

V(A). Planned Program (Summary)

Program # 1

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%		10%
205	Plant Management Systems		20%		20%
301	Reproductive Performance of Animals		10%		10%
302	Nutrient Utilization in Animals		20%		20%
307	Animal Management Systems		20%		20%
313	Internal Parasites in Animals		5%		5%
601	Economics of Agricultural Production and Farm Management		5%		5%
703	Nutrition Education and Behavior		5%		5%
704	Nutrition and Hunger in the Population		5%		5%
	Total		100%		100%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	7.0	0.0	21.0
Actual Paid Professional	0.0	7.0	0.0	18.0
Actual Volunteer	0.0	1.5	0.0	1.0

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	245070	0	818669
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	213990	0	772954
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	33690

V(D). Planned Program (Activity)

1. Brief description of the Activity

The following planned activities were implemented:

1. Faculty & staff designed and executed research and extension programs using animal and plant enterprises with emphasis on alternative commodities.

2. Funds were used to maintain & modernize facilities. Also, additional 13 acres of land was donated to the institution for research and extension activities.

3. Faculty & staff conducted workshops, farm visits, demonstrations, training sessions, etc. for farmers especially small skilled and limited resource urban and rural producers.

4. We delivered program services to producers and potential producers.

5. We worked with internal and external communication channels as well as traditional and social media to disseminate important discovery and information to clients and stakeholders.

6. We collaborated, cooperated and partnered with local, state and federal agencies, institutions, groups, private organizations/associations to conduct research and disseminate research-based information to clients.

7. Faculty & staff assisted in enhancing marketing opportunities in traditional and alternative outlets such as farmer's markets, community supported agriculture (CSA), and other outlets.

2. Brief description of the target audience

Our target audience included (but was not limited to) , small producers, limited resource producers, socially and economically disadvantaged individuals, the underrepresented, the underserved, women, and minorities. Others are 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 does not have experts on board such as, horse, aquatic products, etc. were often referred to eXtension for such answers.

V(E). Planned Program (Outputs)

1. Standard output measures

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	12684	367089	0	0

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

Patent Applications Submitted

Year: 2012
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	1	5	6

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- 1. Number of educational program activities

Year	Actual
2012	200

Output #2

Output Measure

- 2. Number of educational contacts

Year	Actual
2012	379773

Output #3

Output Measure

- 3. Number of published materials distributed

Year	Actual
2012	345470

Output #4

Output Measure

- 4. Number of research & extension outreach publications

Year	Actual
2012	57

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	2. Percentage of adoption rate for recommendations by clients
3	3. Change in knowledge & action

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

Year	Actual
2012	80

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 could benefit the farmers, consumers, and governments worldwide.

What has been done

Faculty and staff wrote two research grants for additional funding to implement sustainable agriculture projects and one was funded for \$500,000. This grant studied alternative uses of Roselle Hibiscus as small farm and niche market crop. 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 2012, ten sustainable agriculture field days were conducted with over 325 producers in attendance. Two goat field days were conducted in collaboration with LSU Veterinary School with 146 producers and potential producers in attendance. 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-two percent of participants in the sustainable agriculture goat field days stated that they gained new knowledge and skills;

-87 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.

Results from other projects:

-Fifty farmers are actively growing hibiscus, making hibiscus-related products such as, tea, jelly, jam, and cookies and selling them in the local farmers' market.

-with the assistance of faculty and staff, one 972 acre farm transitioning to organic production has adopted burnt corn gluten meal in their fertilizer program due to the abundance and low cost.

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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 #2

1. Outcome Measures

2. Percentage of adoption rate for recommendations by clients

2. Associated Institution Types

- 1890 Extension
- 1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	53

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 2012 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

Nine, 4-day intensive training workshops (lasting over 8 hours each day) and tours were held from October 2011 until March 2012 in six states (Louisiana, Texas, North Carolina, South Carolina, and Kentucky) with 31 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 69th Professional Agricultural Workers Conference (PAWC), at 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 six states, research scientists, extension specialists, and legal scholars from six universities and agricultural professionals from the USDA. In FY 2012, the SU Ag Center conducted the second annual Louisiana Small Farmers conference to provide information to farmers by experts about the latest educational tools and resources which they can use to improve productivity and sustainability of their agricultural enterprises.

Results

Several current participants (and former participants) are already assuming leadership roles indicating change in their conditions as follows:

- A member of the class who had never served on any type of governmental committee was appointed to serve on the Advisory Committee on Animal Health by USDA Secretary, Tom Vilsack. The committee is composed of 20 individuals who advise the Secretary on strategies, policies and programs that prevent, control, or eradicate diseases of national significance.
- Two other participants were appointed by Secretary Vilsack to serve on the Advisory Committee on Beginning Farmers and Ranchers. The Committee advises the Secretary on ways to develop programs to provide coordinated assistance to beginning farmers and ranchers while maximizing new farming and ranching opportunities.
- Two participants were awarded research and development grants to test new and emerging agricultural markets, alternative enterprises and new technologies such as hydroponics.
- Two participants opened retail stores to market fresh food to their local communities.
- Several participants have been recruited, invited and selected to serve as grant reviewers for the competitive USDA grant programs.

4. Associated Knowledge Areas

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102	Soil, Plant, Water, Nutrient Relationships

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601	Economics of Agricultural Production and Farm Management
703	Nutrition Education and Behavior
704	Nutrition and Hunger in the Population

Outcome #3

1. Outcome Measures

3. Change in knowledge & action

2. Associated Institution Types

- 1890 Extension
- 1890 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Parasite infestation is one of the biggest threats to the small ruminant producers in the southeastern region of the US. Damage to the goat occurs when the parasites attach to the lining of the gastrointestinal tract and ingest blood. Parasites cause diseases when they are present in large numbers or when the host animal is weakened by another disease or poor nutrition. If the parasites are present in large numbers, they can cause anemia due to blood loss, along with weight loss, poor growth, and maybe, sudden death. According to USDA/NASS Sheep and Goat Death Loss 2010 report, goat farmers in the US lost 255,000 heads (or 46%) of the total deaths to diseases and other known causes. These numbers can be reduced if producers could employ a proactive approach to examining the health of their animals, and especially monitor & prevent them from parasites.

What has been done

To help local producers tackle this issue, in FY 2012, the SU Ag Center in collaboration with the Louisiana Goat Producers Association hosted three goat field days and an animal clinic for

ruminant producers. At the clinic (which lasted seven hours), farmers learned how to test fecal samples collected from their farms for parasites; and also how to identify and count the parasites present. Producers were encouraged to bring no more than 10 fecal samples each from cattle, goat and sheep. They were urged to know and bring the names of dewormers used on their farms; refrigerate fresh fecal samples; bring samples on the morning of the clinic; keep samples separate and label each properly; and have FAMACHA Scores. Ten goat producers and three potential producers attended the hands on clinic. They processed the samples and examined them under powerful microscopes to identify and count the parasites.

Results

This hands-on Animal Clinic proved to be a brilliant experience for the farmers as they were able to conduct the hands-on fecal analyses and parasite count for themselves and save money. In the FY 2012 animal clinic, producers saved about \$1,000 (value of what they would have paid to analyze their samples, and another \$800 that they would have paid to consultants. Additionally, the analytical laboratory continued to assist producers in analyzing samples. We estimate that producers may have saved \$21,000 in treatment costs and another \$100,000 in income due to reduced loss of animals.

A survey of participants indicated as follows:

100% said they would you recommend the animal clinic to others.

100% said that Knowledge & skills gained at the clinic would be useful to them in dealing with animal disease issues.

100% indicated that materials provided at the clinic would be useful to them.

Comments from some of the participants were as follows:

-This is "a wonderful process, very educational, hands-on and beneficial, please keep me on your email list for future goat events"

-"Very practical & useful information."

-"Very well done, I like the hands-on part very much."

-"Gave me confidence to want to purchase my own microscope, I plan to get a microscope, etc. to do my own testing."

-"I Gained knowledge, skills and abilities; my knowledge & skills will be useful and shared with the groups of socio-economically disadvantaged farmers & ranchers for their herds."

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems
313	Internal Parasites in Animals

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 crisis caused serious setback on the availability of state funds in Louisiana in general and the SU Ag Center in particular. In FY 2012, state budgets were again drastically reduced at the beginning and in the middle of the fiscal year. This action resulted in severe loss of funding for planned activities which in turn negatively affected outcomes. Budget problems and government priority changes caused the relocation of some program participants resulting in decline in number of citizens impacted. Additionally, there was a decline in Louisiana rural population which resulted in the state receiving less federal formula fund. Furthermore, the continuing recovery from previous hurricanes (2005 and 2008) and the 2010 oil spill caused much problems in the state and impacted outcomes.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

-Ninety-two percent of participants in the sustainable agriculture goat field days stated that they gained new knowledge and skills;

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-The participants also gained knowledge/skills about the benefits of the FAMACHA chart. The used the chart and saved money in goat health care costs.

-Fifty farmers are actively growing hibiscus, making hibiscus-related products such as, tea, jelly, jam, and cookies and selling them in the local farmers' market.

-A graduate of the Agricultural Leadership Institutes who had never served on any type of governmental committee was appointed to serve on the Advisory Committee on Animal Health by USDA Secretary, Tom Vilsack. The committee is composed of 20 individuals who advise the Secretary on strategies, policies and programs that prevent, control, or eradicate diseases of national significance.

-Two other participants were appointed by Secretary Vilsack to serve on the Advisory Committee on Beginning Farmers and Ranchers. The Committee advises the Secretary on ways to develop programs to provide coordinated assistance to beginning farmers and ranchers while maximizing new farming and ranching opportunities.

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Key Items of Evaluation