2007 Langston University Combined Research and Extension Annual Report

Status: Accepted
Date Accepted: 09/17/08

2007 Langston University Combined Research and Extension Annual Report

I. Report Overview

1. Executive Summary

Langston University's Research and Extension Programs work collaboratively to make a positive difference in the lives of stakeholders in Oklahoma, the nation and globally. The three major areas being reported on for 2007 are Goat Research/Extension, Aquaculture Research/Extension, and Youth Development and Family & Consumer Sciences.

Goat Research at the University is conducted through the E (Kika) de la Garza American Institute for Goat Research. The scope of the small ruminant research being performed includes Angora, meat and cashmere goats. Nutrition studies are primarily oriented toward determining the nutrient requirements of goats with special emphasis on the high-producing dairy goat. Research is being conducted with goat milk and the development of value-added products from the milk. During 2007, three cheesemaking and one soapmaking workshop were conducted through the Extension Program. Some goat producers have started supplementing their annual income by making goat cheese in their homes and selling the product. Research and Extension personnel worked collaboratively to put on goat artificial insemination clinics. These clinics allow goat producers to use superior animals to improve the genetic composition of their goat breeding stock. In 2007, three artifical insemination workshops were conducted. The workshops had 60 participants. In order to provide the proper training, workshops had to be limited to a manageable number. Other goat research and Exension efforts included enhanced dairy herd improvement, internal parasite control for small ruminants, web-based training and international collaborations. Over 600 goat producers have enrolled in the web-based on-line certification program and 52 goat producers have been certified via the site. Research findings from the Institute are incorporated into fact sheets which are distributed by our Extension Program. Data are often summarized in articles in the quarterly newsletter. In addition, research results are published in appropriate journals for goat research, including The Journal of Animal Science, Small Ruminant Research, Journal of Dairy Science, Canadian Journal of Animal Science, Sheep and Goat Research Journal and Animal Feed Science and Technology.

Aquaculture Research and Extension Programs provide information and technology needed by Oklahoma Aquaculturists, pond owners and others. Materials provided by these programs assist producers and enthusiasts in properly managing fish farms and ponds in a profitable and ecologically sustainable manner. Research is being conducted with alternative aquaculture species to test the profitability of additional fish species for Oklahoma producers. During 2007, Research and Extension personnel had face-to-face contact with fish producers during workshops, site visits, meetings and at the University's Annual Aquaculture Field Day. Information was shared from our studies which show bigmouth buffalo as a potential alternative fish species for Oklahoma producers. The Aquaculture Water Gardens Program gave presentations to stakeholders interested in developing and or managing ornamental ponds. Information was presented at the annual meeting of the Kansas Aquaculture Association, the Langston Univesity Aquaculture Field Day, and during group sessions. A book on ornamental ponds was drafted and it will provide best management practices to assist stakeholders in the construction and maintenance of ornamental ponds. Research and Extension work in the Phytoplankton Program provided information to fish producers to help them reduce the off-flavors in their catfish by controlling phytoplankton levels in their ponds.

4-H, Youth Development and Family & Consumer Sciences provide needed programs to youth and families in Oklahoma.Langston University's Cooperative Extension Program views the youth population of Oklahoma as one of the state's most important resources. A learning by doing approach is used to enable youth to develop the knowledge, attitudes, and skills they need to become competent, caring, and contributing citizens of our society. Today's young people are living in an exciting time; with an increasingly diverse society, new technologies, and expanding opportunities. Two challenges facing many of our youth are deficiencies in reading and mathematics.Helping youth to develop and maintain high skill levels in these areas is being addressed by the Youth Development Unit at Langston University.The Extended Education Program includes a youth summer program offered to students in Kindergarten through Fifth Grade (ages 5-13).In 2007, eighty-two youth participated in the program.After seven weeks of training, 82% demonstrated an improvement in reading comprehension and 79% showed improvement in understanding mathematical concepts and operations.This summer program helps youth maintain math and reading skills over the summer months and positions them to achieve well when school starts in the fall.

Program areas included in this Executive Summary play vital roles in reaching and making a difference in the lives of youth, families, producers, consumers and others in the State of Oklahoma.

Report Date 11/09/2009 Page 1 of 140

Total Actual Amount of professional FTEs/SYs for this State

Year :2007	Extension	Extension		earch
Year:2007	1862	1890	1862	1890
Plan	0.0	29.2	0.0	9.8
Actual	0.0	16.4	0.0	19.3

II. Merit Review Process

1. The Merit Review Process that was Employed for this year

- Internal University Panel
- External University Panel
- Combined External and Internal University Panel
- Combined External and Internal University External Non-University Panel
- Expert Peer Review

2. Brief Explanation

The merit review process for research programs included individuals from within the University, external reviewers, advisory groups and USDA/CSRES personnel.

The merit review for extension programs included individuals from within the University, advisory groups and staff members.

III. Stakeholder Input

1. Actions taken to seek stakeholder input that encouraged their participation

- Use of media to announce public meetings and listening sessions
- Targeted invitation to non-traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder individuals
- Targeted invitation to selected individuals from general public
- Survey of traditional stakeholder individuals
- Survey of the general public

Brief Explanation

Stakeholders were contacted directly and/or through print, radio, television or the web media; and invited to participate in meetings, workshops demonstrations and field days. Meetings were arranged to fit the stakeholder's schedule. Stakeholders were openly encouraged to share their input and appreciation was expressed for their comments.

2(A). A brief statement of the process that was used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Method to identify individuals and groups

- Use Advisory Committees
- Use External Focus Groups

Brief Explanation

•Other Stakeholders •Surveys •Stakeholders who demonstrated an interest in our programs by doing the following: •Attending meetings, workshops, training sessions, field days •Requesting published materials, calling or e-mailing us for information •Internet website hits

2(B). A brief statement of the process that was used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

Report Date 11/09/2009 Page 2 of 140

- · Meeting with traditional Stakeholder groups
- · Survey of traditional Stakeholder groups
- Survey of traditional Stakeholder individuals
- Meeting with the general public (open meeting advertised to all)
- Survey of the general public
- Meeting specifically with non-traditional groups
- Meeting specifically with non-traditional individuals

Brief Explanation

Stakeholder input was collected by the following means:

Telephone inquiry

E-mail inquiry

E-mail inquir

Workshop Evaluations

Person-to-person communication

Surveys

Website

3. A statement of how the input was considered

- In the Budget Process
- · To Identify Emerging Issues
- Redirect Extension Programs
- To Set Priorities

Brief Explanation

Stakeholder inputs influenced the following:

•Budget decisions •Project activities and priorities •Program delivery systems •Accomodations available during field days •Curriculum development •Field day and workshop presentations •Time of the year for some events/training

Brief Explanation of what you learned from your Stakeholders

We learned about some of the needs of our stakeholders.

Examples

- (i) Youth participating in the Extended Program need ways to maintain and/or strengthen their mathematics and reading skills over the summer months.
- (ii) Fish producers need to diversify their production systems to increase their profits and control hytoplankton.
- (iii.) Clientele need to enhance their knowledge and skills in purchasing healthy foods and reparing healthy meals.
- (iv.)Meat goat producers need accurate performance measurements to project the productivity of their meat goat bucks.
- (v) There is a need for a dependable (non-chemical) method for internal parasite control in goats.
- (vi) Goat milk producers need to learn value-added techniques to help increase their profits.

We learned about some of the challenges faced by our stakeholders.

Examples

- (i) Internal parasite problems in goats.
- (ii) Off-flavor taste of catfish from phytoplankton build-up in ponds
- (iii) Poor diets contributing to health problems
- (iv) Youth digressing over the summer months and losing many of the skills learned during the revious school year in mathematics and reading.

IV. Expenditure Summary

Report Date 11/09/2009 Page 3 of 140

Total Actual Formula dollars Allocated (prepopulated from C-REEMS)					
Extension		Researc	ch		
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen		
0	1576743	0	1798211		

2. Totaled Actual dollars from Planned Programs Inputs					
Extension		Research			
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen	
Actual Formula	0	727277	0	458533	
Actual Matching	0	335966	0	239853	
Actual All Other	0	255563	0	386935	
Total Actual Expended	0	1318806	0	1085321	

3. Amount of A	Above Actual Formula Dollars	Expended which comes from	om Carryover funds from pre	vious years
Carryover	0	0	0	0

Report Date 11/09/2009 Page 4 of 140

V. Planned Program Table of Content

S. NO.	PROGRAM NAME
1	Enhanced Goat Production in the South-Central United States
2	Community Resource Development
3	School Enrichment
4	Teen Pregnancy Prevention
5	Drug and Alcohol Prevention
6	4-H Clubs
7	Extended Education
8	Family and Consumer Sciences
9	Food and Nutrition
10	Biotechnology
11	Water Gardens (Aquaculture)
12	Alternative Species (Aquaculture)
13	Feeder Design (Aquaculture)
14	Phytoplankton (Aquaculture)
15	Fishery Management (Aquaculture)
16	Sustainable Internal Parasite Control for Small Ruminants
17	Goat Internet Website
18	Development of New Dairy Goat Products
19	Demonstration Clinic: Artificial Insemination for Goats
20	Fish Marketing (Aquaculture)
21	Meat Buck Performance Test
22	Goat Dairy Herd Improvement (DHI) Laboratory
23	Small Farms Systems

Report Date 11/09/2009 Page 5 of 140

Program #1

V(A). Planned Program (Summary)

1. Name of the Planned Program

Enhanced Goat Production in the South-Central United States

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
302	Nutrient Utilization in Animals		30%		30%
307	Animal Management Systems		30%		30%
313	Internal Parasites in Animals		20%		20%
502	New and Improved Food Products		20%		20%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.0	0.0	3.0
Actual	0.0	0.4	0.0	0.5

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

Exter	Extension		
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	26305	0	77592
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	14934	0	14934
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	12554	0	32463

V(D). Planned Program (Activity)

1. Brief description of the Activity

Langston University was awarded funding by the USDA-CSREES-International Science and Education Competitive Grants Program to develop this project (International Collaboration in Goat Research and Production Web-Based Decision Support Aids). The Collaborators have translated web content into Arabic, Chinese, French, and Spanish. The web-site is (http://www2.luresext.edu/goats/research/foreign_language_nutr_calc.html).

2. Brief description of the target audience

Dairy and meat goat producers; extension educators.

Report Date 11/09/2009 Page 6 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	500	1000	100	0
2007	150	500	0	0

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

Patent Applications Submitted

Year Target Plan: 0

2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Direct contact with adults.

Year Target Actual 2007 {No Data Entered} 150

Report Date 11/09/2009 Page 7 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of goat producers learning new goat production techniques
2	Number of goat producers using new goat production techniques

Report Date 11/09/2009 Page 8 of 140

Outcome #1

1. Outcome Measures

Number of goat producers learning new goat production techniques

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	400	150

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The goal of the project is to facilitate future collaborative research between the American Institute for Goat Research of Langston University and institutions in Arabic-, Chinese-, French-, and Spanish-speaking countries, as well as to gain knowledge of goat research and production practices in other areas of the world. Objectives are to translate and adapt two web-based goat production and research decision-support tools developed at the American Institute for Goat Research (goat nutrient requirements and feed intake; goat production system simulation model) for use and future collaborative research in the Middle East, China, France and other French-speaking countries, and Central and South America.

What has been done

In China, translations of the web-based goat nutrient requirement calculation system (WBGNRCS) and the goat production system simulation model (GPSSM) are complete. The Chinese websites are under construction, with completion expected by the end of the year. A website for the WGBNRCS with both English and Chinese is http://210.27.80.20/goatsite/goat/calc/nutreqgoats.html. Translation into Spanish of the WBGNRCS in Mexico is essentially complete, with only a few pop-up windows in English remaining (available at http://www.chapingo.uruza.edu.mx/cabrasesp/calc/nutreqgoats.html). Translation of the GPSSM into Spanish has commenced as well. Translation of the WBGNRCS into French in Rwanda is approximately half-way completed, as is also the case for the GPSSM in Cote d'Ivoire. In Jordan, translation of the WBGNRCS into Arabic is nearly complete, and that of the GPSSM will begin in early August.

Results

The dissemination of the WBGNRIC and GPSSM by installation and translations at foreign institutions will increase potential collaboration with Langston University, elevate the level of production and (or) decrease costs for greater profit to farmers around the world raising goats, enhance product availability and lower costs for consumers, increase other benefits from rearing goats such as weed and brush control, and increase knowledge of personnel at Langston University in the area of goat production in other countries. This will strengthen the University's domestic research and extension programs. The web-based decision support aids will be used at collaborating foreign institutions in research activities and for training of extension officers, graduate students, and leader farmers.

4. Associated Knowledge Areas

KA Code	Knowledge Area
502	New and Improved Food Products
307	Animal Management Systems
313	Internal Parasites in Animals
302	Nutrient Utilization in Animals

Outcome #2

1. Outcome Measures

Number of goat producers using new goat production techniques

Report Date 11/09/2009 Page 9 of 140

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	30	70

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The goal of the project is to facilitate future collaborative research between the American Institute for Goat Research of Langston University and institutions in Arabic-, Chinese-, French-, and Spanish-speaking countries, as well as to gain knowledge of goat research and production practices in other areas of the world. Objectives are to translate and adapt two web-based goat production and research decision-support tools developed at the American Institute for Goat Research (goat nutrient requirements and feed intake; goat production system simulation model) for use and future collaborative research in the Middle East, China, France and other French-speaking countries, and Central and South America.

What has been done

In China, translations of the web-based goat nutrient requirement calculation system (WBGNRCS) and the goat production system simulation model (GPSSM) are complete. The Chinese websites are under construction, with completion expected by the end of the year. A website for the WGBNRCS with both English and Chinese is http://210.27.80.20/goatsite/goat/calc/nutreqgoats.html). Translation into Spanish of the WBGNRCS in Mexico is essentially complete, with only a few pop-up windows in English remaining (available at http://www.chapingo.uruza.edu.mx/cabrasesp/calc/nutreqgoats.html. Translation of the GPSSM into Spanish has commenced as well. Translation of the WBGNRCS into French in Rwanda is approximately half-way completed, as is also the case for the GPSSM in Cote d'Ivoire. In Jordan, translation of the WBGNRCS into Arabic is nearly complete, and that of the GPSSM will begin in early August.

Results

The dissemination of the WBGNRIC and GPSSM by installation and translations at foreign institutions will increase potential collaboration with Langston University, elevate the level of production and (or) decrease costs for greater profit to farmers around the world raising goats, enhance product availability and lower costs for consumers, increase other benefits from rearing goats such as weed and brush control, and increase knowledge of personnel at Langston University in the area of goat production in other countries. This will strengthen the University's domestic research and extension programs. The web-based decision support aids will be used at collaborating foreign institutions in research activities and for training of extension officers, graduate students, and leader farmers.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems
313	Internal Parasites in Animals
302	Nutrient Utilization in Animals
502	New and Improved Food Products

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Other (Disease)

Brief Explanation

Report Date 11/09/2009 Page 10 of 140

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- During (during program)
- Other (Time Series (multiple points before and after program activities))

Evaluation Results

The dissemination of the WBGNRIC and GPSSM by installation and translations at foreign institutions will increase potential collaborations with other institutions, elevate the level of goat production and (or) decrease costs resulting in greater profits for farmers around the world who are raising goats.

Key Items of Evaluation

An online web-base on goat production and nutrition developed and translated into several languages for domestic and international goat producers.

Report Date 11/09/2009 Page 11 of 140

Program #2

V(A). Planned Program (Summary)

1. Name of the Planned Program

Community Resource Development

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
608	Community Resource Planning and Development		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Exter	nsion	R	esearch
	1862	1890	1862	1890
Plan	0.0	2.0	0.0	0.0
Actual	0.0	0.0	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	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

No funds were expended in this area during FY2007.

2. Brief description of the target audience

Citizens of Oklahoma

Report Date 11/09/2009 Page 12 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	100	200	0	0
2007	0	0	0	0

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

• Number of ResearchProjects Completed on Community Resource Development.

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 13 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of particpants who learned about strategies for improving the economy and/or infrastructure of their community.
2	Number of participants who used strategies for improving the economy and/or infrastructure of their community.
3	Number of communities that improved their economy and/or infrastructure.

Report Date 11/09/2009 Page 14 of 140

Outcome #1

1. Outcome Measures

Number of participants who learned about strategies for improving the economy and/or infrastructure of their community.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	200	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

No funds were expended in this area during FY2007.

What has been done

No funds were expended in this area during FY2007.

Results

No funds were expended in this area during FY2007.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #2

1. Outcome Measures

Number of participants who used strategies for improving the economy and/or infrastructure of their community.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	50	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

No funds were expended in this area during FY2007.

What has been done

No funds were expended in this area during FY2007.

Results

No funds were expended in this area during FY2007.

Report Date 11/09/2009 Page 15 of 140

4. Associated Knowledge Areas

KA Code Knowledge Area

608 Community Resource Planning and Development

Outcome #3

1. Outcome Measures

Number of communities that improved their economy and/or infrastructure.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	1	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

No funds were expended in this area during FY2007.

What has been done

No funds were expended in this area during FY2007.

Results

No funds were expended in this area during FY2007.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

Competing Public priorities

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

During (during program)

Evaluation Results

*No funds were expended in this area during FY 2007.

Key Items of Evaluation

*No funds were expended in this area during FY 2007.

Report Date 11/09/2009 Page 16 of 140

Program #3

V(A). Planned Program (Summary)

1. Name of the Planned Program

School Enrichment

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007 Extens		nsion	Research	
	1862	1890	1862	1890
Plan	0.0	2.0	0.0	0.0
Actual	0.0	0.0	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	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

*This program has been combined with Program 9:Extended Education.No funds were expended in this area during FY 2007.

2. Brief description of the target audience

*This program has been combined with Program 9:Extended Education.No funds were expended in this area during FY 2007.

Report Date 11/09/2009 Page 17 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	0	0	200	300
2007	0	0	0	0

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Research Projects completed on School Enrichment.

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 18 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of youth taught about agriculture and other life skills through the School Enrichment Program.
2	Number of youth who used information presented during the School Enrichment Program.
3	Number of youth who gained an appreciation for agriculture and who gained new skills.

Report Date 11/09/2009 Page 19 of 140

Outcome #1

1. Outcome Measures

Number of youth taught about agriculture and other life skills through the School Enrichment Program.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	200	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

*This program has been combined with Program 9: Extended Education. No funds were expended in this area during FY 2007.

What has been done

*This program has been combined with Program 9: Extended Education. No funds were expended in this area during FY 2007.

Results

*This program has been combined with Program 9: Extended Education. No funds were expended in this area during FY 2007.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2

1. Outcome Measures

Number of youth who used information presented during the School Enrichment Program.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual	
2007	20	0	

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

*This program has been combined with Program 9: Extended Education. No funds were expended in this area during FY 2007.

What has been done

*This program has been combined with Program 9: Extended Education. No funds were expended in this area during FY 2007.

Report Date 11/09/2009 Page 20 of 140

Results

*This program has been combined with Program 9: Extended Education. No funds were expended in this area during FY 2007.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #3

1. Outcome Measures

Number of youth who gained an appreciation for agriculture and who gained new skills.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	20	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

*This program has been combined with Program 9: Extended Education. No funds were expended in this area during FY 2007.

What has been done

*This program has been combined with Program 9: Extended Education. No funds were expended in this area during FY 2007.

Results

*This program has been combined with Program 9: Extended Education. No funds were expended in this area during FY 2007.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

· Competing Public priorities

Brief Explanation

*This program has been combined with Program 9:Extended Education.No funds were expended in this area during FY 2006.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

During (during program)

Evaluation Results

*This program has been combined with Program 9:Extended Education.No funds were expended in this area during FY 2006.

Report Date 11/09/2009 Page 21 of 140

Key Items of Evaluation

Report Date 11/09/2009 Page 22 of 140

Program #4

V(A). Planned Program (Summary)

1. Name of the Planned Program

Teen Pregnancy Prevention

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007 Extension Research		esearch		
	1862	1890	1862	1890
Plan	0.0	2.0	0.0	0.0
Actual	0.0	0.0	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	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

No funds were expended in this area during FY 2007.

2. Brief description of the target audience

No funds were expended in this area during FY 2007.

Report Date 11/09/2009 Page 23 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	0	0	200	300
2007	0	0	0	0

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

No funds were expended in this area during FY 2007.

Year Target Actual 2007 {No Data Entered} 0

Report Date 11/09/2009 Page 24 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of teens being taught about prenancy prevention.
2	Number of teens using pregnancy prevention information.
3	Number of teen pregancies prevented.

Report Date 11/09/2009 Page 25 of 140

Outcome #1

1. Outcome Measures

Number of teens being taught about prenancy prevention.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	200	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

No funds were expended in this area during FY 2007.

What has been done

No funds were expended in this area during FY 2007.

Results

No funds were expended in this area during FY 2007.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

Outcome #2

1. Outcome Measures

Number of teens using pregnancy prevention information.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	100	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

No funds were expended in this area during FY 2007.

What has been done

No funds were expended in this area during FY 2007.

Results

No funds were expended in this area during FY 2007.

4. Associated Knowledge Areas

KA Code Knowledge Area

Report Date 11/09/2009 Page 26 of 140

802

Human Development and Family Well-Being

Outcome #3

1. Outcome Measures

Number of teen pregancies prevented.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	70	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

No funds were expended in this area during FY 2007.

What has been done

No funds were expended in this area during FY 2007.

Results

No funds were expended in this area during FY 2007.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

V(H). Planned Program (External Factors)

External factors which affected outcomes

Other (Social views)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

During (during program)

Evaluation Results

No funds were expended in this area during FY 2007.

Key Items of Evaluation

No funds were expended in this area during FY 2007.

Report Date 11/09/2009 Page 27 of 140

Program #5

V(A). Planned Program (Summary)

1. Name of the Planned Program

Drug and Alcohol Prevention

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007 Extension		nsion	Research	
	1862	1890	1862	1890
Plan	0.0	2.0	0.0	0.0
Actual	0.0	0.3	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	32449	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	29116	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	20983	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Extension personnel conducted classes, workshops, seminars to teach youth about the potential dangers involved in drug and alcohol useage.

2. Brief description of the target audience

Youth in Oklahoma.

Report Date 11/09/2009 Page 28 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	0	0	200	300
2007	0	0	102	125

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Research Projects completed on Drug and Alcohol prevention.

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 29 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of teens being taught about drug and alcohol prevention.
2	Number of teens using drug and alcohol prevention information.
3	Number of youth prevented from abusing drugs and alcohol.

Report Date 11/09/2009 Page 30 of 140

Outcome #1

1. Outcome Measures

Number of teens being taught about drug and alcohol prevention.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	200	70

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Providing youth with literature and information about the negative effects of drugs, alcohol and tobacco is not enough to prevent them from becoming users. Children need to experience success academically and personally in order to avoid pitfalls. Many Oklahoma communities offer limited youth education programs and one-on-one adult support for helping youth to manage during the adolescent years. Consequently, a large number of Oklahoma youth experience the negative effects of drugs, alcohol, teen pregnancy, peer pressure, gang violence and school drop out.

What has been done

Langston University Cooperative Extension staff planned and conducted a variety of educational programs designed to help Oklahoma youth in grades kindergarten through fifth learn developmental concepts that help to maintain their academic capabilities, strengthen their overall well-being and create a setting which motivates life skill developments and strong support systems. These programs served as a vehicle that afforded the staff, 4-H leaders, volunteers and affiliated agencies an opportunity to talk with students about the negative effects and consequences of drugs, alcohol and tobacco.

Results

Students who participated in the Langston University Cooperative Extension 4-H Youth Development Program and 4-H clubs developed strong, positive relationships with caring adult mentors. As a result of gaining knowledge, building self-confidence, learning to be responsible for their decisions, demonstrating changed attitudes and developing positive personal relationships, they are less likely to experiment with drugs or alcohol.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

Outcome #2

1. Outcome Measures

Number of teens using drug and alcohol prevention information.

2. Associated Institution Types

•1890 Extension

Report Date 11/09/2009 Page 31 of 140

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	50	70

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Providing youth with literature and information about the negative effects of drugs, alcohol and tobacco is not enough to prevent them from becoming users. Children need to experience success academically and personally in order to avoid pitfalls. Many Oklahoma communities offer limited youth education programs and one-on-one adult support for helping youth to manage during the adolescent years. Consequently, a large number of Oklahoma youth experience the negative effects of drugs, alcohol, teen pregnancy, peer pressure, gang violence and school drop out.

What has been done

Langston University Cooperative Extension staff planned and conducted a variety of educational programs designed to help Oklahoma youth in grades kindergarten through fifth learn developmental concepts that help to maintain their academic capabilities, strengthen their overall well-being and create a setting which motivates life skill developments and strong support systems. These programs served as a vehicle that afforded the staff, 4-H leaders, volunteers and affiliated agencies an opportunity to talk with students about the negative effects and consequences of drugs, alcohol and tobacco.

Results

Students who participated in the Langston University Cooperative Extension 4-H Youth Development Program and 4-H clubs developed strong, positive relationships with caring adult mentors. As a result of gaining knowledge, building self-confidence, learn to be responsible for their decisions, demonstrating changed attitudes and developing positive personal relationships, they are less likely to experiment with drugs or alcohol.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

Outcome #3

1. Outcome Measures

Number of youth prevented from abusing drugs and alcohol.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	50	70

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Report Date 11/09/2009 Page 32 of 140

Providing youth with literature and information about the negative effects of drugs, alcohol and tobacco is not enough to prevent them from becoming users. Children need to experience success academically and personally in order to avoid pitfalls. Many Oklahoma communities offer limited youth education programs and one-on-one adult support for helping youth to manage during the adolescent years. Consequently, a large number of Oklahoma youth experience the negative effects of drugs, alcohol, teen pregnancy, peer pressure, gang violence and school drop out.

What has been done

Langston University Cooperative Extension staff planned and conducted a variety of educational programs designed to help Oklahoma youth in grades kindergarten through fifth, learn developmental concepts that help to maintain their academic capabilities, strengthen their overall well-being and create a setting which motivates life skill developments and strong support systems. These programs served as a vehicle that afforded the staff, 4-H leaders, volunteers and affiliated agencies an opportunity to talk with students about the negative effects and consequences of drugs, alcohol and tobacco. Students who participated in Extended Education and 4-H projects and events are more prepared to manage the challenges that accompany adolescence.

Results

Students who participated in the Langston University Cooperative Extension 4-H Youth Development Program and 4-H clubs developed strong, positive relationships with caring adult mentors. As a result of gaining knowledge, building self-confidence, learn to be responsible for their decisions, demonstrating changed attitudes and developing positive personal relationships, they are less likely to experiment with drugs or alcohol.

4. Associated Knowledge Areas

KA Code Knowledge Area

802 Human Development and Family Well-Being

V(H). Planned Program (External Factors)

External factors which affected outcomes

• Other (Social Views)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)

Evaluation Results

Students who participated in the Langston University Cooperative Extension 4-H Youth Development Program and 4-H clubs developed strong, positive relationships with caring adult mentors. As a result of gaining knowledge, building self-confidence, learning responsibility, demonstrating changed attitudes and developing personal relationships, they are less likely to get involved in using drugs or alcohol.

Key Items of Evaluation

•Learned new life skills •Built self-confidence •Learned responsibility

Report Date 11/09/2009 Page 33 of 140

Program #6

V(A). Planned Program (Summary)

1. Name of the Planned Program

4-H Clubs

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Exter	nsion	Research	
	1862	1890	1862	1890
Plan	0.0	10.0	0.0	0.0
Actual	0.0	0.8	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	68706	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	29116	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	20983	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The 4-H program will conduct meetings, training sessions, classes and use other learning vehicles to help youth develop life skills.

2. Brief description of the target audience

Youth in Oklahoma who qualify for the program.

Report Date 11/09/2009 Page 34 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	0	0	200	300
2007	0	0	120	125

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of of Research Projects completed in the 4-H Club Program.

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 35 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of youth learning new informations from the 4-H Club Program.
2	Number of youth using information learned in the 4-H Club program.
3	Youth who develop life skills.

Report Date 11/09/2009 Page 36 of 140

Outcome #1

1. Outcome Measures

Number of youth learning new informations from the 4-H Club Program.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual	
2007	200	120	

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The need for 4-H Clubs in Oklahoma Counties was identified as an issue by concerned parents and community leaders. Most Oklahoma communities offer limited youth education programs for young people. Consequently, there is an unacceptably high number of students susceptible to the negative effects of drugs, alcohol, teen pregnancy, peer pressure, gang violence and school drop out.

What has been done

Langston University Cooperative Extension staff worked with twenty-five 4-H volunteer leaders in order to help them maintain their volunteer certification. The staff visited each leader and provided training that included 4-H orientation, steps in starting new 4-H community clubs and serving as effective project leaders. The staff also provided information and materials to leaders in order to help them implement specific projects and events. Club leaders enrolled a total of 102 club members. Most clubs conducted meetings; averaging one per month. Club members worked on twelve (12) projects including gardening, woodworking, horses, goats, fabrics and fashion, photography, visual arts, plasticulture, entrepreneurship and public speaking. Three (3) projects were entered at the county fair.

Results

Students who participate in the Langston University Cooperative Extension 4-H Youth Development Program developed a strong, positive relationship with caring adult mentors. According to the results of a self reporting evaluation, one hundred percent of the students enjoyed participating in an organization that provided them with a sense of belonging. Results of a survey showed that 98% of 4-H participants improved their skills and personal capabilities in planned project areas such as photography, entrepreneurship and public speaking.

4. Associated Knowledge Areas

KA Code	Knowledge Area	
806	Youth Development	

Outcome #2

1. Outcome Measures

Number of youth using information learned in the 4-H Club program.

2. Associated Institution Types

•1890 Extension

Report Date 11/09/2009 Page 37 of 140

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	200	120

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The need for 4-H Clubs in Oklahoma Counties was identified as an issue by concerned parents and community leaders. Most Oklahoma communities offer limited youth education programs for young people. Consequently, there is an unacceptably high number of students who are susceptible to the negative effects of drugs, alcohol, teen pregnancy, peer pressure, gang violence and school drop out.

What has been done

Langston University Cooperative Extension staff worked with twenty-five 4-H volunteer leaders in order to help them maintain their volunteer certification. The staff visited each leader and provided training that included 4-H orientation, steps in starting new 4-H community clubs and serving as effective project leaders. The staff also provided information and materials to leaders in order to help them implement specific projects and events. Club leaders enrolled a total of 102 club members. Most clubs conducted meetings; averaging one per month. Club members worked on twelve (12) different projects including gardening, woodworking, horses, goats, fabrics and fashion, photography, visual arts, plasticulture, entrepreneurship and public speaking. Three (3) projects were entered at the county fair.

Results

Students who participate in the Langston University Cooperative Extension 4-H Youth Development Program developed a strong, positive relationship with caring adult mentors. According to the results of a self reporting evaluation, one hundred percent of the students enjoyed participating in an organization that provided them with a sense of belonging. Results of a survey showed that 98% of 4-H participants improved their skills and personal capabilities in planned project areas such as photography, entrepreneurship and public speaking.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #3

1. Outcome Measures

Youth who develop life skills.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	200	120

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The need for 4-H Clubs in Oklahoma Counties was identified as an issue by concerned parents and community leaders. Most Oklahoma communities offer limited youth education programs for young people. Consequently, there is an unacceptably high number of students who are susceptible to the negative effects of drugs, alcohol, teen pregnancy, peer pressure, gang violence and school drop out.

Report Date 11/09/2009 Page 38 of 140

What has been done

Langston University Cooperative Extension staff worked with twenty-five 4-H volunteer leaders in order to help them maintain their volunteer certification. The staff visited each leader and provided training that included 4-H orientation, steps in starting new 4-H community clubs and serving as effective project leaders. The staff also provided information and materials to leaders in order to help them implement specific projects and events. Club leaders enrolled a total of 102 club members. Most clubs conducted meetings; averaging one per month. Club members worked on twelve (12) different projects including gardening, woodworking, horses, goats, fabrics and fashion, photography, visual arts, plasticulture, entrepreneurship and public speaking. Three (3) projects were entered at the county fair.

Results

Students who participate in the Langston University Cooperative Extension 4-H Youth Development Program developed a strong, positive relationship with caring adult mentors. According to the results of a self reporting evaluation, one hundred percent of the students enjoyed participating in an organization that provided them with a sense of belonging. Results of a survey showed that 98% of 4-H participants improved their skills and personal capabilities in planned project areas such as photography, entrepreneurship and public speaking.

4. Associated Knowledge Areas

KA Code Knowledge Area 806 Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Appropriations changes
- Competing Public priorities

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)

Evaluation Results

Most Oklahoma communities offer limited educational programs for youth. The 4-H Clubs sponsored through the Langston University Cooperative Extension Program provide opportunities for youth to develop leadership skills, enhance their self-esteem and acquire new skills through involvement in age appropriate projects and activities.

Key Items of Evaluation

•Learned new life skills •Built self-confidence •Learned responsibility •Set and achieved goals

Report Date 11/09/2009 Page 39 of 140

Program #7

V(A). Planned Program (Summary)

1. Name of the Planned Program

Extended Education

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Exter	Extension		Research	
	1862	1890	1862	1890	
Plan	0.0	2.0	0.0	0.0	
Actual	0.0	0.9	0.0	0.0	

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

Exter	nsion	Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	75958	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	29116	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	20983	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Langston University Cooperative Extension staff planned and conducted an annual Literacy in Action Summer Reading Program designed to help Oklahoma Logan County youth (grades kindergarten through fifth) learn developmental concepts that helped to maintain their academic capabilities, strengthen their overall well-being and create a setting to motivate life skill development during the months of June through July. Eighty-two students received group and individualized instructions and hands-on practice in math, reading and writing. They participated in six (6) nutrition education workshops and performed physical fitness exercises daily. Eighteen of the eighty-two students participated in a six-week sewing and construction program. College support students, volunteers and university faculty and staff helped to deliver the program.

2. Brief description of the target audience

The 4-H Literacy in Action Summer program is offered to students in grades kindergarten through fifth (ages 5-13). Participants represented five (5) racially diverse mixed communities.

Report Date 11/09/2009 Page 40 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	0	0	30	30
2007	0	0	82	205

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Research Projects competed on Extended Education.

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 41 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of youth taught extended education techniques.
2	Number of youth grasping and using extended education techniques.
3	Number of youth who improved their academic performance and catch up in the classroom.

Report Date 11/09/2009 Page 42 of 140

Outcome #1

1. Outcome Measures

Number of youth taught extended education techniques.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual	
2007	30	82	

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The need for the 4-H Literacy in Action summer program in Logan County was identified as an issue by concerned parents and community leaders. Logan County offers limited youth education programs for young people during the summer months. Consequently, there is an unacceptably high number of latchkey students. Students who do not participate in skills building and recreation programs during their summer vacation are more likely to experience a diminishment in their reading and math capabilities and health and physical fitness. Students who do not have something constructive to do are more susceptible to becoming engaged in destructive situations.

What has been done

Langston University Cooperative Extension staff planned and conducted an annual Literacy in Action Summer Reading Program designed to help Oklahoma Logan County youth, in grades kindergarten through fifth, learn developmental concepts that helped to maintain their academic capabilities and strengthen their overall well-being. A setting was created that motivated life skill development during the months of June through July. Eighty-two students received group and individualized instructions and hands-on practice in math, reading and writing. They participated in six (6) nutrition education workshops and performed physical fitness exercises daily. Eighteen of the eighty-two students participated in a six-week sewing and construction program. College support students, volunteers and university faculty and staff helped to deliver the program.

Results

Teachers who work with 4-H Literacy in Action Summer Program participants feel that those students are more prepared to transition to the next grade level. Parents indicated that their child(ren) improved their self-confidence and demonstrated better decision making skills. Parents also stated that the program provided a safe, supportive learning environment for their child(ren).

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2

1. Outcome Measures

Number of youth grasping and using extended education techniques.

2. Associated Institution Types

•1890 Extension

Report Date 11/09/2009 Page 43 of 140

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual	
2007	20	82	

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The need for the 4-H Literacy in Action summer program in Logan County was identified as an issue by concerned parents and community leaders. Logan County offers limited youth education programs for young people during the summer months. Consequently, there is an unacceptably high number of latchkey students. Students who do not participate in skills building and recreation programs during their summer vacation are more likely to experience a diminishment in their reading and math capabilities and health and physical fitness. Students who do not have something constructive to do are more susceptible to becoming engaged in destructive situations.

What has been done

Langston University Cooperative Extension staff planned and conducted an annual Literacy in Action Summer Reading Program designed to help Oklahoma Logan County youth, in grades kindergarten through fifth, learn developmental concepts that helped to maintain their academic capabilities and strengthen their overall well-being. A setting was created that motivated life skill development during the months of June through July. Eighty-two students received group and individualized instructions and hands-on practice in math, reading and writing. They participated in six (6) nutrition education workshops and performed physical fitness exercises daily. Eighteen of the eighty-two students participated in a six-week sewing and construction program. College support students, volunteers and university faculty and staff helped to deliver the program.

Results

Teachers who work with 4-H Literacy in Action Summer Program participants feel that those students are more prepared to transition to the next grade level. Parents indicated that their child(ren) improved their self-confidence and demonstrated better decision making skills. Parents also stated that the program provided a safe, supportive learning environment for their child(ren).

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #3

1. Outcome Measures

Number of youth who improved their academic performance and catch up in the classroom.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year Quantitative Target		Actual	
2007	5	82	

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Report Date 11/09/2009 Page 44 of 140

The need for the 4-H Literacy in Action summer program in Logan County was identified as an issue by concerned parents and community leaders. Logan County offers limited youth education programs for young people during the summer months. Consequently, there is an unacceptably high number of latchkey students. Students who do not participate in skills and recreation building and recreation programs during their summer vacation are more likely to experience a diminishment in their reading and math capabilities and health and physical fitness. Students who do not have something constructive to do are more susceptible to becoming engaged in destructive situations.

What has been done

Langston University Cooperative Extension staff planned and conducted an annual Literacy in Action Summer Reading Program designed to help Oklahoma Logan County youth, in grades kindergarten through fifth, learn developmental concepts that helped to maintain their academic capabilities and strengthen their overall well-being. A setting was created that motivated life skill development during the months of June through July. Eighty-two students received group and individualized instructions and hands-on practice in math, reading and writing. They participated in six (6) nutrition education workshops and performed physical fitness exercises daily. Eighteen of the eighty-two students participated in a six-week sewing and construction program. College support students, volunteers and university faculty and staff helped to deliver the program.

Results

Teachers who work with 4-H Literacy in Action Summer Program participants feel that those students are more prepared to transition to the next grade level. Parents indicated that their child(ren) improved their self-confidence and demonstrated better decision making skills. Parents also stated that the program provided a safe, supportive learning environment for their child(ren).

4. Associated Knowledge Areas

KA Code Knowledge Area 806 Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

Competing Public priorities

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)

Evaluation Results

The 4-H Literacy in Action summer program provides a safe, positive learning environment where youth participants strenghtened their skills in mathematics and reading.

Key Items of Evaluation

•Built self-confidence •Improved math skills •Improved reading skills

Report Date 11/09/2009 Page 45 of 140

Program #8

V(A). Planned Program (Summary)

1. Name of the Planned Program

Family and Consumer Sciences

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
801	Individual and Family Resource Management		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	2.0	0.0	0.0
Actual	0.0	0.5	0.0	0.0

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

Exter	nsion	Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	54994	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	29116	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	20983	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Programs were delivered and taught to participants in underserved areas. The objectives of these lessons were for participants to acquire knowledge, skills and awareness regarding essential human food and nutrition, etiquette, management, and health.

2. Brief description of the target audience

The target audience consisted of clientele residing in rural and urban areas.

Report Date 11/09/2009 Page 46 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	100	200	20	20
2007	100	130	200	220

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

Patent Applications Submitted

Year Target Plan: 0

2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Research Projects completed on Family and Consumer Sciences

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 47 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of participants who learned about Family and Consumer Sciences.
2	Number of participants who used Family and Consumer Sciences resources.
3	Number of families that improved their quality of life at least in part from this program.

Report Date 11/09/2009 Page 48 of 140

Outcome #1

1. Outcome Measures

Number of participants who learned about Family and Consumer Sciences.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	100	300

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Family and Consumer Sciences is of interest to most families because it covers a broad spectrum of subjects. Food and nutrition, etiquette and money management were the most selected subjects.

What has been done

Programs were delivered and taught to participants in underserved areas. The objectives of these lessons were for participants to acquire knowledge, skills, and awareness regarding essential human health, nutrition, etiquette and food preparation.

Results

As a result of participating in these programs, participants incorporated the information into their daily lives. Testimonials indicated that participants received knowledge that will be very beneficial to them. Written and verbal responses indicated that participants adopted most if not all of the information received. Also, participants indicated that they are making better decisions and choices concerning buying and preparing foods.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #2

1. Outcome Measures

Number of participants who used Family and Consumer Sciences resources.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	20	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Family and Consumer Sciences is of interest to most families because it covers a broad spectrum of subjects. Food and nutrition, etiquette and money management were the most selected subjects.

Report Date 11/09/2009 Page 49 of 140

What has been done

Programs were delivered and taught to participants in underserved areas. The objectives of these lessons were for participants to acquire knowledge, skills, and awareness regarding essential human health, nutrition, etiquette and food preparation.

Results

As a result of participating in these programs, participants incorporated the information into their daily lives. Testimonials indicated that participants received knowledge that will be very beneficial to them. Written and verbal responses indicated that participants adopted most if not all of the information received. Also, participants indicated that they are making better decisions and choices concerning buying and preparing foods.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #3

1. Outcome Measures

Number of families that improved their quality of life at least in part from this program.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	5	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Family and Consumer Sciences is of interest to most families because it covers a broad spectrum of subjects. Food and nutrition, etiquette, money management were the most selected subjects.

What has been done

Programs were delivered and taught to participants in underserved areas. The objectives of these lessons were for participants to acquire knowledge, skills, and awareness regarding essential human health, nutrition, etiquette and food preparation.

Results

As a result of participating in these programs, participants incorporated the information into their daily lives. Testimonial indicated that participants received knowledge that will be very beneficial to them. Written and verbal responses indicated that participants adopted most if not all of the information received. Also, participants indicated that they are making better decisions and choices concerning buying and preparing foods.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

Competing Public priorities

Report Date 11/09/2009 Page 50 of 140

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)

Evaluation Results

Evaluations revealed positive changes in food selection, preparation and storage. Better money management also resulted from participation in these activities.

Key Items of Evaluation

Improved food selection
Improved food preparation and storage skills

Report Date 11/09/2009 Page 51 of 140

Program #9

V(A). Planned Program (Summary)

1. Name of the Planned Program

Food and Nutrition

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
504	Home and Commercial Food Service		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Exter	Extension		esearch
	1862	1890	1862	1890
Plan	0.0	2.0	0.0	0.0
Actual	0.0	1.5	0.0	0.0

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

Exter	nsion	Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	111455	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	29116	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	20983	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The food and nutrition program has great potential in the State of Oklahoma. Langston University was able to reach underserved clientele via demonstrations and hands-on sessions.

2. Brief description of the target audience

The target audience consists primarily of limited income families, young children, grandparents and youth.

Report Date 11/09/2009 Page 52 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	100	200	100	200
2007	100	100	100	1000

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Research Projects competed on Food and Nutrition.

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 53 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of participants who learned about food and nutrition.
2	Number of participants who used knowledge/guidelines presented during food and nutrition sessions.
3	Number of participants who improve thier lifestyles by following food and nutrition guidelines.

Report Date 11/09/2009 Page 54 of 140

Outcome #1

1. Outcome Measures

Number of participants who learned about food and nutrition.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	200	200

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Healthy living is a major initiative for the nation as well as the State of Oklahoma. Food and nutrition play a key role in the health of a nation. This is especially the case with minority populations who may not have access to proper food and nutrition information.

What has been done

Educational programs on nutrition, health, etiquette, management, decision making and safety were conducted in Oklahoma counties. My Pyramid was introduced to youth and adult audiences. Food selection, safety, storage, preservation, cleanliness, and etiquette were taught to participants. Food safety is of concern due to the numerous food-borne illnesses that many people do not associate with food consumption, storage, and safety. The educational strategies focused on dietary quality, shopping behavior, food resource management, and food safety. Education that addressed these areas included the U.S. Dietary Guidelines, nutrition requirements throughout the lifecycle based on the MY Pyramid, food safety, management of the food dollar and household budgeting.

Results

As a result of participating in these food and nutrition classes, participants increased their knowledge of healthy eating and food safety. Testimonials indicated that these programs were successful because of the changes made by participants. Written and verbal responses indicated that participants adopted most if not all of the information received. Also, participants indicated that they are making better decisions and choices related to food, nutrition, health and budgeting.

4. Associated Knowledge Areas

KA Code	Knowledge Area
504	Home and Commercial Food Service

Outcome #2

1. Outcome Measures

Number of participants who used knowledge/guidelines presented during food and nutrition sessions.

2. Associated Institution Types

•1890 Extension

Report Date 11/09/2009 Page 55 of 140

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	50	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Healthy living is a major initiative for the nation as well as the State of Oklahoma. Food and nutrition play a key role in the health of a nation. This is especially the case with minority populations who may not have access to proper food and nutrition information.

What has been done

Educational programs on nutrition, health, etiquette, management, decision making and safety were conducted in Oklahoma counties. My Pyramid was introduced to youth and adult audiences. Food selection, safety, storage, preservation, cleanliness, and etiquette were taught to participants. Food safety is of concern due to the numerous food-borne illnesses that many people do not associate with food consumption, storage, and safety. The educational strategies focused on dietary quality, shopping behavior, food resource management, and food safety. Education that addressed these areas included the U.S. Dietary Guidelines, nutrition requirements throughout the lifecycle based on the MY Pyramid, food safety, management of the food dollar and household budgeting.

Results

As a result of participating in these food and nutrition classes, participants increased their knowledge of healthy eating and food safety. Testimonials indicated that these programs were successful because of the changes made by participants. Written and verbal responses indicated that participants adopted most if not all of the information received. Also, participants indicated that they are making better decisions and choices related to food, nutrition, health and budgeting.

4. Associated Knowledge Areas

KA Code	Knowledge Area
504	Home and Commercial Food Service

Outcome #3

1. Outcome Measures

Number of participants who improve thier lifestyles by following food and nutrition guidelines.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual	
2007	10	0	

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Healthy living is a major initiative for the nation as well as the State of Oklahoma. Food and nutrition play a key role in the health of a nation. This is especially the case with minority populations who may not have access to proper food and nutrition information.

What has been done

Report Date 11/09/2009 Page 56 of 140

Educational programs on nutrition, health, etiquette, management, decision making and safety were conducted in Oklahoma counties. My Pyramid was introduced to youth and adult audiences. Food selection, safety, storage, preservation, cleanliness, and etiquette were taught to participants. Food safety is of concern due to the numerous food-borne illnesses that many people did not associate with food consumption, storage, and safety. The educational strategies focus on dietary quality, shopping behavior, food resource management, and food safety. Education that addresses these areas included the U.S. Dietary Guidelines, nutrition requirements throughout the lifecycle based on the MY Pyramid; food safety, management of the food dollar and household budgeting.

Results

As a result of participating in these food and nutrition classes, participants increased their knowledge of healthy eating and food safety. Testimonials indicated that these programs were successful because of the changes made by participants. Written and verbal responses indicated that participants adopted most if not all of the information received. Also, participants indicated that they are making better decisions and choices related to food, nutrition, health and budgeting.

4. Associated Knowledge Areas

KA Code	Knowledge Area
504	Home and Commercial Food Service

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Government Regulations
- · Competing Public priorities

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)

Evaluation Results

As a result of participating in these food and nutrition classes, participants incorporated the information taught. Testimonials indicated that these programs were successful because of the changes made by participants. Written and verbal responses indicated that participants adopted most if not all of the information received. Also, participants indicated that they are making better decisions and choices related to food, nutrition, health, budgeting; and overall becoming healthier.

Key Items of Evaluation

Improvement in food selection, preparation and storage skills Development of better budgeting skills

Report Date 11/09/2009 Page 57 of 140

Program #10

V(A). Planned Program (Summary)

1. Name of the Planned Program

Biotechnology

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
201	Plant Genome, Genetics, and Genetic Mechanisms		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.0	0.0	2.0
Actual	0.0	0.0	0.0	0.0

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

Exter	nsion	Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	0	13595
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	14558	0	64025
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	13204

V(D). Planned Program (Activity)

1. Brief description of the Activity

Researchers will develop a local peanut nucleotide database and build a bioinformatics pipeline for peanut gene discovery.

2. Brief description of the target audience

All peanut producers in Oklahoma

Report Date 11/09/2009 Page 58 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	15	50	0	0
2007	0	0	0	0

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Research Projects completed on Biotechnology.

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 59 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of farmers learning about the peanut nucelotide database.
2	Number of farmers using the peanut nucleotide database.
3	Farmers who use the peanut nucleotide database or new peanut gene discoveries to improve their peanut production system.

Report Date 11/09/2009 Page 60 of 140

Outcome #1

1. Outcome Measures

Number of farmers learning about the peanut nucelotide database.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual	
2007	20	0	

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Progress updates are pending at this time.

What has been done

Progress updates are pending at this time.

Results

Progress updates are pending at this time.

4. Associated Knowledge Areas

KA Code	Knowledge Area
201	Plant Genome, Genetics, and Genetic Mechanisms

Outcome #2

1. Outcome Measures

Number of farmers using the peanut nucleotide database.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual	
2007	5	0	

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Progress updates are pending at this time.

What has been done

Progress updates are pending at this time.

Results

Progress updates are pending at this time.

Report Date 11/09/2009 Page 61 of 140

4. Associated Knowledge Areas

KA Code Knowledge Area

201 Plant Genome, Genetics, and Genetic Mechanisms

Outcome #3

1. Outcome Measures

Farmers who use the peanut nucleotide database or new peanut gene discoveries to improve their peanut production system.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual	
2007	0	0	

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Progress updates are pending at this time.

What has been done

Progress updates are pending at this time.

Results

Progress updates are pending at this time.

4. Associated Knowledge Areas

KA Code	Knowledge Area
201	Plant Genome, Genetics, and Genetic Mechanisms

V(H). Planned Program (External Factors)

External factors which affected outcomes

Competing Public priorities

Brief Explanation

Progress updates are pending at this time.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

Time series (multiple points before and after program)

Evaluation Results

Progress updates are pending at this time.

Key Items of Evaluation

Progress updates are pending at this time.

Report Date 11/09/2009 Page 62 of 140

Program #11

V(A). Planned Program (Summary)

1. Name of the Planned Program

Water Gardens (Aquaculture)

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
401	Structures, Facilities, and General Purpose Farm Supplies		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Exter	nsion	R	esearch
	1862	1890	1862	1890
Plan	0.0	0.3	0.0	0.1
Actual	0.0	0.6	0.0	0.3

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	55300	0	45342
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	14558	0	14558
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	12554	0	29298

V(D). Planned Program (Activity)

1. Brief description of the Activity

Individual and group instruction was provided by email, telephone, site visits and invited presentations. Fish disease diagnosis and treatment were also provided. Stakeholder questions were used to design research projects on water garden filtration utilizing native submergent aquatic vegetation and on biological filter design for koi ponds. Published information was collected and reviewed for compilation in a book for water garden and koi pond hobbyists and retailers.

2. Brief description of the target audience

Owners of ornamental garden and koi ponds, retailers to the hobby industry, and fish farmers producing fish and plants for the hobbyist.

Report Date 11/09/2009 Page 63 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	100	300	0	0
2007	315	315	0	0

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Research Projects completed on Water Gardens

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 64 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME	
1	Number of farmers learning water garden techiques.	
2	Number of farmers using water garden techniques.	
3	Farmers who improve the water quality of their water gardens and reduce operational costs.	

Report Date 11/09/2009 Page 65 of 140

Outcome #1

1. Outcome Measures

Number of farmers learning water garden techiques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual	
2007	50	100	

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Producers and sellers of garden pond fish and hard goods need accurate information to make a profit, and purchasers need proper information to sustain their enthusiasm for the hobbyist.

What has been done

Information was transmitted via email, telephone, presentations and personal visits. Research projects were designed for implementation beginning in 2008. Book composition was initiated and drafts completed during 2007.

Results

A book was drafted to teach producers about construction and maintenance of ornamental ponds. The book was designed to be used by hobbyists and retailers in the ornamental pond industry. This book should help water garden enthusiasts use best management practices in construction and maintenance of ornamental ponds. This will save costs on construction and reduce costs on pond maintenance.

4. Associated Knowledge Areas

KA Code	Knowledge Area
401	Structures, Facilities, and General Purpose Farm Supplies

Outcome #2

1. Outcome Measures

Number of farmers using water garden techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual	
2007	10	100	

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Producers and sellers of garden pond fish and hard goods need accurate information to make a profit, and purchasers need proper information to sustain their enthusiasm for the hobbyist.

Report Date 11/09/2009 Page 66 of 140

What has been done

Information was transmitted via email, telephone, presentations and personal visits. Research projects were designed for implementation beginning in 2008. Book composition was initiated and drafts completed during 2007.

Results

A book was drafted to teach producers about construction and maintenance of ornamental ponds. The book was designed to be used by hobbyists and retailers in the ornamental pond industry. This book should help water garden enthusiasts use best management practices in construction and maintenance of ornamental ponds. This will save costs on construction and reduce costs on pond maintenance.

4. Associated Knowledge Areas

KA Code	Knowledge Area
401	Structures, Facilities, and General Purpose Farm Supplies

Outcome #3

1. Outcome Measures

Farmers who improve the water quality of their water gardens and reduce operational costs.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual	
2007	10	300

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Producers and sellers of garden pond fish and hard goods need accurate information to make a profit, and purchasers need proper information to sustain their enthusiasm for the hobbyist.

What has been done

Information was transmitted via email, telephone, presentations and personal visits. Research projects were designed for implementation beginning in 2008. Book composition was initiated and drafts completed during 2007.

Results

A book was drafted to teach producers about construction and maintenance of ornamental ponds. The book was designed to be used by hobbyists and retailers in the ornamental pond industry. This book should help water garden enthusiasts use best management practices in construction and maintenance of ornamental ponds. This will save costs on construction and reduce costs on pond maintenance.

4. Associated Knowledge Areas

KA Code	Knowledge Area
401	Structures, Facilities, and General Purpose Farm Supplies

V(H). Planned Program (External Factors)

External factors which affected outcomes

• Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

Report Date 11/09/2009 Page 67 of 140

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)

Evaluation Results

Scientific literature was reviewed and used to draft a book on construction and maintenance of ornamental ponds. The book was designed to be used by hobbyists and retailers in the ornamental pond industry. This book should help water garden enthusiasts use best management practices in construction and maintenance of ornamental ponds.

Key Items of Evaluation

Shared best management practices with clientele on construction and mainenance of ornamental ponds.

Report Date 11/09/2009 Page 68 of 140

Program #12

V(A). Planned Program (Summary)

1. Name of the Planned Program

Alternative Species (Aquaculture)

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
307	Animal Management Systems		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Exter	nsion	Research	
	1862	1890	1862	1890
Plan	0.0	0.5	0.0	1.5
Actual	0.0	0.4	0.0	0.2

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	39785	0	36518
1862 Matching	1890 Matching	g 1862 Matching 1890 Ma	
0	0 14558		14558
1862 All Other 1890 All Other		1862 All Other	1890 All Other
0	12554	0	29298

V(D). Planned Program (Activity)

1. Brief description of the Activity

We compared the growth of bigmouth and smallmouth buffalo in channel catfish ponds to determine if smallmouth buffalo would be better suited for polyculture production than bigmouth buffalo.

2. Brief description of the target audience

Our target audience is comprised of aquaculture producers, and consumers of warmwater, scaled fish (including direct consumption and other markets, such as fish markets or restaurants).

Report Date 11/09/2009 Page 69 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	100	300	0	0
2007	300	300	0	0

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Research Projects completed on Alternative Species

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 70 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of farmers learning alternative fish species techniques.
2	Number of farmers using alternative fish species techniques.
3	Farmers who improved their yearly income by using alternative fish species.

Report Date 11/09/2009 Page 71 of 140

Outcome #1

1. Outcome Measures

Number of farmers learning alternative fish species techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	50	300

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Fish producers need additional marketing opportunities to offset low prices from processors and competition from imported catfish products. Consumers, particularly ethnic consumers, want access to scaled fish.

What has been done

We compared the growth of bigmouth and smallmouth buffalo in channel catfish ponds to determine if smallmouth buffalo would be better suited for polyculture production than bigmouth buffalo.

Results

Based on this study, neither species of buffalo fish grew as quickly as channel catfish. This information may prevent some catfish producers from losing money by investing heavily in buffalo fish production.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems

Outcome #2

1. Outcome Measures

Number of farmers using alternative fish species techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	20	300

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Fish producers need additional marketing opportunities to offset low prices from processors and competition from imported catfish products. Consumers, particularly ethnic consumers, want access to scaled fish.

What has been done

Report Date 11/09/2009 Page 72 of 140

We compared the growth of bigmouth and smallmouth buffalo in channel catfish ponds to determine if smallmouth buffalo would be better suited for polyculture production than bigmouth buffalo.

Results

Based on this study, neither species of buffalo fish grew as quickly as channel catfish. This information may prevent some catfish producers from losing money by investing heavily in buffalo fish production.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems

Outcome #3

1. Outcome Measures

Farmers who improved their yearly income by using alternative fish species.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	5	300

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Fish producers need additional marketing opportunities to offset low prices from processors and competition from imported catfish products. Consumers, particularly ethnic consumers, want access to scaled fish.

What has been done

We compared the growth of bigmouth and smallmouth buffalo in channel catfish ponds to determine if smallmouth buffalo would be better suited for polyculture production than bigmouth buffalo.

Results

Based on this study, neither species of buffalo fish grew as quickly as channel catfish. This information may prevent some catfish producers from losing money by investing heavily in buffalo fish production.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems

V(H). Planned Program (External Factors)

External factors which affected outcomes

• Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)

Report Date 11/09/2009 Page 73 of 140

Evaluation Results

This study was conducted to determine if bigmouth or smallmouth buffalo fish could result in profitable polyculture fish crops for fish growers. Presently, the data suggest that neither of the two buffalo fish species would result in a measureable profit. This information may prevent some catfish growers from losing money by investing heavily in buffalo fish production.

Key Items of Evaluation

Alternative fish species researched for producers Production costs analyzed Feasibility study on use of alternative fish species conducted

Report Date 11/09/2009 Page 74 of 140

Program #13

V(A). Planned Program (Summary)

1. Name of the Planned Program

Feeder Design (Aquaculture)

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
401	Structures, Facilities, and General Purpose Farm Supplies		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Exter	nsion	R	esearch
	1862	1890	1862	1890
Plan	0.0	0.0	0.0	0.0
Actual	0.0	0.0	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 0	Evans-Allen
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1862 All Other	0 1890 All Other	0 1862 All Other	0 1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

This program has been eliminated. No funds were expended in this area during FY 2007.

2. Brief description of the target audience

All aquaculture farmers in Oklahoma.

Report Date 11/09/2009 Page 75 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	0	0	0	0
2007	0	0	0	0

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Research Projects completed on Feeder Design.

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 76 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of farmers learning fish feeder design techniques.
2	Number of farmers using fish feeder design techniques.
3	Farmers who design and build fish feeders that help increase fish feeding efficiency.

Report Date 11/09/2009 Page 77 of 140

Outcome #1

1. Outcome Measures

Number of farmers learning fish feeder design techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

This program has been eliminated. No funds were expended in this area during FY 2007.

What has been done

This program has been eliminated. No funds were expended in this area during FY 2007.

Results

This program has been eliminated. No funds were expended in this area during FY 2007.

4. Associated Knowledge Areas

KA Code	Knowledge Area
401	Structures, Facilities, and General Purpose Farm Supplies

Outcome #2

1. Outcome Measures

Number of farmers using fish feeder design techniques.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

This program has been eliminated. No funds were expended in this area during FY 2007.

What has been done

This program has been eliminated. No funds were expended in this area during FY 2007.

Results

This program has been eliminated. No funds were expended in this area during FY 2007.

Report Date 11/09/2009 Page 78 of 140

4. Associated Knowledge Areas

KA Code Knowledge Area

401 Structures, Facilities, and General Purpose Farm Supplies

Outcome #3

1. Outcome Measures

Farmers who design and build fish feeders that help increase fish feeding efficiency

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

This program has been eliminated. No funds were expended in this area during FY 2007.

What has been done

This program has been eliminated. No funds were expended in this area during FY 2007.

Results

This program has been eliminated. No funds were expended in this area during FY 2007.

4. Associated Knowledge Areas

KA Code	Knowledge Area
401	Structures, Facilities, and General Purpose Farm Supplies

V(H). Planned Program (External Factors)

External factors which affected outcomes

Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

This program has been eliminated. No funds were expended in this area during FY 2007.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

• Time series (multiple points before and after program)

Evaluation Results

This program has been eliminated. No funds were expended in this area during FY 2007.

Key Items of Evaluation

This program has been eliminated. No funds were expended in this area during FY 2007.

Report Date 11/09/2009 Page 79 of 140

Program #14

V(A). Planned Program (Summary)

1. Name of the Planned Program

Phytoplankton (Aquaculture)

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
111	Conservation and Efficient Use of Water		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Exter	nsion	R	esearch
	1862	1890	1862	1890
Plan	0.0	0.2	0.0	1.2
Actual	0.0	0.1	0.0	0.8

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	16944	0	61388
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	14558	0	14558
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	12554	0	29298

V(D). Planned Program (Activity)

1. Brief description of the Activity

Water analysis and phytoplankton management practices were tested to determine feasible methods of phytoplankton management for small scale fish farmers.

2. Brief description of the target audience

The target audience is comprised of fish farmers and owners of recreational ponds. Recreational ponds are used for outdoor activities such as angling, swimming and picnicking or for their ornamental landscape features.

Report Date 11/09/2009 Page 80 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	100	300	0	0
2007	135	200	0	0

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

• Number of Research Projects completed on Phytoplankton.

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 81 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of farmers learning phytoplankton management techniques.
2	Number of farmers using phytoplankton management techniques.
3	Farmers who adopted phytoplankton management techniques to contain or eradicate their phytoplankton problems.

Report Date 11/09/2009 Page 82 of 140

Outcome #1

1. Outcome Measures

Number of farmers learning phytoplankton management techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	50	200

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Aquaculture producers need to manage phytoplankton. Private pond owners are concerned about control of nuisance algal blooms.

What has been done

We reduced nuisance algae in culture ponds with chaining, and informed private pond owners about nutrient input and its effect on phytoplankton.

Results

Large phytoplankters are a source of off-flavors in channel catfish flesh. Private pond owners were taught the importance of nutrient input in pond watersheds as a cause/effect of production of nuisance phytoplankton blooms. This information will help some pond owners to reduce the off-flavors in their catfish by controlling levels of phytoplankton in their ponds. This will make their catfish more marketable.

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water

Outcome #2

1. Outcome Measures

Number of farmers using phytoplankton management techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual	
2007	20	50	

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Aquaculture producers need to manage phytoplankton. Private pond owners are concerned about control of nuisance algal blooms.

Report Date 11/09/2009 Page 83 of 140

What has been done

We reduced nuisance algae in culture ponds with chaining, and informed private pond owners about nutrient input and its effect on phytoplankton.

Results

Large phytoplankters are a source of off-flavors in channel catfish flesh. Private pond owners were taught the importance of nutrient input in pond watersheds as a cause/effect of production of nuisance phytoplankton blooms. This information will help some pond owners to reduce the off-flavors in their catfish by controlling levels of phytoplankton in their ponds. This will make their catfish more marketable.

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water

Outcome #3

1. Outcome Measures

Farmers who adopted phytoplankton management techniques to contain or eradicate their phytoplankton problems.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual	
2007	5	350	

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Aquaculture producers need to manage phytoplankton. Private pond owners are concerned about control of nuisance algal blooms.

What has been done

We reduced nuisance algae in culture ponds with chaining, and informed private pond owners about nutrient input and its effect on phytoplankton.

Results

Large phytoplankters are a source of off-flavors in channel catfish flesh. Private pond owners were taught the importance of nutrient input in pond watersheds as a cause/effect of production of nuisance phytoplankton blooms. This information will help some pond owners to reduce the off-flavors in their catfish by controlling levels of phytoplankton in their ponds. This will make their catfish more marketable.

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water

V(H). Planned Program (External Factors)

External factors which affected outcomes

Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

Report Date 11/09/2009 Page 84 of 140

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

During (during program)

Evaluation Results

Large phytoplankters are a source of off-flavors in channel catfish flesh. Private pond owners were taught the importance of nutrient input in pond watersheds as a cause/effect of production of nuisance phytoplankton blooms. This information will help some pond owners reduce the off-flavors in their catfish by controlling levels of phytoplankton in their ponds.

Key Items of Evaluation

Techniques shared with fish producers for phytoplankton management

Report Date 11/09/2009 Page 85 of 140

Program #15

V(A). Planned Program (Summary)

1. Name of the Planned Program

Fishery Management (Aquaculture)

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
307	Animal Management Systems		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	1.0	0.0	0.0
Actual	0.0	1.0	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	82367	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	14558	0	14558
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	12554	0	29298

V(D). Planned Program (Activity)

1. Brief description of the Activity

Educating pond owners in:

- 1) Watershed management to reduce pond nutrient loading
- 2) Methods to control excess aquatic plant growth including use of herbicides, dyes, grass carp and aeration
- 3) Methods of leak control, pond maintenance, pond biology and methods to determine if restocking is necessary

2. Brief description of the target audience

The target audience consists of owners of recreational ponds. Recreational ponds are used for outdoor activities such as angling, swimming and picnicking or for their ornamental landscape features.

Report Date 11/09/2009 Page 86 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	100	300	0	0
2007	250	250	0	0

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Research Projects completed on Fishery Management.

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 87 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of farmers learning new fisher management techniques.
2	Number of farmers using new fisher management techniques.
3	Farmers who have improved thier production efficiency and raised their profits with the new fishery management techniques.

Report Date 11/09/2009 Page 88 of 140

Outcome #1

1. Outcome Measures

Number of farmers learning new fisher management techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	50	250

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Home owners in urban areas often become pond caretakers through community covenants and home owners associations. The housing development is centered around a large pond. The pond watershed includes the houses. These neighborhoods are often upscale and have professional lawn services. The result is often high nutrient levels from lawn and garden fertilization entering the pond and creating nuisance aquatic plant and algae problems with attendant consequences of fish kills and odors.

What has been done

On-site visits were made to individual pond owners, home owners associations and representatives of these associations. Pond problems were evaluated and recommendations made concerning remedies for existing problems and methods of preventing future problems. Education was concentrated on nutrient reduction in the watershed and annual pond maintenance.

Results

Pond owners were generally very receptive to proposed solutions to problems. They were interested in working with lawn service enterprises to reduce phosphorus and nitrogen applications to lawn. However, many believed that neighbors would be reluctant to do anything that reduced perceived lawn quality. Some home owners associations produced newsletters and sent them to their members. Best Management Practices for lawn application of fertilizers and other pond related information were included in the newsletters. Aeration devices were installed in some ponds. Overall improvement in urban pond water quality and consequently in watershed streams is likely to occur in the addressed areas.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems

Outcome #2

1. Outcome Measures

Number of farmers using new fisher management techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

Report Date 11/09/2009 Page 89 of 140

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	20	20

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Home owners in urban areas often become pond caretakers through community covenants and home owners associations. The housing development is centered around a large pond. The pond watershed includes the houses. These neighborhoods are often upscale and have professional lawn services. The result is often high nutrient levels from lawn and garden fertilization entering the pond and creating nuisance aquatic plant and algae problems with attendant consequences of fish kills and odors.

What has been done

On-site visits were made to individual pond owners, home owners associations and representatives of these associations. Pond problems were evaluated and recommendations made concerning remedies for existing problems and methods of preventing future problems. Education was concentrated on nutrient reduction in the watershed and annual pond maintenance.

Results

Pond owners were generally very receptive to proposed solutions to problems. They were interested in working with lawn service enterprises to reduce phosphorus and nitrogen applications to lawn. However, many believed that neighbors would be reluctant to do anything that reduced perceived lawn quality. Some home owners associations produced newsletters and sent them to their members. Best Management Practices for lawn application of fertilizers and other pond related information were included in the newsletters. Aeration devices were installed in some ponds. Overall improvement in urban pond water quality and consequently in watershed streams is likely to occur in the addressed areas.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems

Outcome #3

1. Outcome Measures

Farmers who have improved thier production efficiency and raised their profits with the new fishery management techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	5	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Report Date 11/09/2009 Page 90 of 140

Home owners in urban areas often become pond caretakers through community covenants and home owners associations. The housing development is centered around a large pond. The pond watershed includes the houses. These neighborhoods are often upscale and have professional lawn services. The result is often high nutrient levels from lawn and garden fertilization entering the pond and creating nuisance aquatic plant and algae problems with attendant consequences of fish kills and odors.

What has been done

On-site visits were made to individual pond owners, home owners associations and representatives of these associations. Pond problems were evaluated and recommendations made concerning remedies for existing problems and methods of preventing future problems. Education was concentrated on nutrient reduction in the watershed and annual pond maintenance.

Results

Pond owners were generally very receptive to proposed solutions to problems. They were interested in working with lawn service enterprises to reduce phosphorus and nitrogen applications to lawn. However, many believed that neighbors would be reluctant to do anything that reduced perceived lawn quality. Some home owners associations produced newsletters and sent them to their members. Best Management Practices for lawn application of fertilizers and other pond related information were included in the newsletters. Aeration devices were installed in some ponds. Overall improvement in urban pond water quality and consequently in watershed streams is likely to occur in the addressed areas.

4. Associated Knowledge Areas

	KA	Code	Knowledge	Area
--	----	------	-----------	------

307 Animal Management Systems

V(H). Planned Program (External Factors)

External factors which affected outcomes

• Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Before-After (before and after program)
- During (during program)

Evaluation Results

Some home owners associations produced newsletters and sent them to their members. Best Management Practices for lawn application of fertilizers and other pond related information were included in the newsletters. Aeration devices were installed in some ponds. Overall improvement in urban pond water quality and consequently in watershed streams is likely to occur in some areas.

Key Items of Evaluation

Development and dissemination of best management practices to pond owners

Report Date 11/09/2009 Page 91 of 140

Program #16

V(A). Planned Program (Summary)

1. Name of the Planned Program

Sustainable Internal Parasite Control for Small Ruminants

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
313	Internal Parasites in Animals		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Exter	nsion	Research	
	1862	1890	1862	1890
Plan	0.0	0.5	0.0	0.0
Actual	0.0	0.1	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	19907	0	24827
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	14634	0	14634
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	12554	0	32463

V(D). Planned Program (Activity)

1. Brief description of the Activity

Integrated Internal Parasite Management workshops were conducted (based on Integrated Pest Management principles), to address controlling internal parasites, reduce the development of dewormer resistance and increase the producer's ability to prevent internal parasites.

2. Brief description of the target audience

Goat producers and people anticipating being goat producers

Report Date 11/09/2009 Page 92 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	200	400	0	0
2007	458	458	0	0

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Direct and indirect contact with adults

Year Target Actual 2007 {No Data Entered} 458

Report Date 11/09/2009 Page 93 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of goat producers learning internal parasite control techniques.
2	Number of goat producers using internal parasite control techniques.
3	Goat producers who have gotten internal parasites under control by using the learned control technique.

Report Date 11/09/2009 Page 94 of 140

Outcome #1

1. Outcome Measures

Number of goat producers learning internal parasite control techniques.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	200	458

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Internal parasites are the most important health issue in small ruminants; causing greater morbidity, mortality and lost production than the next three most important diseases. The problems with internal parasites include lack of knowledge on biology and management practices to control them, internet disinformation and dewormer resistance.

What has been done

Parasite workshops were conducted at 7 locations around the state in response to producer requests through their local county extension service. The workshops required nearly a full day and included training on biology and management of parasites, dewormers and dewormer resistance and hands-on evaluation of internal parasite symptoms in live animals and training producers to do their own fecal egg count.

Results

Last summer (2007) was the wettest year on record in Oklahoma, resulting in higher than normal internal parasite problems. Many of our parasite workshop participants reported that they had not lost a goat in contrast to other local goat producers. Two producers called to say that they had identified dewormer resistance in animals that they bought and were able to take corrective action. Participation in this program has helped goat producers reduce herd loss from internal parasite infestations.

4. Associated Knowledge Areas

KA Code	Knowledge Area
313	Internal Parasites in Animals

Outcome #2

1. Outcome Measures

Number of goat producers using internal parasite control techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	50	50

3c. Qualitative Outcome or Impact Statement

Report Date 11/09/2009 Page 95 of 140

Issue (Who cares and Why)

Internal parasites are the most important health issue in small ruminants, causing greater morbidity, mortality and lost production than the next three most important diseases. The problems with internal parasites include lack of knowledge on biology and management practices to control them, internet disinformation and dewormer resistance.

What has been done

Parasite workshops were conducted at 7 locations around the state in response to producer requests through their local county extension service. The workshops required nearly a full day and included training on biology and management of parasites, dewormers and dewormer resistance and hands-on evaluation of internal parasite symptoms in live animals and training producers to do their own fecal egg count.

Results

Last summer (2007) was the wettest year on record in Oklahoma, resulting in higher than normal internal parasite problems. Many of our parasite workshop participants reported that they had not lost a goat in contrast to other local goat producers. Two producers called to say that they had identified dewormer resistance in animals that they bought and were able to take corrective action. Participation in this program has helped goat producers reduce herd loss from internal parasite infestations.

4. Associated Knowledge Areas

KA Code	Knowledge Area
313	Internal Parasites in Animals

Outcome #3

1. Outcome Measures

Goat producers who have gotten internal parasites under control by using the learned control technique.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	15	458

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Internal parasites are the most important health issue in small ruminants, causing greater morbidity, mortality and lost production than the next three most important diseases. The problems with internal parasites include lack of knowledge on biology and management practices to control them, internet disinformation and dewormer resistance.

What has been done

Parasite workshops were conducted at 7 locations around the state in response to producer requests through their local county extension service. The workshops required nearly a full day and included training on biology and management of parasites, dewormers and dewormer resistance and hands-on evaluation of internal parasite symptoms in live animals and training producers to do their own fecal egg count.

Results

Last summer (2007) was the wettest year on record in Oklahoma, resulting in higher than normal internal parasite problems. Many of our parasite workshop participants reported that they had not lost a goat in contrast to other local goat producers. Two producers called to say that they had identified dewormer resistance in animals that they bought and were able to take corrective action. Participation in this program has helped goat producers reduce herd loss from internal parasite infestations.

Report Date 11/09/2009 Page 96 of 140

4. Associated Knowledge Areas

KA Code Knowledge Area

313 Internal Parasites in Animals

V(H). Planned Program (External Factors)

External factors which affected outcomes

Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

Internal parasites are the most important health issue in small ruminants, causing greater morbidity, mortality and lost production than the next three most important diseases. The problems with internal parasites include lack of knowledge on biology and management practices to control them, internet disinformation and dewormer resistance.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

Retrospective (post program)

Evaluation Results

Last summer (2007) was the wettest year on record in Oklahoma, resulting in higher than normal internal parasite problems. Many of our parasite workshop participants reported that they had not lost a goat in contrast to other local goat producers. Two producers called to say that they had identified dewormer resistance in animals that they bought and were able to take corrective action.

Key Items of Evaluation

Provided workshops on internal parasite control in goats Skills developed by participants in internal parasite control

Report Date 11/09/2009 Page 97 of 140

Program #17

V(A). Planned Program (Summary)

1. Name of the Planned Program

Goat Internet Website

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
903	Communication, Education, and Information Delivery		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Exter	nsion	R	esearch
	1862	1890	1862	1890
Plan	0.0	0.2	0.0	0.0
Actual	0.0	0.1	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	16497	0	29673
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	14934	0	14934
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	12554	0	32463

V(D). Planned Program (Activity)

1. Brief description of the Activity

Langston University was awarded funding by the Food Safety and Inspection Service of USDA to develop training and certification for meat goat producers. Langston University organized and led a consortium of 1890 Universities and producer associations in this project. The consortium identified the subject topics most pertinent and pressing for the instructional modules. The consortium then identified experts on the selected subject topics and pursued those experts as module authors. The authors represented the most qualified persons in their field in academia as well as in the industry. Langston University translated the 22 instructional modules into web pages with accompanying images, and pre- and post-tests for those producers wishing to pursue certification. All modules are also available in pdf for easy printing and the introductory module is available as a podchapter for downloading and listening on an mp3 player. The web-site (http://www2.luresext.edu/goats/training/ga.html) was well-received by the goat producers community.

2. Brief description of the target audience

Dairy and meat goat producers; extension educators

Report Date 11/09/2009 Page 98 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	200	800	0	0
2007	605	605	0	0

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Research Projects completed on Goat Internet Website.

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 99 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of goat producers learning about information found on the goat internet website.
2	Number of goat producers using the goat internet website.
3	Goat producers who improved their operations with information from the goat internet website.

Report Date 11/09/2009 Page 100 of 140

Outcome #1

1. Outcome Measures

Number of goat producers learning about information found on the goat internet website.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	800	605

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Meat goat production is one of the fastest growing sectors of the livestock industry in the United States. New producers, as well as some established ones, have an expressed need for current, correct information on how to raise goats and produce safe, wholesome products in demand by the public. As the meat goat industry grows and evolves, a quality assurance (QA) program is essential. Such a QA program ensures the production of a wholesome product that satisfies consumers and increases profits for the meat goat industry.

What has been done

Langston University was awarded funding by the Food Safety and Inspection Service of USDA to develop training and certification for meat goat producers. Langston University organized and led a consortium of 1890 Universities and producer associations in this project. The consortium identified the subject topics most pertinent and pressing for the instructional modules. The consortium then identified experts on the selected subject topics and pursued these experts as module authors. These authors represented the most qualified persons in their field in academia as well as in the industry. Langston University translated the 22 instructional modules into web pages with accompanying images, and pre- and post- tests for those producers wishing to pursue certification. All modules are also available in pdf for easy printing and the introductory module is available as a podchapter for downloading and listening on an mp3 player. The web-site (http://www2.luresext.edu/goats/training/qa.html) was well-received by the goat producers community.

Results

Six hundred five (605) goat producers have enrolled in the on-line certification program and fifty-two goat producers have been certified via the site to date. They represent nearly every state in the United States and several provinces in Canada. Knowledge gained from this program by goat producers can help them use best practices to potentially increase their profits in goat meat production.

4. Associated Knowledge Areas

KA Code	Knowledge Area
903	Communication, Education, and Information Delivery

Outcome #2

1. Outcome Measures

Number of goat producers using the goat internet website.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

Report Date 11/09/2009 Page 101 of 140

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	500	52

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Meat goat production is one of the fastest growing sectors of the livestock industry in the United States. New producers, as well as some established ones, have an expressed need for current, correct information on how to raise goats and produce safe, wholesome products in demand by the public. As the meat goat industry grows and evolves, a quality assurance (QA) program is essential. Such a QA program ensures the production of a wholesome product that satisfies consumers and increases profits for the meat goat industry.

What has been done

Langston University was awarded funding by the Food Safety and Inspection Service of USDA to develop training and certification for meat goat producers. Langston University organized and led a consortium of 1890 Universities and producer associations in this project. The consortium identified the subject topics most pertinent and pressing for the instructional modules. The consortium then identified experts on the selected subject topics and pursued these experts as module authors. These authors represented the most qualified persons in their field in academia as well as in the industry. Langston University translated the 22 instructional modules into web pages with accompanying images, and pre- and post- tests for those producers wishing to pursue certification. All modules are also available in pdf for easy printing and the introductory module is available as a podchapter for downloading and listening on an mp3 player. The web-site (http://www2.luresext.edu/goats/training/qa.html) was well-received by the goat producers community.

Results

Six hundred five (605) goat producers have enrolled in the on-line certification program and fifty-two goat producers have been certified via the site to date. They represent nearly every state in the United States and several provinces in Canada. Knowledge gained from this program by goat producers can help them use best practices to potentially increase their profits in goat meat production.

4. Associated Knowledge Areas

KA Code	Knowledge Area		
903	Communication, Education, and Information Delivery		

Outcome #3

1. Outcome Measures

Goat producers who improved their operations with information from the goat internet website.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	50	605

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Report Date 11/09/2009 Page 102 of 140

Meat goat production is one of the fastest growing sectors of the livestock industry in the United States. New producers, as well as some established ones, have an expressed need for current, correct information on how to raise goats and produce safe, wholesome products in demand by the public. As the meat goat industry grows and evolves, a quality assurance (QA) program is essential. Such a QA program ensures the production of a wholesome product that satisfies consumers and increases profits for the meat goat industry.

What has been done

Langston University was awarded funding by the Food Safety and Inspection Service of USDA to develop training and certification for meat goat producers. Langston University organized and led a consortium of 1890 Universities and producer associations in this project. The consortium identified the subject topics most pertinent and pressing for the instructional modules. The consortium then identified experts on the selected subject topics and pursued these experts as module authors. These authors represented the most qualified persons in their field in academia as well as in the industry. Langston University translated the 22 instructional modules into web pages with accompanying images, and pre- and post- tests for those producers wishing to pursue certification. All modules are also available in pdf for easy printing and the introductory module is available as a podchapter for downloading and listening an mp3 player. The web-site (http://www2.luresext.edu/goats/training/qa.html) was well-received by the goat producers community.

Results

Six hundred five (605) goat producers have enrolled in the on-line certification program and fifty-two goat producers have been certified via the site to date. They represent nearly every state in the United States and several provinces in Canada. Knowledge gained from this program by goat producers can help them use best practices to potentially increase their profits in goat meat production.

4. Associated Knowledge Areas

KA Code	Knowledge Area
903	Communication, Education, and Information Delivery

V(H). Planned Program (External Factors)

External factors which affected outcomes

Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- Time series (multiple points before and after program)

Evaluation Results

Six-hundred-five (605) goat producers have enrolled in the on-line certification program and fifty-two goat producers have been certified via the site to date. They represent nearly every state in the United States and several provinces in Canada. The online certification training will help goat producers improve goat production practices.

Key Items of Evaluation

Report Date 11/09/2009 Page 103 of 140

Two Stakeholder Testimonials:

Lastly, I would like to commend the Goat Research Department for facilitating the collaboration of this worthy program. As a new goat rancher (only 3 years) I found valuable information in each module which has had a positive impact on my goat herd. I have shared information on your program with fellow goat herders, along with my local goat association president. Hopefully, more Northern Kentucky producers will utilize this terrific resource.

Sincerely,

Deborah S. Hill 3983 Akin Lane Burlington, Kentucky 41005 hilld@hughes.net

Terry,

Thank you very much for your prompt reply. I got in and am doing the Q&A. I am convinced that this program will have a bigger positive affect on goat production than what anybody could imagined when you started out. I congratulate you and your colleagues.

Rian Kruger

Report Date 11/09/2009 Page 104 of 140

Program #18

V(A). Planned Program (Summary)

1. Name of the Planned Program

Development of New Dairy Goat Products

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
502	New and Improved Food Products		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Exter	nsion	Research	
	1862	1890	1862	1890
Plan	0.0	0.1	0.0	0.0
Actual	0.0	0.2	0.0	0.1

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	24110	0	29438
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	14634	0	14634
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	12554	0	32463

V(D). Planned Program (Activity)

1. Brief description of the Activity

We provided individual training on cheese technology and conducted workshops on goat milk processing.

2. Brief description of the target audience

Goat milk producers, processors, consumers, and regulators

Report Date 11/09/2009 Page 105 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	200	400	0	0
2007	250	350	0	0

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Goat producers without cheesemaking and soapmaking experiences were taught basic skills.

Year Target Actual 2007 {No Data Entered} 100

Report Date 11/09/2009 Page 106 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of goat producers learning about techniques for developing new dairy goat products.
2	Number of goat producers using techniques for developing new dairy goat products.
3	Goat producers developing increasing yearly income from new dairy goat products.

Report Date 11/09/2009 Page 107 of 140

Outcome #1

1. Outcome Measures

Number of goat producers learning about techniques for developing new dairy goat products.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	200	250

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The consumption of goat milk and cheese and the popularity of goat milk soap in the U.S. have been on the rise in recent years. To meet the demand for goat milk cheese and goat milk soap and increase profitability of goat dairying, dairy goat producers need skills and techniques to produce high quality goat milk products.

What has been done

We have conducted much-needed training courses for goat milk cheeses and goat milk soap production; in addition to our annual cheesemaking workshops. To promote the dairy goat industry and add value to goat milk, 3 cheesemaking workshops and 1 soapmaking workshop were conducted on and off campus. Hands-on cheesemaking and soapmaking procedures and techniques were demonstrated to goat producers, school teachers, physicians and 4-H members. Different varieties of cheese and soap were made for diversified audiences. Milk quality control measures, practical skills, and product development evaluation basics were presented to goat producers.

Results

Goat producers without cheesemaking and soapmaking experiences were taught basic skills. Most of them have recently started cheesemaking and/or soapmaking at home and several are going commercial. By making goat milk products and adding value to goat milk, goat producers are increasing their income in goat production.

4. Associated Knowledge Areas

KA Code	Knowledge Area	
502	New and Improved Food Products	

Outcome #2

1. Outcome Measures

Number of goat producers using techniques for developing new dairy goat products.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	40	150

3c. Qualitative Outcome or Impact Statement

Report Date 11/09/2009 Page 108 of 140

Issue (Who cares and Why)

The consumption of goat milk and cheese and the popularity of goat milk soap in the U.S. have been on the rise in recent years. To meet the demand for goat milk cheese and goat milk soap and increase profitability of goat dairying, dairy goat producers need skills and techniques to produce high quality goat milk products.

What has been done

We have conducted much-needed training courses for goat milk cheeses and goat milk soap production; in addition to our annual cheesemaking workshops. To promote the dairy goat industry and add value to goat milk, 3 cheesemaking workshops and 1 soapmaking workshop were conducted on and off campus. Hands-on cheesemaking and soapmaking procedures and techniques were demonstrated to goat producers, school teachers, physicians and 4-H members. Different varieties of cheese and soap were made for diversified audiences. Milk quality control measures, practical skills, and product development evaluation basics were presented to goat producers.

Results

Goat producers without cheesemaking and soapmaking experiences were taught basic skills. Most of them have recently started cheesemaking and/or soapmaking at home and several are going commercial. By making goat milk products and adding value to goat milk, goat producers are increasing their income in goat production.

4. Associated Knowledge Areas

KA Code	Knowledge Area
502	New and Improved Food Products

Outcome #3

1. Outcome Measures

Goat producers developing increasing yearly income from new dairy goat products.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	5	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The consumption of goat milk and cheese and the popularity of goat milk soap in the U.S. have been on the rise in recent years. To meet the demand for goat milk cheese and goat milk soap and increase profitability of goat dairying, dairy goat producers need skills and techniques to produce high quality goat milk products.

What has been done

We have conducted much-needed training courses for goat milk cheeses and goat milk soap production; in addition to our annual cheesemaking workshops. To promote the dairy goat industry and add value to goat milk, 3 cheesemaking workshops and 1 soapmaking workshop were conducted on and off campus. Hands-on cheesemaking and soapmaking procedures and techniques were demonstrated to goat producers, school teachers, physicians and 4-H members. Different varieties of cheese and soap were made for diversified audiences. Milk quality control measures, practical skills, and product development evaluation basics were presented to goat producers.

Results

Goat producers without cheesemaking and soapmaking experiences were taught basic skills. Most of them have recently started cheesemaking and/or soapmaking at home and several are going commercial. By making goat milk products and adding value to goat milk, goat producers are increasing their income in goat production.

Report Date 11/09/2009 Page 109 of 140

4. Associated Knowledge Areas

KA Code Knowledge Area

502 New and Improved Food Products

V(H). Planned Program (External Factors)

External factors which affected outcomes

Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

The consumption of goat milk and cheese and the popularity of goat milk soap in the U.S. have been on the rise in recent years. To meet the demand for goat milk cheese and goat milk soap and increase profitability of goat dairying, dairy goat producers need skills and techniques to produce high quality goat milk products.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Before-After (before and after program)

Evaluation Results

Goat producers where taught how to make cheese and soap from goat milk. Most of them have recently started cheesemaking and/or soapmaking at home and several are going commercial. By making goat milk products and adding value to goat milk, goat producers increase their income.

Key Items of Evaluation

The increased number of dairy goat producers making goat milk cheese and soap.

Report Date 11/09/2009 Page 110 of 140

Program #19

V(A). Planned Program (Summary)

1. Name of the Planned Program

Demonstration Clinic: Artificial Insemination for Goats

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
301	Reproductive Performance of Animals		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Exter	nsion	R	esearch
	1862	1890	1862	1890
Plan	0.0	0.1	0.0	0.0
Actual	0.0	0.1	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	20370	0	31503
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	14634	0	14634
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	12554	0	32463

V(D). Planned Program (Activity)

1. Brief description of the Activity

In 2007, Artifical Insemination workshops were held on 09/08/07 at the Langston University campus, on 10/06/07 at the county fairgrounds in Tahlequah and on 10/20/07 at the county fairgrounds in Antlers. Sixty participants enrolled in the three workshops; 27 at Langston University, 12 in Tahlequah and 21 in Antlers.

2. Brief description of the target audience

Dairy and meat goat producers; extension educators

Report Date 11/09/2009 Page 111 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	40	100	0	0
2007	60	150	0	0

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

Patent Applications Submitted

Year Target Plan: 0

2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of direct adult contacts

Year Target Actual 2007 {No Data Entered} 150

Report Date 11/09/2009 Page 112 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of goat producers learning about artificial insemination techniques.
2	Number of goat producers using artificial insemination techniques.
3	Goat producers who improved their herds by using artificial insemination techniques.

Report Date 11/09/2009 Page 113 of 140

Outcome #1

1. Outcome Measures

Number of goat producers learning about artificial insemination techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	40	60

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The use of superior sires is imperative in improving the genetic composition of breeding stock. Artificial Insemination (AI) has long been used in the dairy cattle industry and is a simple technology that goat producers can acquire. However, opportunities for goat producers to acquire the necessary skills via formal and practical instruction are not widespread. Langston University has instituted a practical workshop for instruction in artificial insemination in goats. Producers are instructed in the anatomy and physiology of the female goat, estrus detection and handling and storage of semen. Producers participate in a hands-on insemination exercise. An understanding of the anatomy and physiology of goats enables the producer to devise seasonal breeding plans and to troubleshoot problem breeders.

What has been done

In 2007, Artificial Insemination (AI) workshops were held on 09/08/07 at the Langston University campus, on 10/06/07 at the county fairgrounds in Tahlequah and on 10/20/07 at the county fairgrounds in Antlers. Sixty participants enrolled in the three workshops; 27 at Langston University, 12 in Tahlequah and 21 in Antlers.

Results

Three workshops were held in AI for goats. Goat producers are under-served in this area because traditional AI courses are geared toward cattle and the AI techniques differ drastically between the species. Goat producers participating in the workshops can save money by being able to conduct their own artificial inseminations. They can also potentially improve their herds with access to genetic material from superior sires.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals

Outcome #2

1. Outcome Measures

Number of goat producers using artificial insemination techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

Report Date 11/09/2009 Page 114 of 140

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	20	60

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The use of superior sires is imperative in improving the genetic composition of breeding stock. Artificial insemination has long been used in the dairy cattle industry and is a simple technology that goat producers can acquire. However, opportunities for goat producers to acquire the necessary skills via formal and practical instruction are not widespread. Langston University has instituted a practical workshop for instruction in artificial insemination in goats. Producers are instructed in the anatomy and physiology of the female goat, estrus detection and handling and storage of semen. Producers participate in a hands-on insemination exercise. An understanding of the anatomy and physiology of goats enables the producer to devise seasonal breeding plans and to troubleshoot problem breeders.

What has been done

In 2007, Artificial Insemination (AI) workshops were held on 09/08/07 at the Langston University campus, on 10/06/07 at the county fairgrounds in Tahlequah and on 10/20/07 at the county fairgrounds in Antlers. Sixty participants enrolled in the three workshops; 27 at Langston University, 12 in Tahlequah and 21 in Antlers.

Results

Three workshops were held in AI for goats. Goat producers are under-served in this area because traditional AI courses are geared toward cattle and the AI techniques differ drastically between the species. Goat producers participating in the workshops can save money by being able to conduct their own artificial inseminations. They can also potentially improve their herds with access to genetic material from superior sires.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals

Outcome #3

1. Outcome Measures

Goat producers who improved their herds by using artificial insemination techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	2	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Report Date 11/09/2009 Page 115 of 140

The use of superior sires is imperative in improving the genetic composition of breeding stock. Artificial insemination has long been used in the dairy cattle industry and is a simple technology that goat producers can acquire. However, opportunities for goat producers to acquire the necessary skills via formal and practical instruction are not widespread. Langston University has instituted a practical workshop for instruction in artificial insemination in goats. Producers are instructed in the anatomy and physiology of the female goat, estrus detection and handling and storage of semen. Producers participate in a hands-on insemination exercise. An understanding of the anatomy and physiology of goats enables the producer to devise seasonal breeding plans and to troubleshoot problem breeders.

What has been done

In 2007. Artificial Insemination (AI) workshops were held on 09/08/07 at the Langston University campus, on 10/06/07 at the county fairgrounds in Tahlequah and on 10/20/07 at the county fairgrounds in Antlers. Sixty participants enrolled in the three workshops; 27 at Langston University, 12 in Tahlequah and 21 in Antlers.

Results

Three workshops were held in AI for goats. Goat producers are under-served in this area because traditional AI courses are geared toward cattle and the AI techniques differ drastically between the species. Goat producers participating in the workshops can save money by being able to conduct their own artificial inseminations. They can also potentially improve their herds with access to genetic material from superior sires.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals

V(H). Planned Program (External Factors)

External factors which affected outcomes

• Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

• Time series (multiple points before and after program)

Evaluation Results

Three workshops were held in AI for goats. Goat producers are under-served in this area because traditional AI courses are geared toward cattle and the AI techniques differ drastically between the species. Goat producers participating in the workshops can save money by being able to conduct their own artificial inseminations. They can also potentially improve their herds with access to genetic material from superior sires.

Key Items of Evaluation

•Techniques on goat care taught •Techniques on recognition and responsing to goat diseases taught •Goat artifical insemination techniques taught

Report Date 11/09/2009 Page 116 of 140

Program #20

V(A). Planned Program (Summary)

1. Name of the Planned Program

Fish Marketing (Aquaculture)

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
601	Economics of Agricultural Production and Farm Management		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Exter	nsion	R	esearch
	1862	1890	1862	1890
Plan	0.0	0.5	0.0	1.5
Actual	0.0	0.4	0.0	0.2

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	36137	0	40166
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	14558	0	14558
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	12554	0	29298

V(D). Planned Program (Activity)

1. Brief description of the Activity

We used campus sales to determine the sizes of channel catfish, grass carp and bigmouth buffalo preferred by local consumers. The information was transferred to producers at the Langston University Aquaculture Field Day and at meetings of the Oklahoma and Kansas Aquaculture Associations.

2. Brief description of the target audience

Buyers, producers and sellers of food fish.

Report Date 11/09/2009 Page 117 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	100	300	0	0
2007	300	300	0	0

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Research Projects completed on Fish Marketing.

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 118 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of farmers learning new fish marketing techniques.
2	Number of farmers using new fish marketing techniques.
3	Farmers who use new fish marketing techniques to increase their profits.

Report Date 11/09/2009 Page 119 of 140

Outcome #1

1. Outcome Measures

Number of farmers learning new fish marketing techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	50	150

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Channel catfish producers need additional marketing opportunities to offset low prices from processors and competition from imported catfish products. Consumers want more product choices, including kinds and sizes of live fish, vs. fish processed by any means.

What has been done

We used campus sales to determine the sizes of channel catfish, grass carp and bigmouth buffalo preferred by local consumers. The information was transferred to producers at the Langston University Aquaculture Field Day and at meetings of the Oklahoma and Kansas Aquaculture Associations.

Results

Producers are beginning to market live channel catfish to Asian markets. African American brokers are purchasing increasing amounts of channel catfish for resale. Only one broker purchased buffalo, but 12% of individuals did. Fish broking has allowed more fish entrepreneurs to earn profits through fish sales.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management

Outcome #2

1. Outcome Measures

Number of farmers using new fish marketing techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	10	10

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Report Date 11/09/2009 Page 120 of 140

Channel catfish producers need additional marketing opportunities to offset low prices from processors and competition from imported catfish products. Consumers want more product choices, including kinds and sizes of live fish, vs. fish processed by any means.

What has been done

We used campus sales to determine the sizes of channel catfish, grass carp and bigmouth buffalo preferred by local consumers. The information was transferred to producers at the Langston University Aquaculture Field Day and at meetings of the Oklahoma and Kansas Aquaculture Associations.

Results

Producers are beginning to market live channel catfish to Asian markets. African American brokers are purchasing increasing amounts of channel catfish for resale. Only one broker purchased buffalo, but 12% of individuals did. Fish broking has allowed more fish entrepreneurs to earn profits through fish sales.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management

Outcome #3

1. Outcome Measures

Farmers who use new fish marketing techniques to increase their profits.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	5	150

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Channel catfish producers need additional marketing opportunities to offset low prices from processors and competition from imported catfish products. Consumers want more product choices, including kinds and sizes of live fish, vs. fish processed by any means.

What has been done

We used campus sales to determine the sizes of channel catfish, grass carp and bigmouth buffalo preferred by local consumers. The information was transferred to producers at the Langston University Aquaculture Field Day and at meetings of the Oklahoma and Kansas Aquaculture Associations.

Results

Producers are beginning to market live channel catfish to Asian markets. African American brokers are purchasing increasing amounts of channel catfish for resale. Only one broker purchased buffalo, but 12% of individuals did. Fish broking has allowed more fish entrepreneurs to earn profits through fish sales.

4. Associated Knowledge Areas

KA Code	Knowledge Area
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.)

Report Date 11/09/2009 Page 121 of 140

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)

Evaluation Results

As a result of dissemination of information from this program, producers are beginning to market live channel catfish to Asian markets. African American brokers are purchasing large amounts of channel catfish for resale. Fish broking has allowed more fish entrepreneurs to earn profits through fish sales.

Key Items of Evaluation

Fish producers improving their income with direct marketing of fish

Report Date 11/09/2009 Page 122 of 140

Program #21

V(A). Planned Program (Summary)

1. Name of the Planned Program

Meat Buck Performance Test

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
303	Genetic Improvement of Animals		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	O7 Extension Research		esearch	
	1862	1890	1862	1890
Plan	0.0	0.2	0.0	0.0
Actual	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	23433	0	23596
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	14634	0	14634
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	12554	0	32463

V(D). Planned Program (Activity)

1. Brief description of the Activity

Report Date 11/09/2009 Page 123 of 140

An influential aspect of meat goat production is the growth rate and/or efficiency of kids. Objective performance records are needed when making informed genetic selections to improve average daily gain and/or feed efficiency. In order to compare animals from different ranches or environments, central performance meat buck testing is conducted. In 1997, Langston University established a meat buck performance test to promote the identification and increase utilization of genetically superior sires.

The eleventh annual meat buck performance test started May 5, 2007 with 23 bucks enrolled from 6 different breeders. Geographical distribution is given in the table below.

State	Bucks
MO	4
OK	3
TX	16
Total	23

2. Brief description of the target audience

Meat goat producers; extension educators

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	50	100	0	0
2007	10	181	0	0

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

Patent Applications Submitted

Year Target Plan: 0
2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Report Date 11/09/2009 Page 124 of 140

Output #1

Output Measure

Number of Research Projects completed on Meat Buck Performance Test.

Year	Target	Actual
2007	0	0

Output #2

Output Measure

Number of Research Projects completed on Meat Buck Performance Test.

Year	Target	Actual
2007	{No Data Entered}	0

Report Date 11/09/2009 Page 125 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of goat producers learning about the meat buck performance test.
2	Number of goat producers using the meat goat performance test.
3	Goat producers who improve their herds via the meat buck performance test.

Report Date 11/09/2009 Page 126 of 140

Outcome #1

1. Outcome Measures

Number of goat producers learning about the meat buck performance test.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	100	10

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

An influential aspect of meat goat production is the growth rate and/or efficiency of kids. Objective performance records are needed when making informed genetic selections to improve average daily gain and/or feed efficiency. In order to compare animals from different ranches or environments, central performance meat buck testing is conducted. In 1997, Langston University established a meat buck performance test to promote the identification and increase utilization of genetically superior sires.

What has been done

The eleventh annual meat buck performance test started May 5, 2007 with 23 bucks enrolled from 6 different breeders.

Results

The meat buck performance test has enabled goat producers to demand higher prices for goats sold on the market because of their performance test. Some producers have been able to purchase more superior goat breeds and improve their herds. This increases the potentials for future profits.

4. Associated Knowledge Areas

KA Code	Knowledge Area
303	Genetic Improvement of Animals

Outcome #2

1. Outcome Measures

Number of goat producers using the meat goat performance test.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	50	10

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Report Date 11/09/2009 Page 127 of 140

An influential aspect of meat goat production is the growth rate and/or efficiency of kids. Objective performance records are needed when making informed genetic selections to improve average daily gain and/or feed efficiency. In order to compare animals from different ranches or environments, central performance meat buck testing is conducted. In 1997, Langston University established a meat buck performance test to promote the identification and increase utilization of genetically superior sires.

What has been done

The eleventh annual meat buck performance test started May 5, 2007 with 23 bucks enrolled from 6 different breeders.

Results

The meat buck performance test has enabled goat producers to demand higher prices for goats sold on the market because of their performance test. Some producers have been able to purchase more superior goat breeds and improve their herds. This increases the potentials for future profits.

4. Associated Knowledge Areas

KA Code	Knowled	lge Area
303	Genetic	Improvement of Animals

Outcome #3

1. Outcome Measures

Goat producers who improve their herds via the meat buck performance test.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	5	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

An influential aspect of meat goat production is the growth rate and/or efficiency of kids. Objective performance records are needed when making informed genetic selections to improve average daily gain and/or feed efficiency. In order to compare animals from different ranches or environments, central performance meat buck testing is conducted. In 1997, Langston University established a meat buck performance test to promote the identification and increase utilization of genetically superior sires.

What has been done

The eleventh annual meat buck performance test started May 5, 2007 with 23 bucks enrolled from 6 different breeders.

Results

The meat buck performance test has enabled goat producers to demand higher prices for goats sold on the market because of their performance test. Some producers have been able to purchase more superior goat breeds and improve their herds. This increases the potentials for future profits.

4. Associated Knowledge Areas

KA Code	Knowled	lge Area
303	Genetic	Improvement of Animals

Report Date 11/09/2009 Page 128 of 140

V(H). Planned Program (External Factors)

External factors which affected outcomes

Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

An influential aspect of meat goat production is the growth rate and/or efficiency of kids. Objective performance records are needed when making informed genetic selections to improve average daily gain and/or feed efficiency. In order to compare animals from different ranches or environments, central performance meat buck testing is conducted. In 1997, Langston University established a meat buck performance test to promote the identification and increase utilization of genetically superior sires.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

• Time series (multiple points before and after program)

Evaluation Results

The meat buck performance test has enabled goat producers to demand higher prices for goats sold on the market because of their positive performance test. Some producers have been able to purchase more superior goat breeds and improve their herds. This increases the potentials for future profits.

Key Items of Evaluation

Allowing goat producers to get accurate performance records on their meat bucks.

Report Date 11/09/2009 Page 129 of 140

Program #22

V(A). Planned Program (Summary)

1. Name of the Planned Program

Goat Dairy Herd Improvement (DHI) Laboratory

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
308	Improved Animal Products (Before Harvest)		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Exter	Extension		esearch
	1862	1890	1862	1890
Plan	0.0	1.1	0.0	0.0
Actual	0.0	0.1	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	22560	0	44895
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	14634	0	14634
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	12554	0	32463

V(D). Planned Program (Activity)

1. Brief description of the Activity

Daily analysis of goat milk samples year-round; Tester/supervisor training; Workshops on DHI operation; Laboratory certification.

2. Brief description of the target audience

Goat milk producers, processors, consumers, and regulators

Report Date 11/09/2009 Page 130 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	1000	1000	0	0
2007	250	1000	0	0

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

Patent Applications Submitted

Year Target Plan: 0

2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Research Projects completed on Goat Dairy Herd Improvement (DHI) Laboratory.

Year	Target	Actual
2007	0	0

Report Date 11/09/2009 Page 131 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of goat producers who learned about the Goat Dairy Herd Improvement Laboratory.
2	Number of goat producers who are using teh Goat Dairy Herd Improvement Laboratory.
3	Goat producers who have increased their production profits by utilizing the Goat Dairy Herd Improvement Laboratory.

Report Date 11/09/2009 Page 132 of 140

Outcome #1

1. Outcome Measures

Number of goat producers who learned about the Goat Dairy Herd Improvement Laboratory.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	1000	120

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Dairy Herd Improvement Association (DHIA) has been serving cow producers for decades. However, dairy goat producers had to deal with records written in cow language. This meant that they could not get accurate information in goat terms and that all the reports reflected cows, bulls and calves rather than does, bucks and kids. The records produced by our DHI lab are used to identify high producing does. These records are useful for the exportation of these does to foreign countries and accurate data could enhance the resale value of does and their offspring for producers domestically as well.

What has been done

Langston University established a certified DHI laboratory that operates under the supervision of the National DHIA to provide services to goat producers in the nation. We have also worked in cooperation with Texas A&M University to write a program that utilizes goat language. This program produces records with dairy goat breeds along with correct sex identification and expected delivery dates for pregnant does.

Results

Goat producers are now able to get records for their animals that reflect accurate information with the correct language. These records not only reflect higher fat and protein values for a doe, but also are easier to understand when used for genetic evaluation and for herd management. Currently, we are serving 120 goat producers in 30 states. Information provided by the Langston University DHI Laboratory has allowed goat producers to demand higher prices for their animals during sales.

4. Associated Knowledge Areas

KA Code	Knowledge Area
308	Improved Animal Products (Before Harvest)

Outcome #2

1. Outcome Measures

Number of goat producers who are using teh Goat Dairy Herd Improvement Laboratory.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

Report Date 11/09/2009 Page 133 of 140

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	1500	120

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Dairy Herd Improvement Association (DHIA) has been serving cow producers for decades. However, dairy goat producers had to deal with records written in cow language. This meant that they could not get accurate information in goat terms and that all the reports reflected cows, bulls and calves rather than does, bucks and kids. The records produced by our DHI lab are used to identify high producing does. These records are useful for the exportation of these does to foreign countries and accurate data could enhance the resale value of does and their offspring for producers domestically as well.

What has been done

Langston University established a certified DHI laboratory that operates under the supervision of the National DHIA to provide services to goat producers in the nation. We have also worked in cooperation with Texas A&M University to write a program that utilizes goat language. This program produces records with dairy goat breeds along with correct sex identification and expected delivery dates for pregnant does.

Results

Goat producers are now able to get records for their animals that reflect accurate information with the correct language. These records not only reflect higher fat and protein values for a doe, but also are easier to understand when used for genetic evaluation and for herd management. Currently, we are serving 120 goat producers in 30 states. Information provided by the Langston University DHI Laboratory has allowed goat producers to demand higher prices for their animals during sales.

4. Associated Knowledge Areas

KA Code	Knowledge Area
308	Improved Animal Products (Before Harvest)

Outcome #3

1. Outcome Measures

Goat producers who have increased their production profits by utilizing the Goat Dairy Herd Improvement Laboratory.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	20	120

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Report Date 11/09/2009 Page 134 of 140

The Dairy Herd Improvement Association (DHIA) has been serving cow producers for decades. However, dairy goat producers had to deal with records written in cow language. This meant that they could not get accurate information in goat terms and that all the reports reflected cows, bulls and calves rather than does, bucks and kids. The records produced by our DHI lab are used to identify high producing does. These records are useful for the exportation of these does to foreign countries and accurate data could enhance the resale value of does and their offspring for producers domestically as well.

What has been done

Langston University established a certified DHI laboratory that operates under the supervision of the National DHIA to provide services to goat producers in the nation. We have also worked in cooperation with Texas A&M University to write a program that utilizes goat language. This program produces records with dairy goat breeds along with correct sex identification and expected delivery dates for pregnant does.

Results

Goat producers are now able to get records for their animals that reflect accurate information with the correct language. These records not only reflect higher fat and protein values for a doe, but also are easier to understand when used for genetic evaluation and for herd management. Currently, we are serving 120 goat producers in 30 states. Information provided by the Langston University DHI Laboratory has allowed goat producers to demand higher prices for their animals during sales.

4. Associated Knowledge Areas

KA Code	Knowledge Area
308	Improved Animal Products (Before Harvest)

V(H). Planned Program (External Factors)

External factors which affected outcomes

• Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

During (during program)

Evaluation Results

Goat producers are now able to get records for their animals that reflect accurate information with the correct language. These records not only reflect higher fat and protein values for a doe, but also are easier to understand when used for genetic evaluation and for herd management. Information provided by the Langston University DHI Laboratory has allowed goat producers to demand higher prices for their animals during sales.

Key Items of Evaluation

Assist goat producers in getting accurate fat and protein values for their goat milk

Report Date 11/09/2009 Page 135 of 140

Program #23

V(A). Planned Program (Summary)

1. Name of the Planned Program

Small Farms Systems

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
205	Plant Management Systems		100%		100%
	Total		100%		100%

V(C). Planned Program (Inputs)

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

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.5	0.0	0.5
Actual	0.0	0.0	0.0	0.0

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

Exter	nsion	Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

This program is still in the process of being initiated. No funds were expended in this area during FY 2007.

2. Brief description of the target audience

All farmers in Oklahoma.

Report Date 11/09/2009 Page 136 of 140

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

Year	Direct Contacts Adults Target	Indirect Contacts Adults Target	Direct Contacts Youth Target	Indirect Contacts Youth Target
Plan	100	200	25	50
2007	0	0	0	0

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

Patent Applications Submitted

Year Target

Plan: 0 2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Research Projects completed on Small Farm Systems

Year Target Actual 2007 0 0

Report Date 11/09/2009 Page 137 of 140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	OUTCOME NAME
1	Number of farmers learning new small farm systems techniques.
2	Number of farmers using new small farm systems techniques.
3	Farmers who developed profitable, sustainable small farm systems.

Report Date 11/09/2009 Page 138 of 140

Outcome #1

1. Outcome Measures

Number of farmers learning new small farm systems techniques.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	100	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

*This program is still in the process of being initiated. No funds were expended in this area during FY 2007.

What has been done

*This program is still in the process of being initiated. No funds were expended in this area during FY 2007.

Results

*This program is still in the process of being initiated. No funds were expended in this area during FY 2007.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems

Outcome #2

1. Outcome Measures

Number of farmers using new small farm systems techniques.

2. Associated Institution Types

•1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	20	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

*This program is still in the process of being initiated. No funds were expended in this area during FY 2007.

What has been done

*This program is still in the process of being initiated. No funds were expended in this area during FY 2007.

Results

*This program is still in the process of being initiated. No funds were expended in this area during FY 2007.

Report Date 11/09/2009 Page 139 of 140

4. Associated Knowledge Areas

KA Code Knowledge Area

205 Plant Management Systems

Outcome #3

1. Outcome Measures

Farmers who developed profitable, sustainable small farm systems.

2. Associated Institution Types

- •1890 Extension
- •1890 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	5	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

*This program is still in the process of being initiated. No funds were expended in this area during FY 2007.

What has been done

*This program is still in the process of being initiated. No funds were expended in this area during FY 2007.

Results

*This program is still in the process of being initiated. No funds were expended in this area during FY 2007.

4. Associated Knowledge Areas

KA Code Knowledge Area

205 Plant Management Systems

V(H). Planned Program (External Factors)

External factors which affected outcomes

Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

During (during program)

Evaluation Results

*This program is still in the process of being initiated. No funds were expended in this area during FY 2007.

Key Items of Evaluation

Report Date 11/09/2009 Page 140 of 140