

2010 Langston University Combined Research and Extension Plan of Work

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I. Plan Overview

1. Brief Summary about Plan Of Work

We live in an age of soaring technological advances impacting arguably every aspect of our lives. From high definition digital television, to MP3s, to i-Pods, to Blackberries, to satellite radio, to wireless computer links to GPS enhanced vehicles, and video cellular phones, advances in technology have been interwoven into the very fabric of society here in the United States and abroad.

However, as is often the case, there are exceptions to the rules. Even as just down the street from a stately highrise corporate building there stands an extremely modest single family dwelling; and just down the road past the columns of cellular towers there lies an area with little or no cellular reception; and just around the bend from the two thousand acre conventional wheat farms and cattle ranches with the most recent advances in Precision Agriculture and Best Management Practices and hundreds of acres in the Conservation Reserve Program (CRP), there lie the small farms, many standing on the other side of the great digital divide trying to sustain themselves and survive.

The Research and Cooperative Extension Program at Langston University is dedicated to serving all citizens of Oklahoma. However, our programs and methods of delivery are often very appealing to the under-served and under-represented diverse populations of the state, especially small farmers. Our Cooperative Extension and Outreach efforts serve as vehicles for taking scholarly, peer-reviewed and stakeholder-driven research findings, demonstrations and education activities to the citizens of Oklahoma; many of whom still dwell on the other side of the great digital divide.

Included in Langston University's 2010-2014 combined Research and Extension Plan of Work are our goals and expected outcomes for the next five (5) years, as well as the process for moving along the links in the logic model chain to achieve targeted outcomes and impacts. Projected outcomes and impacts will include providing deliverables that contribute to enhancing the economic status, health and quality of life for the citizens of Oklahoma; and to make them more competitive as viable producers in niche markets and in the greater global agricultural arena.

Estimated Number of Professional FTEs/SYs total in the State.

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	20.0	0.0	22.0
2011	0.0	20.0	0.0	22.0
2012	0.0	20.0	0.0	22.0
2013	0.0	20.0	0.0	22.0
2014	0.0	20.0	0.0	22.0

II. Merit Review Process

1. The Merit Review Process that will be Employed during the 5-Year POW Cycle

- Internal University Panel
- External University Panel
- Expert Peer Review

2. Brief Explanation

Currently, all new Extension and Research programs are reviewed by a respective panel composed of colleagues and managers. This process was in place during the last 5-Year Plan of Work.

Research programs have received more external review than Extension programs but a process will be put in place to increase external merit review for Extension programs.

All approved programs will be evaluated against the logic model to determine how inputs will lead to outputs and outcomes.

III. Evaluation of Multis & Joint Activities

1. How will the planned programs address the critical issues of strategic importance, including those identified by the stakeholders?

The planned programs were strongly influenced by stakeholders, researchers, Extension personnel and others who identified the most critical issues to be addressed.

Surveys, questionnaires and in-person feedback from stakeholders have provided invaluable information that has been used in planning programs and in determining which direction programs will proceed.

2. How will the planned programs address the needs of under-served and under-represented populations of the State(s)?

In general, all of our programs reach under-served and under-represented groups. The following are examples of the work being performed.

Program 2. Many minority children in rural and inner city areas have been reached and gotten involved in 4-H.

Program 3. Minority children have been enrolled in this program and had their reading skills enriched both during the summer months and after school during the regular school year.

Program 4. This program has reached elderly minorities, presented them with tips for good nutrition and taught them age-appropriate exercise techniques.

Program 8. Small fish producers are seeing the value of working with alternative fish species such as the buffalo. Program 11. Goat producers are able to go online and access valuable instructional modules. Program 12. Many small to medium-sized producers have received information and/or hands-on instructions to enhance their operations and improve the value of their products. Program 14. Small fish producers have benefited from selling their fish directly to the public.

3. How will the planned programs describe the expected outcomes and impacts?

Planned programs have specific outputs that will lead to outcomes and eventually to impacts.

Some outcomes will be realized sooner than others. For each planned program, progress will be made throughout each year towards outcomes and impacts.

4. How will the planned programs result in improved program effectiveness and/or efficiency?

Research and Extension programs at Langston University have worked in union for many years to make our program more efficient and cost-effective. The planned programs included in this Plan of Work will reflect the ongoing commitment of joint efforts between research and extension programs to ensure efficient and effective programs.

IV. Stakeholder Input

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

- Survey of the general public
- Survey of traditional stakeholder individuals

Brief explanation.

Targeted stakeholder groups are sent surveys, contacted via e-mail and complete surveys during field days.

The general public receives surveys during field days and has opportunities to offer input via the web site and during field days, workshops and on-farm visits.

2(A). A brief statement of the process that will be 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.

Annual Goat and Aquaculture Field Days are held to educate producers, highlight and disseminate research findings. Attendees are requested to complete surveys to be used in planning future research projects and workshops. Telephone surveys are also used to gather stakeholder input.

2(B). A brief statement of the process that will be 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

- Survey of traditional Stakeholder groups
- Meeting with traditional Stakeholder groups
- Other (Telephone surveys of stakeholders.)

Brief explanation

Stakeholder information is obtained from surveys and session evaluations during demonstrations, seminars, workshops and field days.

3. A statement of how the input will be considered

- To Identify Emerging Issues
- Redirect Extension Programs
- Redirect Research Programs

Brief explanation.

In general, our research and extension efforts are stakeholder-driven. 4-H programs and activities are tailored to meet the needs of our stakeholders. Aquaculture projects, fact sheets and field days are designed to meet the needs and concerns of our stakeholders. Suggestions from stakeholders via surveys and verbal comments during goat field days are reviewed and some are incorporated into future selected field day topics and field day events. At the requests of stakeholders, a youth program component was incorporated into the Annual Goat Field Day.

V. Planned Program Table of Content

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

V(A). Planned Program (Summary)

Program #1

1. Name of the Planned Program

Enhanced Goat Production in the South-Central United States

2. Brief summary about Planned Program

This program will address factors impacting the level of goat production and the efficiency of goat production systems. Areas to be addressed will include nutrition, management, health and product utilization (including meat and milk). This program is expected to produce discoveries with positive impacts for goat producers and consumers.

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 Production 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 (Situation and Scope)

1. Situation and priorities

The rapidly increasing number of goats in the United States has led to a growing importance of goat production and goat products in the United States economy. Goat production is becoming an evermore important component of the production system of many small and/or limited resource producers.

2. Scope of the Program

- In-State Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Funding will remain constant or increase. Enhanced goat production methods will be discovered.

2. Ultimate goal(s) of this Program

To develop more efficient production systems for goat production.

V(E). Planned Program (Inputs)**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	3.6	0.0	9.1
2011	0.0	3.6	0.0	9.1
2012	0.0	3.6	0.0	9.1
2013	0.0	3.6	0.0	9.1
2014	0.0	3.6	0.0	9.1

V(F). Planned Program (Activity)**1. Activity for the Program**

We will publish scientific articles, present research papers at scientific meetings, with newsletters and present workshops and demonstrations.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Other 1 (Field Days) ● Demonstrations ● Education Class ● Workshop 	<ul style="list-style-type: none"> ● Other 1 (Proceedings) ● Newsletters ● Web sites

3. Description of targeted audience

All present/potential goat producers in Oklahoma and surrounding states.

V(G). Planned Program (Outputs)**1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	150	500	0	0
2011	150	500	0	0
2012	150	500	0	0
2013	150	500	0	0
2014	150	500	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	2	1	3
2011	1	1	2
2012	2	2	4
2013	1	1	2
2014	2	2	4

V(H). State Defined Outputs

1. Output Target

- Number of Research projects completed on Enhanced Goat Products

2010 0 2011 0 2012 :0 2013 0 2014 0

V(I). State Defined Outcome

O. No	Outcome Name
1	Number of goat producers learning new goat production techniques.
2	Number of goat producers using new goat production techniques.

Outcome #1

1. Outcome Target

Number of goat producers learning new goat production techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 200 **2011** : 200 **2012** : 200 **2013** 200 **2014** :200

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 302 - Nutrient Utilization in Animals
- 307 - Animal Production Management Systems

Outcome #2

1. Outcome Target

Number of goat producers using new goat production techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 20 **2011** : 20 **2012** : 20 **2013** 20 **2014** :20

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 302 - Nutrient Utilization in Animals
- 307 - Animal Production Management Systems
- 313 - Internal Parasites in Animals
- 502 - New and Improved Food Products

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

Description

Drought would affect the ability of goat producers to raise their own forages and increase production costs.Disease or serious parasite infestations could devastate the herds of producers and our research efforts.

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

1. Evaluation Studies Planned

- During (during program)

Description

Each year, the program will be evaluated for its merit and contributions to stakeholders.

2. Data Collection Methods

- On-Site
- Mail
- Sampling
- Telephone
- Journals

Description

Surveys will be conducted during field days and workshops.

V(A). Planned Program (Summary)**Program #2****1. Name of the Planned Program**

4-H Clubs

2. Brief summary about Planned Program

This program will engage youth as active partners and leaders who can help move their communities forward.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 (Situation and Scope)**1. Situation and priorities**

Youth, especially in rural areas, need safe, wholesome programs that teach positive values and help youth develop positive lifelong skills such as leadership and public speaking.

2. Scope of the Program

- In-State Extension

V(D). Planned Program (Assumptions and Goals)**1. Assumptions made for the Program**

Funding will remain constant.

2. Ultimate goal(s) of this Program

To develop positive attributes in youth such as healthy lifestyles, good citizenship, leadership and other life skills.

V(E). Planned Program (Inputs)**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	1.4	0.0	0.0
2011	0.0	1.4	0.0	0.0
2012	0.0	1.4	0.0	0.0
2013	0.0	1.4	0.0	0.0
2014	0.0	1.4	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

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

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Demonstrations ● Education Class ● Other 1 (Meetings) 	<ul style="list-style-type: none"> ● Web sites ● Newsletters

3. Description of targeted audience

Youth in Oklahoma who qualify for the program.

V(G). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	0	0	2000	200
2011	0	0	200	200
2012	0	0	200	200
2013	0	0	200	200
2014	0	0	200	200

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

Expected Patent Applications

2010 :0

2011 :0

2012 :0

2013 :0

2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	0	0
2011	0	0	0
2012	0	0	0
2013	0	0	0
2014	0	0	0

V(H). State Defined Outputs

1. Output Target

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

2010 0

2011 0

2012 0

2013 0

2014 0

V(I). State Defined Outcome

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.

Outcome #1

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 200 **2011** : 200 **2012** : 200 **2013** 200 **2014** :200

3. Associated Institute Type(s)

- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #2

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 200 **2011** : 200 **2012** : 200 **2013** 200 **2014** :200

3. Associated Institute Type(s)

- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #3

1. Outcome Target

Youth who develop life skills.

2. Outcome Type : Change in Condition Outcome Measure

2010 200 **2011** : 200 **2012** : 200 **2013** 200 **2014** :200

3. Associated Institute Type(s)

- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Competing Public priorities
- Appropriations changes

Description

If appropriations for 4-H are reduced, it will affect efforts.

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

1. Evaluation Studies Planned

- During (during program)

Description

A projected number of 4-H Clubs has been targeted for selected counties. We will compare actual numbers with projections.

2. Data Collection Methods

- Observation
- On-Site

Description

Observations are used to compare actual numbers of 4-H Clubs to projections. Also, pre- and post- tests will be used to evaluate effectiveness of activities.

V(A). Planned Program (Summary)

Program #3

1. Name of the Planned Program

Extended Education

2. Brief summary about Planned Program

The Extended Education Program is designed to help students who need extra assistance in reading, writing, math and science. This program supplements knowledge learned in the regular school classroom.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 (Situation and Scope)

1. Situation and priorities

Many Oklahoma students in grades K through five are unable to keep up with the progression of reading and math classes taught in the regular school classroom. Consequently, these students are falling further behind academically. The extended Education program offers help and hope for these students.

2. Scope of the Program

- In-State Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Funding will be constant.

2. Ultimate goal(s) of this Program

To help program participants develop learning skills in reading, writing, math and science that help them to excel in these areas.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	1.1	0.0	0.0
2011	0.0	1.1	0.0	0.0
2012	0.0	1.1	0.0	0.0
2013	0.0	1.1	0.0	0.0
2014	0.0	1.1	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Extension personnel will conduct classes and mini camps in reading, writing, math and science for youth in Oklahoma.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Other 1 (Mini camps) 	<ul style="list-style-type: none"> ● Other 1 (Flyers) ● Other 2 (Worksheets)

3. Description of targeted audience

Youth in Oklahoma.

V(G). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	0	0	80	200
2011	0	0	80	200
2012	0	0	80	200
2013	0	0	80	200
2014	0	0	80	200

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	1	1
2011	0	0	0
2012	0	1	1
2013	0	0	0
2014	0	1	0

V(H). State Defined Outputs

1. Output Target

- Number of Research Projects competed on Extended Education.

2010 0

2011 0

2012 0

2013 0

2014 0

V(I). State Defined Outcome

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.

Outcome #1

1. Outcome Target

Number of youth taught extended education techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 80 **2011** : 80 **2012** : 80 **2013** 80 **2014** :80

3. Associated Institute Type(s)

- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #2

1. Outcome Target

Number of youth grasping and using extended education techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 80 **2011** : 80 **2012** : 80 **2013** 80 **2014** :80

3. Associated Institute Type(s)

- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #3

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 :70 **2011** : 70 **2012** : 70 **2013** 70 **2014** :70

3. Associated Institute Type(s)

- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Competing Public priorities

Description

If school systems implement longer school days and longer school years, it could affect outcomes.

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

1. Evaluation Studies Planned

- Before-After (before and after program)

Description

Pre- and post-tests will be conducted to evaluate levels of learning.

2. Data Collection Methods

- Whole population

Description

Data on pre- and post-tests will be collected and analyzed.

V(A). Planned Program (Summary)

Program #4

1. Name of the Planned Program

Family and Consumer Sciences

2. Brief summary about Planned Program

The Family and Consumer Sciences Program recognizes the family as being the cornerstone of a healthy society and it is committed to improving the quality of life and well-being of families. This program assists families in the areas of food and nutrition, parenting, clothing, money management, personal development and other family-related areas.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 (Situation and Scope)

1. Situation and priorities

Many of the challenges we now face as a society have roots in the family. Approximately half of all marriages today end in divorce. Single parent homes have become the norm rather than the exception. Oklahoma is among the leader in states where grandparents are raising their grandchildren. Family and Consumer Sciences resources and involvement are needed and in demand.

2. Scope of the Program

- In-State Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Funding will remain constant.

2. Ultimate goal(s) of this Program

To help participating families in Oklahoma strengthen their marital bonds, develop better money management skills and make more informed consumer decisions.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.5	0.0	0.0
2011	0.0	0.5	0.0	0.0
2012	0.0	0.5	0.0	0.0
2013	0.0	0.5	0.0	0.0
2014	0.0	0.5	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Extension personnel will conduct classes, seminars, workshops and forums to share Family and Consumer Sciences resources.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Other 1 (Forums) ● Education Class ● Workshop 	<ul style="list-style-type: none"> ● Other 2 (Handouts) ● Other 1 (Flyers)

3. Description of targeted audience

Citizens of Oklahoma.

V(G). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	100	130	200	220
2011	100	130	200	220
2012	100	200	200	220
2013	100	130	200	220
2014	100	130	200	220

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

Expected Patent Applications

2010 :0

2011 :0

2012 :0

2013 :0

2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	1	1
2011	0	0	0
2012	0	1	1
2013	0	0	0
2014	0	0	0

V(H). State Defined Outputs

1. Output Target

- Number of Research Projects completed on Family and Consumer Sciences

2010 0

2011 0

2012 0

2013 0

2014 0

V(I). State Defined Outcome

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.

Outcome #1

1. Outcome Target

Number of participants who learned about Family and Consumer Sciences.

2. Outcome Type : Change in Condition Outcome Measure

2010 200 **2011** : 200 **2012** : 200 **2013** 200 **2014** :200

3. Associated Institute Type(s)

- 1890 Extension

4. Associated Knowledge Area(s)

- 801 - Individual and Family Resource Management

Outcome #2

1. Outcome Target

Number of participants who used Family and Consumer Sciences resources.

2. Outcome Type : Change in Condition Outcome Measure

2010 40 **2011** : 50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

- 1890 Extension

4. Associated Knowledge Area(s)

- 801 - Individual and Family Resource Management

Outcome #3

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 :10 **2011** : 10 **2012** : 15 **2013** :15 **2014** :15

3. Associated Institute Type(s)

- 1890 Extension

4. Associated Knowledge Area(s)

- 801 - Individual and Family Resource Management

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Competing Public priorities

Description

Society's view and definitions of a family could affect outcomes.

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

1. Evaluation Studies Planned

- Case Study

Description

Selected families will be observed and data collected to evaluate the effectiveness of this program.

2. Data Collection Methods

- Case Study

Description

Data will be collected on nutrition planning and money management skills development.

V(A). Planned Program (Summary)

Program #5

1. Name of the Planned Program

Food and Nutrition

2. Brief summary about Planned Program

The Food and Nutrition Program will join efforts with our newly acquired EFNEP Program to provide healthy nutrition education to needy citizens of Oklahoma. Elderly citizens in rural areas will receive special focus.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 (Situation and Scope)

1. Situation and priorities

Proper nutrition is an important component of a healthy lifestyle. Oklahoma rates high compared to other states in obesity among its populace. Food and nutrition training are needed to reduce the obesity numbers and the diseases that often accompany this condition.

2. Scope of the Program

- In-State Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Funding will remain constant.

2. Ultimate goal(s) of this Program

To help participants develop healthy nutrition and exercise regiments that result in healthier lives.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	1.5	0.0	0.0
2011	0.0	1.5	0.0	0.0
2012	0.0	1.5	0.0	0.0
2013	0.0	1.5	0.0	0.0
2014	0.0	1.5	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Extension personnel will conduct classes, seminars, workshops and hold community forums to teach healthy food and nutrition concepts.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Other 2 (Forums) ● Other 1 (Seminars) ● Workshop ● Education Class 	<ul style="list-style-type: none"> ● Other 2 (Handouts) ● Other 1 (Flyers)

3. Description of targeted audience

Citizens of Oklahoma

V(G). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	100	200	100	200
2011	100	200	100	200
2012	100	200	100	200
2013	100	200	100	200
2014	100	200	100	200

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	0	0
2011	0	1	1
2012	0	0	0
2013	0	0	0
2014	0	1	0

V(H). State Defined Outputs

1. Output Target

- Number of Research Projects competed on Food and Nutrition.

2010 0

2011 0

2012 0

2013 0

2014 0

V(I). State Defined Outcome

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 their lifestyles by following food and nutrition guidelines.

Outcome #1

1. Outcome Target

Number of participants who learned about food and nutrition.

2. Outcome Type : Change in Condition Outcome Measure

2010 200 **2011** : 200 **2012** : 200 **2013** 200 **2014** :200

3. Associated Institute Type(s)

•1890 Extension

4. Associated Knowledge Area(s)

- 504 - Home and Commercial Food Service

Outcome #2

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 50 **2011** : 50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

•1890 Extension

4. Associated Knowledge Area(s)

- 504 - Home and Commercial Food Service

Outcome #3

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 :10 **2011** : 10 **2012** : 10 **2013** :10 **2014** :10

3. Associated Institute Type(s)

•1890 Extension

4. Associated Knowledge Area(s)

- 504 - Home and Commercial Food Service

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Government Regulations
- Competing Public priorities

Description

Updated government regulations could affect the nutritional guidelines and parameters set for this program.

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

1. Evaluation Studies Planned

- During (during program)

Description

Participants will be tested for weight loss/gain and body mass index.

2. Data Collection Methods

- On-Site
- Sampling

Description

Selected participants will be screened for weight loss/gain and body mass index.

V(A). Planned Program (Summary)**Program #6****1. Name of the Planned Program**

Biotechnology

2. Brief summary about Planned Program

The genomic research component of this program is targeting peanut plant organs and seed genes for yield and nutritional quality improvement. The program is seeking to use biotechnology to produce edible peanuts that are high in nutritional quality and possibly void of the allergens that prevent many people from consuming peanuts or food cooked in peanut oil.

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 (Situation and Scope)**1. Situation and priorities**

Peanuts are the most popular legume in the United States for human consumption. However, peanuts contain substances that are allergens for many people. These allergens can cause illness and in some cases are lethal.

2. Scope of the Program

- In-State Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)**1. Assumptions made for the Program**

Funding will remain constant or increase.

2. Ultimate goal(s) of this Program

To identify and separate plant genes that can be used to produce genetically superior peanuts and other cash crops.

V(E). Planned Program (Inputs)**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.2	0.0	1.0
2011	0.0	0.2	0.0	1.0
2012	0.0	0.2	0.0	1.0
2013	0.0	0.2	0.0	1.0
2014	0.0	0.2	0.0	1.0

V(F). Planned Program (Activity)

1. Activity for the Program

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

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop 	<ul style="list-style-type: none"> ● Web sites ● Other 1 (Research papers)

3. Description of targeted audience

All peanut producers in Oklahoma

V(G). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	20	100	0	0
2011	25	100	0	0
2012	25	100	0	0
2013	25	100	0	0
2014	25	100	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 : 1 2013 :0 2014 : 1

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	1	0	1
2011	0	0	0
2012	1	1	2
2013	0	0	0
2014	1	0	1

V(H). State Defined Outputs

1. Output Target

- Number of Research Projects completed on Biotechnology.

2010 0

2011 0

2012 :1

2013 0

2014 0

V(I). State Defined Outcome

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.

Outcome #1**1. Outcome Target**

Number of farmers learning about the peanut nucleotide database.

2. Outcome Type : Change in Condition Outcome Measure

2010 :20 2011 : 20 2012 : 20 2013 : 20 2014 :20

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 201 - Plant Genome, Genetics, and Genetic Mechanisms

Outcome #2**1. Outcome Target**

Number of farmers using the peanut nucleotide database.

2. Outcome Type : Change in Condition Outcome Measure

2010 :10 2011 : 15 2012 : 15 2013 :15 2014 :15

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 201 - Plant Genome, Genetics, and Genetic Mechanisms

Outcome #3**1. Outcome Target**

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

2. Outcome Type : Change in Condition Outcome Measure

2010 :3 2011 : 4 2012 : 5 2013 :10 2014 :10

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 201 - Plant Genome, Genetics, and Genetic Mechanisms

V(J). Planned Program (External Factors)**1. External Factors which may affect Outcomes**

- Competing Public priorities

Description

If the public's view on biotechnology changes, funding levels may be affected.

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

1. Evaluation Studies Planned

- Time series (multiple points before and after program)

Description

Developed peanut genetic lines will be monitored and tested for stability

2. Data Collection Methods

- Sampling
- Observation
- Tests

Description

Tests will be conducted with developed peanut lines that are free of allergens for human allergic responses.

V(A). Planned Program (Summary)

Program #7

1. Name of the Planned Program

Water Gardens (Aquaculture)

2. Brief summary about Planned Program

Some Oklahoma fish farmers are beginning to produce fish for the growing water garden industry. The activities occurring in this program will assist home water gardeners with management practices and also assist fish farmers in production and marketing of ornamental aquatic species.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 (Situation and Scope)

1. Situation and priorities

Water gardens are rapidly increasing in popularity in Oklahoma. Homeowners have expressed frustration with their inability to solve water garden problems induced by system location in combination with poor husbandry and poor hygiene.

2. Scope of the Program

- In-State Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Funding will remain constant.

2. Ultimate goal(s) of this Program

Assist clientele in decreasing the operational costs of their water gardens.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.6	0.0	0.3
2011	0.0	0.6	0.0	0.3
2012	0.0	0.6	0.0	0.3
2013	0.0	0.6	0.0	0.3
2014	0.0	0.6	0.0	0.3

V(F). Planned Program (Activity)

1. Activity for the Program

Fish loading testing will be performed and fish loading modeling will be conducted. Nutrient uptake experiments will be conducted.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Demonstrations ● Other 1 (Field Days) 	<ul style="list-style-type: none"> ● Other 2 (User Models) ● Other 1 (Fact Sheets)

3. Description of targeted audience

All aquaculture farmers in Oklahoma.

V(G). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	300	350	0	0
2011	300	350	0	0
2012	300	350	0	0
2013	300	350	0	0
2014	300	350	0	0

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

Expected Patent Applications

2010 :0 2011 :1 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	1	0	1
2011	0	1	1
2012	0	0	0
2013	0	1	1
2014	1	1	2

V(H). State Defined Outputs

1. Output Target

- Number of Research Projects completed on Water Gardens

2010 :1

2011 :1

2012 :0

2013 :0

2014 :0

V(I). State Defined Outcome

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

Outcome #1

1. Outcome Target

Number of farmers learning water garden techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 :300 **2011** : 300 **2012** : 300 **2013** 300 **2014** :300

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 401 - Structures, Facilities, and General Purpose Farm Supplies

Outcome #2

1. Outcome Target

Number of farmers using water garden techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 :70 **2011** : 80 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 401 - Structures, Facilities, and General Purpose Farm Supplies

Outcome #3

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 5 **2011** : 10 **2012** : 10 **2013** :10 **2014** :10

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 401 - Structures, Facilities, and General Purpose Farm Supplies

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

Description

A prolonged drought may slow down the present growth in water garden construction in Oklahoma.

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

1. Evaluation Studies Planned

- Time series (multiple points before and after program)

Description

A cost analysis will be performed to see if fish farmers have made profits with the sales of ornamental fish species.

2. Data Collection Methods

- Sampling

Description

The portfolios of selected producers will be reviewed to determine if there is an increase in income due to sales of ornamental fish species.

V(A). Planned Program (Summary)

Program #8

1. Name of the Planned Program

Alternative Species (Aquaculture)

2. Brief summary about Planned Program

Research with buffalo fish species under polyculture conditions will allow us to determine if we can sustainably and economically use buffalo fish to diversify fish operations. This research will benefit aquaculture producers in Oklahoma and the surrounding region.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 Production Management Systems		100%		100%
	Total		100%		100%

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Pressure on domestic fish markets by foreign imports and high fuel prices are forcing catfish farmers to curtail production or diversify with alternative fish species.

2. Scope of the Program

- In-State Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Funding will remain constant.

2. Ultimate goal(s) of this Program

To establish sustainable alternative fish species for Oklahoma aquaculture producers.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.4	0.0	0.2
2011	0.0	0.4	0.0	0.2
2012	0.0	0.4	0.0	0.2
2013	0.0	0.4	0.0	0.2
2014	0.0	0.4	0.0	0.2

V(F). Planned Program (Activity)

1. Activity for the Program

Buffalo fish species will be tested for sustainability and profitability in Oklahoma.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Demonstrations ● Other 1 (Field Days) 	<ul style="list-style-type: none"> ● Other 2 (Fact Sheets) ● Other 1 (Proceedings)

3. Description of targeted audience

All aquaculture farmers in Oklahoma.

V(G). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	200	300	0	0
2011	200	300	0	0
2012	200	300	0	0
2013	200	300	0	0
2014	200	300	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 : 1 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	0	0
2011	0	1	1
2012	0	0	0
2013	0	1	1
2014	1	0	1

V(H). State Defined Outputs

1. Output Target

- Number of Research Projects completed on Alternative Species

2010 0

2011 0

2012 :1

2013 0

2014 0

V(I). State Defined Outcome

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.

Outcome #1

1. Outcome Target

Number of farmers learning alternative fish species techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 : 80 **2011 :** 100 **2012 :** 100 **2013 :** 100 **2014 :** 100

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 307 - Animal Production Management Systems

Outcome #2

1. Outcome Target

Number of farmers using alternative fish species techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 : 30 **2011 :** 40 **2012 :** 40 **2013 :** 40 **2014 :** 40

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 307 - Animal Production Management Systems

Outcome #3

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 : 10 **2011 :** 20 **2012 :** 20 **2013 :** 20 **2014 :** 25

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 307 - Animal Production Management Systems

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

Description

A prolonged drought may adversely affect fish production by producers.

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

1. Evaluation Studies Planned

- After Only (post program)

Description

A cost analysis will be performed to see if diversifying fish production with alternative species is financially feasible.

2. Data Collection Methods

- Sampling
- On-Site

Description

Alternative fish production will be tested on the campus for sustainability and potential profitability. These results will be compared to actual results of selected producers.

V(A). Planned Program (Summary)

Program #9

1. Name of the Planned Program

Fishery Management (Aquaculture)

2. Brief summary about Planned Program

Fishery management methods will be researched for ways to increase efficiency of fishery operations. This research will include efficiency management practices under such conditions as droughts, leaks and aquatic vegetation control.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 Production Management Systems		100%		100%
	Total		100%		100%

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Fishery management methods can add to or reduce production costs and affect the profitability of an operation. Proven, efficient management methods would help Oklahoma fisheries operate more cost effectively.

2. Scope of the Program

- In-State Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Funding will remain constant.

2. Ultimate goal(s) of this Program

To assist fish farmers in developing fishery management techniques that will reduce production costs, sustain operations and increase profits.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.4	0.0	0.4
2011	0.0	0.4	0.0	0.4
2012	0.0	0.4	0.0	0.4
2013	0.0	0.4	0.0	0.4
2014	0.0	0.4	0.0	0.4

V(F). Planned Program (Activity)

1. Activity for the Program

Work will be performed in fishery management under such conditions as drought, aquatic vegetation infestation and pond leaks.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop ● Demonstrations ● Other 1 (Field Days) 	<ul style="list-style-type: none"> ● Other 2 (Proceedings and CD's) ● Web sites ● Other 1 (Fact Sheets)

3. Description of targeted audience

All aquaculture farmers in Oklahoma.

V(G). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	200	300	0	0
2011	200	300	0	0
2012	200	300	0	0
2013	200	300	0	0
2014	200	300	0	0

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

Expected Patent Applications

2010 :0 2011 :1 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	1	1
2011	0	0	0
2012	0	1	1
2013	0	0	0
2014	1	0	1

V(H). State Defined Outputs

1. Output Target

- Number of Research Projects completed on Fishery Management.

2010 0

2011 2

2012 0

2013 0

2014 0

V(I). State Defined Outcome

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

Outcome #1

1. Outcome Target

Number of farmers learning new fishery management techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 200 **2011** : 200 **2012** : 200 **2013** 200 **2014** :200

3. Associated Institute Type(s)

•1890 Extension

4. Associated Knowledge Area(s)

- 307 - Animal Production Management Systems

Outcome #2

1. Outcome Target

Number of farmers using new fishery management techniques.

2. Outcome Type : Change in Action Outcome Measure

2010 20 **2011** : 30 **2012** : 30 **2013** 30 **2014** :30

3. Associated Institute Type(s)

•1890 Extension

4. Associated Knowledge Area(s)

- 307 - Animal Production Management Systems

Outcome #3

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 20 **2011** : 20 **2012** : 20 **2013** 20 **2014** :20

3. Associated Institute Type(s)

•1890 Extension

4. Associated Knowledge Area(s)

- 307 - Animal Production Management Systems

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

Description

A prolonged drought may adversely affect fish production.

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

1. Evaluation Studies Planned

- During (during program)

Description

Cost analyses will be used to determine if fish management techniques resulted in increased income for producers.

2. Data Collection Methods

- Sampling
- Portfolio Reviews

Description

Cost analyses will be used.

V(A). Planned Program (Summary)**Program #10****1. Name of the Planned Program**

Sustainable Internal Parasite Control for Small Ruminants

2. Brief summary about Planned Program

The rapidly increasing number of goats in the United State has led to a growing importance of goat production and goat products to United States agriculture. Goat production is an important component of the farming systems of many small, resource-poor farmers and farm families. The main program objectives are twofold, first to develop enhanced goat production technologies that allow goat farmers to produce wholesome products in demand by the consumer through increased productivity and cost efficiency, and two, to transfer those technologies to farmers through a variety of extension avenues.

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 (Situation and Scope)**1. Situation and priorities**

The program/project is needed to address factors impacting level of goat production and efficiency of goat production systems, nutrition, management, health, and product utilization including meat and milk. The project is expected to make discoveries that would positively impact producers and consumers.

2. Scope of the Program

- In-State Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)**1. Assumptions made for the Program**

Funding will remain constant.

2. Ultimate goal(s) of this Program

To contain or eradicate internal parasites in goats.

V(E). Planned Program (Inputs)**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.2	0.0	0.1
2011	0.0	0.2	0.0	0.1
2012	0.0	0.2	0.0	0.1
2013	0.0	0.2	0.0	0.1
2014	0.0	0.2	0.0	0.1

V(F). Planned Program (Activity)**1. Activity for the Program**

Work will be performed to discover effective internal parasite control methods for goats.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Other 1 (Field Days) ● Demonstrations ● Education Class ● Workshop 	<ul style="list-style-type: none"> ● Web sites ● Other 1 (Proceedings) ● Newsletters

3. Description of targeted audience

All goat producers in Oklahoma.

V(G). Planned Program (Outputs)**1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	400	500	0	0
2011	400	500	0	0
2012	400	500	0	0
2013	400	500	0	0
2014	400	500	0	0

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

2010 :0

2011 :1

2012 :0

2013 :0

2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	0	0
2011	0	1	1
2012	0	0	0
2013	0	0	0
2014	1	0	1

V(H). State Defined Outputs

1. Output Target

- Number of Research Projects completed on sustainable internal parasite control.

2010 0

2011 0

2012 0

2013 0

2014 0

V(I). State Defined Outcome

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.

Outcome #1

1. Outcome Target

Number of goat producers learning internal parasite control techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 200 **2011** : 200 **2012** : 200 **2013** 200 **2014** :200

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 313 - Internal Parasites in Animals

Outcome #2

1. Outcome Target

Number of goat producers using internal parasite control techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 50 **2011** : 50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 313 - Internal Parasites in Animals

Outcome #3

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 :15 **2011** : 15 **2012** : 15 **2013** :15 **2014** :15

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 313 - Internal Parasites in Animals

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

Description

Unforeseen disease or insect infestations could adversely affect goat production and outcomes.

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

1. Evaluation Studies Planned

- During (during program)

Description

Use of proposed internal parasite control method will be compared to methods presently in use by goat producers. Effectiveness of methods will be compared.

2. Data Collection Methods

- Telephone
- Sampling
- Observation
- Mail
- On-Site

Description

Results of proposed control methods will be compared to those presently in use by producers.

V(A). Planned Program (Summary)

Program #11

1. Name of the Planned Program

Goat Internet Website

2. Brief summary about Planned Program

The rapidly increasing number of goats in the United States has led to a growing importance of goat production and goat products to United States agriculture. Goat production is an important component of the farming systems of many small, resource-poor farmers and farm families. The main program objectives are twofold, first to develop enhanced goat production technologies that allow goat farmers to produce wholesome products in demand by the consumer through increased productivity and cost efficiency, and two, to transfer those technologies to farmers through a variety of extension avenues.

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 (Situation and Scope)

1. Situation and priorities

The program/project is needed to address factors impacting level of goat production and efficiency of goat production systems, nutrition, management, health, and product utilization including meat and milk. The project is expected to make discoveries that would positively impact producers and consumers.

2. Scope of the Program

- In-State Research
- In-State Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Funding will remain constant.

2. Ultimate goal(s) of this Program

To make our website a one-stop shop for goat information and ordering goat foods and products.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.1	0.0	0.1
2011	0.0	0.1	0.0	0.1
2012	0.0	0.1	0.0	0.1
2013	0.0	0.1	0.0	0.1
2014	0.0	0.1	0.0	0.1

V(F). Planned Program (Activity)

1. Activity for the Program

The Langston University goat internet website provides quality information for goat producers. This website will continue to be updated with viable information and expanded.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Other 1 (Field Days) ● Demonstrations ● Workshop 	<ul style="list-style-type: none"> ● Web sites

3. Description of targeted audience

All goat producers in Oklahoma.

V(G). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	600	600	0	0
2011	600	600	0	0
2012	600	600	0	0
2013	600	600	0	0
2014	600	600	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :1

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	1	1
2011	1	0	1
2012	0	0	0
2013	0	1	1
2014	1	0	1

V(H). State Defined Outputs

1. Output Target

- Number of Research Projects completed on Goat Internet Website.

2010 0

2011 1

2012 0

2013 0

2014 0

V(I). State Defined Outcome

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.

Outcome #1

1. Outcome Target

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

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :600 **2011 :** 600 **2012 :** 600 **2013 :** 600 **2014 :**600

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 903 - Communication, Education, and Information Delivery

Outcome #2

1. Outcome Target

Number of goat producers using the goat internet website.

2. Outcome Type : Change in Condition Outcome Measure

2010 :600 **2011 :** 600 **2012 :** 600 **2013 :** 600 **2014 :**600

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 903 - Communication, Education, and Information Delivery

Outcome #3

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 :50 **2011 :** 50 **2012 :** 50 **2013 :** 50 **2014 :**50

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 903 - Communication, Education, and Information Delivery

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

Description

Unforeseen disease or insect infestations could adversely affect outcomes.

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

1. Evaluation Studies Planned

- During (during program)

Description

Number of hits on the website will be noted for usage of website. Surveys will be used to determine effectiveness of the website.

2. Data Collection Methods

- Mail
- On-Site
- Sampling

Description

Surveys will be used.

V(A). Planned Program (Summary)

Program #12

1. Name of the Planned Program

Development of New Dairy Goat Products

2. Brief summary about Planned Program

The rapidly increasing number of goats in the United States has led to a growing importance of goat production and goat products to United States agriculture. Goat production is an important component of the farming systems of many small, resource-poor farmers and farm families. The main program objectives are twofold, first to develop enhanced goat production technologies that allow goat farmers to produce wholesome products in demand by the consumer through increased productivity and cost efficiency, and two, to transfer those technologies to farmers through a variety of extension avenues.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 (Situation and Scope)

1. Situation and priorities

The program/project is needed to address factors impacting level of goat production and efficiency of goat production systems, nutrition, management, health, and product utilization including meat and milk. The project is expected to make discoveries that would positively impact producers and consumers.

2. Scope of the Program

- In-State Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Funding will remain constant.

2. Ultimate goal(s) of this Program

Assisting goat producers in becoming successful entrepreneurs of food and non-food goat products.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.3	0.0	0.3
2011	0.0	0.3	0.0	0.3
2012	0.0	0.3	0.0	0.3
2013	0.0	0.3	0.0	0.3
2014	0.0	0.3	0.0	0.3

V(F). Planned Program (Activity)

1. Activity for the Program

Work will be performed to develop new dairy goat products and create new opportunities for goat producers.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Other 1 (Field Days) ● Education Class ● Demonstrations ● Workshop 	<ul style="list-style-type: none"> ● Other 1 (Proceedings) ● Web sites ● Newsletters

3. Description of targeted audience

All goat producers in Oklahoma.

V(G). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	250	350	0	0
2011	250	350	0	0
2012	250	350	0	0
2013	250	350	0	0
2014	250	350	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 : 1 2013 : 0 2014 : 0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	0	0
2011	0	0	0
2012	0	1	1
2013	1	0	1
2014	0	1	1

V(H). State Defined Outputs

1. Output Target

- Number of Research projects completed on Development of New Dairy Goat Products

2010 0

2011 0

2012 0

2013 0

2014 0

V(I). State Defined Outcome

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.

Outcome #1

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 200 **2011** : 200 **2012** : 200 **2013** 200 **2014** :200

3. Associated Institute Type(s)

- 1890 Extension

4. Associated Knowledge Area(s)

- 502 - New and Improved Food Products

Outcome #2

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1890 Extension

4. Associated Knowledge Area(s)

- 502 - New and Improved Food Products

Outcome #3

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 5 **2011** : 5 **2012** : 5 **2013** :10 **2014** :10

3. Associated Institute Type(s)

- 1890 Extension

4. Associated Knowledge Area(s)

- 502 - New and Improved Food Products

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

Description

Unforeseen disease or insect infestations could adversely affect goat production.

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

1. Evaluation Studies Planned

- After Only (post program)

Description

A cost analysis will be performed to see if new goat products have led to increased income for producers.

2. Data Collection Methods

- Sampling
- On-Site
- Portfolio Reviews

Description

The portfolio of selected producers will be reviewed to determine if new goat products have led to increased income.

V(A). Planned Program (Summary)**Program #13****1. Name of the Planned Program**

Demonstration Clinic: Artificial Insemination for Goats

2. Brief summary about Planned Program

The rapidly increasing number of goats in the United States has led to a growing importance of goat production and goat products to United States agriculture. Goat production is an important component of the farming systems of many small, resource-poor farmers and farm families. The main program objectives are twofold, first to develop enhanced goat production technologies that allow goat farmers to produce wholesome products in demand by the consumer through increased productivity and cost efficiency, and two, to transfer those technologies to farmers through a variety of extension avenues.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

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 (Situation and Scope)**1. Situation and priorities**

The program/project is needed to address factors impacting level of goat production and efficiency of goat production systems, nutrition, management, health, and product utilization including meat and milk. The project is expected to make discoveries that would positively impact producers and consumers.

2. Scope of the Program

- In-State Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)**1. Assumptions made for the Program**

Funding will remain constant.

2. Ultimate goal(s) of this Program

Goat producers (regardless of farm size) will have ready access to genetically superior sires for herd improvement.

V(E). Planned Program (Inputs)**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.1	0.0	0.0
2011	0.0	0.1	0.0	0.0
2012	0.0	0.1	0.0	0.0
2013	0.0	0.1	0.0	0.0
2014	0.0	0.1	0.0	0.0

V(F). Planned Program (Activity)**1. Activity for the Program**

Hands-on artificial insemination (AI) workshops will be conducted to teach AI techniques to goat producers. These AI skills will allow goat producers to gain access to genetically superior sires for herd improvement.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Other 1 (Field Days) ● Workshop 	<ul style="list-style-type: none"> ● Web sites ● Other 1 (Fact Sheets) ● Newsletters

3. Description of targeted audience

All goat producers in Oklahoma.

V(G). Planned Program (Outputs)**1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	60	150	0	0
2011	60	150	0	0
2012	60	150	0	0
2013	60	150	0	0
2014	60	150	0	0

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

2010 :0

2011 :0

2012 :0

2013 :0

2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	1	0	1
2011	0	0	0
2012	1	1	2
2013	0	0	0
2014	0	1	1

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

V(I). State Defined Outcome

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.

Outcome #1**1. Outcome Target**

Number of goat producers learning about artificial insemination techniques.

2. Outcome Type : Change in Action Outcome Measure

2010 :50 2011 : 50 2012 : 50 2013 : 50 2014 :50

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 301 - Reproductive Performance of Animals

Outcome #2**1. Outcome Target**

Number of goat producers using artificial insemination techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 :50 2011 : 50 2012 : 50 2013 : 50 2014 :50

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 301 - Reproductive Performance of Animals

Outcome #3**1. Outcome Target**

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

2. Outcome Type : Change in Condition Outcome Measure

2010 :30 2011 : 30 2012 : 30 2013 : 30 2014 :30

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 301 - Reproductive Performance of Animals

V(J). Planned Program (External Factors)**1. External Factors which may affect Outcomes**

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

Description

Unforeseen disease/insect infestations could affect outcomes.

V(K). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

- During (during program)

Description

Surveys will be used to determine satisfaction of producers who use techniques learned in the demonstration clinics.

2. Data Collection Methods

- Whole population
- On-Site

Description

Surveys will be used.

V(A). Planned Program (Summary)

Program #14

1. Name of the Planned Program

Fish Marketing (Aquaculture)

2. Brief summary about Planned Program

This program will explore the development of additional aquaculture fishery products and markets based upon using normally underused native fishes. This research will benefit aquaculture product consumers and provide additional income stability for aquaculture producers.

3. Program existence : Intermediate (One to five years)

4. Program duration : Medium Term (One to five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 (Situation and Scope)

1. Situation and priorities

FDA/EPA have issued advisories regarding frequency and amount of seafood consumption due to high methyl mercury concentration in wild freshwater and marine fish species. This may provide an opportunity for aquaculture producers to develop and market domestic alternative products.

2. Scope of the Program

- In-State Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Funding will remain constant.

2. Ultimate goal(s) of this Program

To help aquaculture producers establish more profitable fish marketing methods with alternative fish species.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.0	0.0	0.0
2011	0.0	0.0	0.0	0.0
2012	0.0	0.0	0.0	0.0
2013	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Methods of marketing alternative fish species will be explored to increase fish producers' profits.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Workshop ● Other 1 (Field Days) ● Education Class 	<ul style="list-style-type: none"> ● Newsletters ● Other 1 (Fact Sheets)

3. Description of targeted audience

All aquaculture producers in Oklahoma.

V(G). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0
2014	0	0	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	0	0
2011	0	0	0
2012	0	0	0
2013	0	0	0
2014	0	0	0

V(H). State Defined Outputs

1. Output Target

- Number of Research Projects completed on Fish Marketing.

2010 0

2011 0

2012 0

2013 0

2014 0

V(I). State Defined Outcome

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.

Outcome #1

1. Outcome Target

Number of farmers learning new fish marketing techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 0	2011 : 0	2012 : 0	2013 0	2014 : 0
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3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 601 - Economics of Agricultural Production and Farm Management

Outcome #2

1. Outcome Target

Number of farmers using new fish marketing techniques.

2. Outcome Type : Change in Action Outcome Measure

2010 0	2011 : 0	2012 : 0	2013 0	2014 : 0
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3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 601 - Economics of Agricultural Production and Farm Management

Outcome #3

1. Outcome Target

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

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0	2011 : 0	2012 : 0	2013 0	2014 : 0
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3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 601 - Economics of Agricultural Production and Farm Management

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

Description

A prolonged drought may adversely affect fish production by producers.

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

1. Evaluation Studies Planned

- Time series (multiple points before and after program)

Description

Production and sales of buffalo fishes will be monitored at multiple points during the project.

2. Data Collection Methods

- Sampling

Description

- Profit comparisons
- Sustainability

V(A). Planned Program (Summary)

Program #15

1. Name of the Planned Program

Meat Buck Performance Test

2. Brief summary about Planned Program

The rapidly increasing number of goats in the United States has led to a growing importance of goat production and goat products to United States agriculture. Goat production is an important component of the farming systems of many small, resource-poor farmers and farm families. The main program objectives are twofold, first to develop enhanced goat production technologies that allow goat farmers to produce wholesome products in demand by the consumer through increased productivity and cost efficiency, and two, to transfer those technologies to farmers through a variety of extension avenues.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

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 (Situation and Scope)

1. Situation and priorities

The program/project is needed to address factors impacting level of goat production and efficiency of goat production systems, nutrition, management, health, and product utilization including meat. The project is expected to make discoveries that would positively impact producers and consumers.

2. Scope of the Program

- In-State Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Funding will remain constant.

2. Ultimate goal(s) of this Program

Goat producers' herds will produce such high quality animals until meat buck performance testing is no longer needed.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.2	0.0	0.1
2011	0.0	0.2	0.0	0.1
2012	0.0	0.2	0.0	0.1
2013	0.0	0.2	0.0	0.1
2014	0.0	0.2	0.0	0.1

V(F). Planned Program (Activity)

1. Activity for the Program

Extension personnel will conduct the annual meat goat performance test for young, growing meat bucks to evaluate growth and feed efficiency.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Other 2 (Field Days) ● Other 1 (Seminars) ● Workshop 	<ul style="list-style-type: none"> ● Newsletters ● Web sites

3. Description of targeted audience

All goat producers in Oklahoma

V(G). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	35	100	0	0
2011	35	100	0	0
2012	35	100	0	0
2013	35	100	0	0
2014	35	100	0	0

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

Expected Patent Applications

2010 :0

2011 :0

2012 :0

2013 :0

2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	0	0
2011	0	1	1
2012	0	0	0
2013	0	1	1
2014	1	0	1

V(H). State Defined Outputs

1. Output Target

- Number of Research Projects completed on Meat Buck Performance Test.

2010 0

2011 0

2012 0

2013 0

2014 0

V(I). State Defined Outcome

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.

Outcome #1

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

•1890 Extension

4. Associated Knowledge Area(s)

- 303 - Genetic Improvement of Animals

Outcome #2

1. Outcome Target

Number of goat producers using the meat goat performance test.

2. Outcome Type : Change in Condition Outcome Measure

2010 30 **2011** : 30 **2012** : 30 **2013** 30 **2014** :30

3. Associated Institute Type(s)

•1890 Extension

4. Associated Knowledge Area(s)

- 303 - Genetic Improvement of Animals

Outcome #3

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 :10 **2011** : 10 **2012** : 10 **2013** :10 **2014** :10

3. Associated Institute Type(s)

•1890 Extension

4. Associated Knowledge Area(s)

- 303 - Genetic Improvement of Animals

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

Description

Unforeseen disease/insect infestation could affect outcomes.

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

1. Evaluation Studies Planned

- During (during program)

Description

Surveys will be used to determine satisfaction of producers who enroll animals in the meat buck performance test.

2. Data Collection Methods

- On-Site
- Whole population

Description

Surveys will be used.

V(A). Planned Program (Summary)**Program #16****1. Name of the Planned Program**

Goat Dairy Herd Improvement (DHI) Laboratory

2. Brief summary about Planned Program

The rapidly increasing number of goats in the United States has led to a growing importance of goat production and goat products to United States agriculture. Goat production is an important component of the farming systems of many small, resource-poor farmers and farm families. The main program objectives are twofold, first to develop enhanced goat production technologies that allow goat farmers to produce wholesome products in demand by the consumer through increased productivity and cost efficiency, and two, to transfer those technologies to farmers through a variety of extension avenues.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 (Situation and Scope)**1. Situation and priorities**

The program/project is needed to address factors impacting level of goat production and efficiency of goat production systems, nutrition, management, health, and product utilization including meat and milk. The project is expected to make discoveries that would positively impact producers and consumers.

2. Scope of the Program

- In-State Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)**1. Assumptions made for the Program**

Funding will remain constant.

2. Ultimate goal(s) of this Program

Goat producer's herds will produce such high quality milk until goat dairy herd improvement milk testing is no longer needed.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.1	0.0	1.0
2011	0.0	0.1	0.0	1.0
2012	0.0	0.1	0.0	1.0
2013	0.0	0.1	0.0	1.0
2014	0.0	0.1	0.0	1.0

V(F). Planned Program (Activity)

1. Activity for the Program

Extension personnel will conduct goat milk quality tests in the Langston University Goat Dairy Herd Improvement Laboratory.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Workshop ● Other 2 (Seminars) ● Other 1 (Field Days) 	<ul style="list-style-type: none"> ● Web sites ● Newsletters

3. Description of targeted audience

All goat producers in Oklahoma.

V(G). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	200	1000	0	0
2011	200	1000	0	0
2012	200	1000	0	0
2013	200	1000	0	0
2014	200	1000	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	1	0	1
2011	0	1	1
2012	0	0	0
2013	1	1	2
2014	1	0	1

V(H). State Defined Outputs

1. Output Target

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

2010 0 2011 0 2012 :0 2013 0 2014 0

V(I). State Defined Outcome

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

Outcome #1

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 :1000 **2011 :** 1000 **2012 :** 1000 **2013 :**1000 **2014 :**1000

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 308 - Improved Animal Products (Before Harvest)

Outcome #2

1. Outcome Target

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

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :150 **2011 :** 150 **2012 :** 150 **2013 :**150 **2014 :**150

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 308 - Improved Animal Products (Before Harvest)

Outcome #3

1. Outcome Target

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

2. Outcome Type : Change in Condition Outcome Measure

2010 :75 **2011 :** 75 **2012 :** 75 **2013 :** 75 **2014 :**75

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 308 - Improved Animal Products (Before Harvest)

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

Description

Unforeseen disease/insect infestation could affect outcomes.

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

1. Evaluation Studies Planned

- During (during program)

Description

Surveys will be used to determine the satisfaction of producers who use our Goat Dairy Herd Improvement Laboratory.

2. Data Collection Methods

- Sampling
- Mail

Description

Surveys will be used.

V(A). Planned Program (Summary)

Program #17

1. Name of the Planned Program

Phytoplankton (Aquaculture)

2. Brief summary about Planned Program

Research will be performed to provide needed information on phytoplankton management. Information on management of phytoplankton will increase the efficiency of fish production. Management information will also, be adaptable for use in water supply reservoirs for domestic consumption and recreation.

3. Program existence : Mature (More than five years)

4. Program duration : Short-Term (One year or less)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

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 (Situation and Scope)

1. Situation and priorities

Learning to manage phytoplankton populations in aquaculture ponds is vital for sustainable production systems. Poor control of phytoplankton populations results in economic losses from fish kills, off-flavor and reduced population efficiency.

2. Scope of the Program

- In-State Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Funding will remain constant.

2. Ultimate goal(s) of this Program

To contain or eradicate phytoplankton problems to increase fish farmers' production levels and income.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.6	0.0	0.3
2011	0.0	0.6	0.0	0.3
2012	0.0	0.6	0.0	0.3
2013	0.0	0.6	0.0	0.3
2014	0.0	0.6	0.0	0.3

V(F). Planned Program (Activity)**1. Activity for the Program**

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

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Workshop ● Demonstrations ● Other 1 ((Field Days)) 	<ul style="list-style-type: none"> ● Other 1 ((Proceedings)) ● Other 2 ((Fact Sheets))

3. Description of targeted audience

All aquaculture farmers in Oklahoma.

V(G). Planned Program (Outputs)**1. Standard output measures**

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2010	100	200	0	0
2011	100	200	0	0
2012	100	200	0	0
2013	100	200	0	0
2014	100	200	0	0

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

2010 :0

2011 :0

2012 :0

2013 :0

2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	1	1
2011	1	0	1
2012	0	0	0
2013	0	1	1
2014	0	1	1

V(H). State Defined Outputs

1. Output Target

- Number of Research Projects completed on Phytoplankton

2010 0

2011 0

2012 0

2013 0

2014 0

V(I). State Defined Outcome

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.

Outcome #1

1. Outcome Target

Number of farmers learning phytoplankton management techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 :300 **2011** : 300 **2012** : 300 **2013** 300 **2014** :300

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water

Outcome #2

1. Outcome Target

Number of farmers using phytoplankton management techniques.

2. Outcome Type : Change in Condition Outcome Measure

2010 :80 **2011** : 90 **2012** : 90 **2013** 90 **2014** :90

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water

Outcome #3

1. Outcome Target

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

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :10 **2011** : 15 **2012** : 15 **2013** :15 **2014** :20

3. Associated Institute Type(s)

- 1890 Extension
- 1890 Research

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

Description

A prolonged drought may adversely affect fish production.

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

1. Evaluation Studies Planned

- During (during program)

Description

Cost analyses will be performed to determine if phytoplankton control techniques resulted in increased income.

2. Data Collection Methods

- Sampling
- Observation

Description

Cost analyses will be used.