USDA’s National Institute of Food and Agriculture (NIFA) administers the Beginning Farmer and Rancher Development Program (BFRDP), which was authorized in the 2008 Food, Conservation, and Energy Act (Public Law No. 110-234, Section 7410). This “2008 Farm Bill” amended Section 7405 of the previous Farm Bill.

In Fiscal Year (FY) 2009, BFRDP funded 29 projects to train, educate, and provide outreach and technical assistance to beginning farmers and ranchers. Twenty-five of these projects are standard projects that address the needs of beginning farmers and ranchers through new and established local and regional training, education, outreach, and technical assistance initiatives that enhance self-employment in farming, ranching, and forestry opportunities.

Three projects are educational enhancement projects that help develop beginning farmer and rancher education programs by conducting evaluation, coordination, and enhancement activities for standard projects and other non-funded beginning farmer programs. The purpose of an educational enhancement team grant is to assemble a team of experts to review beginning farmer and rancher curriculums and programs, identify gaps, and develop and disseminate recommendations and materials to address these gaps. The educational enhancement teams will not train beginning farmers and ranchers but may train the trainers and help enhance funded and non-funded beginning farmer and rancher education programs in the nation.

Additionally, the U.S. Department of Agriculture’s (USDA) National Agricultural Library (NAL) was funded as a clearing-house to establish an electronic library for all beginning farmer and rancher education programs and opportunities in the nation.

This report is an exploration of both the outputs and outcomes of BFRDP projects funded in FY2009. It also includes a detailed discussion and explanation of the processes and technology used to evaluate the project goals.
EDUCATION AND OUTREACH
MATERIALS PRODUCED
A range of materials were produced by the standard grants to support training and outreach efforts for beginning farmers and ranchers. Promotional flyers/brochures and media stories were the most popular materials created since they help to build interest and awareness of project activities in the first year. More curricula and technical assistance materials are expected as projects complete materials in development for use during later years of the grant.

TYPES OF WORKSHOPS
AND TRAINING OFFERED
Training activities are the cornerstone of almost all the BFRDP grantee programs. Types of training included webinars, seminars, internships, mentorships, on-farm field days, etc. Face-to-face training events, such as regular non-credit courses or workshop sessions at farming conferences, were the most frequent types of events.

NUMBER OF PARTICIPANTS TRAINED
More than 5,000 new and potential farmers were counted as participants in BFRDP project training events. Most attended face-to-face workshops or courses, but many also participated in other types of training, including roundtable discussions, hands-on field days, farm internships, and working with mentor farmers. This outcome indicates that the BFRDP goal to train more than 6,000 beginning farmers and ranchers will most likely be met, if not greatly exceeded.

Projects also provided assistance to beginning farmers and ranchers that goes beyond producing materials or providing training. This assistance includes: coordinating networks, coordinating farmer advisory panels, technical assistance to acquire land, access to land on incubator/partner farms, facilitating matches between new and retiring farmers, providing funding assistance for training/start-up costs, facilitating marketing opportunities, and legal expertise.

DEMOGRAPHICS OF PARTICIPANTS
The 2008 Farm Bill requires at least 25 percent of BFRDP funds be allocated to training socially disadvantaged or limited resource farmers and farm workers. Fourteen projects reported the size of this target beginning farmer audience at project start. These data are used to establish a baseline measurement. Eleven projects reported on the number of target beginning farmers reached during the first year.

Data from BFRDP training program participants who responded to surveys shows that approximately 17 percent of the 5,339 farmers trained had very little or no experience in farming. About 12-16 percent are farm workers, females, limited resource, and socially disadvantaged. However, these percentages are likely to be higher because only 11 projects reported on their target audience.
CHANGES IN ATTITUDES/KNOWLEDGE IMMEDIATELY AFTER TRAINING EVENTS
Only 12 grantees reported on change in attitude or knowledge immediately after a training event. While the data are taken from a selection of reporting projects, some indication of the overall impact of the BFDP can be made:

• Most participants stated that they changed their attitude or increased their knowledge after attending training.
• Most participants plan to change their behavior as a result of the training.
• Almost 1/3 of project participants plan to start a farm after their training.
• Almost 2/3 of participants are already farming and most plan to continue farming.

Other types of post-training outcomes were reported by grantees to supplement requested measurements. Some of those impacts include:

• A project in Minnesota, where representatives from 26 schools expressed interest in buying directly from Hmong farmers. In this pilot year, four Hmong farmers sold nearly 400 pounds of produce in 1 week directly to schools;
• A project in California reported that 73 percent of respondents had purchased farm equipment (tractors, sprayers, bed shapers, etc.); and
• A project in Maine reported that all their farmer participants had a significant increase in net income in 2010 over 2009. Additionally, farmers in the business planning program sold at 13 different farmers’ markets throughout southern Maine and were responsible for the delivery of 59 community supported agriculture shares totaling $14,160.

CHANGE IN BEHAVIOR 1 YEAR AFTER TRAINING
Only 10 projects reported the percentage of respondents who changed practices or farming status at the end of the first year. Conclusions from the projects reporting indicate:

• The actual percentage of participants who changed business, farming, or marketing practices was similar to the percentage who reported a plan to change behavior after attending training;
• The majority of participants had developed a farm plan;
• The percentage that did start a farm is greater than the percentage that planned to start a farm after training;
• Almost half of the participants are not farming (yet) and;
• A majority of participants are still involved in training after 1 year.

EDUCATIONAL ENHANCEMENT PROJECT
COLLABORATIVE ALLIANCE OF FARM BEGINNINGS PROGRAMS: PLANNING AND SUPPORTING FARMER-TO-FARMER EDUCATION IN SUSTAINABLE AGRICULTURE
The Farm Beginnings (FB) Collaborative represents nine organizations in six states. The collaborative supports organizations that offer FB programs by implementing common evaluation components, sharing program materials, strengthening the training process, model transfer, implementing FB training, and strengthening advanced farmer training areas to address barriers that face FB graduates within 2-5 years of farm start-up.

For the first time common data have been gathered from all incoming students. In the next grant year, all organizations that offer FB programs will administer a post-course evaluation. The evaluation will not only survey this year’s students, but reach out to all graduates of FB programs over the past 13 years. Additionally, a new electronic file sharing platform has increased the ability of collaborative organizations to share materials (curriculum, evaluation, recruitment). This, in turn, allows newer organizations to build on the strengths of other organizations.

EDUCATIONAL ENHANCEMENT PROJECT
ENHANCING BEGINNING FARMER SUCCESS THROUGH VIBRANT SUPPORT NETWORKS IN THE NORTHEAST
The Northeast Beginning Farmer Coalition is a learning network for beginning farmer training programs. Three major strategies to foster the network include the delivery of mentoring, training, and program development resources; developing evaluation resources and outreach strategies to understand and enhance the impacts of training efforts; and engaging K-12 teachers and young farmer activists to shift youth cultural norms about farming career options.

During the coalition’s first year, it conducted needs assessments of new farm start-ups focused on gaps in service. A course to train new instructors reached 20 farmers, non-profit, and extension educator participants. Attendees developed five new online courses for beginning farmers. The coalition also developed and reviewed materials and resources and created resources to support teachers at eight schools in New York with agriculture education programs.

EDUCATIONAL ENHANCEMENT PROJECT
ENHANCING ENVIRONMENTAL PLANNING AND LEADERSHIP OF BEGINNING FARMERS AND RANCHERS
The Livestock and Poultry Environmental Learning Center (LPELC), part of the eXtension Initiative, coordinates stakeholder-driven development of user-friendly educational resources on environmental topics for beginning farmers.

Twenty LPELC educators developed and/or reviewed some of the educational modules. Stakeholders were surveyed about their perceived educational needs and experience with environmental management. The initial educator survey responses indicate that the teachers are less comfortable with their knowledge in environmental management compared to livestock, crop, or business management. There has not been a coordinated effort to develop, identify, or provide such materials to agricultural educators before this project began.
The Navajo Nation is a semi-autonomous Native American homeland covering about 26,000 square miles of northeastern Arizona, the southeastern portion of Utah, and northwestern New Mexico. It is the largest land area assigned primarily to a Native American jurisdiction within the United States. The 2000 census reported 173,987 Navajo citizens, 58.34 percent of all ethnic Navajos, living on the Navajo Nation’s territory.

The BFRDP project engages, prepares, and supports socially disadvantaged, underserved, and limited resource beginning Navajo farmers and ranchers in eight communities covering 8,000 square miles of the Navajo Nation. The overall goal of the project is to provide Navajo community members who wish to begin farming and ranching with the skills to effectively launch sustainable agricultural operations using traditional and contemporary agricultural techniques in conjunction with effective business practices. Utilizing multiple learning methods, the project features Navajo language-based instruction, intensive experiential education with successful Navajo farmer and rancher mentors, regional peer roundtables with expert facilitators, and production experts. The project is teaching ancestral traditional ways to introduce participants to farming or ranching.

In the first year, the project worked with 13 chapter members through direct agricultural training and networking activities that included two roundtables, two conferences, and weekly classes in technology, business, or introductory farming and ranching to 1,000-plus participants. Fifty percent of participants are women. Seventy percent are farming or ranching less than 1 year, or do not farm/ranch currently. The project staff is comprised of four traditional Navajo locals of varying ages and educational backgrounds. All are bilingual, fluent in Navajo, and culturally sensitive to the target group’s history and challenges.

**Creating Beginning Farmer Opportunities in Farm Worker Communities: Agriculture & Land-Based Training Association**

**Project Director:** Brett Melone, Agriculture and Land-Based Training Association | brett@albfarmers.org

The target audience for this project consists of farm workers and other low-income people, mainly from the growing Latino demographic in the Central California region. The Agriculture and Land-Based Training Association leverages its participants’ rural backgrounds and vocational skills with education on business and financial literacy, farm production, crop planning, and management skills. The result is dozens of beginning Latino farmers operating at varying levels of business development.

Thirty-seven farmers demonstrated verified management changes as a result of participating in educational events and receiving technical assistance. Evaluation methods included written and verbal surveys at the end of educational events, post-event interviews, follow-up via technical assistance interventions, and third-party interviews.

**Immediately after participating in an educational event or training program:**
- 87% ARE FARMING
- 95% CHANGE THEIR KNOWLEDGE
- 90% CHANGE THEIR ATTITUDES
- 95% PLAN TO CHANGE BEHAVIOR/APPROACH
- 8% PLAN TO START FARMING
- 87% PLAN TO CONTINUE FARMING
- 61% ARE NOT FARMING
- 95% CONTINUE TO PARTICIPATE IN TRAINING

**One-year after completing a workshop and training program:**
- 45% CHANGED FARMING/LAND MANAGEMENT PRACTICES
- 45% CHANGED MARKETING PRACTICES
- 35% CHANGED BUSINESS PRACTICES
- 100% DEVELOPED FARM PLAN
- 39% STARTED FARMING
- 0% STOPPED FARMING

**The BFRDP project engages, prepares, and supports socially disadvantaged, underserved, and limited resource beginning Navajo farmers and ranchers in eight communities covering 8,000 square miles of the Navajo Nation.”**
“African-American farmers are uncommon in the United States, and their numbers have declined over the past few decades particularly due to young people not entering farming to replace the aging population.”

**FLORIDA A&M UNIVERSITY NEW AND BEGINNING FARMER TRAINING PROGRAM**

**PROJECT DIRECTOR: VONDA RICHARDSON, FLORIDA A&M UNIVERSITY | VONDA.RICHARDSON@FAMU.EDU**

African-American farmers are uncommon in the United States, and their numbers have declined over the past few decades, particularly due to young people not entering farming to replace the aging population. This project encourages farm entry by removing the barriers in four major areas that face the next generation farmers: 1) access to training, education, and technical assistance; 2) access to land; 3) access to capital and credit, and; 4) access to markets.

This project uses non-traditional approaches in its extension training and assistance activities to reach the target African-American audience. These opportunities include the Young Farmer Entrepreneur Incubator; a business incubator model for agricultural production and marketing demonstrations that targets new and beginning farmers under the age of 25; and a beginning farmer demonstration/training website with various alternative enterprises, production management practices, and market development models. The demonstration site uses hands-on training activities in collard and green bean production and marketing to show the viability of alternative market opportunities, including institutions, retail, and direct-to-consumer outlets.

Demographic information shows approximately 67 percent male and 33 percent female participants, of which 85 percent were African-American and 15 percent Caucasian. Of those who completed a workshop or training, 30 percent are farming; 50 percent indicated change in knowledge; 10 percent indicated change in attitudes; 30 percent planned change in behavior/approach; 20 percent planned to start farming; and 30 percent planned to continue farming.

**MOLOKAI NATIVE HAWAIIAN BEGINNING FARMER PROGRAM**

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Hawaii produces less than 15 percent of its food. The island of Molokai has the highest unemployment in the state. The Hawaiian Homes Commission Act of 1920 set aside lands to support self sufficiency among native Hawaiians by returning them to their agrarian roots. There are more than 7,800 acres of Hawaiian Home Commission Act lands in Hoolehua, Molokai, with ideal conditions for farm production, but less than 5 percent are being farmed.

This BFRO project will train new native Hawaiian farm families in Hoolehua through a hands-on, culturally appropriate, experiential education program. The project will feature a model equipment rental cooperative that uses equipment from the Cooperative Extension Service’s Applied Research and Demonstration Farm and from previous projects. There will also be an open market so program participants can practice marketing skills and develop value-added products.

In the first year of the grant, 11 families were selected and each will farm 1/2 acre. Five workshops were held, including production mapping (2 classes with 15 total attendees), farm production steps (8 attendees), soil fertility (7 attendees), and organic agriculture (6 attendees).

**SOUTHEAST PENNSYLVANIA BEGINNING FARMER AND RANCHER PROGRAM: PA START FARMING**

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Rich soils, proximity to markets, and increasing consumer support for local food, provide bountiful opportunities for new farmers in southeast Pennsylvania. In response, diverse groups of students, retired executives, women, and gardeners aspire to start and expand new farm enterprises in the region. The goal of this project is to increase the success of these beginning farmers and ranchers. Success will be measured not only by the numbers of new farms and farmers, but also by their ability to be profitable, productive, environmentally sound, and engaged in their communities.

An 8-week introduction-to-farming class was taught in three southeast Pennsylvania counties. Intensive training courses in 10 production and marketing topics were offered for new farmers who are ready to make serious steps toward building their farms. The Lehigh County Agricultural Incubator served as a living classroom where potential farmers learned diverse production strategies. Outcomes from the first year of the intensive training courses show many positive impacts for the new farmer participants.

**Breaking the Barriers: Access to Land, Equipment, and Capital for Farm Start-ups—Sixty-two participants attended this full-day workshop. Participants rated their knowledge before and after the class in these three important topics:**

<table>
<thead>
<tr>
<th>Moderate/Considerable Knowledge of:</th>
<th>Before the Class</th>
<th>After the Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCESS TO LAND</td>
<td>28%</td>
<td>95%</td>
</tr>
<tr>
<td>WHAT LENDERS LOOK FOR</td>
<td>50%</td>
<td>95%</td>
</tr>
<tr>
<td>INNOVATIVE WAYS TO FIND EQUIPMENT</td>
<td>28%</td>
<td>91%</td>
</tr>
</tbody>
</table>

**Living on a Few Acres—Sixty-two new and aspiring farmers attended this introduction to small-scale agriculture course. Fruit, vegetable, and meat production were discussed.**

On average, 86 percent felt they had moderate or considerable knowledge in seven key areas after this course compared to only 28 percent before the class.

Fifty percent of students plan to take a soil test and 71 percent plan to practice integrated pest management strategies as a result of what they learned in this course.

One student said, “Great class. . .we changed our plans and our timeline as a result of this class.”

**OUTCOMES REPORT FY2010**

10
OUTCOMES describe the intended result of conducting a program or activity and are important to the beneficiaries and/or the public. Outcome measures can include “initial,” “interim,” and “long-term” measures. For example, an initial outcome measure might be a short-term objective, such as a change in knowledge following a training event. An interim measure might be the number of those who attended the training who start a farm. Finally, the long-term measure could be the number of participants who continue to farm after a set number of years. In most education and training programs significant outcomes take a long time to occur.

It can be difficult for extramural grant programs to collect and provide information on long-term impacts. Challenges include a lack of mechanisms to collect outcomes beyond the grant period (long-term) and legal prohibition of burdensome information collection activities by government. Because of these challenges, interim outcomes may be the most evidence of success that can be measured through a grant program. More likely, a good short-term outcome can indicate the likelihood of longer-term success.

Strategies to capture both short-term and interim impacts of the program were developed in the initial year of the program by the Clearinghouse Development Team (comprised of stakeholder group representatives).

With the first year data, many challenges in collecting and compiling the outcome measurements have been found:

1. Outcome measurements were developed with feedback from stakeholder groups within the first 6 months of the program, but some of the project work for the first year of the project had already been completed and full evaluation data could not be captured. This problem is unique to the initial grant year of BFRDP. Subsequent year grantees have access to the evaluation criteria from the initiation of their grant work.
2. A wide variation in project activities and goals makes it difficult to create common measurements.
3. Because of the diversity of expertise in evaluation techniques and the types of farmers being trained, grantees need training to use the outcome measurements. This training was offered at the first project director meeting in November 2010 and through a webinar in February 2011; both after the first year reports were received. This training should help improve the measurement of outcomes in the second year.

The evaluation criteria will continue to be refined in concert with projects that have demonstrated strong understanding of evaluation techniques. Direction on how to develop goals/objectives that are easily measured and pertinent to BFRDP goals will be included in future guidance to potential grant applicants.