides business and entrepreneurial support to KY farm entrepreneurs, agribusinesses and non-profits that are majority farmer owned. KCARD has been in existence since 2001. KCARD has been funded multiple times by the KADB to ensure the recipients of ADF monies have access to sound management advice and business feasibility studies. The purpose of the grants is to fund KCARD's technical assistance program availability to Kentucky's farm and agribusiness community.

Goal/Objectives:

1. Provide counsel to non-commodity agriculture entrepreneurs with business planning and development needs.
2. Expand outreach into areas underserved by KCARD.

Funding:

- Type: Grant
- ADB Investment: Total \$1,479,000 Grants: A2013-0274 \$700,000; A2010-0006 \$59,000; A2008-0035 \$410,000
- Matched Funds: \$1,168,410 From: USDA Rural Development Grant and KCARD Cash Reserves
- Total Expenditures: \$2,647,410

Funds were used to buy:

1. Professional Staff Salary Expenses and Benefits
2. Consultant, Technical Assistance, Travel, and Professional Development
3. Office Operations and Insurance
4. Conferences and Trainings

Outputs:

1. This project is complete and KCARD continues its work.
2. In 2014 KCARD assisted over 120 new and existing businesses such as a micro-distillery, a sweet potato marketing group, a veterinary clinic, meat processing facilities, community-supported agriculture ventures, and agritourism venues.
3. KCARD has helped agriculture producers and industry leaders work together by providing information on incorporation to organizations, training for boards of directors, and helping develop policies for individual businesses.
4. KCARD has used Kentucky farm organizations as a resource for information and guidance to help numerous producers and entrepreneurs throughout the state such as The Kentucky Dairy Development Council, Louisville Farm-to-Table, and Kentucky Horticulture Council.
5. KCARD has helped producers and entrepreneurs in 66 counties and recently expanded their efforts into the Appalachian region of Kentucky.

Outcomes:

1. Effect on Kentucky Agriculture: KCARD provides the business and entrepreneurial support needed to develop and grow a wide diversity of new or expanded agriculture ventures in Kentucky.

2. Quantitative and Qualitative Impacts: Helped 420 different clients since inception. 312 businesses passed the start-up phase and 261 are still in business for an 84% business survival rate.
3. Resources Leveraged: KCARD was able to leverage an additional \$1,168,410 from USDA Rural Development Grants and KCARD Cash Reserves. They also secured over \$913,000 federal dollars for KCARD clients.
4. Effect on county and entrepreneurial leadership: KCARD is an investment in human capital because they work one on one with Kentucky farmers and agribusinesses. KCARD also provides board of director training and in-depth business analysis. KCARD also believes local leadership is developed with their community farmer's markets work.

Organization: University of Kentucky Research Foundation

Project Title: Kentucky Agricultural Leadership Program (KALP)

Description: The Kentucky Agricultural Leadership Program (KALP) is an 18 month program focused on identifying, developing, and motivating agriculturalists to improve their leadership, management, and communication skills. Class participants are recruited state-wide in order to elevate the image and profitability of agriculture and to enhance the quality of life in rural communities. The purpose of the KADF grant was to start an endowment fund that would eventually be able to fund the continuing KALP programs in perpetuity.

Goal/Objectives:

1. "Identify, develop and motivate men and women for effective leadership in agriculture and rural communities at all levels of public service. "
 - Prepare and enhance participants to accept leadership responsibility in agriculture, agribusiness, and rural communities.
 - To broaden understanding of major policy issues and facilitate participant collaboration with others and agriculture professionals
 - Encourage "lifelong" learning and development and be able to share those skills with others

Funding:

- Type: Grant
- ADB Investment: \$1,000,000 Grant: A2008-0407
- Matched Funds: \$1,450,000 From: Industry sponsors and alumni
- Total Expenditures: \$2,450,000

Funds were used to buy:

1. \$850,000 for Program Endowment
2. \$150,000 for Class #9 Expenses
3. In-state travel and expenses
4. General operating expenses

Outputs:

1. The project is 100% complete and is sustainable.
2. There have been 10 domestic seminars (20 days total) for each class held over an 18 month period at various locations throughout Kentucky.
3. Domestic travel to Frankfort, KY and Washington, D.C. has been implemented into program since 2008.
4. Groups have traveled to international seminars in Brazil, Argentina, Chile, and Mexico to visit a major agricultural producing region of the world that is a competitor of Kentucky and U.S. agriculture.
5. The program currently has 271 alums, all of which are from very diverse agriculture backgrounds.

Outcomes:

1. Effect on Kentucky Agriculture: KALP allows participants to gain insight applicable to Kentucky agriculture, as well as entrepreneurial, community leadership, and development training that can be utilized throughout individual operations or in a professional business setting.
2. Quantitative and Qualitative Impacts: Over 69 Kentucky counties have had participants. The program makes an effort to include several tobacco-dependent participants in each class. Ages represented are generally from 25-45.
3. Resources Leveraged: The KALP was able to leverage an additional \$1,450,000 from sponsors and alumni.
4. Effect on county and entrepreneurial leadership: KALP offers an opportunity for industry professionals and agriculture producers to learn leadership skills to be better leaders within their communities and profession.

Organization: Kentucky State University Land Grant Program

Project Title: Creating the Kentucky Small Farm institute at Kentucky State University

Description: Kentucky State University (KSU) is an 1890 land grant university with a tradition of research and extension focused on small farms. This project was funded on April 20, 2012. The purpose was to foster development and improve profitability of tobacco dependent small farms, minority farmers and limited resource farmers within the Commonwealth. Matching funds were provided by a \$2.5 million dollar USDA grant to build a conference center at the KSU Research Farm in Frankfort, Kentucky.

Goal/Objectives:

1. Develop the Center for Sustainability of Farm Families to act as a resource for producers.
2. Improve aquaculture production, organic production and value-added enterprises by offering educational workshops, conferences, on-farm demonstrations and mini-grants.
3. Build a conference center on the KSU Research Farm.

Funding:

- Type: Grant
- ADB Investment: \$998,000 Grant: A2012-0007
- Matched Funds: \$2,500,000 From: USDA Capacity Building Grant
- Total Expenditures: \$3,498,000

Funds were used to buy:

1. Training materials and ongoing seminar series
2. Salaries for farm assistants and agricultural specialists
3. Marketing outreach
4. Producer mini-grants
5. Organic, aquaculture and value added demonstration projects and Urban Farmers Market Initiative with KDA
6. Create the Center for Sustainability of Farm Families

Outputs:

1. This project is 100% complete.
2. 188 farmers received mini-grant funding.
3. On-farm aquaculture demonstrations included a tilapia operation, tomatoes and greens project.
4. On-farm demonstrations in value-added products have included the Mobile Kitchen and Cool Bot's, a low cost cooling system to reduce spoilage and increase transportability. Organic on-farm demonstrations on organic hemp and organic corn for feed have also been completed.
5. Over 12 new products have been developed by Kentucky producers with assistance from the mini-grant program.

Outcomes:

1. Effect on Kentucky Agriculture: This program supports smaller Kentucky producers and allows educational insight into aquaculture, organic production, and value-added products across the state.
2. Quantitative and Qualitative Impacts: 139 projects have been approved that cover 58 Counties in Kentucky. A total of \$576,810 was awarded in grants.
3. Resources Leveraged: KSU was able to leverage an additional \$2,500,000 from a USDA Capacity Building Grant to build and staff the Center for Sustainability of Farm Families.
4. Effect on county and entrepreneurial leadership: KSU offered assistance to producers and entrepreneurs involved in aquaculture, value-added, and organic agriculture.

Organization: The University of Kentucky Research Foundation

Project Title: Food Systems Innovation Center

Description: The University of Kentucky Research Foundation received a grant to establish a Food Systems Innovation Center at the University of Kentucky to assist processors, producers and entrepreneurs to develop value-added food products by providing access to UK's technical and business expertise. The FSIC provides access to food science expertise, laboratory research analysis, and business market research as a service to clientele.

Goal/Objectives:

1. Recruit technical experts and provide support to certified kitchens.
2. Provide nutrition labeling services to specialty groups.
3. Refurbish labs to better suit the needs of clients and perform a needs assessment for market research in Kentucky.
4. Expand the Market Ready Program and offer expanded training programs in food safety, food defense, and processing.
5. Become self-sustaining.

Funding:

- Type: Cost Reimbursement Grant- \$1.00 per \$1.00 of approved documented payments.
- ADB Investment: \$358,904 Grant: A2009-0057
- Matched Funds: \$103,345 From: University of Kentucky Research Foundation
- Total Expenditures: \$462,249

Funds were used to buy:

1. Salary and benefits for coordinator
2. Consumer panel
3. Vitek Rapid Microbiology ID System
4. Software and equipment

Outputs:

1. This project is complete and ongoing.
2. The FSIC has provided consultation and technical services over 1,000 clients and various small businesses in areas such as dairy spreads, niche meat products, meal replacement bars, energy drinks, smoked fish products, sauces, fruit spreads, relishes, and salsas, etc.
3. A total of 589 individuals have been trained in Hazard Analysis Critical Control Point, Market Ready, and Business Planning and Control System.
4. FSIC serves as a base for food product related requests posed to the College of Agriculture, Food and Environment.

Outcomes:

1. Effect on Kentucky Agriculture: The FSIC acts as a resource for Kentucky entrepreneurs who are producing and marketing their own value-added products.
2. Quantitative and Qualitative Impacts: The center has helped produce 300 new products and their services have reached more than 18 counties in Kentucky. The overall quality of food products produced in certified kitchens has increased and more products are able to meet national health standards. Over 100 free consultations and technical services for various food products have been provided to the public
3. Resources Leveraged: The FSIC was able to leverage an additional \$103,345 from the University of Kentucky. FSIC also obtained additional grant funding from several outside sources for projects specifically connected to FSIC programming: Additional funds were obtained from: USDA capacity Building Grant,

USDA Risk Management Agency, USDA Federal State Market Improvement Program, and USDA Ag Marketing Service.

4. Effect on county and entrepreneurial leadership: Fifty percent of producers in training were young (under 35 years old). In addition, the FSIC offers internships to UK students to encourage their interest in food science and entrepreneurship.

Organization: University of Kentucky Research Foundation

Project Title: The Center for Crop Diversification

Description: The University of Kentucky Center for Crop Diversification (KCCD) received a total of \$113,347 of grant funding to expand web-based marketing and production resources for information available to Kentucky farmers looking to diversify their operations. They developed new training and information resources for organic, sustainable, and conventional production. KCCD expanded existing resources to include: online podcasts, webinars, and video training to address the high demand from farmers and consumers. KCCD also developed web-based market training, adapting programs like MarketReady, and developed direct market/social media best practices.

Goal/Objectives:

1. Develop and update new crop and marketing profiles, develop Webinars, podcasts, and online videos/slide shows on crop diversification topics.
2. Develop and expand a wide variety of crop budgets and decision-making tools; gather and post online produce auction, farmers market, restaurant, retail, and farm-to-school prices.
3. Develop webinars on high tunnel production topics.

Funding:

- Type: Grant
- ADB Investment: \$113,347 grant: A2013-0115,
- Matched Funds: \$168,874 from: University of Kentucky
- Total Expenditures: \$282,221

Funds were used to buy:

1. Center Personnel (Coordinator and Extension Associates Freelance Ag Economist, Student Salary)
2. Travel Expenses
3. Videographer and Webinar Speakers
4. Materials, Supplies, and Equipment

Outputs:

1. Published monthly web based newsletter to report on a wide variety of issues such as wine contracting, economics of high tunnels and farmer's market price reports.
2. A total of 180 publications cover topics on crop budgeting, farmer's markets statistics and local restaurant and retail information.
3. Produced 10 webinars with 508 live views and 1,217 recorded views.

Outcomes:

1. Effect on Kentucky Agriculture: This project is expected to create jobs as Kentucky farmers diversify, improve production techniques, and account for a larger percentage of local food sales within the state.
2. Quantitative and Qualitative Impacts: Quality of data and material available to Extension agents and farmers encourages producers to try new technology, new crops and season extension techniques to maximize their farm income. KCCD website received over 118,600 website views in one year.
3. Resources Leveraged: The center was able to leverage \$168,874 in additional UK funds to help support UK staff and other resources needed for this project.
4. Effect on county and entrepreneurial leadership: Entrepreneurial leadership will be distributed in a regional, county-wide and state-wide manner through its web site, meetings, field days and county extension offices.

Organization: Kentucky Agriculture Council, Inc.

Project Title: Kentucky Agriculture Council, Incorporated

Description: The Kentucky Agriculture Council received a \$200,000 grant to support the council's operations and to assist in development and implementation of their strategic plan. The KAC is a non-profit corporation formed to institute the recommendations put forth in A Pathway for Kentucky's Agriculture and Its Rural Communities: 2007-2012 Strategic Plan. In 2008, KAC proposed implementation of the plan and applied for ADF funds to hire staff.

Goal/Objectives:

1. Support the Council's operations and secure professional management services
 - Continue to update the strategic plan
 - Complete an organizational feasibility study

Funding:

- Type: Grant
- ADB Investment: \$200,000 Grant: A2008-0073
- Matched Funds: \$25,000 From: Member Organizations
- Total Expenditures: \$225,000

Funds were used for:

1. Professional staff salaries
2. Administrative costs and travel expenses

Outputs:

1. This project is complete.
2. KAC hired two professional staff and updated the website in year one and began implementation in year two.
3. The KAC further expanded the plan by implementing six new components, Production and Consumer Marketing, Agri-Energy Development, Education, Public Awareness and Advocacy, Rural Conservation and Community Leadership, Agriculture Development Fund and Supporting Government Actions, into a system of specific goals and actions.
4. KAC successfully advocated for funding to upgrade one university animal disease diagnostic lab and a feasibility study for a second lab.
5. The plan contributes to all 120 counties and covers most aspects of Kentucky agriculture.

Outcomes:

1. Effect on Kentucky Agriculture: The published strategic plan provides producers and industry leaders a guide for Kentucky agriculture growth as a whole. The project facilitated a centralized advocacy network with broad vision, strategic goals and effective leadership as Kentucky transitions from a tobacco state to one of varied agricultural enterprises.
2. Quantitative and Qualitative Impacts: Through its website and media presence, KAC raised the profile of Kentucky agriculture and advocated for Kentucky agricultural priority issues illustrated in Pathways.
3. Resources Leveraged: KAC leveraged \$25,000 from member organizations to conduct the feasibility study for its future existence.
4. Effect on county and entrepreneurial leadership: All Kentucky counties will be affected both directly and indirectly if KAC's broad policies and advocacy are implemented.

Organization: Murray State University

Project Title: Murray State Arboretum

Description: Murray State University (MSU) received an \$80,000 grant to help construct an arboretum on the Pullen Farm Complex located in Murray, Kentucky. The facility will provide a common area for the public and university. The arboretum will contribute to the educational and technical interests of agriculture students, farmers, and the horticulture industry. The arboretum serves as an outside classroom, research laboratory for MSU programs, a community garden, recreation area, and houses special events.

Goal/Objectives:

1. Construct an arboretum at the Pullen Farm Complex on the campus of Murray State University to serve as an outdoor classroom and educational venue for students and the agriculture community.
2. To provide a diverse, well-maintained and well-documented collection of plants hardy to Calloway County, Western Kentucky, and the Central US.
3. To demonstrate the aesthetic, environmental, and functional application of plants hardy to this area of the US.
4. To strengthen linkages between the university, agricultural, and horticulture communities.
5. To design an outdoor learning environment that will invite use by the general public, visitors, MSU, and other regional educational institutions.

Funding:

- Type: Grant
- ADB Investment: \$80,000 grant: A2007-0440
- Matched Funds:\$335,429 from: Murray State University Foundation and Murray State University
- Total Expenditures: \$415,429

Funds were used for:

1. MSU Foundation Land
2. Constructing Welcome Center Pavilion and Mini Pavilions
3. Exterior Fence and Painting
4. Plants/Materials/Mulch & Various Aesthetic Improvements

Outputs:

1. The arboretum was constructed with the initial ADB investment and is now 100% complete.
2. The arboretum contains a greenhouse and serves as an outside classroom for agriculture students.
3. The pavilion and surrounding green area can be rented to the community for shared use. It hosts MSU's annual Fall on the Farm and Hutson Harvest Gala.

Outcomes:

1. Effect on Kentucky agriculture: Local producers now have a unique way to promote wholesale plant and flower varieties to the community.
2. Quantitative and Qualitative Impacts: The impacts of the investment have raised awareness of the importance of agriculture through events hosted at the arboretum. It has increased local sales and business opportunities for local whole sale nursery and landscape businesses.
3. Resources Leveraged: Murray State University was able to leverage \$335,429 in additional funds from the MSU foundation and the University. The arboretum had numerous donations of specific plants and trees.
4. Effect on county and entrepreneurial leadership: This project has brought together the community and the university to provide a unique greenspace for the community to use. The space itself provides the opportunity for leadership organizations to come together.

Organization: Kentucky Community and Technical College System Foundation, Inc.

Project Title: Computers for Farmers

Description: KCTCS received a grant for to teach farmers how to use basic computer skills to keep financial records, track inventory and livestock records, conduct research on new marketing techniques, communicate through email and other general computer functions. Demand for the classes decreased and are no longer offered.

Goal/Objectives:

1. Teach farmers how to effectively use computer technology to improve their business records and profit.
 - Train 360 farmers and/or spouses in basic computer skills directly related to their farming operations, such as financial records on the computer, using financial recordkeeping software (i.e. Quicken, QuickBooks, Money Manager, etc.).
 - Provide 360 farm families with computer hardware and software.

Funding:

- Type: Grant
- ADB Investment:\$267,757 grant: A2007-0420
- Matched Funds:\$162,783
- Total Expenditures: \$430,540

Funds were used to buy:

1. Refurbished Desktop Computers
2. KCTCS Teachers

Outputs:

1. KCTCS offered an 18 hour course in 6 sessions throughout the state in various KCTCS locations including: Bluegrass, Bowling Green, Elizabethtown, Hazard, Hopkinsville, Madisonville, Maysville, Owensboro, and West Kentucky.
2. A total of 316 students and 18 KCTCS teachers participated in the classes..
3. After completion of the class, each participant received a refurbished desktop computer.

Outcomes:

1. Effect on Kentucky Agriculture: Three hundred and sixteen Kentucky farmers have taken courses to learn computer skills useful in the collection and dissemination of farm data using computers and software. The provided computer also allowed access to the internet.
2. Quantitative and Qualitative Impacts: The classes reached 316 farmers throughout the state and provided each student with a refurbished computer and an additional 4 hours of technical support. KCTCS received positive responses from participants.
3. Resources Leveraged: KCTCS was able to leverage an additional \$17,500 from participant fees to help with costs and provide \$145,283 in KCTC staff time and resources.
4. Effect on county and entrepreneurial leadership: Indirect.

Organization: Morehead State University

Project Title: Food Technology Lab

Description: Morehead State University received a cost reimbursement grant for \$90,000. The purpose of these funds was the construction and development of a food technology laboratory for students at MSU and Maysville Community and Technical College as well as the public. The commercial kitchen would act as a classroom, laboratory and public area to learn about farm product processing and integrating food entrepreneurial ideas all while encouraging involvement in the local food movement. The facility is also available to the public for food processing educational courses and community events. The facility has not been rented for specific community projects yet.

Goal/Objectives:

1. Develop a food technology laboratory in the form of an commercial kitchen

Funding:

- Type: Cost Reimbursement Grant – \$1.00 per \$1.00 of approved documented payments.
- ADB Investment: \$90,000 grant: A2013-0247
- Matched Funds: \$100,000 from: Morehead State University
- Total Expenditures: \$190,000

Funds were used to buy:

1. Enclosure of the south east corner of Richardson Arena
2. Fees and services for design of the kitchen
3. Purchase and installation of all equipment

Outputs:

1. The commercial kitchen and lab is 100% complete and is located in the Derrickson Agricultural Complex on MSU's campus.
2. The Family and Consumer Science class will hold their first lab in the commercial kitchen facility this fall (2015).
3. The kitchen has been inspected and approved by the county health department.

Outcomes:

1. Effect on Kentucky Agriculture: Provide a structure to engage students interested in agriculture and provide Kentucky producers a resource to produce value added products.
2. Quantitative and Qualitative Impacts: The kitchen provides an area to produce value added products.
3. Resources Leveraged: \$100,000 additional funds were provided by MSU to complete the project.
4. Effect on county and entrepreneurial leadership: The facility acts as a food entrepreneur facility for students and community.

Marketing and Promotion Project Briefs

Organization: Louisville/Jefferson County Metro Government

Project Title: Louisville Farm to Table Program (LFTT)

Description: Louisville/Jefferson County Metro Government was funded to continue its Louisville Farm to Table Program (LFTT) which is charged with making business connections between Kentucky farmers and food buyers. The program focused on introducing Kentucky food producers to large volume institutional buyers. In 2009, LFTT received a \$90,000 grant from ADF to start the program. In May 2012, ADF awarded LFTT an additional \$120,000 grant, and in 2014, ADF awarded LFTT another grant of \$120,000. The Louisville Metro area food economy has a \$3 billion annual market but purchases only a small percentage of that from Kentucky farmers. The ADF grant was used to hire a coordinator to facilitate a value-chain of Kentucky food production, processing, and purchasing. The LFTT has met and exceeded their goals for this specific project. This programing continues its work to provide opportunities for local producers and local farm enterprises.

Goal/Objectives:

1. Connect Kentucky's producers with opportunities to sell edible agricultural products, particularly to large volume buyers, and to simultaneously break down barriers and increase willingness and capacity of buyers to purchase Kentucky grown food and agriculture products.
2. Promote the development of a more accessible system of aggregation, distribution, processing and food manufacturing to support Kentucky farmers transitioning from tobacco to other crops.

Funding:

- Type: Grant
- ADB Investment: \$330,000 Grants: A2009-0040 \$90,000, A2011-0173 \$120,000, A2014-0086 \$120,000
- Matched Funds: \$400,000 From: Louisville Metro Government General Fund, outside grants
- Total Expenditures: \$730,000 (includes funding for year 2015)

Funds were used for:

1. Salary and Benefits for Farm to Table Personnel
2. Operational Expenses

Outputs:

1. The project is complete and ongoing.
2. The resulting known increase of sales of Kentucky farm foods in Louisville is \$2.7 million since 2009.
3. LFTT succeeded in securing several institutional buyers, such as Jefferson County Public Schools, which purchased \$212,000 worth of Kentucky grown food in 2012-13 and \$253,000 in 2013-14 from approximately 40 farmers. LFTT facilitated meetings have led to pilot programs in Kentucky institutions of higher learning and area hospitals that purchase locally-grown food. The institutions purchased an estimated \$1.2 million in local foods in 2014. The institutions included University of Louisville, Berea College, Jefferson County Schools and Custom Food Solutions.
4. LFTT has essentially created a value-chain for 35 vegetable growers and 56 meat producers via one vegetable distributor and one meat distributor. One component is Piazza Produce Company which had Kentucky food sales of \$750,000 in 2014. Another component was meat processing and sales through Marksbury Farm Foods. In addition, LFTT provided farmer-to-chef referrals to independent restaurants, generating an estimated \$300,000 in farm sales.

Outcomes:

1. Effect on Kentucky Agriculture: This investment proved a school system with a commodity kitchen can buy locally-produced food and serves as a model for creating a value-chain linking farmers, buyers and consumers. It illustrated how a concentrated and well-supported effort by a coordinator can link Kentucky farmers to Kentucky markets.
2. Quantitative and Qualitative Impacts: 1,175 farmers, buyers, and other agriculture professionals were educated about the LFTT program as a business opportunity to link farmers and buyers. Farmers from 58 counties now sell goods in the Louisville Metro area. Since 2009, LFTT has facilitated sales of an estimated \$3.2 million, with approximately \$2.7 million in known sales. School children in Jefferson County schools eat locally-raised food, and other institutions such as the University of Louisville and Kentucky One-Health have phased in programs to purchase locally-grown food.
3. Resources Leveraged: The Louisville Metro Government General Fund and several outside grants matched ADF funds 1.21 to 1.
4. Effect on county and entrepreneurial leadership: Fifty-eight Kentucky counties have been impacted either through workshops or meetings facilitated by LFTT. Approximately 300 farmers, 350 buyers, and 475 others have attended these workshops. Through these meetings, and social and traditional media, LFTT has provided connections between food buyers and farmers that resulted in new business relationships.

Organization: Kentucky Department of Agriculture (KDA)

Project Title: Agricultural Marketing and Promotion through Kentucky Proud

Description: The KDA received three separate grants totaling \$8,725,037. The funds went towards the promotion of the Kentucky Proud statewide program. The KDA's Kentucky Proud marketing program has five components: Point of Purchase Cost-Share Grants (POP), Restaurant Rewards Incentive Program, branding and advertising campaigns, tradeshow cost-share grants, and cooperative retail projects. The focus of the marketing program is to promote the Kentucky Proud brand to create consumer demand for Kentucky grown or produced agriculture products. KDA works with retail stores and special event coordinators to highlight Kentucky Proud products in grocery stores or local restaurant's menus. The Kentucky Proud Program has grown in recognition and popularity since the initial funding for this project. They have achieved the goals and objectives while continuing to expand the individual programs.

Goal/Objectives:

1. Shape Kentucky consumers' minds about the value of "buy local" when shopping for food and fiber products.
2. Dramatically increase sales and market opportunities at retail and food service levels for Kentucky producers to assure a future for the next generation of farm families.
3. Assist with businesses expansion for those seeking to move from farmers' markets to the next step of higher volume retail and food service.
4. Increase the opportunities for Kentucky producers to be the source of products for nationally known companies.
5. Assist previous recipients of Ag Development funds for a greater likelihood of return on investment.
6. To stimulate opportunities for producer access to government institutions as a potential market for their products.

Funding:

- Type: Grants
- ADB Investment: \$8,725,037 Grants: A2008-0409, \$2,744,037; A2010-0112, \$2,725,811; A2012-0231 \$3,255,189.
- Matched Funds: \$1 to \$1 Match from: Participant cost-share matches, KDA time and resources, estimated media exposure value
- Total Expenditures: \$17,450,074

Funds were used for:

1. Funds were distributed into specific program areas:
 - Retail and Producer Point of Purchase Promotions
 - Restaurant Rewards Program
 - Kentucky Proud Branding and Advertising Campaign
 - Tradeshow
 - USDA Meat Grader
 - Retail Liaison
 - Distribution Coordinator
 - Advisory Council
 - At-Cost Promotional Materials
 - Market Maker Internet Search Engine

Outputs:

1. Project is 100% complete and ongoing.
2. Recent consumer survey reports that there is 69% brand recognition statewide for the Kentucky Proud program and label.
3. As of 2012 3,300 producers and entrepreneurs were members of Kentucky Proud.
4. There have been 6 new markets created with new local products, Utterly Kentucky Milk, Preferred Popcorn, Kentucky Proud Chicken, Ellis Popcorn, KY Derby Festival, and Farm to School sales.
5. The two programs that have seen a significant rise in participation numbers have been: Appalachian Proud: 700 members and Homegrown by Heroes: 80 members. Both programs reach participants in over 37 counties.

Outcomes:

1. Effect on Kentucky Agriculture: This project has allowed for more Kentucky branded products, opened new markets, and provided value-added opportunities for producers.
2. Quantitative and Qualitative Impacts: Statewide brand recognition now stands at 69%, 350 restaurants incorporate KY Proud products, 117 applicants received advertising cost-share annually, 150 KY Proud shelf stable products in Kroger stores, KY source verified chicken, milk and popcorn sold in retail stores. Estimated farm income generated is \$25.6 million. Derived from the Restaurant Rewards Program \$2.9 M, Tradeshows \$1.2 M, Kroger Retail & Udderly KY Milk premiums \$.3 M, and \$6.6 M spent on advertising multiplied by \$3.19 estimated ROI for brand promotional campaigns like KY Proud.
3. Resources Leveraged: KDA was able to leverage advertising from Kroger and other retailers to promote KY Proud products. The estimated media value of retailer advertising combined with participant dollars with tradeshows and POP grants achieved a dollar for dollar match for all KADF investments.
4. Effect on county and entrepreneurial leadership: Entrepreneurs have benefited with stimulated demand for their products and reduced costs for advertising and marketing.

Organization: Media Working Group, Inc.

Project Title: The Good Farmer/ Coming to Ground

Description: The Media Working Group received a \$50,000 grant to produce a television documentary examining the shifting economics of agriculture in Kentucky. It shows the beneficial relationship of farm policy on diversification efforts while exploring the restructuring of agriculture through several major crises including the loss of tobacco revenue. The video features local producers and farm enterprises in the Bluegrass Region.

Goal/Objectives:

1. Stimulate markets for Kentucky agricultural products and increase awareness of the Governor's Office of Agricultural Policy programs designed to help farmers diversify away from tobacco.
2. Increase consumer awareness about the growing diversity of Kentucky farm products.

Funding:

- Type: Grant
- ADB Investment: \$50,000 Grant: A2008-0488
- Matched Funds: \$72,533 From: Media Working Group and Private Donors
- Total Expenditures: \$122,533

Funds were used for

1. Salaries
2. Production expenses
3. Travel
4. Post-production expenses
5. Promotion expenses
6. Operating expenses

Outputs:

1. The project is 100% complete and periodically runs on Kentucky Educational Television network.
2. The film featured 8 farmers with various enterprises.
3. The number of screenings and air time may have reached up to 30,000 viewers.

Outcomes:

1. Effect on Kentucky Agriculture: The film has been broadcast statewide and shown in schools to educate people about farmers who have been affected by the loss of tobacco income.
2. Quantitative and Qualitative Impacts: People who saw the film were informed of topics such as the tobacco program, the tobacco settlement, the creation of the Agriculture Development Board and show some farmers efforts to diversify away from tobacco production. The film did not offer an in-depth description of the KADF programs available to farmers or make an attempt to stimulate markets for Kentucky agriculture products.
3. Resources Leveraged: The Media Working Group was able to leverage an additional \$72,533 of funds.
4. Effect on county and entrepreneurial leadership: This film was an attempt to inform viewers about the effects of the loss of tobacco income on Kentucky agriculture and the resulting efforts to diversify away from tobacco production.

Organization: Gateway Agri-tourism Association

Project Title: Regional Agri-tourism Association in the Gateway Area

Description: The Gateway Agri-tourism Association received a \$50,000 grant for the start-up and promotion of agritourism operations in the Gateway region of Kentucky (Bath, Bourbon, Clark, Menifee, Montgomery, Powell, and Rowan Counties). The main purpose of the association was to provide publicity and a support system for local farm business operations. Promotional tactics included: brochures, a website and networking opportunities at quarterly membership training meetings. Gateway Agri-tourism was able to bring industry professionals together and was able to attract new tourists and customers to the area. The association was not able to meet all of their goals and objectives. They ceased operations when the grant funding ended.

Goal/Objectives:

1. Promote agri-tourism operations and related businesses for the economic well-being of the region.
 - Distribute an average of 100 promotional brochures to each county of interest.
 - Create a regional website and a promotional display, showcasing venues/products of regional organization members.
 - Hold a minimum of one agri-tourism training workshop per quarter, have a minimum of five association members attend one tourism meeting outside of the Gateway Region per year, have a minimum of one promotional outreach display per year, and hold a minimum of one networking opportunity per quarter.

Funding:

- Type: Grant
- ADB Investment: \$50,000 grant: A2008-0423
- Matched Funds: \$35,000 from: Various community organizations and businesses
- Total Expenditures: \$85,000

Funds were used for:

1. Website, brochures and various other public relation materials
2. Equipment for special events
3. Operational and travel expenses
4. Director's salary
5. Salary for Interns from Morehead State University

Outputs:

1. The project is 100% complete but the association is no longer in existence due to its inability to raise operation funds.
2. The association enrolled about 40 members; most were farmers or local producers.
3. A regional website was created with information from the chamber, extension, and state website and a brochure was distributed to over 7 counties in the area.
4. The farm enterprises involved were diverse. They included pumpkin patches, a sorghum mill, a candy company, a shrimp farm, a winery, orchards and several other businesses.

Outcomes:

1. Effect on Kentucky agriculture: Gateway Agri-Tourism Association provided a way for Kentucky producers to promote their farm enterprises.

2. Quantitative and Qualitative Impacts: The project allowed producers to advertise their individual farm enterprises and to increase sales due to new tourists and customers.
3. Resources Leveraged: Gateway Agri-Tourism received community support by leveraging an additional \$35,000 from various community organizations and businesses.
4. Effect on county and entrepreneurial leadership: Gateway Agri-Tourism was able to work with Morehead State University Agriculture Department to provide internships for several students throughout the year. Interns learned organizational skills and marketing techniques such as hosting special events.

Organization: Rebekah Grace Food and Supplements for Life, LLC

Project Title: Rebeka Grace Farmgate Sales Program

Description: The Rebeka Grace Company received funding for continued expansion of the Rebekah Grace Farmgate Sales Initiative providing Kentucky farmers a profitable way to bring their local and all natural products to a regional market and promote the sustainability of the Kentucky agricultural industry. Also providing continued development for sales and marketing efforts for locally produced Kentucky Proud products.

Goal/Objectives:

1. Expand the Rebeka Grace brand through recognition
2. To expand a distribution system and marketing strategies to support the Kentucky Proud Program

Funding:

- Type: Cost Reimbursement Grant
- ADB Investment: \$250,000 Grant: A2008-0072
- Matched Funds: \$0.00
- Total Expenditures: \$250,000

Funds were used for:

1. Salary and benefits for employee's
2. Consultations
3. Promotional materials for Rebeka Grace products

Outputs:

1. Kentucky Proud and local products available in more wholesale and retail stores

Outcomes:

1. Effect on Kentucky Agriculture: Promotion of local and all natural products for a 2 year time frame.
2. Quantitative and Qualitative Impacts: Local producers received some compensation for their products.
3. Resources Leveraged: None reported
4. Effect on County and Entrepreneurial Leadership: Undetermined at this time

Footnote: *There was very limited information on this company and their operations. The business closed after 2 years due to cash flow problems.*

Organization: Kentucky Corn Growers Association

Project Title: Kentucky Grain Crops Academy

Description: The Kentucky Corn Growers Association received a \$35,483 grant to establish an intensive, 24 hours over 4 days, series of courses for grain producers. Together with UK extension, the series included principles of plant physiology, soil science, pest management and grain storage and handling. The course consisted of lectures, hands-on demonstrations and use of technology.

Goal/Objectives:

1. Increase Kentucky grain producer's knowledge and management skills to enhance farm profitability.
2. Equip farmers with skills allowing them to capitalize on emerging grain and biofuel markets.
3. Help minimize agriculture's environmental impact on rural Kentucky.

Funding:

- Type: Grant
- ADB Investment: \$35,483 Grant: A2007-0091
- Matched Funds: \$75,800 From: University of Kentucky staff time and resources
- Total Expenditures: \$111,283

Funds were used to for:

1. Academy Coordinator salary
2. Travel expenses
3. Supplies
4. Administrative costs

Outputs:

1. The workshops consisted of four, eight hour sessions on corn, soybean, and wheat production.
2. Approximately 105 participants enrolled in the Academy over the course of three years.
3. The majority of the participants indicated grain marketing and soil fertility sessions were most beneficial.

Outcomes:

1. Effect on Kentucky Agriculture: The Grain Crops Academy engaged producers in 13 Kentucky counties.
2. Quantitative and Qualitative Impacts: Participants estimated \$3/acre in savings due to the implementation of this project's recommendations and unanimously answered yes when asked if they saw an increase in overall farm production.
3. Resources Leveraged: The Kentucky Corn Growers Association was able to leverage an additional \$75,800 from University of Kentucky staff time and resources.
4. Effect on county and entrepreneurial leadership: Kentucky Grain Crops Academy encouraged producers to work together to become more knowledgeable on industry topics. Participants unanimously answered yes when asked if they would recommend the program to a friend. Concepts from the Academy were used to develop the Kentucky Corn Grower's C.O.R.E Program which focuses on younger producers.

Organization: Kentucky Specialty Grains

Project Title: Chia Production and Research

Description: Kentucky Specialty Grains received a cost reimbursement grant towards the research and development of chia, an oilseed crop high in omega-3 oil and nutrients. Kentucky Specialty Grains worked closely with the University of Kentucky to conduct a market analysis and feasibility study on this new specialty crop. There are about 3 million acres of Chia grown worldwide, none within the United States. The US imports one third of the crop for use in cereal, energy drinks and numerous other food items.

Goal/Objectives:

1. To position Kentucky Specialty Grain's producer-owners to make an informed investment decision regarding the development of a viable and sustainable Kentucky based chia seed production, processing and marketing business.

Funding:

- Type: Cost reimbursement grant – \$.50 per \$1.00 of approved documented payments.
- ADB Investment: \$33,850 grant: A2012-0286
- Matched Funds: \$33,850 from: USDA Value Added Producer Grant
- Total Expenditures: \$67,700

Funds were used to buy:

- Kentucky chia seed market development and business feasibility study

Outputs:

1. In 2014, 250 acres were planted and harvested by KY Specialty Grains. Findings show chia, a \$13 billion dollar worldwide market, can be grown in Kentucky.
2. The market awareness and access for Chia has grown substantially since the research and development 2011 start up. Chia research is now being conducted in 2 other states. The positive demand has reached wholesale seed companies and processors in the United States.
3. The funds have encouraged value added research and development leading to new ideas of how to include chia into cereals, energy drinks, toppings on salads, etc.

Outcomes:

1. Effect on Kentucky Agriculture: Because chia production is a new venture, this project allowed for research and experimentation. This could impact Kentucky's agricultural economy if the chia market continues to develop.
2. Quantitative and Qualitative Impacts: Production returns per acre are estimated at \$411.55 compared to corn (\$201.44) and soybeans (\$286.09). Research and development is continuing.
3. Resources Leveraged: The investment was used as a match for a USDA Value Added Producer grant of \$33,850 and lead to work with Ascendant Partners for marketing the new crop.
4. Effect on county and entrepreneurial leadership: The project is still in the research phase and affecting a limited number of Kentucky farms. However, seeing a profitable crop along with an increase in demand, this project could serve as a pioneer crop opportunity for Kentucky small grain producers.

Organization: Kentucky Forage and Grassland Council

Project Title: Expanding Opportunities for Biomass and Hay Production in Northern Kentucky

Description: The Kentucky Forage and Grassland Council partnered with the University of Kentucky, College of Agriculture, Department of Plant and Soil Sciences to conduct biomass and hay production applied research and a demonstration project. The primary investigators were from the University of Kentucky. Other participants included Northeastern Kentucky producers and UK Extension agents.

Goal/Objectives:

1. To enhance Kentucky producers' ability to grow and market biomass crops.
2. Develop a viable market for biomass.
3. Develop and promote viable hay production and marketing strategies.

Funding:

- Type: Grant
- ADB Investment: \$581,972 Grant: A2007-0056
- Matched Funds: \$295,595 From: University of Kentucky
- Total Expenditures: \$877,567

Funds were used to for:

1. Research Director Salary and Temporary Research Assistant
2. Research and Development Supplies and Costs

Outputs:

1. Switchgrass can be used as a dual purpose crop, hay or biomass.
2. Switchgrass is an economical biofuel; it can be pelleted to heat homes or larger pellets can be burned at coal plants and larger factories.
3. Switchgrass provides environmental benefits such as soil conservation, drought tolerance and hardiness.
4. From years 2007-2009 there were 20 plots of switchgrass planted and harvested, resulting in 223 tons of biomass.
5. Research from this project has been presented in 20 locations through on-farm field days, press conferences, and other agriculture related events across Kentucky and an additional 12 presentations have been made to industry leaders and County Extension agents.

Outcomes:

1. Effect on Kentucky Agriculture: Research proved switchgrass could enhance Kentucky's agriculture economy. It also provided specific knowledge on biofuels and perennial grasses.
2. Quantitative and Qualitative Impacts: Switchgrass production increased, in the affected area, 54% from 2009-2010. In 2010, 684.75 tons of switchgrass was sold to East Kentucky Power Cooperative to test the efficiency of combining with coal to reduce air pollution in smoke stack output. The process worked but is not economically feasible at this time.
3. Resources Leveraged: Kentucky Forage and Grassland Council was able to leverage an additional \$295,595 from the University of Kentucky.
4. Effect on county and entrepreneurial leadership: Farmers involved with the project have initiated further research into value added biofuel production.

Organization: Commonwealth Agri-Energy, LLC

Project Title: The Quarry Lake Water Project

Description: Commonwealth Agri-Energy, LLC is a farmer owned co-op producing ethanol. The KADF grant was used to purchase and install equipment utilizing cold quarry water to cool the ethanol plant. The project will provide the plant a more efficient and economical option to help lower water cooling costs.

Goal/Objectives:

1. Utilize quarry lake water to provide a lower cost, cooling water system to Commonwealth Agri-Energy, LLC ethanol plant.
2. Lower electricity usage and cost by \$100,000 or more annually.

Funding:

- Type: Cost Reimbursement Grant – \$1.00 per \$1.00 of approved documented payments.
- ADB Investment: \$220,000 grant: A2010-0027
- Matched Funds: \$367,055 from: Commonwealth Agri-Energy
- Total Expenditures: \$587,055

Funds were used to buy:

1. Piping and Pumping Material
2. Piping Labor
3. Electrical Labor
4. Floating Dock
5. Instrumentation and Electrical Equipment

Outputs:

1. The project is 100% complete.
2. The piping system has lowered energy costs \$6,000-\$10,000 per month.
3. The project has impacted 2,300 Hopkinsville Elevator Co-op members/owners.

Outcomes:

1. Effect on Kentucky agriculture: The innovative project provided a more economical way to cool the plant. The facility purchases approximately one-third of the local corn crop produced by farmer members.
2. Quantitative and Qualitative Impacts: Helped lower the plant energy costs \$6,000-\$10,000 per month
3. Resources Leveraged: Commonwealth Agri-Energy was able to leverage an additional \$367,000 of funds for the project.
4. Effect on county and entrepreneurial leadership: Commonwealth Agri-Energy, LLC is an example of a successful entrepreneurial, cooperative venture by farmers in Kentucky.

Organization: University of Kentucky Research and Education Center at Princeton

Project Title: High Clearance Sprayer and Greenhouse for Grain Crops Research

Description: The Research and Education Center at Princeton, Kentucky received a grant for \$125,667, which was used to purchase a sprayer and develop a greenhouse providing more opportunities for research in grain crops. Currently, the greenhouse and the sprayer are being utilized to conduct research on canola and annual rye cover crops that are lessening the crop reducing effects of fragipan soil, which is prevalent throughout Western Kentucky.

Goal/Objectives:

1. Increase research opportunities on grain crops in Kentucky
2. Allow research that requires equipment with high clearance of crops in the later stages of development.

Funding:

- Type: Grant
- ADB Investment:\$125,667 grant: A2010-0104
- Matched Funds:\$125,667 from: Kentucky Soybean Promotion Board and Kentucky Corn Growers Association
- Total Expenditures: \$251,334

Funds were used to buy:

1. Used high clearance self-propelled sprayer
2. Materials used to update grain crop greenhouse research facility

Outputs:

1. The greenhouse and sprayer have been used in over 20 different research trials
2. The rye grass cover crop research and trials, if successful, are projected to save farmers up to \$250 million per year and increase yields by 10%.
3. Due to the positive data from research trials, canola production was shown to be profitable in Kentucky and a new canola processing plant was built in Trenton, Kentucky.

Outcomes:

1. Effect on Kentucky Agriculture: Because of this investment and the research that has followed, producers have a better understanding of new crop opportunities and can integrate new crop techniques into their farm enterprises.
2. Quantitative and Qualitative Impacts: The increased capacity of grain research has provided field support and innovative solutions for farmers.
3. Resources Leveraged: The center was able to leverage \$125,668 in additional funds from the Kentucky Soybean Promotion Board and the Kentucky Corn Growers Association.
4. Effect on county and entrepreneurial leadership: Local commodity leadership was required to administer funds and conduct projects.

Organization: Nonprofit Dynamics, Inc.

Project Title: Feral Hog Elimination

Description: Nonprofit Dynamics received a \$55,782 cost reimbursement grant to eliminate the population of feral hogs in the Obion Creek watershed area to protect Kentucky's farm income and production. The hogs were eliminated through trapping, aerial gunning and night hunting.

Goal/Objectives:

1. Eliminate feral hog population in Obion Creek Watershed

Funding:

- Type: Cost Reimbursement Grant- \$1.00 per \$1.00 of approved documented payments.
- ADB Investment: \$55,782 Grant: A2011-0158
- Matched Funds: \$93,418.60 From: KY Dep. of Fish and Wildlife Resources, Local Farmers, and County Funds
- Total Expenditures: \$149,200.60

Funds were used to buy:

1. Night time hunting and dead animal removal
2. Helicopter flight and aerial gunning
3. Trapping and snaring
4. Administrative expenses

Outputs:

1. This project is complete and has eliminated a total of 643 feral hogs.
2. The Kentucky Department of Fish and Wildlife have continued to hunt the remainder of the hog population. An estimated 10 remain in the watershed area.
3. A total of 42 producers have benefited from this project.

Outcomes:

1. Effect on Kentucky Agriculture: Producers have seen less crop damage, better quality crops and elimination of an invasive species.
2. Quantitative and Qualitative Impacts: This project has helped reduce crop damage for 42 producers in 3 counties: Carlisle, Hickman, and Graves.
3. Resources Leveraged: Numerous agencies worked together on this project; Hickman county Fiscal Court, Graves County Fiscal Court, Carlisle County Fiscal Court, Hickman County Economic Development Board, Obion Creek Watershed Conservancy District, KY Department of Fish and Wildlife Resources and local landowners provided \$93,418.60.
4. Effect on county and entrepreneurial leadership: Collaboration with numerous agencies over a large area of land encouraged individual and county leaders to provide a solution to a major problem within the community.

Organization: Bracken County Ag Advancement

Project Title: Biofuel Pellet Mill Feasibility Study

Description: The Bracken County Ag Advancement contracted with Bio Energy Development Corporation to form a feasibility study to determine the viability of building a bio-refinery. Three bio-refinery processes were studied. It was determined “biochemical synthesis is the most feasible avenue for Bracken County to pursue in their endeavor to create green bio-products such as jet fuel, animal supplements, and specialty chemicals.”

Goal/Objectives:

1. Feasibility study to determine the potential to build a bio-refinery and produce biomass for alternative energy production.

Funding:

- Type: Grant
- ADB Investment: \$35,500 Grant: A2011-0030
- Matched Funds: \$35,500 From: 6 County Contributions
- Total Expenditures: \$71,000

Funds were used to buy:

1. Feasibility Study

Outputs:

1. Stage I: The processing and selling of switchgrass, horse muck/straw, wood waste, and animal waste was determined to not be feasible.
2. Stage II: The process of turning chopped biomass into pellets for sale to a power plant was determined to not be feasible.
3. Stage III: The process and by-products of switchgrass, horse muck/straw, wood waste, and animal waste engineered into a fuel source was found to be feasible for a 10-megawatt power plant.
4. Stage IV: A 5-megawatt power plant burning biomass and selling the energy to a power company was found to not be feasible.
5. Stage V: Found the most feasible course, along with the best return on investment, was a chemical process for microbes to break down sugars derived from bio mass to create jet fuel, livestock supplements, and chemical acids.

Outcomes:

1. Effect on Kentucky Agriculture: The study allowed researchers to look at new market opportunities for Kentucky producers.
2. Quantitative and Qualitative Impacts: It may be viable to produce liquid fuels, animal supplements, and other chemicals from a biomass chemical conversion system as well as creating a biomass harvesting operation that will require 1,100 tons of feedstock per day to attain 10-million gallon per year in liquid fuel.
3. Effect on county and entrepreneurial leadership: This study helped pass Bill 441 in the Kentucky legislature, which allows cooperatives to have investors rather than only member patrons; it encouraged farmers and community members to become more involved in agriculture development in Kentucky.

APPENDIX 3: Expert Meeting Notes

Horticulture and Specialty Crop Expert Meeting
 Evaluation of ADB Investments: County Programs, State Programs, KADF Projects and KAFC
 Tuesday, September 8, 2015
 CE Barnhart Building
 3rd floor conference room
 1 – 3 pm

UK Evaluation Team:

Jim Mansfield, CEDIK Extension Specialist University of Kentucky
 James Allen, CEDIK Research Director
 Chandler Purdom, CEDIK Graduate Student
 Karen Fawcett, CEDIK Program Associate

Expert Panel:

1. Shubin Saha, Assistant Extension Professor, Vegetable Specialist, UK Dept. of Horticulture
2. Patsy Wilson, Extension Specialist, Viticulture, UK Dept. of Horticulture
3. Mac Stone, President of Organic Association of Kentucky, Owner Elmwood Stock Farm
4. Dana Reed, President of Kentucky Horticulture Society
5. Dwayne Ingram, Professor UK Department of Horticulture
6. Kim Fritz, VP Kentucky Nursery and Landscape Association
7. John Strang, Extension Professor, UK Dept. of Horticulture
8. Tyler Madison, Grape & Wine Program Director at KY Dept. of Agriculture

Jim Mansfield opened the meeting with introductions of the UK evaluation team in attendance. Following, the members of the Expert Panel identified themselves. Starting with Power Point slides, a general look at the horticulture and specialty crops market data was disseminated and funneled into smaller categories.

Fruit	Agreed with the 32% increase in the past 10 years <ul style="list-style-type: none"> • Probably small fruits like grapes, mostly winegrapes • Berries doing well • Tree fruits doing poorly • KY consumes more than it is able to grow in this climate.
Vegetables	Agreed with the 62% increase over past 10 years
Floriculture	One year production cycle
Nursery	Disagreed about a decline in sales since 2007 <ul style="list-style-type: none"> • 2008 was worst year and nursery is an additional-years production cycle • Sales are directly tied to new home sales

Forestry	Kentucky is known for its 2" caliper trees which need 5 years to grown. Should start harvesting soon. <ul style="list-style-type: none"> • Most lumber stays in Kentucky
Sod	No comments

High tunnels were introduced to Kentucky in 2012 allowing farmers to extend their growing season and allow local food to enter the market out of season. High tunnel use has grown from approximately 10 in 2010 to over 500 in 2015. 90% were funded by a USDA cost share program. Together with greenhouses, low tunnels and converted tobacco greenhouses, these structures provide "protected agriculture" to grow produce crops."

There are factors at work beyond Kentucky that influence horticulture sales figures such as underreporting and general culture trends. And, there have been significant changes in Kentucky horticulture since 2012:

- The economy is better
- Lower gas prices are providing two positive outcomes:
 1. Consumers drive farther and more often to get what they want such as "local, fresh strawberries"
 2. Producers are able to do more with their produce. They can travel farther or to multiple locations to market their goods.
- High tunnels
- Organic market
- Nursery inventory has started to build but saleable product takes years to grow. as in tree production

The discussion led to the effectiveness and ineffectiveness within the programs funded.

The wine industry is remaining steady after a huge growth over the past 10 years. They have set new goals after a successful startup stage with the ADB funding. Purple Toad Winery received a loan and they are now the leading winery in the state. "The influence they have on the rest of the industry is immeasurable," quoted one member. The Kentucky Vineyard Society was able to hire Kentucky's first viticulturist to provide research and education to winemakers. Kentucky's winemakers have to buy out of state grapes because Kentucky doesn't produce enough. The Grape and Wine Council handles the marketing part of the industry. Kentucky wines have been moving toward national standards, in the form of competitions, to further market KY Proud© products.

The award to The Kentucky Association of Food Banks provided another market for producers to sell produce. It was used as a stepping stone for a line item in Kentucky legislation for further state support. Furthermore, it helps farm owners manage their labor costs by providing a base price for their product. Labor management is one of the most difficult issues for any crop farm. Members explained, "Today

there is less labor and guest worker programs are expensive and difficult to deal with. I end up planting crops to keep my workers busy until they're needed for the main crops". Everyone agreed no one wants to throw away the food they produce.

The Kentucky Horticulture Council received an ongoing grant to provide marketing, development and technical support to industry members across the state. Partnering with Extension, both groups acknowledged how important the research and demonstration work is to Kentucky horticulture producers. Kentucky does not have large private groups to do research and testing, therefore they rely on the Extension offices and Universities in the state. Extension is also tied to community culture. Field Days are the most effective training for producers because they keep growers aware of new varieties of plants producing well in Kentucky as well as current production practices in the industry.

Farmer's Markets provide a direct to consumer market. They are available in many counties throughout the state however their season can be very short. Produce auctions are growing in importance as wholesale outlets for produce. Most are centered within Amish/Mennonite communities. "It is probably underrepresented in NASS, National Agricultural Statistics Service, data," stated one expert.

Discussion lead to ineffectiveness within programs awarded ADB funds. Some ideas mentioned:

- Spread out the money more, smaller loans/grants to more entities
- It is hard to pick winners, Unable to tell who will come out a leader
- Lots of variables in each program
- We're late in the produce game. Other states are well established
- Farmers unable to pass rising costs to the consumer
- Kentucky is different; Things that work in another state might not work here.

"Everything on the ADB List helped to capture the agrarian culture in Kentucky," stated one member. Kentucky had no idea of the impact from transitioning out of tobacco had Kentucky not invested these funds from the beginning. These ADB funds have set the foundation by defining Kentucky horticulture and connected rural communities to urban cities. The horticulture industry is looking forward. As one member replied, "The opportunities are positive."

Livestock Expert Meeting
Evaluation of ADB Investments: County Programs, State Programs, KADF Projects and K AFC
September 14, 2015
3rd Floor Barnhart Building
10:00am – 12:00pm

UK Evaluation Team:

Jim Mansfield, UK Extension Specialist, CEDIK

Chandler Purdom, Graduate Student, CEDIK

Karen Fawcett, Program Associate, CEDIK

1. Charles Miller with Kentucky Cattleman's Association
2. Steve Downs with Kentucky Cattleman's Association, Producer
3. Fran McCall with Kentucky Farm Bureau Federation
4. Dr. Jeff Lehmkuhler, UK CES Beef Cattle Specialist
5. Jim Akers with Bluegrass Livestock Marketing
6. Dr. Gregg Rentfrow, UK CES Meat Science Extension Specialist
7. Dr. Jack McAllister, retired UK Extension professor Dairy Science
8. Dr. Tony Pescatore, UK Extension Poultry Specialist
9. Dr. Richard Coffey, Chair of UK Animal and Food Sciences
10. Warren Beeler with Kentucky Department of Agriculture
11. Dr. Kenny Burdine with UK Ag Economics Extension
12. Dr. Lee Meyer with UK Ag Economics Extension
13. Ashton Wright with Bluegrass Farm to Table
14. Todd Clark, Farmer/Producer
15. Sarah Fritschner with Louisville Farm to Table
16. Kathy Meyer, Sheep and cattle producer was not present but sent comments by email

Jim Mansfield opened the meeting with an overview of ADB funding and livestock trends seen in USDA data. Discussion was divided into livestock industry sectors.

Poultry

One ADF award invested in energy audits for poultry houses' to lower farm operating costs. Kentucky is seeing an expansion of the poultry industry capacity. There are six different large poultry companies in the state and the demand for cage free eggs and chicken is increasing and coming from end user requests like McDonalds. Kentucky eggs are distributed nationally to 20-30 states. For small flock and pasture raised birds, there is a need for marketing assistance; however they are not sure which market to target. For local pasture raised birds, the markets are high-end retail, farmers markets and restaurant sales. However for small farm production, a \$4 cost per processed bird is too expensive to compete with traditional markets. There has not been a consistent institutional demand for pasture raised birds.

Cattle and Calves

ADB investments have ensured Kentucky cattlemen are better able to handle market fluctuations. The ADB funding, used for programs such as Kentucky Master Cattleman's Program, have provided:

- Increased genetic quality of cattle herds
- Increased quality of carcass traits
- Education for all aspects of farm management
- Working facilities
- Improved environmental practices
- Forage selection and production improvements
- Increased hay and grain storage capacity, "We can now use Kentucky hay and grain year round."
- Inspiration for the next generation to farm

Cattlemen would like to see a flow develop throughout the system.

We're "leading the industry" we've made more progress than other southern states.

It's "painfully obvious" ADF knows how to spend a lot of money on infrastructure (which a good market will create itself).

ADB needs to be spent money on people. It's takes people on the ground working to identify product.

More money is made with boots on the ground that enhances service and builds markets.

People make a difference.

A CPH-45 cattle is a successful market and it took boots on the ground to do it.

We need to develop flow throughout the system (eliminate bottlenecks).

There is plenty of demand. There is a lack of capacity to supply products consistently.

One suggestion was using the commodity groups because they have the ability to utilize paid staff for a focused marketing effort.

Niche markets such as grass fed are still in the experimental phase and producers are unsure if they are sustainable due to the consumer not understanding: What are these products and how they are different and therefore cost more?

Purdue and Tennessee now have programs similar to the Kentucky Master Cattleman's.

Other comments heard:

- "Ask veterinarians about the improved working conditions and animal husbandry practices."
- "The educational programs for producers are more important."
- "More money is made with 'boots on the ground'. They enhance services and build markets because people are the ones that make a difference."
- "More communication within the community and the farming community leads to more informed decisions."

Dairy

- The dairy industry has been decreasing in the Southeast for 25 years. Compared to previous years, Kentucky has fewer dairy producers but larger dairies. The KDDC, Kentucky Dairy Development Council, has provided production and quality incentives and education for the industry. The result has been an increase in quality and quantity of milk produced due to increased production per cow. 50% of Kentucky dairy producers are members of the MILK Program. Comments heard:
 - “The M.I.L.K. Incentive money made the difference by incentivizing KY dairy producers to increase volume and quality of their milk output.
 - “KDDC taught KY dairy farmers how to improve profit”.
 - “KDDC field people have a lot to do with success of programs”.

Equine

One equine industry ADB award was given to provide a useful study to illustrate the scope and report baseline numbers of the horse industry in Kentucky. Comment: “The study is very useful”.

Hogs and Pigs

Kentucky farmers weathered the decline of hog numbers in the state. Niche markets are strong for products such as heritage breeds, sausage, country ham, outdoor raised hogs, corn-fed hogs, processed meats and direct marketing. The ADB investment distinctly increased national show pig numbers. An innovative on farm project to make compost from hog manure benefitted the entire industry. Comment: “O’Bryan project has implications for the whole industry. There are benefits economically and environmentally to go from liquid manure handling systems to solid (compost) handling systems. It turns a liability into an asset”.

Sheep and Goats

Hair sheep accounted for most of the 18% increase in Kentucky sheep numbers over the past 5 years. KADB funding for the Kentucky Sheep & Goat Development Office has benefited both the sheep and the goat sectors with a paid Executive Director which has been much more effective than a strictly volunteer association effort. There is a strong ethnic market for lighter weight sheep and goats in Kentucky for shipment to East Coast markets. Imported lamb and goat meat is cheaper less expensive but Kentucky live animal prices are competitive.

Aquaculture

There is slow but steady growth in this industry. They are the second largest user of Kentucky’s Mobile Processing Unit. Weather risks and less expensive imports have decreased the farm shrimp and prawn industry. Kentucky is a just a touch too far north for large scale outdoor production.

Livestock Summary Discussion

The first KADB showed Kentucky is a livestock state. The funding also showed us where the industry could fail and where they could make a difference. The age of farmers attending meetings is getting younger, which is positive. Producers not directly affected by the funds have benefitted from the conversation and education components the KADB has funded.

GENERAL FINAL REMARKS

Where do we go from here? Each commodity group needs to take a look again, what resources do you need going forward? We had AG 2000 and followed it NOW – where do we go? The State needs to fund entrepreneurs and businesses or groups that cannot find funding traditionally. Projects s can take some risk as long as there is a tie in with KY farmers. It must benefit Kentucky farmers directly in the short run as well as the long run. We should see more of an environmental focus. KADF programs and projects are the envy of other states.

Education and Leadership Expert Meeting
Evaluation of ADB Investments: County Programs, State Programs, KADF Projects and KAFC
October 13, 2015
3RD Floor Barnhart Building
10:00am – 12:00pm

UK Evaluation Team:

Jim Mansfield, CEDIK Extension Specialist University of Kentucky
Chandler Purdom, CEDIK Graduate Student
Karen Fawcett, CEDIK Program Associate

Expert panel:

1. Erik Walles, Organic Producer
2. Maury Cox, Executive Director of KDDC, Kentucky Dairy Development Council
3. Art Williams, Owner of Arno Enterprises, LLC
4. Angela Caporelli, Kentucky Department of Agriculture Aquaculture Coordinator
5. Dave Maples, Executive Vice President of Kentucky Cattlemen's Association
6. Adam Hinton, Hinton Mills
7. Leigh Maynard, Agricultural Economics Department Chair

Jim Mansfield opened the meeting with an overview of ADB funding and industry sectors. Fifteen minutes was given to allow the expert panel time to read over briefs of site visited programs. Discussion was constructed around individual programs.

KCARD

The Kentucky Center for Agriculture and Rural Development was awarded \$1,479,000 over 3 different UK Evaluation Team site-visited projects. This was the largest ADB award for technical assistance. Their program was commended for working well with other organizations, presenting their wealth of information to Kentucky agriculture, being a nonjudgmental third party and changing their previous focus from feasibility studies toward working with individual entities to increase the business success rate. "They have saved some farmers their farm," replied one panel member when addressing help with business decisions. Many organizations and businesses work with KCARD on numerous issues such as funding solutions, grant writing, marketing, business plans and management improvements. . A panel member said, "It is hard to argue with their proven success."

KALP

The Kentucky Agricultural Leadership Program was a "fantastic experience and everything we did was valuable" noting one expert panel member who was a participant in the program. It is a state wide entity that is working on making their classes more diverse. The next class will include someone in the forestry industry as well as a state representative. Attendance could be doubled if the right leadership was in place. However, would the unique characteristics of the program be lost or less productive if the program grew larger? 100% of the graduating Class X have reinvested in the program with donations.

The Center for Sustainability of Farms and Families

Located on Kentucky State University's campus, the newly constructed building was a large improvement from the previous structure. It is used by many industry organizations and the community. They awarded small scale farm grants which "helped me get over a hurdle to become more profitable," mentioned one panel member. Two improvements were suggested: Providing a smoother and faster grant administration process and addressing new farmer grants. They have a popular demonstration farm which provides hands on, practical knowledge with the diverse programming. "The Center has helped a lot of small farmers be more profitable," quoted two members of the panel.

UK Entrepreneurial Coaches Institute

There was no primary knowledge of this program with the panel. One member questioned, "Did previous tobacco farmers take a buyout and move to other industries?" It did bring up conversation about needing to keep resources in the state, advancing a marketing campaign about what Kentucky agriculture does well and identifying markets available to for farmers looking to diversify.

Kentucky Agricultural Council

"The idea is excellent. Sustainability is difficult without staff," voiced one panel member. This program gathered all of Kentucky's agriculture sectors into one room on more than one occasion. They published a strategic plan through 2012 which was helpful throughout Kentucky. The state was funded for construction of one livestock diagnostic lab and another upgraded due to the publication. The strategic plan was well done and had a lot of participation. It got some results and many pieces were used in individual organizations. The Market Maker tool was very useful however the information was not updated. Sometimes having too many people can make it difficult to continue on a chosen path and create a problem for sustainability. Because matching funds from commodity groups were difficult to come by, ideas were kept from fruition. For strategic planning to be effective there needs to be consistent long-term leadership and follow through on the plan.

Food System Innovation Center

Housed at the University of Kentucky, the program is a valuable resource to provide food product development and testing services for Kentucky entrepreneurs. The center provides market research, food safety management, UPC codes, and nutritional information and label development services.

KCTCS

The concept of computer accessibility and proficiency is valid in today's business world. The question was raised: Is it some farmers don't know the benefits of using a computer or is it they don't want to learn how to use a computer? Texting appears to be the easiest way to communicate with business associates.

UK Crop Diversification

Research is a positive step forward for Kentucky farmers to attempt to grow new crops as Kentucky transitions from a tobacco state to a diversified agriculture economy. .

CAIP EXPERT MEETING

October 20, 2015

10:00am – 12:00pm

3rd floor conference room, Barnhart Building

UK Evaluation Team:

Jim Mansfield, CEDIK Extension Specialist University of Kentucky

James Allen, CEDIK Research Director

Lucia Ona, CEDIK Research Associate

Chandler Purdom, CEDIK Graduate Student

Karen Fawcett, CEDIK Program Associate

Expert Panel:

1. Dr. Jeff Lehmkuhler, UK CES Beef Cattle Specialist
2. Becky Thompson, Kentucky Beef Network
3. Charles Embry, Cattle farmer
4. Dr. Kenny Burdine with UK Ag Economics Extension
5. Bret Winsett, President of Kentucky Forage and Grain Council
6. Ray Smith, UK Extension Forage Specialist
7. Meredith Scaley, Consultant for Kentucky Dairy Development Council
8. Brandon Sears, UK Extension Agent for Madison County
9. Nick Carter, UK Extension Agent for Fayette County
10. Kelley Yates, Executive Director for Kentucky Sheep and Goat Development Office
11. Kathy Meyer, Sheep and cattle producer

Jim Mansfield opened the meeting with an overview of ADB funding and illustrated the difference between project funding and program funding. Discussion was started with a general overall impression framed around the question, “Are these programs helping Kentucky Agriculture? What impacts are you seeing?”

“Yes these programs have made a huge impact for our county in terms of safety.” The infrastructure, such as handling facilities, equipment, fencing and water facilities have made Kentucky farms safer for farmers, employees, veterinarians and residents of Kentucky. The infrastructure leads to a positive environmental safety component as well. Local communities feel the positive economic impact.

Consumers as well as producers have a more positive perception of Kentucky Agriculture due to the ADB program funding. Producers “have to see positive results with their own eyes,” said one panel member. “And they have.” ADB funding encourages education, planning and best management practices to increase efficiency and income on Kentucky farms. Consumers are provided a positive image of farming in Kentucky. The Midwest is receiving genetically superior feeder cattle at a higher weight over the past 10 years from Kentucky farms.

Shared Use Programs are important as an educational tool to introduce new implements. Purchasing new equipment is cost prohibitive. Once farmers implement these cost effective, labor-saving tools, they become excited to find more situations to better manage their business. They also embrace the idea of collaboration with other producers as well as other agencies to further their business.

Panel experts were in agreement that pasture management and rotational grazing is the most underutilized yet one of the strongest variables toward increasing net farm income. However, they were unsure as to the best way to address the situation. Many farmers feel they would raise their income by purchasing more cows rather than better managing the pasture management of the herd size they currently have. Attending a 2 day grazing school or attaching a minimum acreage requirement to go along with minimum herd size could be attached to Program Awards. The rules must support the goal of the award and be tailored toward the producers need. Small animal producers are good at pasture management. Young farmers are more willing to utilize pasture management practices. Forage best management practices increase farm income and need to be implemented and encouraged to keep Kentucky farmers profitable.

AS KENTUCKY MOVES FORWARD, WILL THE AGRICULTURE DEVELOPMENT BOARD HAVE TO CHANGE THE ADMINISTRATION OF CAIP FUNDS DIFFERENTLY?

- “ADB Funds did exactly what it was supposed to do, diversify Kentucky Agriculture”
- “There needs to be a fundamental change in the application process”
- “Application process needs to be more transparent”

With the current application there are groups which appear to be excluded from funding such as beginning farmers, young farmers, farmers who have been denied before, part-time farmers, non-priority groups such as small animal, and family teams like father/son partnerships. The state needs to readjust their guidelines, county councils need to change their mindset that it’s their money and it shouldn’t go to big tobacco farmers from the past. “Ten years ago, I didn’t know how I could survive without a tobacco crop. But it happened,” stated one panel member. “Tobacco needs to take a back seat. It’s no longer the overriding thought.”

We moved to the specific sectors of the programs. In the interest of time, we made the statement, “We’ll assume all programs are good, what needs to be changed?”

LARGE ANIMAL

- It’s tougher for producers from counties that received smaller awards to compete with producers from counties that receive larger awards
- A snowball effect on seed stock producers
- Hard to put financial return dollar value on genetics
- Has distorted the market

FARM INFRASTRUCUTURE

- Storage facilities not being used for intended purpose

- No one wants to be the police

FENCING AND ON-FARM WATER

- Small amount of overlap with national funding even though prohibited in guidelines
- Category should be joined with rotational grazing/forages to encourage best management practices
- Fence chargers are best cost-share investment because they keep your product is safe
- Combine with other programs such as rotational grazing, replacement heifer purchase or small animal therefore exponentially increasing income per dollars spent.
- Fencing importance will grow as pasture is re-established across Kentucky

FORAGE AND GRAIN IMPROVEMENT

- Use better administration communication to reduce bottleneck when ordering seed; ADB, seed suppliers, distributor and farmer

AGRICULTURAL DIVERSIFICATION

- Difficult to get funded; not scoring well on application process
- Secondary category, not primary. Limit on award

TECHNOLOGY & LEADERSHIP

- A newer category
- Emerging technology? Drones?

SMALL ANIMAL

- Difficult to get funded; not scoring well on application process
- Scoring system for applications must change at the state level
- Many years of discussion about the inability to be awarded funds

At this point, the discussion cycled back to a conversation about how the state or counties decide who receives funding. Most of the panel members were unsure how the award winners were selected.

- Many counties have tie breaker questions such as, "Does your business have a written plan? The tie-breaker is important to County Councils.
- Counties can divide programs between Primary and Secondary. It does not affect the scoring but does affect the total amount to be awarded.
- No data on amount of applications received. Therefore, unable to ascertain demand for programs.
- Online application/blind review – Computer to score to take human aspect out of it?
- What happens when you lose the human aspect?
- The squeaky wheel gets the grease
- Committee duties are streamlined; there is not much work there
- Needs to be more transparent
- Awards need to be more inclusive
- Need to continue to be cost-share, not grants
- Preference points for those not selected previously?
- Hard to access impacts without knowing demands
- Diversification and small animal is falling behind other categories

- Large animal equipment is more expensive than small animal.
- Less traditional agricultural operations won't score as well on the application
- Only tracking what ADB is spending. Who needs what for their farm?
- Need to track applications by area at county level and aggregate at state level

POULTRY

- No comments

ON-FARM ENERGY

- Newer program area
- Dairy and poultry industry are benefitting

VALUE-ADDED MARKETING

- Fairly new program becoming more popular; farmer's markets
- Not every agriculture entity has value-added products

NATURAL RESOURCES

- Timber and soil

SHARED USE

- Will grow in coming years
- Huge in our county
- Equipment expense would be cost prohibitive for private farmer
- Administrator must care for machinery
- Provides hands on results/efficiency
- Benefits small producers and leverages the money spent

SUMMARY REMARKS

- Deadlines need to align. "We can't seed unless we know we're going to get funded."
- Time sensitive nature therefore deadlines need to be changed
- Funding process needs to be more transparent
- "It's time we're all on a level playing field. We've ridden that tobacco horse as long as we can. It's agricultural diversification money now."

Marketing and Promotion Expert Meeting

Evaluation of ADB Investments: County Programs, State Programs, KADF Projects and KAFC

October 22, 2015

CE Barnhart Building

3rd floor conference room

10:00am – 12:00pm

UK Evaluation Team:

Jim Mansfield, CEDIK Extension Specialist University of Kentucky

Chandler Purdom, CEDIK Graduate Student

Karen Fawcett, CEDIK Program Associate

Expert Panel:

1. Larry McMillan, Critchfield Meats
2. Dave Maples, Kentucky Cattlemen's Association
3. Angela Caporelli, Kentucky Department of Agriculture
4. John Foster, Owner of The Sage Rabbit restaurant, Sullivan University

Jim Mansfield opened with meeting with introductions and the expert panel introduced themselves.

What is the Definition of Local Food? Each person had a slightly different definition on this subject.

The panel felt the KY PROUD program was doing things right in the beginning. The logo is easily identifiable and the Restaurant Rewards Program is helpful to any restaurant that uses it. It is more identifiable in Central Kentucky than in Eastern or Western Kentucky. There are some restaurants able to take advantage of the maximum Restaurant Rewards Program award. Recertification, paperwork, and incorrect information about the program from third parties have proven to be barriers for some restaurants. The additional cost and time to address the KY Proud program requirements must be cost effective for a business.

There is discrepancy about products being labeled Kentucky Proud. The concern is that the Kentucky Proud program may have diluted the effectiveness of their brand by not requiring a product be made with a majority of Kentucky-grown ingredients. Currently a product can be labeled with the Kentucky Proud logo if it is made within the state, regardless of whether the ingredients are Kentucky grown. Yet, there are examples of 100% Kentucky-produced products, including Udderly Kentucky Milk, Kentucky Proud Chicken, locally produced meats and produce. A four-star certified rating system that gives a higher score for an all in-state product could provide a boost to consumer interest in the label and add confidence in the Kentucky Proud brand. "KY Proud needs to be fine-tuned and reintroduced," said one member.

Referring to KY Proud and wholesale marketing “Are we are advertising a product we cannot provide,” said one panel member. The program appears to have lost the connection with keeping money in the state. “Did we put the cart before the horse?” questioned one panel member. The infrastructure is available. “We’ve got livestock, processing plants, feed, corn, soybeans, and some finishing abilities,” replied one panel member.

KY Proud Chicken program was possible because the production, processing and marketing was integrated in one company, and the KY Proud brand has helped to market and sell a true KY grown product. Big food companies can provide consistency and gross volume numbers. They can contract to supply a product at an attractive price in return for a purchase contract that essentially locks out the purchasing of local products. Smaller, local entities cannot typically meet the large, strict contract requirements used in institutional marketing. At least in the beginning, buyers and consumers need to understand why a local product may not be available year round. “We have a glass ceiling on available markets but are spending money on advertising,” questioned one panel member. Kentucky needs commodity group collaboration to close the circle and break through the glass ceiling of institutional markets.

Yes, local food is a trend. Is it sustainable? The state of Kentucky cannot produce all the food for its residents. Beef processing and marketing head to tail locally is difficult because people will not buy all the different cuts of meat at a sustainable price. The economic and logistics questions raised could not be answered due to the many different variables at work. However, more of the pieces of the puzzle are available now in Kentucky. In order for significant production, processing and marketing ventures to work and provide positive impact across the state, everyone needs to get on board and everyone needs to do their part. “Why are state institutions not buying KY Proud products?” questioned one panel member.



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