

### V(A). Planned Program (Summary)

#### Program # 6

##### 1. Name of the Planned Program

Global Food Security and Hunger

Reporting on this Program

### V(B). Program Knowledge Area(s)

#### 1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships		10%		5%
205	Plant Management Systems		20%		20%
301	Reproductive Performance of Animals		10%		10%
302	Nutrient Utilization in Animals		20%		20%
307	Animal Management Systems		30%		30%
313	Internal Parasites in Animals		5%		10%
601	Economics of Agricultural Production and Farm Management		5%		5%
	<b>Total</b>		100%		100%

### V(C). Planned Program (Inputs)

#### 1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	0.0	6.0	0.0	18.0
<b>Actual Paid</b>	0.0	7.1	0.0	15.7
<b>Actual Volunteer</b>	0.0	0.2	0.0	0.0

#### 2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	297669	0	880947
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	298995	0	739336
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	15087

### V(D). Planned Program (Activity)

#### 1. Brief description of the Activity

1. Designed programs using animal and plant enterprises with emphasis on alternative commodities.
2. Maintained, modernized facilities and acquired additional land for research and extension programs.
3. Conducted workshops, farm visits, agricultural shows, demonstration plots, training sessions, for farmers especially small and limited resource urban and rural producers.
4. Delivered program services to producers and potential producers.
5. Worked with internal and external communication channels as well as traditional and social media to disseminate important information to clients and stakeholders.
6. Collaborated, cooperated and partnered with local, state and federal agencies, institutions, groups, private organizations/associations to deliver services to residents.
7. Provided enhanced marketing opportunities in traditional and alternative outlets such as farmer's markets, community supported agriculture (CSA), and other outlets.
8. Provided nutrition and healthy lifestyle education to citizens

#### 2. Brief description of the target audience

Our target audience included (but is not limited to) , small producers, limited resource producers, socially and economically disadvantaged individuals, the underrepresented, the underserved, women, and minorities. Others were youth 13 - 18 years, policy makers, community leaders/stakeholders, interested agencies and organizations.

#### 3. How was eXtension used?

Clients who had urgent questions concerning areas that the SU Ag Center did not have experts onboard such as, horse, aquatic products, etc. were often referred to eXtension for answers to such questions.

### V(E). Planned Program (Outputs)

#### 1. Standard output measures

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	26458	210742	0	0

**2. Number of Patent Applications Submitted (Standard Research Output)**

**Patent Applications Submitted**

Year: 2014  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
<b>Actual</b>	1	2	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- 1. Number of educational program activities

Year	Actual
2014	354

**Output #2**

**Output Measure**

- 2. Number of educational contacts

Year	Actual
2014	237200

**Output #3**

**Output Measure**

- 3. Number of published materials distributed

<b>Year</b>	<b>Actual</b>
2014	88060

**Output #4**

**Output Measure**

- 4. Number of research & extension outreach publications developed (in-house)

<b>Year</b>	<b>Actual</b>
2014	55

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes
2	NATIONAL Outcome #1: Enhanced capacity of a sustainable global food system including new/improved plans, animals, technologies and management systems
3	NATIONAL OUTCOME #2: More sustainable, diverse, and resilient food systems across scales.
4	NATIONAL OUTCOME #3: Improved national and global capacity to meet growing food demands.

## **Outcome #1**

### **1. Outcome Measures**

1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes

### **2. Associated Institution Types**

- 1890 Extension
- 1890 Research

### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	410

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Small-scale producers faced tough economic times due to challenges of rising input costs coupled with unstable prices of food and the resulting problem of generating sufficient income and being profitable. Small agricultural producers who adopt alternative livestock and crop enterprises such as, goats, rabbits, vegetables, fruits, and herbs can earn profit while addressing global food security and hunger issues. According to USDA/ERS, about 50.1 million people (in 20.6% of US households with children) lived in food insecure households in 2011; about 33 million adults (14.4 percent of all adults) and 17 million children (22.5 percent of all children). Louisiana was ranked at number 45 in food insecurity with about 12 percent of its citizens living in food insecure households. Working to ensure sustainable animal and plant productivity and profitability are of paramount importance to the agricultural sector of Louisiana. Addressing these close knit and perennial problems through research in alternative crops could benefit the farmers, consumers, and governments worldwide.

#### **What has been done**

Faculty and staff continued to implement two research grants funded to implement projects in sustainable agriculture focusing on alternative crops. The grants were for \$500,000 each. The first grant studied alternative uses of Roselle Hibiscus as small farm and niche market crop and the second grant studied specialty mushroom as a niche market crop for limited resource small family farms. NIFA Formula Grants were used to fund other research projects in the areas of grazing cattle and goat together to improve yield, utilization of alternative fertilizer (burnt corn gluten) on field crops. In FY 2014, twelve sustainable agriculture field days were conducted with over 410 producers in attendance. Two goat field days were conducted in collaboration with LSU Veterinary School with 145 producers and potential producers in attendance.

The WISTERIA Alliance has been providing practical hands on training for women who live on farms, and those with interest in starting a farm, and/or urban & community gardeners. Research-based educational information was packaged and disseminated through extension agents to the clients. Farm visits were conducted by research and extension personnel to advise clients and sometimes provide "on the spot" solutions to problems they may have.

### **Results**

- Ninety-five percent of participants in the sustainable agriculture goat field days stated that they gained new knowledge and skills;
- Ninety percent said they will certainly utilize knowledge and skills gained.
- The participants also gained knowledge/skills about the benefits of the FAMACHA chart. They used the chart and saved money in goat health care costs.
- Fifty-two farmers are actively growing hibiscus, making hibiscus-related products such as, tea, jelly, jam, and cookies and selling them in the local farmers' market.
- WISTERIA Alliance provided practical hands on training for women to enhance their farming and gardening skills.
- Faculty and staff continued the studies on the \$1 million extramural grants in sustainable agriculture projects funded in FY 2012 & 2013.

## **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
205	Plant Management Systems
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
307	Animal Management Systems
313	Internal Parasites in Animals

## **Outcome #2**

### **1. Outcome Measures**

NATIONAL Outcome #1: Enhanced capacity of a sustainable global food system including new/improved plans, animals, technologies and management systems

Not Reporting on this Outcome Measure

### **Outcome #3**

#### **1. Outcome Measures**

NATIONAL OUTCOME #2: More sustainable, diverse, and resilient food systems across scales.

#### **2. Associated Institution Types**

- 1890 Extension
- 1890 Research

#### **3a. Outcome Type:**

Change in Condition Outcome Measure

#### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	114

#### **3c. Qualitative Outcome or Impact Statement**

##### **Issue (Who cares and Why)**

Formal training and instruction in leadership development is a crucial skill which had not been offered to small, limited resource agricultural producers in the state of Louisiana (and possibly in the country). Economic crisis over the past decade, especially the high cost of farm inputs during FY 2014 made it difficult for producers to compete and remain profitable. The existence of many small farmers is in serious jeopardy as they are debt-ridden and are in the verge of being bankrupt. The Small Farmer Agricultural Leadership Training Institute at Southern University Agricultural Research & Extension Center was designed to address these needs with the goal of promoting small & family farm sustainability, survival and profitability through enhanced decision making skills and leadership development. The goal was to help farmers become better leaders while enhancing their overall farm management skills.

##### **What has been done**

Four leadership sessions were conducted between 2011 and 2014 using seven 4-day intensive training workshops (lasting over 8 hours each day). To further expand hands-on knowledge of participants, field trips were held in six states (Louisiana, Texas, North Carolina, Atlanta, South Carolina, and Alabama) with 33 participants in each session. Topics discussed were: Developing the Leader Within, Planning the Business and the Team, Agricultural Legal Issues and Risks, Talking it to the Next Level, Agricultural Opportunities Unlimited (Summer Tour featuring Urban Agriculture), Civic Engagement, The Agricultural Professional, and Promoting the Business. Participants attended and experienced the Professional Agricultural Workers Conference (PAWC), Tuskegee University, Alabama. They also participated at the Graduation Ceremony in Washington, DC hosted by USDA. In addition, participants had opportunity to interact and network with their peers from several states, research scientists, extension specialists, and legal

scholars from six universities and agricultural professionals from the USDA. In 2014, we conducted a survey of all 114 graduates of the leadership program. The survey was sent via e-mail and asked questions about how knowledge and skills gained were utilized, actions taken and successes achieved.

### Results

The survey of participants showed the following results:

- 100 percent of the respondents said that with information from the Agriculture Leadership Institute, they found new business opportunities and networks for collaboration.
- 100 percent of the respondents said that with the help of the Ag Leadership Institute, they actually tried new ideas.

The other responses were as follows: Since I graduated from the Agriculture Leadership Institute, I have been able to:

- a) Improve my business decisions , 100 percent
- b) Mentor other farmers (or business owners), 100 percent
- c) Help improve my community, 92.9 percent
- d) Serve on a local, state or national committee, 57 percent
- e) Increase business income, 78.6 percent

Some quotes from respondents:

"The opportunity given by The Agricultural Leadership Institute allowed me to learn a plethora of valuable skills that have helped me as a New and Beginning Farmer. I received indispensable personal and professional leadership growth with negotiation skills, management skills, problem-solving skills, communication skills, organization, networking, setting goals, and discovered new talents." (Louisiana)

"It (the leadership class) has caused me to be more pro-active in my approach of being a producer, attending more conference to share information we use on our farm with other farmers, continuing to do outreach and education in local communities in the state of South Carolina teaching socially disadvantage farmers, ranchers, forest landowners how to be successful in what they do on their farms and to incorporate new methods for risk management and safety." (South Carolina)

"I have been able to communicate with other individuals as well as farmers. I have been able to obtain more information about the 2014 Farm Bill. I am now an approved high tunnel installer by NRCS." (North Carolina)

"I have learned the importance of developing a business plan and now have the tools to do so. As a community food advocate I feel empowered to call upon the resources of farmers, and Land-Grant Universities throughout my region of the country for technical and research support for farm and food projects of various types." (Georgia)

"The Agricultural Leadership Institute impacted our family farm operation and organizations in a huge awesome way. After graduation there were many opportunities that has presented in my path... This organization has been ineffective over 30 years, but now effective for the past 2 years. FSA has selected me this year as a nominee to serve on the Advisory Council Board started this November." (Mississippi)

"It has helped me to help other farmers to put their land back into production." (Alabama)

## 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships

205	Plant Management Systems
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
307	Animal Management Systems
313	Internal Parasites in Animals

#### **Outcome #4**

##### **1. Outcome Measures**

NATIONAL OUTCOME #3: Improved national and global capacity to meet growing food demands.

##### **2. Associated Institution Types**

- 1890 Extension
- 1890 Research

##### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

##### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	142

##### **3c. Qualitative Outcome or Impact Statement**

###### **Issue (Who cares and Why)**

Addressing global food security and hunger is closely linked to sustainable animal and plant productivity and profitability which are of paramount importance to the agricultural sector of Louisiana. Small-scale producers faced the greatest challenges on generating sufficient income and being profitable. Small agricultural producers who adopt alternative livestock and crop enterprises such as, goats, rabbits, vegetables, fruits, and herbs can earn profit while addressing global food security and hunger issues. Addressing these close knit and perennial problems could benefit the farmers, consumers, and governments worldwide.

###### **What has been done**

NIFA capacity grants were used to fund sustainable agriculture research projects. In FY 2014, three sustainable agriculture field days were conducted with over 185 producers in attendance. In collaboration with the Louisiana State University Veterinary School two goat field days were conducted (one at SU Ag Center Experiment Station and the other at LSU Vet School) with 142 producers and potential producers in attendance. The field days provided lectures, producer testimonies, and hands-on experience to participants. Research-based educational information was packaged and disseminated to participants and also through extension agents to the clients. During the period, farm visits were conducted by research and extension personnel to advise

clients and sometimes provide "on the spot" solutions to problems they may have. Scientists at the LSU Vet School, collaborated with SU Ag Center counterparts in a research grant "Profitability for Small Beef Producers through Sustainable Forage Systems and Value Added Forage". Another collaboration was between the LSU and SU Ag Centers to study "Enhanced Economic Benefits for Meat Goat Producers through Production, Yield and Palatability, and Consumer Information". These two projects are helping to educate farmers in Louisiana about sustainable production

#### **Results**

- Ninety-two percent of participants in the sustainable agriculture field days stated that they gained new knowledge and skills;
- Ninety-five percent said they will certainly utilize knowledge and skills gained.
- Participants at the goat field days gained knowledge/skills about the benefits of the FAMACHA chart. Some previous participants testified that they used the chart and it saved money in goat health care costs.
- Ninety-eight percent of the participants said that the testimonies given by some participants at the field days inspired them to try new ideas.

#### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
205	Plant Management Systems
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
307	Animal Management Systems
313	Internal Parasites in Animals
601	Economics of Agricultural Production and Farm Management

#### **V(H). Planned Program (External Factors)**

##### **External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

##### **Brief Explanation**

Ongoing economic struggle caused serious setback on the availability of funds. In FY 2013/14, state appropriations were increased for the first time in almost six years.

However, budget cuts were being proposed at year's end. Delays in Federal budget approvals continued to be of concern because the actual budget data were not readily available for effective planning. Government priority changes caused the relocation of some program participants resulting in decline in number of residents impacted. Additionally, Louisiana rural population continued to lag behind other 1890 states which resulted in the SU Ag Center receiving less federal formula funds. Furthermore, the continuing recovery by those who were relocated due to previous hurricanes (2005 and 2008) and the 2010 oil spill caused problems in the state and impacted outcomes.

## **V(I). Planned Program (Evaluation Studies)**

### **Evaluation Results**

A survey of 114 graduates of the Ag Leadership Institute conducted during the year had the following results:

The responses were as follows:

Since I graduated from the Agriculture Leadership Institute, I have been able to:

1. Improve my business decisions , 100 percent
2. Mentor other farmers (or business owners), 100 percent
3. Help improve my community, 92.9 percent
4. Serve on a local, state or national committee, 57 percent
5. Increase business income, 78.6 percent

Few quotes from respondents:

**"The opportunity given by The Agricultural Leadership Institute allowed me to learn a plethora of valuable skills that have helped me as a New and Beginning Farmer. I received indispensable personal and professional leadership growth with negotiation skills, management skills, problem-solving skills, communication skills, organization, networking, setting goals, and discovered new talents." Louisiana**

"It (the leadership class) has caused me to be more pro-active in my approach of being a producer, attending more conference to share information we use on our farm with other farmers, continuing to do outreach and education in local communities in state of South Carolina teaching socially disadvantage farmers, ranchers, forest landowners how to be successful in what they do on their farms and to incorporate new methods for risk management and safety." **South Carolina**

"I have been able to communicate with other individuals as well as farmer. I have been able to attain more information about the 2014 Farm Bill. I am now an approved high tunnel installer by NRCS."

**North Carolina**

"I have learned the importance of developing a business plan and now have the tools to do so. As a community food advocate I feel empowered to call upon the resources of farmers, and Land-Grant Universities throughout my region of the country for technical and research support for farm and food projects of various types." **Georgia**

"The Agricultural Leadership Institute impacted our family farm operation and organizations in a huge awesome way. After graduation there were many opportunities that has presented in my path. ....

This organization has been ineffective over 30 years, but now effective for the past 2years. FSA has selected me this year as a nominee to serve on the Advisory Council Board started this November."

**Mississippi**

"It has helped me to help other farmers to put their land back into production." **Alabama**

### **Key Items of Evaluation**

The Agricultural Leadership Institute has a broad regional impact, participants who have graduated from the institute have come from 16 states.