# 2007 Mississippi State University Combined Research and Extension Plan of Work

# **Brief Summary about Plan of Work**

This plan of work is a joint plan of work between the Mississippi State University Extension Service (MSU-ES) and the Mississippi Agricultural and Forestry Experiment Station. The plan therefore includes extension and research from the 1862 land-grant institution in Mississippi.

Mississippi is a diverse state, with a variety of agricultural systems, a large population of ethnic minorities, and families and communities with unique and powerful needs. The land-grant universities meet this challenge with a broad spectrum of programming designed to reach these diverse audiences. Creation and transfer of knowledge to solve problems is the core of these efforts.

MSU-ES provides research-based educational programs and information in agriculture and natural resources, 4-H youth development, family and consumer education and community resource development to improve the economic, social, and cultural well-being of all Mississippians.

The foundation mission of MAFES is the creation of knowledge through fundamental and applied research in the fields of science related to agriculture, food, natural resources, the natural environment, people, and communities. The focus of these research programs is on enhancing and/or developing economically efficient and environmentally acceptable agricultural production and processing systems. The goals are to provide safe, nutritious, desirable food and fiber products and processes for consumers as well as to assure that the businesses which comprise Mississippi's agricultural industry have the information required to remain competitive in a global marketplace.

MSU-ES receives a Smith-Lever formula allocation of \$6,048,063 or 18.82% of its total allocated budget. MAFES receives a Hatch formula allocation (including multistate research funds) of \$3,851,695 or 12.89% of its total allocated budget. The plan includes individual program plans from 26 different programs. These 26 programs reflect the integration of the agricultural sector in Mississippi and provide needed programming for the youth, families, and communities of the state. The 26 programs include the following:

Children, Youth, & Families at Risk

4-H Community Club Development

4-H Military Club Development

Volunteerism and Community Service for Youth

Agribusiness/Risk Farm Management

Agronomic Crops

**Animal Production** 

**Animal Protection** 

Aquaculture Production

Aguaculture Disease Prevention

Forestry

Horticulture

Integrated Pest Management

**Nutrient Management/Water Quality** 

Poultry

Wildlife and Fisheries

Community and Business Analysis

Community Health

Local Government Education & Training

Community Leadership Development

Tourism Development

Child Development

Family Life

Family Resource Management

Human Health

Human Nutrition/Food Safety

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### Estimated number of professional FTEs/SYs total in the State.

Year	Extenion		Research	
rear	1862	1890	1862	1890
2007	191.0	0.0	53.0	0.0
2008	191.0	0.0	53.0	0.0
2009	191.0	0.0	53.0	0.0
2010	191.0	0.0	53.0	0.0
2011	191.0	0.0	53.0	0.0

#### **Merit Review Process**

The merit review process that will be employed during the 5-Year Plan of Work cycle

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

#### **Brief explanation**

Research projects utilize both an internal university panel and an expert peer review as part of the regional research networks. These reviews cover all aspects of research project proposals, including scientific merit, budgets, and suitability of the research mission for the unit, experiment station, and regional consortium.

Extension programs undergo an internal university panel review. This review takes into consideration the need for the program (including stakeholder input), the methods utilized, the audience identified, and the methods for outcome/impact evaluation. The 5-Year Plan of Work combined plan is reviewed by a combined internal and external university and external non-university panel. Panels are set up as appropriate for specific program plans with a focus on a broader review of the need, resources allocated, and expected outcomes of the programs.

# **Evaluation of Multis & Joint Activities**

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

Once the draft guidelines for AREERA were published in 1998, MSU initiated its new planning process. Each program plan in this Plan of Work reflects a group planning effort, including both research and extension where both are involved in the program.

To provide guidance for the program planning process, the planning groups not only used their professional expertise, but also had information at their disposal from the following sources:

The stakeholder input process described in this document, including county and program advisory councils, state-level program advisory councils, research and extension center advisory meetings, key partners, and other sources; Outreach council meetings for research and extension;

The county-level program delivery agreements developed by each local extension agent; and Professional peer review of the draft plans of work.

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

Through the stakeholder input process described elsewhere in this Plan of Work, needs of all clientele groups, including under-served and under-represented groups, were determined. (Most of the advisory groups mentioned in the stakeholder input process are required to be representative of <u>all</u> potential clientele.) MSU-ES also has specific procedures in place, such as "grassroots mailing lists," to reach all potential clientele, especially those in under-served and under-represented populations.

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In addition to the stakeholder groups mentioned above, the outreach council has conducted a series of meetings around the state. These meetings were designed specifically to obtain input from under-served and under-represented populations.

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

Each planning group has developed one or more program plans using the logic model. In each program plan, expected outputs and outcome/impacts were developed. Most of the outcomes identified were intermediate- or long-term outcomes.

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

The creation of program planning groups has provided a mechanism for researchers and extension professionals to interact in the planning and implementation process. A required part of the joint plan of work is the sharing of information between the two "camps." The result has been the creation of numerous joint programs and enhanced interaction in all programming areas. Below are three examples of these joint efforts.

#### Southern Regional Aquaculture Center

The U.S. consumes increasingly greater amounts of fishery products than it produces. A strong domestic aquaculture industry is needed to increase production of fish and shellfish and reduce dependency on foreign suppliers. Centers provide a mechanism for assessing aquaculture industry needs, establishing research and extension priorities, and implementing regional research and extension projects designed to directly impact commercial aquaculture development.

The Southern Regional Aquaculture Centerprovides for coordination and prioritization of research and extension efforts across the southern U.S. This results in more efficient use of research funds and helps ensure that technology transfer occurs in an efficient and timely manner.

### Advanced Spatial Technologies for Agriculture (ASTA)

There is a need to investigate site-specific technologies as they pertain to natural resource management, precision farming, agribusiness and decision making in agriculture and to produce new knowledge concerning applications of these technologies in Mississippi and the Nation.

The Advanced Spatial Technologies for Agriculture (ASTA) program coordinates efforts on site-specific technologies. As part of the ASTA program, MAFES and MSU-ES faculty are conducting research and educational programs on site specific, precision farming technologies with regard to soil fertility management; pest management strategies; yield monitoring; problems associated with drainage, irrigation, aquaculture and other environmentally sensitive issues; and economic costs and returns associated with site specific production.

# Nutrient Management and Water Quality Task Force

Management of animal waste has become a major environmental issue, with serious economic consequences for poultry and livestock producers. Improper animal waste disposal can negatively affect water quality.

MAFES Scientists and MSU-ES Specialists have joined together to form a Nutrient Management and Water Quality Task Force. This task force is designed to help address both immediate and long-term problems related to nutrient management and water quality issues. The task force formulates plans of action and helps to facilitate team building to address these issues in a timely manner.

This team has helped to initiate research on the effect of nutrient management on watersheds, and have aided in the development and dissemination of best management practices to help producers deal with these issues.

#### Stakeholder Input

# 1. Actions taken to seek stakeholder input that encourages their participation (Check all that apply)

- Use of media to announce public meetings and listening sessions
- Targeted invitation to traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder groups
- Targeted invitation to traditional stakeholder individuals
- Targeted invitation to non-traditional stakeholder individuals
- Survey specifically with non-traditional groups
- Survey specifically with non-traditional individuals

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#### Brief explanation.

Efforts to determine economic, social, and environmental issues begin with County Extension Advisory Councils. Further needs assessment is carried out through Research and Extension Center Advisory Councils, and through formal and informal interaction with other stakeholders. Issues identified include concerns to be addressed with Extension and/or research programs.

#### County Extension Advisory Councils

As a formal process, key clientele meet under the leadership of county Extension professionals to review results of programs and identify key issues to be addressed in the county or area. Input comes from three different groups: the Overall Extension Advisory Council, Program Advisory Councils, and other stakeholders.

# Overall Extension Advisory Councils

MSU-ES has an Overall Extension Advisory Council in each county. These advisory councils meet a minimum of two times per year to discuss programming efforts, evaluate programs, legitimize program efforts, assess needs for future programming, and identify human and financial resources needed for county programming. This group includes leaders who provide input from business, social, and economic entities as well as those who represent the needs of underserved and underrepresented clientele.

#### Program Advisory Councils

Program and/or commodity advisory groups in each county act as subcommittees of the overall advisory council, including people who represent the interests of agriculture, family & consumer sciences, 4-H youth, and community/rural development issues. These groups meet at least two times per year to identify specific areas of program needs, delivery and evaluation.

#### Other Stakeholders

MSU-ES county agents are also required to obtain information regarding clientele needs from people outside the advisory councils. They must give special attention to key community leaders and representatives of underserved populations, making sure all groups who are possible beneficiaries of MSU-ES programming efforts are included. These groups meet several times during the year to offer input and react to Extension's efforts to address key issues in the community.

# Research and Extension Center Advisory Councils

MSU has four area Research and Extension Centers (Delta, Northeast, Central, and Coastal) jointly administered by MSU-ES and MAFES. These centers each have an overall advisory council where stakeholders lead discussions about programming and research efforts and assess needs at a yearly meeting. Subgroups of the advisory councils may meet several times during the year to discuss specific needs in research and extension programming.

# **Key Partners**

MSU-ES and MAFES meet with key partners throughout the year to discuss efforts and results, coordinate activities, and set priorities. These key partners include such organizations as the Mississippi Farm Bureau, Natural Resources Conservation Service, Delta Council, Rural Development Offices, Mississippi Forestry Commission, Mississippi Department of Wildlife, Fisheries, and Parks, Mississippi Department of Agriculture and Commerce, and numerous state and regional commodity groups.

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
- Open Listening Sessions
- Needs Assessments

# Brief explanation.

The collection of input from stakeholders is an ongoing process with both MSU-ES and MAFES. This was described in the previous section. Advisory committees are required to be reflective of the population of potential clientele. Listening sessions are sometimes held for the general public; others are specifically designed to reach under-served populations. Specific needs assessments are conducted when warranted, such as the development of a new program or when an issue emerges. The soybean rust scare of the past two years is such an example. These needs assessments may include focus groups, written surveys, or face-to-face interviews with selected clientele.

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# 2(B). 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. Methods for collecting Stakeholder Input

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

#### **Brief explanation**

Meetings with tradional stakeholder groups, the general public, and specifically with non-traditional groups are an on-going part of the needs assessment process conducted by MSU-ES and MAFES. (These are described in page 1 of this section.) Surveys of tradional stakeholder groups and individuals and non-traditional groups and individuals are conducted in specific situations.

# 3. A statement of how the input will be considered

- To Identify Emerging Issues
- Redirect Extension Programs
- Redirect Research Programs
- In the Action Plans
- To Set Priorities

#### Brief explanation.

Stakeholder input influences most aspects of this Plan of Work. Issues are identified through the needs assessment process discussed earlier. The issues help extension agents and specialists determine their plans of action, including redirecting programs to meet clientele needs. Administration must provide the resources to accomplish these changes, including setting new priorities or revising existing priorities, and hiring appropriate staff members as required to address the priorities.

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# **Planned Program Table of Content**

S. NO.	PROGRAM NAME
1	4-H Community Club Development
2	4-H Military Program
3	Agribusiness/Risk Farm Management
4	Agronomic Crops
5	Animal Production
6	Animal Protection
7	Aquaculture Health
8	Aquaculture Production
9	Children, Youth, and Families at Risk
10	Community and Business Analysis
11	Community Health
12	Community Leadership Development
13	Community Tourism Development
14	Early Care and Education
15	Family Leadership Development
16	Family Life
17	Family Resource Management
18	Forestry
19	Horticulture
20	Human Health
21	Human Nutrition/Food Safety
22	Integrated Pest Management
23	Local Government Education and Training
24	Nutrient Management/Water Quality
25	Poultry
26	Volunteerism and Community Service for Youth

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27 Wildlife and Fisheries

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# 4-H Community Club Development

#### 2. Program knowledge areas

• 806 100% Youth Development

3. Program existence : Mature (More then five years)4. Program duration : Long-Term (More than five years)

#### 5. Brief summary about Planned Program

This program includes the wide variety of activities that make up the 4-H community club system in Mississippi. Through proven 4-H club projects, afterschool activities, and organized clubs, 4-H builds the life skills needed by all youth.

#### 6. Situation and priorities

Parents want their children to grow into healthy, productive, successful adults. The mission of 4-H, the non-formal youth education program of the Mississippi State University Extension Service, is to help parents achieve that goal.

4-H helps youth acquire knowledge that can enable them to develop such life skills as: communication, decision-making, leadership, interpersonal relations, and community awareness. Numerous authors have validated these life skills. For a list of examples, see the Search Institute (http://www.search-institute.org/assets/forty.html) or lowa State University (http://www.extension.iastate.edu/4H/lifeskills/homepage.html).

4-H also helps youth form attitudes that will enable them to become self-directing, productive, and contributing members of society. The 4-H mission is accomplished through the involvement of parents, volunteer leaders, Extension agents, and other adults who organize and conduct educational experiences in community, school, and family settings.

4-H learning experiences are designed to help youth work with others in real-life situations. These experiences encourage family interactions by promoting individual growth in knowledge, skills, and attitudes.

# 7. Assumptions made for the Program

4-H in Mississippi will be 100 years old in 2007. Our assumption is that there is a strong youth development commitment in the state and a dedicated volunteer core.

It is also assumed that 4-H youth development will continue to have strong funding support at the local and state level.

#### 8. Ultimate goal(s) of this Program

Development of life skills in youth.

# 9. Scope of Program

In-State Extension

#### Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : No

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

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Wa an	Extension		Research	
Year	1862	1890	1862	1890
2007	17.0	0.0	0.0	0.0
2008	17.0	0.0	0.0	0.0
2009	17.0	0.0	0.0	0.0
2010	17.0	0.0	0.0	0.0
2011	17.0	0.0	0.0	0.0

# **Outputs for the Program**

# 13. Activity (What will be done?)

Activities

Recruit Youth and Volunteers

Provide Volunteer Leader Training for Youth Leaders and Adult Volunteers

Provide Training on organization and maintenance of community clubs

Provide recognition events for youth to exhibit project skills

- 4-H Club Congress
- District Achievement Days
- County, State, & Regional Fairs
- Livestock and Horse Shows

To Provide training to Extension personnel on experiential education through subject-matter work.

Chartering all 4-H Clubs and groups

- Four Essential Elements
- Legal Use of the Name and Emblem
- Diversity Training
- Financial Management

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

Extension			
Direct Methods Indirect Methods			
<ul> <li>Education Class</li> <li>Workshop</li> <li>Group Discussion</li> <li>One-on-One Intervention</li> <li>Demonstrations</li> </ul>	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> <li>TV Media Programs</li> <li>Web sites</li> </ul>		

#### 15. Description of targeted audience

All Mississippians between the ages of 6 and 18.

# 16. Standard output measures

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

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	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	37530	18765	93825	37530
2008	37530	18765	93825	37530
2009	37530	18765	93825	37530
2010	37530	18765	93825	37530
2011	37530	18765	93825	37530

# 17. (Standard Research Target) Number of Patents

**Expected Patents** 

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

18. Output measures

**Output Target** 

Number of youth enrolled in 4-H Clubs.

2007: 16000 2008: 16000 2009: 16000 2010: 16000 2011: 16000

**Outcomes for the Program** 

19. Outcome measures

**Outcome Text: Awareness created** 

**Outcome Target** 

Youth increase their development of life-skills

Outcome Type: Medium

2007: 14500 2008: 14500 2009: 14500 2010: 14500 2011: 14500

**Outcome Target** 

Youth increase knowledge of subject matter taught.

Outcome Type: Short

2007: 14500 2008: 14500 2009: 14500 2010: 14500 2011: 14500

**Outcome Target** 

Youth increase their levels of participation in community service activities

Outcome Type: Medium

2007: 8000 2008: 8000 2009: 8000 2010: 8000 2011: 8000

**Outcome Target** 

Youth increase the number of 4-H projects completed.

Outcome Type: Medium

2007: 8000 2008: 8000 2009: 8000 2010: 8000 2011: 8000

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### **Outcome Target**

4-H clubs increase their use of youth/adult partnerships.

Outcome Type: Medium

2007: 200 2008: 200 2009: 200 2010: 200 2011: 200

#### **Outcome Target**

Youth increase their involvement in leadership events and activities at the district, state, and national levels.

Outcome Type: Medium

2007: 4000 2008: 4000 2009: 4000 2010: 4000 2011: 4000

#### **Outcome Target**

4-H members are active contributing citizens of their communities.

Outcome Type: Long

2007: 4000 2008: 4000 2009: 4000 2010: 4000 2011: 4000

# 20. External factors which may affect outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Appropriations changes
- Populations changes (immigration,new cultural groupings,etc.)

#### Description

During the past year, Mississippi learned first-hand the problems a catastrophic hurricane could cause. Displaced citizens and changing needs could have a big impact. Other possible factors, such as appropriations changes and population changes, would most likely be less severe but still could have a significant impact on outcomes.

#### 21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- Case Study
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

### Description

Evaluations will conducted at both the state and local levels. Most local evaluations will include either after only, retrospective, or case study methodology. Comparitive studies and some retrospective studies will be conducted at the state level.

# 22. Data Collection Methods

• {NO DATA ENTERED}

#### Description

Most local programs will use whole populations of clubs and counties. Most state evaluations will use sampling. Most of the data collection techniques will be used at one time or another.

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# 4-H Military Program

#### 2. Program knowledge areas

• 806 100% Youth Development

3. Program existence : Intermediate (One to five years)4. Program duration : Long-Term (More than five years)

#### 5. Brief summary about Planned Program

This program includes support of military families and youth through 4-H programming at military bases and among families of service men and women who have been deployed.

#### 6. Situation and priorities

Currently Mississippi has 4,828 active duty National Guard and Reserve Units called to active duty in Mississippi. There are five military bases (Columbus AFB, Keesler AFB, naval Air Station Meridian, Naval Air Station Pascagoula, Naval Construction Battalion Center Gulfport) in our state. These full time soldiers and their families are dealing with multiple deployment and reunion issues for which the Extension Youth Development program can provide assistance.

# 7. Assumptions made for the Program

It is assumed that the principles of 4-H youth development programming are appropriate for the youth in military families. It is further assumed that program staff and volunteers will have the skills necessary to provide programming for these youth.

# 8. Ultimate goal(s) of this Program

Development of life skills in youth so they will be productive adults.

#### 9. Scope of Program

Multistate Extension

# Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : No

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

Vann	Extension		Research	
Year	1862	1890	1862	1890
2007	6.0	0.0	0.0	0.0
2008	6.0	0.0	0.0	0.0
2009	6.0	0.0	0.0	0.0
2010	6.0	0.0	0.0	0.0
2011	6.0	0.0	0.0	0.0

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# **Outputs for the Program**

# 13. Activity (What will be done?)

Activities:

Build relationships with the partners who can identify military youth.

Provide information about 4-H and skills related workshops to military youth and their families at the following events: (build relationships and engage youth)

Deployments

Reunions

Family Days

National Guard Youth Symposium

National Guard Annual Training Camp

Military families participate at the local level by forming clubs or joining existing clubs

Mainstream military youth into ongoing 4-H activities that include:

- 4-H Club Congress
- 4-H Project Achievement Days
- Teen Leader Forums
- Mississippi State Fair

Provide training to military personnel and their volunteers on Essential Elements of 4-H at the following events:

- · State Volunteer Leaders Forum
- District Fall Volunteer Leaders Forum
- 6. Provide in service training to Extension personnel in working with military families.

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

Extension			
Direct Methods Indirect Methods			
<ul> <li>Education Class</li> <li>Workshop</li> <li>Group Discussion</li> <li>One-on-One Intervention</li> <li>Demonstrations</li> </ul>	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> <li>Web sites</li> </ul>		

# 15. Description of targeted audience

The primary audience of this program is youth of military families. Other audiences include parents of military youth, volunteers, and agency and military partners.

# 16. 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
2007	6255	3127	37530	18765
2008	6255	3127	37530	18765
2009	6255	3127	37530	18765
2010	6255	3127	37530	18765
2011	6255	3127	37530	18765

# 17. (Standard Research Target) Number of Patents

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**Expected Patents** 

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

18. Output measures

**Output Target** 

Number of 4-H Clubs operating on military bases.

2007: 2 2008: 2 2009: 2 2010: 2 2011: 2

**Output Target** 

Number of youth from military families participating in 4-H clubs and activities.

2007: 250 2008: 250 2009: 250 2010: 250 2011: 250

**Outcomes for the Program** 

19. Outcome measures

**Outcome Text: Awareness created** 

**Outcome Target** 

Military youth increase their knowledge of subject matter taught

Outcome Type: Short

2007: 230 2008: 230 2009: 230 2010: 230 2011: 230

**Outcome Target** 

Military youth increase their development of life skills

Outcome Type: Medium

2007: 230 2008: 230 2009: 230 2010: 230 2011: 230

**Outcome Target** 

Military youth are active 4-H participants as evidenced by their involvement on the leadership team, district, state, and national event participation

Outcome Type: Medium

2007: 200 2008: 200 2009: 200 2010: 200 2011: 200

**Outcome Target** 

Military adult family members are active in the District and State Volunteer Leaders Forum

Outcome Type: Medium

2007: 20 2008: 20 2009: 20 2010: 20 2011: 20

**Outcome Target** 

4-H Clubs are sustained at Columbus and Keesler Air Force Bases and by National Guard families

Outcome Type: Long

2007: 6 2008: 6 2009: 6 2010: 6 2011: 6

**Outcome Target** 

Youth develop into productive citizens

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Outcome Type: Long

2007: 150 2008: 150 2009: 150 2010: 150 2011: 150

# 20. External factors which may affect outcomes

- Appropriations changes
- Government Regulations

# Description

As long as there is a substantial military presence in Mississippi, 4-H will strive to provide appropriate programming for youth from military families. Certain external factors may limit the effectiveness of these efforts.

# 21. Evaluation studies planned

Retrospective (post program)

# Description

Local evaluation will focus on subject matter knowledge gained and life skills developed.

# 22. Data Collection Methods

- Whole population
- On-Site

#### Description

Data from base clubs and other clubs with military youth will use the entire population for survey research.

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Agribusiness/Risk Farm Management

#### 2. Program knowledge areas

- 604 40% Marketing and Distribution Practices
- 610 20% Domestic Policy Analysis
- 601 40% Economics of Agricultural Production and Farm Management

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

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

### 5. Brief summary about Planned Program

This program helps agricultural producers improve the profitability of their enterprise through management, marketing, and influencing farm policy.

#### 6. Situation and priorities

Mississippi's farmers and agribusiness professionals operate in a competitive and rapidly changing environment. To thrive in this environment, they need access to timely information, tools to effectively evaluate that information, and the skills to recognize the need for and implement changes in the management of their operations.

Mississippi's agricultural producers and agribusiness professionals need timely and accurate information on developments in markets for their commodities. In addition, they need a better understanding of the marketing tools and opportunities that are available to them.

Changes in agricultural policy related to commodity production and natural resource conservation have a tremendous impact on the economic well-being of Mississippi's agricultural producers, agribusinesses, and landowners. These stakeholders need access to the most current information and analysis related to proposed policy changes.

### 7. Assumptions made for the Program

Producers that are proficient at production techniques are not necessarily proficient at the business aspects of farming. While production levels are important to farm viability, marketing, management, and knowledge of policy are also important components of successful enterprises.

#### 8. Ultimate goal(s) of this Program

The program seeks to increase the profitability of farm enterprises so that operations are sustainable.

# 9. Scope of Program

Multistate Integrated Research and Extension

# Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

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Va an	Extension		Research	
Year	1862	1890	1862	1890
2007	4.5	0.0	3.3	0.0
2008	4.5	0.0	3.3	0.0
2009	4.5	0.0	3.3	0.0
2010	4.5	0.0	3.3	0.0
2011	4.5	0.0	3.3	0.0

# **Outputs for the Program**

# 13. Activity (What will be done?)

This program includes three areas designed to assist farmers in making their enterprises more profitable:

The Farm Management Information and Training area provides farmers and agribusiness professionals with timely and relevant information on a variety of topics potentially impacting management decisions on their operations. It offers a number of practical decision aids along with training on the use of these aids as well as providing a resource for managers who need help with business planning.

The Extension Agricultural Marketing Information and Education area provides producers of major row crops, cattle, milk and dairy products, catfish, fruits and vegetables, and horticultural crops with regular, timely updates on conditions in these commodity markets. In addition, training will be made available on the use of commonly used marketing tools and strategies. The Agricultural Policy Analysis and Education area provides producers, lenders and other input providers, and rural community leaders with timely and relevant information on existing farm, conservation, and international trade programs as well as analysis of the potential impact of proposed policy changes.

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

Extension				
Direct Methods	Indirect Methods			
• {NO DATA ENTERED}	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> <li>Web sites</li> </ul>			

# 15. Description of targeted audience

The target audience for this program consists primarily of agricultural producers and related agribusiness personnel.

# 16. Standard output measures

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

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	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	16289	4072	0	0
2008	16289	4072	0	0
2009	16289	4072	0	0
2010	16289	4072	0	0
2011	16289	4072	0	0

# 17. (Standard Research Target) Number of Patents

# **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

#### 18. Output measures

# **Output Target**

Number of producers attending workshops, seminars, and short courses.

2007: 2715 2008: 2715 2009: 2715 2010: 2715 2011: 2715

# **Output Target**

Number of articles/abstracts in journals, proceedings, and edited books.

2007: 5 2008: 5 2009: 5 2010: 5 2011: 5

# **Outcomes for the Program**

# 19. Outcome measures

# **Outcome Text: Awareness created**

# Outcome Target

Number of producers adopting recommended strategies in management, marketing, and government program use.

Outcome Type: Medium

2007: 500 2008: 500 2009: 500 2010: 500 2011: 500

# **Outcome Target**

Number of producers indicating increased profitability due to implementation of recommended strategies.

Outcome Type: Long

2007: 400 2008: 400 2009: 400 2010: 400 2011: 400

# 20. External factors which may affect outcomes

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- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programatic Challenges

#### Description

As with most production-related programs, the success of this program can be influenced by many factors. The program is designed to help producers maintain their viability in spite of external factors, however.

# 21. Evaluation studies planned

- Retrospective (post program)
- Time series (multiple points before and after program)
- Case Study

#### Description

Retrospective studies will be used to determine adoption strategies and related impacts. Time series and case study analyses will be used to determine trends in marketing effectiveness.

# 22. Data Collection Methods

- Sampling
- Mail
- On-Site
- Case Study

#### Description

A sample of the population will be used for the retrospective studies. A few selected producers will be used in the case study analysis to verify implementation and impacts.

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**Agronomic Crops** 

#### 2. Program knowledge areas

- 202 5% Plant Genetic Resources
- 102 10% Soil, Plant, Water, Nutrient Relationships
- 203 10% Plant Biological Efficiency and Abiotic Stresses Affecting Plants
- 132 5% Weather and Climate
- 213 10% Weeds Affecting Plants
- 205 30% Plant Management Systems
- 212 5% Pathogens and Nematodes Affecting Plants
- 111 15% Conservation and Efficient Use of Water
- 211 10% Insects, Mites, and Other Arthropods Affecting Plants

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

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

#### 5. Brief summary about Planned Program

This program includes research and extension efforts related to the 3.7 million acres of row-crops produced in Mississippi each year. Primary crops grown include cotton, soybeans, corn, rice, wheat, grain sorghum, and peanuts.

#### 6. Situation and priorities

Agronomic crops comprise one of the largest constituents of Mississippi's number one industry, agriculture. Mississippi farmers normally grow a compliment of several crops, including cotton, soybeans, corn, rice, wheat, grain sorghum and peanuts. These crops are grown on approximately 3.7 million acres and their produce is estimated at over \$1 billion annually. The economic impact of crops to Mississippi's economy accounts for several times the actual commodity values, when considering the inputs utilized to grow, harvest, store, transport, process, market and utilize them. Crop production supports numerous agricultural industries, including seed, fertilizer, chemical, equipment, storage, processing, transportation, fuel, and consulting. Cotton is the king of crops in Mississippi with an economic value of more than \$450 million and historical top three ranking in the United States. Mississippi farmers grow around 1.24 million acres of cotton. Soybeans are grown on more land, nearly 1.5 million acres, than any other crop in Mississippi and produce a value of about \$300 million. Growers produce about \$132 million of corn on about 468,000 acres, \$102 million of rice on 250,000 acres, \$21 million of wheat on 172,000 acres, and \$10 million of grain sorghum on 58,000 acres. Mississippi growers recently increased peanut production value to \$7.6 million on 15,000 acres.

#### 7. Assumptions made for the Program

University Experiment Station and Extension Service programs provide unbiased, scientific-based expertise to our clientele. Nearly all other information outlets have considerable financial interest regarding the recommendations they provide. Thus, universities provide uniquely impartial data and ideas from which clientele can use to make sound decisions.

# 8. Ultimate goal(s) of this Program

Increased production levels, decreased input costs, and better evironmental stewardship for agronomic crop producers.

# 9. Scope of Program

Multistate Integrated Research and Extension

# Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

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Va an	Extension		Research	
Year	1862	1890	1862	1890
2007	21.0	0.0	27.6	0.0
2008	21.0	0.0	27.6	0.0
2009	21.0	0.0	27.6	0.0
2010	21.0	0.0	27.6	0.0
2011	21.0	0.0	27.6	0.0

# **Outputs for the Program**

# 13. Activity (What will be done?)

Short courses, Workshops or Training Seminars
Field Consultations
Demonstration and Verification Programs
Newsletters and Publications
Web-based information and E-mail
Distance Learning Programs
Field Manuals or Guides
Farm Management Software/Components

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

Extension		
Direct Methods	Indirect Methods	
• {NO DATA ENTERED}	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> <li>Web sites</li> </ul>	

# 15. Description of targeted audience

The target audience for this program includes approximately 30,000 Mississippi crop producers, consultants, retail dealers and industry personnel.

# 16. 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
2007	154572	38643	0	0
2008	154572	38643	0	0
2009	154572	38643	0	0
2010	154572	38643	0	0
2011	154572	38643	0	0

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# 17. (Standard Research Target) Number of Patents

**Expected Patents** 

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

#### 18. Output measures

#### **Output Target**

Number of producers attending seminars, workshops, short courses, and demonstrations.

2007: 25762 2008: 25762 2009: 25762 2010: 25762 2011: 25762

#### **Output Target**

Number of articles/abstracts in journals, proceedings, and edited books.

2007: 15 2008: 15 2009: 15 2010: 15 2011: 15

# **Outcomes for the Program**

#### 19. Outcome measures

#### **Outcome Text: Awareness created**

#### **Outcome Target**

Number of producers adopting new technologies, strategies, or systems.

Outcome Type: Medium

2007: 5000 2008: 5000 2009: 5000 2010: 5000 2011: 5000

#### **Outcome Target**

Number of producers increasing production levels.

Outcome Type: Long

2007: 4000 2008: 4000 2009: 4000 2010: 4000 2011: 4000

#### **Outcome Target**

Number of producers decreasing production inputs/expenses.

Outcome Type: Long

2007: 4000 2008: 4000 2009: 4000 2010: 4000 2011: 4000

# **Outcome Target**

Number of producers improving their environmental stewardship.

Outcome Type: Long

2007: 2000 2008: 2000 2009: 2000 2010: 2000 2011: 2000

# 20. External factors which may affect outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Programatic Challenges

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# Description

As the agronomic crops program is tied directly to agricultural production, weather extremes is the most likely external factor to affect outcomes. The next most likely factors to affect outcomes are government regulations, especially environmental regulations, and public policy changes, primarily government set-asides and production programs.

# 21. Evaluation studies planned

- Retrospective (post program)
- Time series (multiple points before and after program)
- Case Study

#### Description

Evaluation of this program will include retrospective producer surveys and case studies of selected producers. The time series analysis will include production data for selected row-crops in Mississippi.

#### 22. Data Collection Methods

- Sampling
- Mail
- On-Site
- Case Study
- Other (Production Statistics)

# Description

Producer surveys will use a sample of the population. The case study and observation methods will be used with a few selected producers. Production statistics will be used for time series analysis.

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#### **Animal Production**

#### 2. Program knowledge areas

- 303 20% Genetic Improvement of Animals
- 307 15% Animal Management Systems
- 305 10% Animal Physiological Processes
- 306 10% Environmental Stress in Animals
- 301 15% Reproductive Performance of Animals
- 308 5% Improved Animal Products (Before Harvest)
- 302 20% Nutrient Utilization in Animals
- 304 5% Animal Genome

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

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

#### 5. Brief summary about Planned Program

This program addresses research and extension programming designed to enhance the animal production process, with a focus on helping beef, dairy, equine, and swine producers and industry personnel.

#### 6. Situation and priorities

There are 42,200 farms in Mississippi and over 20,000 of these farms are involved in livestock production. Livestock are produced in all 82 counties. The market value of livestock production at the farm gate is 390 million dollars. The total economic impact of the livestock industry is approximately 554 million dollars.

As of 2005, there were 564,000 head of beef cows in Mississippi. The estimated value of beef cattle sold in 2004 was 203 million dollars. There are approximately 18,800 beef producers in Mississippi. Eighty-one percent of these producers own herds of less than 50 cows, but comprise 41% of the total beef cow inventory. The remaining 59% of the beef cows are owned by only 19% of the producers.

On January 1, 2005, there were approximately 234 commercial Grade A dairy farms in Mississippi milking 25,000 cows. During 2004, these dairies produced 379 million pounds of milk valued at an estimated \$16.80 per hundredweight and the state's total value of milk production calculated to be \$63.7 million. Only 50 of the 230 licensed dairies in Mississippi utilize the Dairy Herd Improvement Association (DHIA) data collection and management system to provide cow health, production, and reproductive information to dairy farmers.

In 2005, MS produced 432,875 pigs with a gross market value of \$47.5 million (National Pork Board Check-off Report). Mississippi's inventory of hogs and pigs was estimated at 375,000 head on December 1, 2005 reflecting a 19 percent increase over 2004. The number kept for breeding is estimated at 39,000, which is an 11% increase over 2004. Pigs saved per litter in 2005, averaged 8.86 compared with 8.78 during 2004. There were 1,000 farms with hogs in 2005. Total economic impact of all segments and related agribusiness of the swine industry for 2005 is estimated at \$109 million. A large percentage (estimated 85%) of MS swine production is made up of company contract production.

The equine industry in Mississippi is highly diverse and supports a wide variety of activities by combining the rural activities of breeding, training, maintaining and riding horses with the more urban activities of public stables and horse shows. It is estimated; Mississippi has 125,000 horses (MS Department of Agriculture and Commerce Publication). Horse sales are valued at \$18 million yearly. Approximately 90% of Mississippi's horses are used for pleasure and showing. The remaining 10% are used in ranch and farm work, rodeos, and police work. The equine industry utilizes the largest amount of sacked feed and baled hay.

There are approximately 2.3 million acres devoted to forage production in Mississippi. Hay is harvested on approximately 730,000 acres with an average yield of 2.9 tons per acre. The 2005 estimated value of hay production was \$110 million dollars. It is estimated that many of these acres of hay production do not receive adequate amounts of lime or fertilizer. Forage production could be increased without additional acreage by improving the management of the forage crops.

# 7. Assumptions made for the Program

Livestock producers in general are reluctant to change management or production practices. Producers have limited time to attend educational programs. Educational programs must be designed to interest the producers to participate and convince them the information delivered is sound and economically viable. The use of multi-media technology in delivering programs can be useful in attracting producer participation however the producer must depart from the program with a sense their participation was worthwhile.

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# 8. Ultimate goal(s) of this Program

This program should result in increased production efficiency in animal operations, improved economic return for animal producers, and overall development, growth, and improvement of the livestock industries.

# 9. Scope of Program

Multistate Integrated Research and Extension

# Inputs for the Program

10. Expending formula funds or state-matching funds :  $\gamma_{es}$ 

11. Expending other then formula funds or state-matching funds : No

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

Value	Exte	nsion	ion Research	
Year	1862	1890	1862	1890
2007	11.5	0.0	4.8	0.0
2008	11.5	0.0	4.8	0.0
2009	11.5	0.0	4.8	0.0
2010	11.5	0.0	4.8	0.0
2011	11.5	0.0	4.8	0.0

# **Outputs for the Program**

# 13. Activity (What will be done?)

Research and Extension programs will be conducted in the following areas (and others as needed):

- Forage Testing
- Ration Recommendations
- Beef Quality Assurance
- Farm-to-Feedlot Project
- Stocker Grazing Program
- Forage Variety Evaluation Publications
- Annual Mississippi Dairy Enterprise Planning Budgets for various sizes of typical dairy operations in the state
- Workshops for dairy producers of the use and value of dairy budgets in the management of their dairy farms
- Enrollment on the Dairy Herd Improvement Assn.
- Heat Abatement Training
- DHIA herd management screening
- Statewide Dairy Field Day
- Dairy Nutrition Workshops
- Reproductive Management
- BCIA sponsored sales
- Swine Producers Extension Program
- Swine Managers Training
- Environmental Continuing Education Classes
- Dietary analyses and consultation
- Pork Quality Assurance Program
- Swine Welfare and Assurance Program

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

Extension		
Direct Methods	Indirect Methods	
• {NO DATA ENTERED}	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> <li>Web sites</li> </ul>	

# 15. Description of targeted audience

The target audience for this program includes beef, dairy, swine, and equine producers (full- and part-time) and related industry personnel.

# 16. 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
2007	77059	19265	0	0
2008	77059	19265	0	0
2009	77059	19265	0	0
2010	77059	19265	0	0
2011	77059	19265	0	0

# 17. (Standard Research Target) Number of Patents

**Expected Patents** 

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

18. Output measures

**Output Target** 

Number of producers attending seminars, workshops, short courses, and demonstrations.

2007: 12843 2008: 12843 2009: 12843 2010: 12843 2011: 12843

**Output Target** 

Number of articles/abstracts in journals, proceedings, and edited books.

2007: 10 2008: 10 2009: 10 2010: 10 2011: 10

**Outcomes for the Program** 

19. Outcome measures

**Outcome Text: Awareness created** 

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### **Outcome Target**

Number of producers adopting new technologies, strategies, or systems.

Outcome Type: Medium

2007: 2500 2008: 2500 2009: 2500 2010: 2500 2011: 2500

### **Outcome Target**

Number of producers increasing production levels.

Outcome Type: Long

2007: 2000 2008: 2000 2009: 2000 2010: 2000 2011: 2000

#### **Outcome Target**

Number of producers decreasing production inputs/expenses.

Outcome Type: Long

2007: 2000 2008: 2000 2009: 2000 2010: 2000 2011: 2000

#### **Outcome Target**

Number of producers improving their environmental stewardship.

Outcome Type: Long

2007: 1000 2008: 1000 2009: 1000 2010: 1000 2011: 1000

# 20. External factors which may affect outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations

#### Description

Prices for beef, pork, dairy, and other animal products are somewhat dependent on the local, state, and national economies. Natural disasters can affect production, particularly drought. Government regulations, particularly environmental regulations, may affect producers' ability to make a profit on these enterprises.

# 21. Evaluation studies planned

- Retrospective (post program)
- Time series (multiple points before and after program)
- Case Study

#### Description

Evaluation of this program will include retrospective producer surveys and case studies of selected producers. The time series analysis will include production data for selected animal production metrics in Mississippi.

# 22. Data Collection Methods

- Sampling
- Mail
- On-Site
- Case Study
- Other (Production Statistics)

# Description

Producer surveys will use a sample of the population. The case study and observation methods will be used with a few selected producers. Production statistics will be used for time-series analysis.

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#### **Animal Protection**

#### 2. Program knowledge areas

- 313 10% Internal Parasites in Animals
- 314 10% Toxic Chemicals, Poisonous Plants, Naturally Occuring Toxins, and Other Hazards Affecting Animals
- 311 40% Animal Diseases
- 315 30% Animal Welfare/Well-Being and Protection
- 312 10% External Parasites and Pests of Animals

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

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

#### 5. Brief summary about Planned Program

This program focuses on the health and well-being of beef, dairy, equine, and swine animals reared on Mississippi farms. This program is closely related with the Animal Science/Animal Production program described elsewhere in this Plan of Work.

#### 6. Situation and priorities

Animal Health is a concern of livestock producers. From a production standpoint, animal diseases decrease economic return and pose problems associated with carcass disposal. Many producers do not have a planned annual herd health program. Health and parasite control programs can correct existing health problems and reduce potential for future difficulties. A herd health program administered at the proper time would have a positive economic impact on livestock production in Mississippi and would positively impact marketing. Other emerging issues involve food safety, animal i.d., foreign animal diseases, and the limitation of antibiotic use in livestock production. Producers should be encouraged to participate in quality assurance programs that address the on-farm HAACP concept of food safety and drug use. Preventative disease management along with production technologies such as strict bio-security protocols can assist producers with animal health issues.

Mastitis Control -- Mastitis is a disease that exists in various degrees in every dairy herd in Mississippi. Mastitis influences the cow's ability to produce milk, and negatively influences the quality of milk. Effective mastitis control and management can increase milk production, lower production costs, and improve dairy farm profitability.

#### 7. Assumptions made for the Program

Livestock producers in general are reluctant to change management or production practices. Producers have limited time to attend educational programs. Educational programs must be designed to interest the producers to participate and convince them the information delivered is sound and economically viable. The use of multi-media technology in delivering programs can be useful in attracting producer participation however the producer must depart from the program with a sense their participation was worthwhile.

# 8. Ultimate goal(s) of this Program

This program should result in animals and animal products from Mississippi farms being overall healthy--protected from harm and free of diseases, parasites, and toxins.

# 9. Scope of Program

Multistate Integrated Research and Extension

# Inputs for the Program

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

11. Expending other then formula funds or state-matching funds:

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

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V	Exte	nsion	Re	search
Year	1862	1890	1862	1890
2007	7.5	0.0	3.0	0.0
2008	7.5	0.0	3.0	0.0
2009	7.5	0.0	3.0	0.0
2010	7.5	0.0	3.0	0.0
2011	7.5	0.0	3.0	0.0

# **Outputs for the Program**

# 13. Activity (What will be done?)

Research and Extension programs will be conducted in the following areas (and others as needed):

- Forage Testing
- Ration Recommendations
- Beef Quality Assurance
- Farm-to-Feedlot Project
- Stocker Grazing Program
- Forage Variety Evaluation Publications
- Annual Mississippi Dairy Enterprise Planning Budgets for various sizes of typical dairy operations in the state
- Workshops for dairy producers of the use and value of dairy budgets in the management of their dairy farms
- Enrollment on the Dairy Herd Improvement Assn.
- Heat Abatement Training
- DHIA herd management screening
- Statewide Dairy Field Day
- Dairy Nutrition Workshops
- Reproductive Management
- BCIA sponsored sales
- Swine Producers Extension Program
- Swine Managers Training
- Environmental Continuing Education Classes
- Dietary analyses and consultation
- Pork Quality Assurance Program
- Swine Welfare and Assurance Program

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

Extension		
Direct Methods	Indirect Methods	
<ul> <li>Education Class</li> <li>Workshop</li> <li>One-on-One Intervention</li> <li>Demonstrations</li> </ul>	• {NO DATA ENTERED}	

# 15. Description of targeted audience

The target audience for this program includes beef, dairy, swine, and equine producers (full- and part-time) and related industry personnel.

# 16. Standard output measures

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

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	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	51373	12843	0	0
2008	51373	12843	0	0
2009	51373	12843	0	0
2010	51373	12843	0	0
2011	51373	12843	0	0

# 17. (Standard Research Target) Number of Patents

# **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

#### 18. Output measures

# **Output Target**

Number of producers attending seminars, workshops, short courses, and demonstrations.

2007: 8562 2008: 8562 2009: 8562 2010: 8562 2011: 8562

# **Output Target**

Number of articles/abstracts in journals, proceedings, and edited books.

2007: 5 2008: 5 2009: 5 2010: 5 2011: 5

# **Outcomes for the Program**

# 19. Outcome measures

# **Outcome Text: Awareness created**

# **Outcome Target**

Number of producers adopting new technologies, strategies, or systems.

Outcome Type: Medium

2007: 1700 2008: 1700 2009: 1700 2010: 1700 2011: 1700

# **Outcome Target**

Number of producers improving overall heard health and/or protection.

Outcome Type: Long

2007: 1360 2008: 1360 2009: 1360 2010: 1360 2011: 1360

# 20. External factors which may affect outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Government Regulations

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# Description

External factors should have limited influence on this program. The most important factor would be natural disasters, as drought could decrease available feed stores and other natural disasters (e.g., hurricanes and tornadoes) can effect many areas of animal production.

# 21. Evaluation studies planned

- Retrospective (post program)
- Time series (multiple points before and after program)
- Case Study

#### Description

Evaluation of this program will include retrospective producer surveys and case studies of selected producers. The time series analysis will include production data for selected animal production metrics in Mississippi.

#### 22. Data Collection Methods

- Sampling
- Mail
- On-Site
- Case Study
- Other (Production Statistics)

# Description

Producer surveys will use a sample of the population. The case study and observation methods will be used with a few selected producers. Production statistics will be used for time-series analysis.

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Aquaculture Health

#### 2. Program knowledge areas

- 313 15% Internal Parasites in Animals
- 315 35% Animal Welfare/Well-Being and Protection
- 312 15% External Parasites and Pests of Animals
- 311 35% Animal Diseases

3. Program existence : Mature (More then five years)4. Program duration : Long-Term (More than five years)

#### 5. Brief summary about Planned Program

This program is focused on animal health management, especially catfish health management, as health is one of the primary factors that limits production efficiency.

#### 6. Situation and priorities

Commercial catfish production takes place in 13 states, but is concentrated in the Mid-South Area, particularly the Delta region of northwest Mississippi. Taken as a whole, in 2003 the industry produced 300 million kilograms of foodsize fish, valued at approximately \$400 million. However, the overall economic impact of U.S. commercial catfish production vastly exceeds this figure. The Mississippi industry is composed of roughly 400 farms encompassing 45,000 hectares of water and employs approximately 7000 workers. Mississippi accounts for approximately 60% of total foodsize fish production and is also the largest producer of fingerling "seed-stock." When ancillary service industries are considered, the Mississippi industry contributes approximately \$2 billion to the well-being of this economically depressed region.

Despite increased production, profitability of the catfish industry is declining. Since its inception more than 40 years ago, disease-related losses have represented a major impediment to economic viability. In the last decade losses from infectious and environmental diseases have escalated as culture practices have become more intensive and the incidence of recognized diseases has been amplified within relatively closed populations of cultured fish. There has also been an emergence of several previously unknown disease entities. It is estimated that disease-related mortalities account for approximately 45-50% of all losses incurred on farms and may account for as much as \$100 million annually in direct economic impact. In the past 3 years, decreased production efficiency resulting from disease, in conjunction with historically low fish prices, competition with foreign imports, and rising feed costs has forced approximately 20% of farm acreage out of production. Without substantial improvements in fish health management and production efficiency, the future of commercial catfish farming will remain in jeopardy.

All research conducted under this agreement will address practical, production-oriented problems facing the farm-raised catfish industry in the southeastern United States within the broad subject areas described above. Specifically, the work will focus on molecular disease diagnostics, elucidation of bacterial virulence factors, the relationship between management practices and disease, characterization of new and emerging diseases, and surveillance for diseases of undetermined etiology. The program will apply a multidisciplinary approach to addressing industry needs through basic and applied research, technology transfer through the Extension system, as well as provide a clinical diagnostic service and field investigation capability.

# 7. Assumptions made for the Program

Without substantial improvements in fish health management and production efficiency, the future of commercial catfish farming will remain in jeopardy.

#### 8. Ultimate goal(s) of this Program

Establish new effective measures for the early detection, prevention, and treatment of disease and have producers implementing these measures.

# 9. Scope of Program

Multistate Integrated Research and Extension

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# Inputs for the Program

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

11. Expending other then formula funds or state-matching funds:

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

Va an	Exte	nsion	Re	search
Year	1862	1890	1862	1890
2007	1.5	0.0	0.0	0.0
2008	1.5	0.0	0.0	0.0
2009	1.5	0.0	0.0	0.0
2010	1.5	0.0	0.0	0.0
2011	1.5	0.0	0.0	0.0

# **Outputs for the Program**

#### 13. Activity (What will be done?)

Develop diagnostic tools to detect and monitor diseases in commercially raised channel catfish and determine virulence factors associated with those diseases.

Develop fish health management procedures to control economically important diseases of channel catfish.

Determine factors associated with emerging diseases in pond-raised channel catfish.

Use epidemiological methods to investigate new and emerging diseases, and to identify environmental and management factors that influence the onset and severity of disease outbreaks.

Researchers will develop referred journal articles and give scientific presentations at professional societies and at producer meetings.

Extension specialists will conduct workshops and seminar programs. Extension publications and newsletters will aid in transferring new knowledge to producers. Farm visits will help producers adapt new procedures on farms.

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

Extension		
Direct Methods	Indirect Methods	
<ul> <li>Education Class</li> <li>Workshop</li> <li>One-on-One Intervention</li> <li>Demonstrations</li> </ul>	• {NO DATA ENTERED}	

# 15. Description of targeted audience

The target audience for this program is producers of catfish, crayfish, and freshwater prawns and related industry personnel.

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# 16. 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
2007	2222	555	0	0
2008	2222	555	0	0
2009	2222	555	0	0
2010	2222	555	0	0
2011	2222	555	0	0

#### 17. (Standard Research Target) Number of Patents

#### **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

# 18. Output measures

# **Output Target**

Number of producers attending seminars, workshops, short courses, and demonstrations.

2007: 370 2008: 370 2009: 370 2010: 370 2011: 370

# **Output Target**

Numbers of articles/abstracts in journals, proceedings and edited books.

2007: 10 2008: 10 2009: 10 2010: 10 2011: 10

# **Outcomes for the Program**

#### 19. Outcome measures

#### **Outcome Text: Awareness created**

# **Outcome Target**

Number of producers adopting new technologies, strategies, or systems.

Outcome Type: Medium

2007: 50 2008: 50 2009: 50 2010: 50 2011: 50

# **Outcome Target**

Number of producers improving fish health management production efficiency.

Outcome Type: Long

2007: 40 2008: 40 2009: 40 2010: 40 2011: 40

# 20. External factors which may affect outcomes

- Government Regulations
- Competing Programatic Challenges

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# Description

In general, progress in the area of disease control is limited by a poor understanding of the pathogenesis of the major disease entities, limited diagnostic tools to detect and monitor specific pathogens in fish and the environment, inadequate knowledge of the relationships between management practices and other risk factors associated with disease outbreaks, and a lack of disease challenge models duplicating typical field conditions. In addition, there is a paucity of chemical agents, antibiotics, and vaccines approved or under development for use in disease treatment and prevention. Furthermore, access to diagnostic services and outlets for the dissemination of information generated by research efforts to producers is limited.

# 21. Evaluation studies planned

- Retrospective (post program)
- Case Study

#### Description

Evaluation of this program will include retrospective producer surveys and case studies of selected producers designed to determine the extent to which producers are using the Fish Health Monitoring Program and other Best Management Practices.

#### 22. Data Collection Methods

- Sampling
- Mail
- On-Site
- Case Study
- Observation

#### Description

Producer surveys will use a sample of the population. The case study and observation methods will be used with a few selected producers.

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Aquaculture Production

#### 2. Program knowledge areas

- 308 25% Improved Animal Products (Before Harvest)
- 307 10% Animal Management Systems
- 302 50% Nutrient Utilization in Animals
- 306 15% Environmental Stress in Animals

3. Program existence : Mature (More then five years)4. Program duration : Long-Term (More than five years)

# 5. Brief summary about Planned Program

This program focuses on aquaculture production in Mississippi, which primarily consists of commercial pond-raised catfish production, with some limited production of freshwater prawns and crayfish. Mississippi produces over one-half of the catfish produced in the U.S.

### 6. Situation and priorities

In 2003, just over 300 million kg of channel catfish were processed, representing over half the total United States aquaculture production. Catfish aquaculture has generally been a profitable and rapidly expanding industry in the southeastern United States. However, yield has not increased in recent years and profits have decreased. We will address these problems through a multidisciplinary, problem-solving approach focused on improving the efficiency of catfish production. The project will address production inefficiencies on two levels. Two objectives focus on improving traditional cultural practices. The other two objectives of this project address inefficiencies associated with traditional pond management technologies. The development of novel pond production methodologies will enhance overall production efficiency, reduce environmental impacts, and reduce water use.

Solutions to this problem are complex and multi-faceted, but improved production efficiency can decrease costs of production and thereby improve the potential for profitability. Some improvement in efficiency may be attained by improving management and culture techniques used in conventional earthen ponds. In particular, feeding efficiency is important because feeds represent about half the variable cost of catfish production. The other approach to restoring profitability is developing novel production technologies that are more cost-effective than traditional production practices. New technologies that can be applied to modify existing infrastructure and that can be adopted for a modest investment will be most helpful.

# 7. Assumptions made for the Program

Spending on seafood by United States' consumers presently stands at over \$55 billion annually. Demand far exceeds domestic production, generating a \$7 billion dollar annual trade deficit—the third largest U.S. trade deficit after petroleum and automobiles. Increasing seafood production from wild fisheries to meet this demand and offset the deficit is not possible because most national and global wild-catch fisheries are fully exploited. The only way to close the enormous trade deficit in seafood and reduce America's dependence on foreign products is to dramatically increase domestic aquaculture production.

The channel catfish is the most important aquaculture species in the United States. In 2003, just over 300 million kg (662 million pounds) of channel catfish were processed, representing about half the total United States aquaculture production. Demand for farm-raised catfish is strong, with record processing years in both 2002 and 2003. Over 95% of channel catfish aquaculture occurs in four states (Mississippi, Alabama, Arkansas, and Louisiana) located in the southeastern United States. Mississippi is by far the leading channel catfish producing state and accounts for over 70% of the total production.

Channel catfish aquaculture became an identifiable commercial activity in about 1965, and began to expand at a rapid rate in the 1970s. From 1970 to 2000, improvements in production technology resulted in a consistent trend of

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increasing per-ha yields of catfish. Major technological advances responsible for improved yields included formulation and refinement of high-performance diets and improved aeration technology. However, per-ha yield has not increased in recent years and, particularly in the last 2 years, profits have decreased alarmingly as rising production costs are compounding historically low prices paid to farmers. Many producers experienced financial losses in 2002, and a few ceased operation, sold out, or converted farms to other uses. Although long-term demand for catfish is forecast to remain very strong, many catfish farms are not profitable at current price levels. The steady expansion of the catfish industry for the past 40 years may be threatened by this combination of low prices and competition from lower-priced imports.

# 8. Ultimate goal(s) of this Program

This program is focused on improving production efficiency which, if attained, will improve the profitability of channel catfish farming.

#### 9. Scope of Program

Multistate Integrated Research and Extension

## Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

Year	Extension		Research	
	1862	1890	1862	1890
2007	2.0	0.7	0.0	0.0
2008	2.0	0.7	0.0	0.0
2009	2.0	0.7	0.0	0.0
2010	2.0	0.7	0.0	0.0
2011	2.0	0.7	0.0	0.0

### **Outputs for the Program**

#### 13. Activity (What will be done?)

Develop feeds and feeding practices for optimal nutrition, increased production, and improved water quality of pond-raised catfish.

Increase the reliability, efficiency, and cost-effectiveness of catfish fry production through the use of new and improved technologies.

Apply engineering approaches to design new or modified harvesting equipment.

Increase reliability, efficiency, and cost-effectiveness of catfish production through the use of new and improved culture system technologies.

Researchers will develop referred journal articles and give scientific presentations at professional societies and at producer meetings.

Extension specialists will conduct workshops and seminar programs. Extension publications and newsletters will aid

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in transferring new knowledge to producers. Farm visits will help producers adapt new procedures on farms.

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

Extension			
Direct Methods	Indirect Methods		
<ul> <li>Education Class</li> <li>Workshop</li> <li>One-on-One Intervention</li> </ul>	• {NO DATA ENTERED}		

## 15. Description of targeted audience

The target audience for this program includes producers of catfish, crayfish, and freshwater prawns, and related industry personnel.

### 16. 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
2007	2716	679	0	0
2008	2716	679	0	0
2009	2716	679	0	0
2010	2716	679	0	0
2011	2716	679	0	0

### 17. (Standard Research Target) Number of Patents

## **Expected Patents**

2007: 1 2008: 1 2009: 1 2010: 1 2011: 1

## 18. Output measures

# Output Target

Number of producers attending seminars, workshops, short courses, and demonstrations.

2007: 453 2008: 453 2009: 453 2010: 453 2011: 453

### **Output Target**

Number of articles/abstracts in journals, proceedings, and edited books.

2007: 10 2008: 10 2009: 10 2010: 10 2011: 10

## **Outcomes for the Program**

### 19. Outcome measures

**Outcome Text: Awareness created** 

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### **Outcome Target**

Number of producers adopting new technologies, strategies, or systems.

Outcome Type: Medium

2007: 100 2008: 100 2009: 100 2010: 100 2011: 100

#### **Outcome Target**

Number of producers improving production efficiency.

Outcome Type: Medium

2007: 80 2008: 80 2009: 80 2010: 80 2011: 80

#### **Outcome Target**

Number of producers improving their environmental stewardship.

Outcome Type: Medium

2007: 40 2008: 40 2009: 40 2010: 40 2011: 40

### 20. External factors which may affect outcomes

- Economy
- Public Policy changes

#### Description

The farmer's profit on the sale of catfish hopefully will increase in the future. However, national policy encourages foreign trade and imports. Consumers in the United States demand low-priced food. Producing aquaculture products more efficiently through improvements in existing culture techniques (feeding and fertilization practices) or adoption of novel culture methods will improve the ability of U.S. farmers to compete in the new global economy regardless of seafood prices. Government controls of inferior, imported fish products will be important.

### 21. Evaluation studies planned

- Retrospective (post program)
- Before-After (before and after program)
- Time series (multiple points before and after program)
- Case Study

#### Description

Evaluation of this program will include retrospective producer surveys and case studies of selected producers. The time series analysis will include production data for catfish production in Mississippi.

#### 22. Data Collection Methods

- Sampling
- Mail
- On-Site
- Case Study
- Other (Production Statistics)

## Description

Producer surveys will use a sample of the population. The case study methods will be used with a few selected producers. Production statistics will be used for the time series analysis.

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Children, Youth, and Families at Risk

#### 2. Program knowledge areas

- 806 90% Youth Development
- 802 10% Human Development and Family Well-Being

3. Program existence: Intermediate (One to five years) 4. Program duration : Long-Term (More than five years)

#### 5. Brief summary about Planned Program

This program is primarily aimed at developing life skills in youth in at-risk families.

### 6. Situation and priorities

Mississippi is ranked 50th by the National Kids Count analysis of the status of children. More than 31 percent of Mississippi children live in poverty and more than 39 percent live in families where no parent has full-time, year round employment. 42 percent of the children are living in single-parent households. Twelve percent of Mississippi teens are not attending school nor working while the school dropout rate is ten percent. 35 out of 82 counties have populations of more than 20 percent living below the poverty level. Poverty multiplies risk factors. Mississippi youth are at risk for school failure, abuse, neglect, crime and violence. These youth are also at long-term risk of not becoming dependable family members, workers and involved citizens. Mississippi youth need knowledge skills and behavior to lead fulfilling lives and to become engaged throughout Mississippi communities.

#### 7. Assumptions made for the Program

4-H in Mississippi will be 100 years old in 2007. Our assumption is that there is a strong youth development commitment in the state and a dedicated volunteer core. It is also assumed that 4-H youth development will continue to have strong funding support at the local and state level.

## 8. Ultimate goal(s) of this Program

To develop life skills in youth that will help them become dependable family members, workers and involved citizens as adults.

#### 9. Scope of Program

Multistate Extension

#### Inputs for the Program

10. Expending formula funds or state-matching funds :

Yes

Yes 11. Expending other then formula funds or state-matching funds :

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

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Vann	Extension		Research	
Year	1862	1890	1862	1890
2007	17.0	0.0	0.0	0.0
2008	17.0	0.0	0.0	0.0
2009	17.0	0.0	0.0	0.0
2010	17.0	0.0	0.0	0.0
2011	17.0	0.0	0.0	0.0

## 13. Activity (What will be done?)

Recruit Youth, Teens and Volunteers

Provide leader training for teen and adult volunteers

Provide training on organization and maintenance of clubs

Provide recognition events for youth to exhibit project skills

- 4-H Club Congress
- District Achievement Days
- County, State, & Regional Fairs
- Provide training to Extension personnel on experiential education through subject-matter work

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

Extension				
Direct Methods	Indirect Methods			
Workshop	Newsletters			
<ul><li>Group Discussion</li><li>One-on-One Intervention</li></ul>	<ul> <li>TV Media Programs</li> <li>Web sites</li> </ul>			
Demonstrations	• Web sites			

## 15. Description of targeted audience

The target audience for this program is primarily youth from at-risk families. The audience will be approximately 40% caucasian, 58% African-American, and 5% other races.

#### 16. 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
2007	18765	9382	112590	187649
2008	18765	9382	112590	187649
2009	18765	9382	112590	187649
2010	18765	9382	112590	187649
2011	18765	9382	112590	187649

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### 17. (Standard Research Target) Number of Patents

**Expected Patents** 

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

18. Output measures

**Output Target** 

Number of Youth who join 4-H clubs.

2007: 500 2008: 500 2009: 500 2010: 500 2011: 500

# **Outcomes for the Program**

#### 19. Outcome measures

**Outcome Text: Awareness created** 

**Outcome Target** 

Number of youth who improve life skills.

Outcome Type: Short

2007: 450 2008: 450 2009: 450 2010: 450 2011: 450

**Outcome Target** 

Number of youth who increase knowledge of subject matter areas.

Outcome Type: Short

2007: 450 2008: 450 2009: 450 2010: 450 2011: 450

**Outcome Target** 

Number of 4-H projects completed.

Outcome Type: Medium

2007: 400 2008: 400 2009: 400 2010: 400 2011: 400

**Outcome Target** 

Number of 4-H clubs sustained at the local level.

Outcome Type: Long

2007: 20 2008: 20 2009: 20 2010: 20 2011: 20

## 20. External factors which may affect outcomes

• {NO DATA ENTERED}

# Description

Natural disasters can lead to displaced citizens, affecting program viability. Appropriations are directly related to the amount and depth of programming that can be provided. Population changes can impact the effectiveness of programming.

## 21. Evaluation studies planned

- Retrospective (post program)
- Comparisons between program participants (individuals, group, organizations) and non-participants

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### Description

Local programs will use retrospective studies to measure effectiveness of programs. State level evaluations will include comparitive studies of programs with non-participants.

## 22. Data Collection Methods

- Sampling
- Whole population
- Mail
- On-Site

#### Description

Local evaluations will use the whole local population of participants. The state-level evaluation will include samples. Survey methodology will be the primary data collection technique used.

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Community and Business Analysis

#### 2. Program knowledge areas

• 609 100% Economic Theory and Methods

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

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

#### 5. Brief summary about Planned Program

This program focuses on helping local communities evaluate their local economy and make decisions about alternatives for improving their economy.

#### 6. Situation and priorities

Local economies include businesses, governments, and consumers who conduct thousands of interrelated transactions every day. The current economic climate is volatile, and concerns local and state policy makers. An understanding of the local economy improves the quality of decision-making. As community leaders evaluate their local economy and learn which specific sectors are competitive in their unique locality, they can make decisions concerning alternative strategies for diversifying their local economy. Many small businesses are struggling to compete at the local level. Changes in the retail industry, in particular, are especially hard on local economies because the leakage of retail sales not only hurts the local business owner, but it also means a decline in sales tax revenue for the local government.

## 7. Assumptions made for the Program

Most communities lack the resources to appropriately examine the consequences of events that can affect the economy.

#### 8. Ultimate goal(s) of this Program

The ultimate goal of this program is to accomplish economic growth through expanding the diversity of local economies.

# 9. Scope of Program

Multistate Integrated Research and Extension

### Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : No

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

Year	Extension		Research	
	1862	1890	1862	1890
2007	2.5	0.0	0.0	0.0
2008	2.5	0.0	0.0	0.0
2009	2.5	0.0	0.0	0.0
2010	2.5	0.0	0.0	0.0
2011	2.5	0.0	0.0	0.0

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### 13. Activity (What will be done?)

Extension personnel will assist communities by assisting them in conducting the following activities:

Development of demographic, economic and fiscal profiles. Development of economic analyses (eg., feasibility, impact, export-base, business plans, commuting, trade, shift share, location quotients). Providing technical assistance. will be provided. Holding community forums. Taking strategic planning surveys (eg., market assessment, customer satisfaction, hospitality, health).

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

Extension				
Direct Methods	Indirect Methods			
Workshop     One-on-One Intervention	<ul><li>Newsletters</li><li>Web sites</li></ul>			

### 15. Description of targeted audience

The target audience for this program consists of local communities and their leaders.

#### 16. 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
2007	21895	5474	0	0
2008	21895	5474	0	0
2009	21895	5474	0	0
2010	21895	5474	0	0
2011	21895	5474	0	0

## 17. (Standard Research Target) Number of Patents

#### **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

### 18. Output measures

### **Output Target**

Number of clientele attending workshops, seminars, and short courses.

2007: 3649 2008: 3649 2009: 3649 2010: 3649 2011: 3649

**Output Target** 

Number of local communities requesting economic analyses.

2007: 30 2008: 30 2009: 30 2010: 30 2011: 30

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## **Outcomes for the Program**

#### 19. Outcome measures

#### **Outcome Text: Awareness created**

#### **Outcome Target**

Number of community leaders improving their knowledge of factors influencing business success and local economies.

Outcome Type: Short

2007: 700 2008: 700 2009: 700 2010: 700 2011: 700

#### **Outcome Target**

Number of local communities adopting recommended strategies to improve their local economy.

Outcome Type: Medium

2007: 20 2008: 20 2009: 20 2010: 20 2011: 20

#### **Outcome Target**

Number of local communities improving their local economy through retention and expansion of existing businesses and/or attraction of new businesses.

Outcome Type: Long

2007: 10 2008: 10 2009: 10 2010: 10 2011: 10

## 20. External factors which may affect outcomes

• {NO DATA ENTERED}

#### Description

The two factors most likely to affect this program are the economic health of the country and state and the changes in public policy (e.g., trade agreements) that affect the ability of local communities to attract and retain businesses.

### 21. Evaluation studies planned

- Retrospective (post program)
- Case Study

## Description

Retrospective studies will be used to measure knowledge gained by local community leaders. Case study analyses will be used to determine economic changes in local communities.

### 22. Data Collection Methods

- Sampling
- Whole population
- On-Site
- Case Study

### Description

A sample of participants will be studied to determine program effectiveness in increasing knowledge of economic factors. The whole population of participating communities will be studied on a case-by-case basis to determine implementation of strategies and resulting impact.

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Community Health

#### 2. Program knowledge areas

• 608 100% Community Resource Planning and Development

3. Program existence : Intermediate (One to five years)4. Program duration : Long-Term (More than five years)

## 5. Brief summary about Planned Program

This program includes efforts to help local communities improve their local health care services.

## 6. Situation and priorities

The health situation in Mississippi is slightly dreary. Each year, Mississippi consistently has the highest rates of mortality in the nation due to heart disease and diabetes; infant mortality is consistently higher than other states; and more than a quarter of the state's population are obese. The population is greatly underserved by physicians. In 2003, there were 183 physicians per 100,000 people compared to the national average of 281. Health care can be an economic engine. The health services sector makes up a substantial part of many rural economies, and is often the largest single employer in many communities.

#### 7. Assumptions made for the Program

Communities that focus efforts on developing health care services will improve the health and livability of their communities.

#### 8. Ultimate goal(s) of this Program

The ultimate goal for this program is improved access to quality health care services for local citizens, with viable local health care organziations providing that care.

## 9. Scope of Program

Multistate Extension

# Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

Year	Extension		Research	
	1862	1890	1862	1890
2007	3.0	0.0	0.0	0.0
2008	3.0	0.0	0.0	0.0
2009	3.0	0.0	0.0	0.0
2010	3.0	0.0	0.0	0.0
2011	3.0	0.0	0.0	0.0

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### 13. Activity (What will be done?)

Extension will assist local communities in conducting the following activities:

Develop market strategiesConduct strategic planning workshopsCreate provider surveysFacilitate community forumsPublish a directory of local servicesDevelop quantitative profiles of health organizationsConduct feasibility studiesProduce gap analysesPromote coalition building trainings.

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

Extension				
Direct Methods Indirect Methods				
Workshop     One-on-One Intervention	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> </ul>			

#### 15. Description of targeted audience

The target audience for this program is local communities and community leaders.

#### 16. 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
2007	25179	6295	0	0
2008	25179	6295	0	0
2009	25179	6295	0	0
2010	25179	6295	0	0
2011	25179	6295	0	0

## 17. (Standard Research Target) Number of Patents

### **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

#### 18. Output measures

## **Output Target**

Number of clientele attending workshops, seminars, and short courses.

2007: 4196 2008: 4196 2009: 4196 2010: 4196 2011: 4196

### **Output Target**

Number of communities participating in community health improvement activities.

2007: 30 2008: 30 2009: 30 2010: 30 2011: 30

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## **Outcomes for the Program**

#### 19. Outcome measures

#### **Outcome Text: Awareness created**

#### **Outcome Target**

Number of community leaders improving their knowledge of local health care services and factors that influence their viability.

Outcome Type: Short

2007: 800 2008: 800 2009: 800 2010: 800 2011: 800

### **Outcome Target**

Number of communities adopting strategies to improve local care services.

Outcome Type: Short

2007: 20 2008: 20 2009: 20 2010: 20 2011: 20

#### **Outcome Target**

Number of communities improving access to quality health care services.

Outcome Type: Long

2007: 10 2008: 10 2009: 10 2010: 10 2011: 10

## 20. External factors which may affect outcomes

• {NO DATA ENTERED}

#### Description

The most important factor influencing this program is the local economy and its ability to sustain and improve health care services.

### 21. Evaluation studies planned

- Retrospective (post program)
- Case Study

## Description

Retrospective studies will be used to measure knowledge gained by local community leaders. Case study analyses wil be used to determine implementation of strategies and impact on local communities.

### 22. Data Collection Methods

- Sampling
- Whole population
- On-Site
- Case Study

# Description

A sample of participants will be studied to determine program effectiveness in increasing knowledge of health care services and related factors. The whole population of participating communities will be studied on a case-by-case basis to determine implementation of strategies and resulting impact.

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Community Leadership Development

#### 2. Program knowledge areas

803 100% Sociological and Technological Change Affecting Individuals, Families and Communities

3. Program existence : Mature (More then five years)4. Program duration : Long-Term (More than five years)

#### 5. Brief summary about Planned Program

This program addresses the development of local community leadership that creates a diverse environment and promotes a shared vision among residents.

#### 6. Situation and priorities

For communities to be successful, they must support and nurture a leadership philosophy that welcomes widespread citizen involvement. The best leadership is shared and recognized as a process by which people are empowered to make their own decisions through collaborative efforts with diverse sectors of any given community. Traditional leadership ideas were based on competitive styles that were exclusive of the many voices within a community. At the same time, this style of leadership paid little or no attention to local strengths and opportunities; instead, dwelling on problems and deficiencies seemed to be the starting point for any given project.

According to a report by the Southern Rural Development Center, building civically minded citizens within rural community requires that (1) all segments of the community be involved in guiding the future of the community, (2) new and expanded leadership development opportunities be provided, (3) leadership responsibilities should be shared in order to build trust, and (4) support of the establishment of local-oriented small and entrepreneurial businesses must be evident.

Just like businesses, thriving communities that hope to achieve longevity must remain positioned to address the challenges that await them. A leadership philosophy that creates a diverse environment and promotes a shared vision among residents is essential to any community's sustainability.

### 7. Assumptions made for the Program

Talents and skills of local residents can be used to evoke positive community change; therefore, a leadership approach that targets people with diverse ethnic, social, and economic backgrounds is extremely important to the vitality of a given community. Not only should current, traditional leaders participate in leadership training, but also potential leaders with nontraditional leadership roles should be actively involved as well. Thus, an ongoing network of community leaders is formed to help shape the future direction of their respective communities.

### 8. Ultimate goal(s) of this Program

This program seeks to develop leadership that will lead to sustainable and engaged communities that are positioned to meet the challenges of the global society.

### 9. Scope of Program

Multistate Extension

#### Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

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Voor	Extension		Research	
Year	1862	1890	1862	1890
2007	1.5	0.0	0.0	0.0
2008	1.5	0.0	0.0	0.0
2009	1.5	0.0	0.0	0.0
2010	1.5	0.0	0.0	0.0
2011	1.5	0.0	0.0	0.0

## 13. Activity (What will be done?)

Extension personnel will conduct the following leadership workshops and trainings: - Asset-based development theory and practice - Leadership principles - Team building - Managing groups - Communication skills - Conflict management - Vision-to-action planning - Evaluation skills

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

Extension				
Direct Methods	Indirect Methods			
Workshop     Group Discussion	<ul><li>Newsletters</li><li>Web sites</li></ul>			

### 15. Description of targeted audience

The target audience for the program includes existing and potential community leaders.

## 16. 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
2007	13137	3284	0	0
2008	13137	3284	0	0
2009	13137	3284	0	0
2010	13137	3284	0	0
2011	13137	3284	0	0

## 17. (Standard Research Target) Number of Patents

## **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

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### 18. Output measures

### **Output Target**

Number of clientele attending workshops, seminars, and short courses.

2007: 2189 2008: 2189 2009: 2189 2010: 2189

## **Outcomes for the Program**

#### 19. Outcome measures

#### **Outcome Text: Awareness created**

# **Outcome Target**

Number of participants improving their knowledge and skills in public decision-making and engagement.

Outcome Type: Short

2007: 400 2008: 400 2009: 400 2010: 400 2011: 400

2011: 2189

### **Outcome Target**

Number of participants implementing strategies to improve public decision-making and/or increase civic engagement.

Outcome Type: Medium

2007: 320 2008: 320 2009: 320 2010: 320 2011: 320

### **Outcome Target**

Number of local communities reporting improved sustainability and engagement as a result of implemented strategies.

Outcome Type: Long

2007: 20 2008: 20 2009: 20 2010: 20 2011: 20

## 20. External factors which may affect outcomes

{NO DATA ENTERED}

### Description

The most likely factor to influence this program is funding for workshops, etc.

## 21. Evaluation studies planned

- Retrospective (post program)
- Case Study

### Description

Retrospective studies will be used to measure knowledge gained by participants and reported implementation of strategies. Case study analyses will be used to verify implementation and impacts.

### 22. Data Collection Methods

- Sampling
- Mail
- Case Study

#### Description

A sample of participants will be studied using the retrospective methods. Case study methods will be used with a few selected communities.

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Community Tourism Development

#### 2. Program knowledge areas

• 608 100% Community Resource Planning and Development

3. Program existence : Intermediate (One to five years)4. Program duration : Long-Term (More than five years)

#### 5. Brief summary about Planned Program

This program provides assistance to communities in assessing tourism potential and developing models and strategies to turn that potential into increased tourism and economic development.

#### 6. Situation and priorities

Launching a tourism initiative is one way to diversify and improve the economic vitality of a given community. Rural communities are searching for methods like tourism development to strengthen their traditionally agricultural-based economies. In a report by USDA's Economic Research Service, rural communities that capitalized heavily on the tourism industry averaged a 20 percent population growth, about three times that of other non-metro communities, and a 24 percent employment growth, more than double the rate of other non-metro counties, in the 1990s. A prepared community is the foundation of a successful tourism initiative. As a community or region takes inventory of existing or potential attractions, such as festivals and events, natural resources, historical attractions, and recreation opportunities, local leaders should be mindful that tourism is a highly competitive business. Successful local tourism efforts build on existing strengths. The success of any business or community as a tourist destination also depends on the attitudes of those who come in contact with the visitor. Sales clerks, servers, and service station attendants are as important as the receptionist at the local visitor's information center. Local officials and residents contribute to the overall appeal and image of the community as they go about their daily routines. Tourism hospitality is the responsibility of both individual businesses and the entire community.

#### 7. Assumptions made for the Program

Through an asset-based community development approach, rural communities challenged with struggling economies are model communities where tourism initiatives could be successful. By inventorying, improving, and marketing existing resources and tapping into potential resources, communities that follow the tourism model for proper development learn how to revitalize their local economies and enjoy an improved quality of life for their residents.

#### 8. Ultimate goal(s) of this Program

The ultimate goal of this program is to increase tourism in local communities, thereby increasing the viability of local economies.

#### 9. Scope of Program

Multistate Extension

## Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : No

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

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Van	Extension		Research	
Year	1862	1890	1862	1890
2007	1.0	0.0	0.0	0.0
2008	1.0	0.0	0.0	0.0
2009	1.0	0.0	0.0	0.0
2010	1.0	0.0	0.0	0.0
2011	1.0	0.0	0.0	0.0

## 13. Activity (What will be done?)

Extension personnel will assist local communities by conducting the following activities:

Community forumsFocus groupsBusiness, resident, and inventory surveysLeadership development coursesTourism development workshopsCustomer service/hospitality trainings

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

Extension			
Direct Methods	Indirect Methods		
<ul> <li>Group Discussion</li> <li>One-on-One Intervention</li> </ul>	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> <li>Web sites</li> </ul>		

### 15. Description of targeted audience

The target audience for this program includes local communities and community leaders.

### 16. 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
2007	7663	1916	0	0
2008	7663	1916	0	0
2009	7663	1916	0	0
2010	7663	1916	0	0
2011	7663	1916	0	0

## 17. (Standard Research Target) Number of Patents

## **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

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### 18. Output measures

### **Output Target**

Number of participants in workshops, seminars, and short courses.

2007: 1277 2008: 1277 2009: 1277 2010: 1277 2011: 1277

## **Outcomes for the Program**

#### 19. Outcome measures

#### **Outcome Text: Awareness created**

# **Outcome Target**

Number of participants improving their knowledge of tourism-related concepts.

Outcome Type: Short

2007: 250 2008: 250 2009: 250 2010: 250 2011: 250

### **Outcome Target**

Number of communities implementating strategies for improvement, development, and/or marketing of tourist attractions.

Outcome Type: Medium

2007: 30 2008: 30 2009: 30 2010: 30 2011: 30

### **Outcome Target**

Number of communities reporting increased levels of tourist activity.

Outcome Type: Long

2007: 20 2008: 20 2009: 20 2010: 20 2011: 20

## 20. External factors which may affect outcomes

{NO DATA ENTERED}

### Description

Economic changes are the most likely factors to affect this program's ability to meet its goals. Sustained funding for personnel related to the program is also important.

## 21. Evaluation studies planned

- Retrospective (post program)
- Case Study

## Description

Retrospective studies will be used to measure knowledge gained and strategies implemented. Case study methods will be used to verify implementation and determine impacts.

## 22. Data Collection Methods

- Sampling
- Mail
- Case Study

## Description

A sample of participants will be used in the retrospective studies. A few selected communities will be used in the case study analysis.

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## Early Care and Education

#### 2. Program knowledge areas

• 802 80% Human Development and Family Well-Being

• 803 20% Sociological and Technological Change Affecting Individuals, Families and Communities

3. Program existence : Mature (More then five years)4. Program duration : Long-Term (More than five years)

### 5. Brief summary about Planned Program

This program focuses on Extension efforts to improve the quality of child care in Mississippi.

## 6. Situation and priorities

The quality of care in Mississippi is adversely affected by employment of untrained providers.

Quality childcare is not available in many communities.

The high turnover rate in the childcare industry affects quality of care.

Providers are mandated to obtain training hours in order to meet state licensing requirements.

## 7. Assumptions made for the Program

A shortage of child care options negatively impacts parents' work force performance.

Due to lack of a state funded early care & education system, quality of care is questionable.

### 8. Ultimate goal(s) of this Program

This program seeks to increase the number of high-quality child care options for Mississippi families.

## 9. Scope of Program

Multistate Extension

## Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

Year	Extension		Research	
	1862	1890	1862	1890
2007	13.5	0.0	0.0	0.0
2008	13.5	0.0	0.0	0.0
2009	13.5	0.0	0.0	0.0
2010	13.5	0.0	0.0	0.0
2011	13.5	0.0	0.0	0.0

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### 13. Activity (What will be done?)

Train FCS Area Agents & early childhood staff (Educators) in content & teaching techniques as it relates to children ages 0-5 & 6-12.

Train Child and Family Development (CFD) Area Agents and project staff in parent education as related to readiness issues

- CFD Area Agents & project staff collaborate with local organizations, agencies, and businesses.
- CFD Area Agents & project staff serve as a community resource in childcare issues.
- CFD Area Agents & project staff produce & distribute newsletters, news articles, publications, and training calendar.
- CFD Area Agents & project staff design, facilitate & conduct direct trainings, & distance trainings.
- CFD Area Agents & project staff, develop, & implement evaluation strategies.
- CFD Area Agents & project staff market program (including distance ed.) among agencies & in local media, produce flyers.

CFD Area Agents & project staff provides mandated staff development training to keep providers in good standing with legal requirements.

- CFD Area Agents & project staff provide technical assistance to providers & businesses.
- CFD Area Agents and project staff will receive/ maintain ECERS; ITERS; and FDCRS Certification.

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

Extension			
Direct Methods	Indirect Methods		
<ul><li>Workshop</li><li>Group Discussion</li><li>One-on-One Intervention</li></ul>	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> <li>Web sites</li> </ul>		

#### 15. Description of targeted audience

In general, audience for this program is families and communities. Specifically, the following groups are target audiences: Early Care & Education Providers, including Directors, Center-based professionals, Family Childcare providers, and School-age providers.

Industry/Business owners

Parents

Grandparents

Agencies

**Professional Organizations** 

Elementary teachers

Elected officials

#### 16. Standard output measures

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

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	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	103515	25879	0	0
2008	103515	25879	0	0
2009	103515	25879	0	0
2010	103515	25879	0	0
2011	103515	25879	0	0

### 17. (Standard Research Target) Number of Patents

# **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

## 18. Output measures

### **Output Target**

Number of clientele attending seminars, workshops, and short courses.

2007: 17252 2008: 17252 2009: 17252 2010: 17252 2011: 17252

# **Outcomes for the Program**

#### 19. Outcome measures

## **Outcome Text: Awareness created**

### **Outcome Target**

Number of clientele increasing knowledge in child care and development content areas.

Outcome Type: Short

2007: 3400 2008: 3400 2009: 3400 2010: 3400 2011: 3400

**Outcome Target** 

Number of care providers maintaining certification requirements.

Outcome Type: Medium

2007: 2720 2008: 2720 2009: 2720 2010: 2720 2011: 2720

**Outcome Target** 

Number of care providers increasing the quality of care provided.

Outcome Type: Long

2007: 1360 2008: 1360 2009: 1360 2010: 1360 2011: 1360

## 20. External factors which may affect outcomes

Economy

# Description

Regulations regarding child care have made it increasingly difficult to operate care facilities at a profit or break-even level.

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These regulations, along with economic conditions, have the most potential impact on this program.

## 21. Evaluation studies planned

Before-After (before and after program)

## Description

Quality of care provided will be measured using the appropriate day care rating scales (ECERS-R, ITERS-R, or FDCERS) using pre- and post-observations.

# 22. Data Collection Methods

- Sampling
- Observation

#### Description

Evaluations will use the rating scales mentioned above, which are observation-based.

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Family Leadership Development

#### 2. Program knowledge areas

• 805 100% Community Institutions, Health, and Social Services

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

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

#### 5. Brief summary about Planned Program

The program addresses the development of volunteer leaders needed in various roles helping make communities better places to live.

## 6. Situation and priorities

Throughout its history, Extension has partnered with citizens, local leaders, and local government officials to identify and acquire the knowledge and strategies needed to address public issues effectively. Through leadership and volunteer development programs, Extension has made and will continue to make major contributions toward the preparation of citizens and local government officials for strengthening organizations and communities. Leadership development builds the capacity to address issues faced by communities.

### 7. Assumptions made for the Program

If they participate in the leadership development programs, clientele will assume positions of leadership.

If clientele put into action their leadership styles and theory, the communities will improve dramatically.

If clientele learn to work diverse audiences they will understand and impact public issues affecting communities.

#### 8. Ultimate goal(s) of this Program

The ultimate goal of this program is to develop leadership abilities in volunteers, so that they may become effective community leaders.

## 9. Scope of Program

In-State Extension

#### Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : No

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

Vana	Extension		Research	
Year	1862	1890	1862	1890
2007	9.5	0.0	0.0	0.0
2008	9.5	0.0	0.0	0.0
2009	9.5	0.0	0.0	0.0
2010	9.5	0.0	0.0	0.0
2011	9.5	0.0	0.0	0.0

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## 13. Activity (What will be done?)

Extension programming efforts on numerous aspects of leadership and volunteerism

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

Extension				
Direct Methods	Indirect Methods			
<ul><li>Workshop</li><li>Group Discussion</li><li>Demonstrations</li></ul>	<ul><li>Newsletters</li><li>Web sites</li></ul>			

### 15. Description of targeted audience

The target audience for this program includes anyone interested in improving their community. Specific groups include master extension volunteers, 4-H volunteers, and community leaders.

### 16. 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
2007	102452	25613	0	0
2008	102452	25613	0	0
2009	102452	25613	0	0
2010	102452	25613	0	0
2011	102452	25613	0	0

### 17. (Standard Research Target) Number of Patents

### **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

## 18. Output measures

### **Output Target**

Number of clientele attending workshops, seminars, and short courses.

2007: 17075 2008: 17075 2009: 17075 2010: 17075 2011: 17075

### **Outcomes for the Program**

### 19. Outcome measures

**Outcome Text: Awareness created** 

# **Outcome Target**

Number of clientele who improve their leadership skills.

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Outcome Type: Medium

2007: 3400 2008: 3400 2009: 3400 2010: 3400 2011: 3400

## **Outcome Target**

Number of clientele who make use of leadership skills by volunteering for community organizations.

Outcome Type: Medium

2007: 2720 2008: 2720 2009: 2720 2010: 2720 2011: 2720

### 20. External factors which may affect outcomes

• {NO DATA ENTERED}

#### Description

Economic factors could possibility reduce the number of potential volunteers. Funding for programming could affect the ability of this program to meet goals.

## 21. Evaluation studies planned

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

### Description

Before-after studies will be used to measure leadership skill development. Retrospective studies will be implemented to measure efforts of participants.

#### 22. Data Collection Methods

- Sampling
- Mail
- On-Site

### Description

Retrospective studies will use mailed questionnaires. Before-after studies will be conducted on-site. Both will use sampling of the population.

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Family Life

#### 2. Program knowledge areas

• 802 100% Human Development and Family Well-Being

3. Program existence : Intermediate (One to five years)4. Program duration : Long-Term (More than five years)

## 5. Brief summary about Planned Program

This program focues on family issues and related policies.

### 6. Situation and priorities

Social and population trends make it difficult for families to remain strong in the 21st century. Caring for aging family members, being effect parents, being successful in the workplace, and staying married are all challenges to today's families.

#### 7. Assumptions made for the Program

Today's families need help developing skills in parenting, providing aged care, and locating resources available for help.

### 8. Ultimate goal(s) of this Program

The ultimate goal of this program is to develop strong families that make good decisions and stay together.

## 9. Scope of Program

Integrated Research and Extension

## Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

Year	Extension		Research	
	1862	1890	1862	1890
2007	4.5	0.0	0.3	0.0
2008	4.5	0.0	0.3	0.0
2009	4.5	0.0	0.3	0.0
2010	4.5	0.0	0.3	0.0
2011	4.5	0.0	0.3	0.0

## **Outputs for the Program**

## 13. Activity (What will be done?)

Research and extension programming will focus on family dynamics, parenting skills, human development, and aged care.

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

Extension				
Direct Methods	Indirect Methods			
<ul><li>Workshop</li><li>Group Discussion</li><li>One-on-One Intervention</li></ul>	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> <li>Web sites</li> </ul>			

### 15. Description of targeted audience

The target audience for this program includes all Mississippi families.

## 16. 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
2007	34505	8626	0	0
2008	34505	8626	0	0
2009	34505	8626	0	0
2010	34505	8626	0	0
2011	34505	8626	0	0

# 17. (Standard Research Target) Number of Patents

## **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

# 18. Output measures

# **Output Target**

Number of clientele attending workshops, seminars, and short courses.

## **Output Target**

Number of articles/abstracts in journals, proceedings, and edited books.

2007: 2 2008: 2 2009: 2 2010: 2 2011: 2

# **Outcomes for the Program**

### 19. Outcome measures

**Outcome Text: Awareness created** 

## **Outcome Target**

Number of families adopting recommended family strategies and behaviors.

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Outcome Type: Medium

2007: 1100 2008: 1100 2009: 1100 2010: 1100 2011: 1100

## **Outcome Target**

Number of families reporting improved strengthened family life.

Outcome Type: Long

2007: 880 2008: 880 2009: 880 2010: 880 2011: 880

## 20. External factors which may affect outcomes

• {NO DATA ENTERED}

#### Description

Economic concerns are very disruptive to families. Funding for research and extension efforts could affect the ability of the program to meet its goals.

### 21. Evaluation studies planned

Retrospective (post program)

#### Description

Retrospective studies will be conducted to measure reported behavior changes and outcomes.

## 22. Data Collection Methods

- Sampling
- Mail

## Description

A sample of participants will receive mailed questionnaires to complete the retrospective studies.

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Family Resource Management

#### 2. Program knowledge areas

• 801 100% Individual and Family Resource Management

**3. Program existence :** Mature (More then five years)

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

#### 5. Brief summary about Planned Program

This project focuses on helping families improve their financial well-being through enhancement of personal financial choices: shopping, money management, credit use, fraud, and record-keeping, clothing and housing.

#### 6. Situation and priorities

According to the U.S. Census Bureau, Mississippi ranks second among states for individuals living in poverty. Only Louisiana has more living below poverty level. Mississippi also ranks sixth among states for the percentage of the population that is unemployed. Economic challenges of Mississippi citizens have a great impact on educational programs planned to meet their needs.

The national rate of bankruptcies grew in the last quarter of 2005 when Americans were trying to file before the new bankruptcy legislation of 2005 went into effect on October 17 and Mississippi followed suit, however, the bankruptcy rate in Mississippi is expected to climb even more in next few years, as victims of Hurricane Katrina who lost jobs and property in 2005 run into more difficulty. Research has shown that bankruptcies continue to rise for at least 3 years after major disasters. Close proximity to gambling and lack of health insurance have been shown to increase bankruptcy filings. More than 18% of Mississippians are currently without health insurance.

National trends affecting family resource management programming show that household debt is at a record high relative to disposable income. The personal savings rate has not just been low in the last few months, it has been negative (currently -.5) meaning that Americans are spending more than they earn and either using savings or borrowing to pay. It will be more important than ever to encourage clientele to save, reduce debt and to live within their means.

## 7. Assumptions made for the Program

Peoples' choices and actions affect themselves, their families and their communities.

Individuals and families have the capacity to learn and make changes to help themselves improve their lives.

Providing objective, research-based information and instruction about sound resource management can motivate consumers to learn and adopt new practices.

If citizens develop and practice sound resource management skills, then their financial well-being will improve.

Resources managed by families include housing and clothing.

#### 8. Ultimate goal(s) of this Program

This program will help Mississippi families improve their financial well-being.

## 9. Scope of Program

Multistate Extension

## Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

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Year	Extension		Research	
	1862	1890	1862	1890
2007	12.0	0.0	0.0	0.0
2008	12.0	0.0	0.0	0.0
2009	12.0	0.0	0.0	0.0
2010	12.0	0.0	0.0	0.0
2011	12.0	0.0	0.0	0.0

## 13. Activity (What will be done?)

Extension programming will be conducted using the following methods: Workshops, group training; Information fairs; One-on-one consultations; Media-news, radio, TV; Publications, printed and web-based information; and Newsletters, in-print and email.

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

Extension			
Direct Methods Indirect Methods			
<ul> <li>Workshop</li> <li>Group Discussion</li> <li>One-on-One Intervention</li> <li>Demonstrations</li> </ul>	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> <li>Web sites</li> </ul>		

## 15. Description of targeted audience

The target audience for this program includes almost all of the 2.8 million Mississippians.

### 16. 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
2007	59189	14797	0	0
2008	59189	14797	0	0
2009	59189	14797	0	0
2010	59189	14797	0	0
2011	59189	14797	0	0

## 17. (Standard Research Target) Number of Patents

## **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

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### 18. Output measures

### **Output Target**

Number of clientele attending seminars, workshops, and short courses.

2007: 9865 2008: 9865 2009: 9865 2010: 9865 2011: 9865

## **Outcomes for the Program**

#### 19. Outcome measures

#### **Outcome Text: Awareness created**

## **Outcome Target**

Number of clientele adopting new practices related to financial management.

Outcome Type: Short

2007: 2000 2008: 2000 2009: 2000 2010: 2000 2011: 2000

**Outcome Target** 

Number of clientele reducing debt.

Outcome Type: Long

2007: 1600 2008: 1600 2009: 1600 2010: 1600 2011: 1600

**Outcome Target** 

Number of clientele increasing wealth.

Outcome Type: Long

2007: 800 2008: 800 2009: 800 2010: 800 2011: 800

## 20. External factors which may affect outcomes

{NO DATA ENTERED}

### Description

Economic conditions are the most important factor affecting the achievement of this program's outcomes.

## 21. Evaluation studies planned

- Retrospective (post program)
- Before-After (before and after program)
- Case Study

#### Description

This program will utilize both immediate and follow-up comparisons of financial indicators.

## 22. Data Collection Methods

- Sampling
- Mail
- On-Site

# Description

Sampling will be used to measure debt reduction and wealth improvement of clientele. On-site methods will be used to ascertain planned changes in management practices. Mailed questionnaires will be used to follow-up to see if practices were maintained and results achieved.

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#### Forestry

#### 2. Program knowledge areas

- 122 20% Management and Control of Forest and Range Fires
- 133 10% Pollution Prevention and Mitigation
- 124 10% Urban Forestry
- 123 45% Management and Sustainability of Forest Resources
- 125 15% Agroforestry

**3. Program existence :** Mature (More then five years)

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

#### 5. Brief summary about Planned Program

This program includes research and extension efforts in forestry, including forest production and managment, forest recovery, timber harvesting, and environmental stewardship.

#### 6. Situation and priorities

Mississippi's forest industry (including private landowners, independent harvesters and forest industry) harvests and delivers about \$1.25 billion worth of forest products to mills and other processors each year. Timber generally ranks as the first or second most valuable agricultural commodity in the state, usually second behind only poultry and eggs production. About 61 percent of Mississippi's land is in forest production. This is about 18.5 million acres according to the latest forest survey taken in 1994. The total industry output of Mississippi's forest products industry is around \$11.4 billion annually.

## 7. Assumptions made for the Program

Forestry will continue to be a major commodity in Mississippi. Since pine sawtimber now makes up about 90 percent of the market, prices for this commodity will have a big impact on the profitability of forest production.

## 8. Ultimate goal(s) of this Program

To increase the profitability of forest production and improve the environmental stewardship of forest landowners.

### 9. Scope of Program

Multistate Integrated Research and Extension

## Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

Year	Extension		Research	
	1862	1890	1862	1890
2007	13.0	0.0	0.9	0.0
2008	13.0	0.0	0.9	0.0
2009	13.0	0.0	0.9	0.0
2010	13.0	0.0	0.9	0.0
2011	13.0	0.0	0.9	0.0

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#### 13. Activity (What will be done?)

Research will be conducted in forest production and management, timber harvesting, forest recovery, and environmental impacts of forest practices. Extension programming will be conducted to share this information with forest landowners and industry personnel.

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

Extension				
Direct Methods Indirect Methods				
Education Class	Newsletters			
Workshop	Web sites			
One-on-One Intervention				
Demonstrations				
Other 1 (Interactive Video)				

### 15. Description of targeted audience

The audience for this program includes forest landowners and industry personnel.

#### 16. 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
2007	66232	0	0	0
2008	66232	0	0	0
2009	66232	0	0	0
2010	66232	0	0	0
2011	66232	0	0	0

## 17. (Standard Research Target) Number of Patents

## **Expected Patents**

2007: 1 2008: 1 2009: 1 2010: 1 2011: 1

## 18. Output measures

### **Output Target**

Number of producers and industry attending seminars, workshops, short courses, and demonstrations.

2007: 11039 2008: 11039 2009: 11039 2010: 11039 2011: 11039

#### **Output Target**

Number of articles/abstracts in journals, proceedings, and edited books.

2007: 20 2008: 20 2009: 20 2010: 20 2011: 20

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## **Outcomes for the Program**

#### 19. Outcome measures

#### **Outcome Text: Awareness created**

#### **Outcome Target**

Number of timber producers adopting new technologies and practices.

Outcome Type: Medium

2007: 2000 2008: 2000 2009: 2000 2010: 2000 2011: 2000

#### **Outcome Target**

Number of forest producers increasing profitability of their forest operations.

Outcome Type: Long

2007: 1600 2008: 1600 2009: 1600 2010: 1600 2011: 1600

#### **Outcome Target**

Number of producers improving their environmental stewardship.

Outcome Type: Long

2007: 800 2008: 800 2009: 800 2010: 800 2011: 800

### 20. External factors which may affect outcomes

{NO DATA ENTERED}

#### Description

Natural disasters, particulary hurricanes and tornadoes, are particulary harsh on forest holdings. The effects of Hurricane Katrina have had, and will continue to have a significant impact on outreach efforts and directions for years to come. Policy changes, especially regarding importing of cheap timber from other countries, can have a big impact on the industry. Government regulations, especially regarding environmental issues, can increase production and harvesting costs.

### 21. Evaluation studies planned

- Retrospective (post program)
- Time series (multiple points before and after program)
- Case Study

#### Description

Evaluation of this program will include retrospective producer surveys and case studies of selected producers. The time series analysis will include production data for forest crops in Mississippi.

#### 22. Data Collection Methods

- Sampling
- Mail
- On-Site
- Case Study
- Observation

## Description

Producer surveys will use a sample of the population. The case study and ovservation methods will be used with a few selected producers. Production statistics will be used for time series analysis.

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Horticulture

#### 2. Program knowledge areas

- 601 10% Economics of Agricultural Production and Farm Management
- 204 15% Plant Product Quality and Utility (Preharvest)
- 102 15% Soil, Plant, Water, Nutrient Relationships
- 205 60% Plant Management Systems

**3. Program existence :** Mature (More then five years)

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

## 5. Brief summary about Planned Program

This program includes research and extension efforts focused on helping producers, manufacturers, suppliers, managers, and consumers involved in the \$2.3 billion horticulture industry in Mississippi, including vegetable and fruit production, turf, floriculture, and the ornamental nursery industries.

#### 6. Situation and priorities

The horticulture industry in Mississippi, composed of producers, manufacturers, suppliers, managers, and consumers, encompasses vegetable and fruit production, turf, floriculture, and the ornamental nursery industries. Together, these components were valued at over \$2.3 billion in 2005: vegetables (\$71 million), turf (\$2.2 billion), floriculture and ornamentals (\$31million), and fruits and nuts (\$10 million). The majority of these firms (2,000+) are small family farms or family owned businesses, employing a total of over 25,000 people. Allied industries such as retail garden centers, landscape contracting, roadside and direct marketing, and consumer purchasing are not reflected in these figures. Homeowner education is a major component of Mississippi State University Extension Service's horticulture efforts. Inconsistent production, due to weather or poor production practices, prevents consistent marketing. In order to obtain a consistent supply of quality product growers need to be informed about research-based, successful production and marketing practices.

All areas of horticulture share similar research needs. Site selection, cultivar evaluations, and marketing strategies are common research areas. Mississippi has three distinct climatic zones that preclude single site evaluations of production practices. Several factors must be employed in research and extension. These include the development of applicable and environmentally sound production and maintenance practices; selection and development of cultivars suitable under Mississippi's environmental conditions; research, development, and distribution of cultural recommendations; and, at the state level, the encouragement of economic development in this area.

Producers, manufacturers, suppliers, and managers of horticultural products require a comprehensive research program involving all aspects of production practices with emphasis on Mississippi's environment. These include: reducing pesticide use via integrated pest management, nutrient management, cold hardiness, heat stress management, plant evaluations, plant growth regulation, propagation, and water quality.

Cost and production analysis of the state's industry to determine the scope and impact on the state's economy is being done, but more is needed. Information on cost analysis and financial management are critical to management decisions.

#### 7. Assumptions made for the Program

Producers are working smarter to increase profitability. Increased interest in marketing skills has led to a more market wise industry. Energy efficiency has become a more pressing issue and has led to more emphasis on local markets. "Newer is better" leads to increased use of proprietary cultivars, input chemistry and equipment.

## 8. Ultimate goal(s) of this Program

Increasing the profitability of horticulture production and reducing the environmental impact of horticultural production.

#### 9. Scope of Program

Multistate Integrated Research and Extension

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# Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

Van	Extension		Research	
Year	1862	1890	1862	1890
2007	24.5	0.0	3.5	0.0
2008	24.5	0.0	3.5	0.0
2009	24.5	0.0	3.5	0.0
2010	24.5	0.0	3.5	0.0
2011	24.5	0.0	3.5	0.0

# **Outputs for the Program**

### 13. Activity (What will be done?)

Research and extension activities designed to

- 1. Increase producer profitability by promoting cultural practices that are research based.
- 2. Improve marketing of horticultural crops.
- 3. Determine producer needs via interaction with commodity groups, grower meetings, advisory councils, etc.
- 4. Reduce economic and environmental impact of chemicals by implementing integrated pest management techniques in commercial production.
- 5. Increase production efficiency by decreasing labor requirements, i.e. mechanization, automation, etc.
- 6. Continue selection of appropriate varieties for local environments in Mississippi.

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

Extension				
Direct Methods	Indirect Methods			
<ul> <li>Workshop</li> <li>Group Discussion</li> <li>One-on-One Intervention</li> <li>Demonstrations</li> </ul>	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> <li>Web sites</li> </ul>			

#### 15. Description of targeted audience

The target audience includes producers, manufacturers, suppliers, managers, and consumers, within the vegetable and fruit production, turf, floriculture, and ornamental nursery industries.

### 16. Standard output measures

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

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	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	157209	39302	0	0
2008	157209	39302	0	0
2009	157209	39302	0	0
2010	157209	39302	0	0
2011	157209	39302	0	0

### 17. (Standard Research Target) Number of Patents

# **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

#### 18. Output measures

### **Output Target**

Number of clientele attending seminars, workshops, short courses, and demonstrations.

2007: 26201 2008: 26201 2009: 26201 2010: 26201 2011: 26201

### **Output Target**

Number of articles/abstracts in journals, proceedings, and edited books.

2007: 5 2008: 5 2009: 5 2010: 5 2011: 5

# **Outcomes for the Program**

# 19. Outcome measures

# **Outcome Text: Awareness created**

# **Outcome Target**

Number of clientele adopting new technologies, strategies, systems, or cultivars.

Outcome Type: Medium

2007: 5000 2008: 5000 2009: 5000 2010: 5000 2011: 5000

**Outcome Target** 

Number of producers increasing profitability levels.

Outcome Type: Short

2007: 4000 2008: 4000 2009: 4000 2010: 4000 2011: 4000

**Outcome Target** 

Number of clientele improving their environmental stewardship.

Outcome Type: Short

2007: 2000 2008: 2000 2009: 2000 2010: 2000 2011: 2000

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### 20. External factors which may affect outcomes

• {NO DATA ENTERED}

### Description

Total staffing and fiscal support for horticulture has declined over the past five years. Budget restraints have altered the delivery methods for extension dissemination of information. Increased use of Internet, email, distance education, and other technologies has broadened communication avenues at the cost of interpersonal relationships between clientele and extension personnel. Demographic shifts and population growth, hurricane damage, and increased disposable income have increased the demand for consumer information.

### 21. Evaluation studies planned

- Retrospective (post program)
- Time series (multiple points before and after program)
- Case Study

#### Description

Evaluation of the program will include retrospective producer/clientele surveys and case studies of selected producers. The time series analysis will include production data for selected horticulture crops in Mississippi.

### 22. Data Collection Methods

- Sampling
- Mail
- On-Site
- Case Study
- Observation

### Description

Producer/clientele surveys will use a sample of the population. The case study and observation methods will be used with a few selected producers. Production statistics will be used for time series analysis.

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**Human Health** 

### 2. Program knowledge areas

• 724 100% Healthy Lifestyle

3. Program existence : Mature (More then five years)4. Program duration : Long-Term (More than five years)

# 5. Brief summary about Planned Program

This program focuses on improving the health of Mississippians.

#### 6. Situation and priorities

Individuals living in the Mississippi experience significantly higher rates of diabetes, hypertension, diabetes, and obesity, when compared to the overall general national population. Higher rates of preventable conditions and risk factors translate into a higher morbidity rate. An example of this includes the high stroke death rate for both blacks and whites for those living in Mississippi. This is particularly true for African American men, who are also at a greater risk of mortality from heart disease. Chronic conditions and illnesses reduce the quality of life for Mississippi residents, decrease the workforce productivity and cause health care costs to spiral. Because of low levels of education and the high unemployment rate, these factors contribute to a lack of insurance (Mississippi has an employment-based health insurance system) and these factors also may contribute to Mississippi's high premature death rate, as calculated through years of potential life lost, which is 2nd highest in the nation.

#### 7. Assumptions made for the Program

Changes to healthier lifestyles will lead to decreases in the primary risk factors contributing to morbidity and mortality of Mississippians: blood cholesterol, body mass index, and hypertension.

### 8. Ultimate goal(s) of this Program

Increase the overall health of Mississippians, leading to reduced health care costs, reduced employee absenteeism, and overall improvement of mental and physical well-being.

## 9. Scope of Program

Multistate Integrated Research and Extension

### Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

Voor	Extension		Research	
Year	1862	1890	1862	1890
2007	14.5	0.4	0.0	0.0
2008	14.5	0.4	0.0	0.0
2009	14.5	0.4	0.0	0.0
2010	14.5	0.4	0.0	0.0
2011	14.5	0.4	0.0	0.0

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# **Outputs for the Program**

### 13. Activity (What will be done?)

Research in healthy lifestyles education will be complemented by Extension programming, including the following methods:

Training programs

Video conferences

Health fairs

Workshops

Partnership development

Needs assessment

Leadership training

Strategic planning

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

Extension			
Direct Methods	Indirect Methods		
<ul> <li>Workshop</li> <li>One-on-One Intervention</li> <li>Demonstrations</li> </ul>	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> <li>TV Media Programs</li> <li>Web sites</li> </ul>		

### 15. Description of targeted audience

The audience for this program includes all Mississippians, with a specific focus on those who are overweight and/or have hypertension, and high blood cholesterol.

#### 16. 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
2007	137888	34472	0	0
2008	137888	34472	0	0
2009	137888	34472	0	0
2010	137888	34472	0	0
2011	137888	34472	0	0

### 17. (Standard Research Target) Number of Patents

# **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

### 18. Output measures

#### **Output Target**

Number of clientele attending workshops, seminars, and short courses.

2007: 22981 2008: 22981 2009: 22981 2010: 22981 2011: 22981

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### **Output Target**

Number of articles/abstracts in journals, proceedings, and edited books.

2007: 2 2008: 2 2009: 2 2010: 2 2011: 2

# **Outcomes for the Program**

#### 19. Outcome measures

#### **Outcome Text: Awareness created**

# **Outcome Target**

Number of clientele reporting changes in lifestyle to improve health.

Outcome Type: Medium

2007: 4500 2008: 4500 2009: 4500 2010: 4500 2011: 4500

### **Outcome Target**

Number of clientele reporting decreases in at least one indicator (blood pressure, blood cholesterol, body mass index).

Outcome Type: Long

2007: 3600 2008: 3600 2009: 3600 2010: 3600 2011: 3600

#### 20. External factors which may affect outcomes

- Economy
- Other (Cultural traditions)

#### Description

Economic factors may influence the ability to change lifestyle habits. The most important factor, however, is overcoming cultural traditions related to health.

### 21. Evaluation studies planned

{NO DATA ENTERED}

# Description

Before-after studies will be used to measure health indicators. During program studies will be used to measure changes in knowledge and skill related to health.

#### 22. Data Collection Methods

- Sampling
- Mail
- On-Site

#### Description

Data will be collected on some indicators using on-site techniques. Behaviors and follow-up information will be collected via mail.

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**Human Nutrition/Food Safety** 

#### 2. Program knowledge areas

712 15% Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxi

• 703 85% Nutrition Education and Behavior

3. Program existence : Mature (More then five years)4. Program duration : Long-Term (More than five years)

#### 5. Brief summary about Planned Program

This program includes extension and research efforts related to providing safe, nutritious food to Mississippians.

### 6. Situation and priorities

Many consumers: have trouble identifying foods that are good sources of key nutrients; do not understand the link between food and health; are not familiar with proper food handling techniques necessary to prevent food-borne illness; are not familiar with appropriate food choices for individuals across the life cycle; do not follow the principles of the Dietary Guidelines; do not understand and use the Nutrition Facts panel; have trouble identifying foods that are good sources of key nutrients; do not understand the link between food and health; and need instruction in saving money in food shopping;

#### 7. Assumptions made for the Program

People will make better food choices if they know the facts about nutrition and its relation to health. They will observe safe food handling practices if they understand the dangers of not doing so.

#### 8. Ultimate goal(s) of this Program

The ultimate goal of this program is that Mississippians will enjoy safe, nutritious food as part of a healthy diet.

### 9. Scope of Program

Multistate Integrated Research and Extension

#### Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

Year	Extension		Research	
	1862	1890	1862	1890
2007	17.5	0.0	1.0	0.0
2008	17.5	0.0	1.0	0.0
2009	17.5	0.0	1.0	0.0
2010	17.5	0.0	1.0	0.0
2011	17.5	0.0	1.0	0.0

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# **Outputs for the Program**

### 13. Activity (What will be done?)

Research and extension activities will be carried out, including

Partner with community groups and organizations to set up educational opportunities.

Train/Update professional and paraprofessionals on new USDA Food Pyramid and other related materials

Conduct educational programs as needed

Partner with local school systems to conduct health-based research.

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

Extension			
Direct Methods Indirect Methods			
Workshop	Public Service Announcement		
Group Discussion	Newsletters		
One-on-One Intervention	TV Media Programs		
Demonstrations	Web sites		

### 15. Description of targeted audience

The audience for this program consists of all Mississippians. Special emphasis is placed on those who historically have demonstrated poor nutrition behaviors, which includes low-income populations--both parents and children in these families are targeted. Food safety programming focuses on producers, processors, government regulators, food handlers, food retailers, and consumers.

#### 16. 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
2007	213891	133473	320000	0
2008	213891	133473	320000	0
2009	213891	133473	320000	0
2010	213891	133473	320000	0
2011	213891	133473	320000	0

### 17. (Standard Research Target) Number of Patents

### **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

# 18. Output measures

### **Output Target**

Number of clientele attending workshops, seminars, and short courses.

 2007: 88982
 2008: 88982
 2009: 88982
 2010: 88982
 2011: 88982

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### **Output Target**

Number of articles/abstracts in journals, proceedings, and edited books.

2007: 2 2008: 2 2009: 2 2010: 2 2011: 2

# **Outcomes for the Program**

#### 19. Outcome measures

#### **Outcome Text: Awareness created**

# **Outcome Target**

Number of clientele who learn how to use the food pyramid and nutritional guidelines to make food decisions.

Outcome Type: Short

2007: 18000 2008: 18000 2009: 18000 2010: 18000 2011: 18000

**Outcome Target** 

Number of clientele who adopt practices to fit their diets within the dietary guidelines.

Outcome Type: Medium

2007: 14400 2008: 14400 2009: 14400 2010: 14400 2011: 14400

**Outcome Target** 

Number of clientele reporting improvements in food preparation techniques.

Outcome Type: Medium

2007: 7200 2008: 7200 2009: 7200 2010: 7200 2011: 7200

**Outcome Target** 

Number of clientele reporting improved health and/or well-being due to changes in diet.

Outcome Type: Long

2007: 7200 2008: 7200 2009: 7200 2010: 7200 2011: 7200

**Outcome Target** 

Reduce the incidence of reported food-borne illnesses.

Outcome Type: Short

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

### 20. External factors which may affect outcomes

Economy

- Competing Public priorities
- Competing Programatic Challenges

#### Description

Funding is the primary factor affecting the ability of this program to achieve its goals.

# 21. Evaluation studies planned

{NO DATA ENTERED}

### Description

This program will use both retrospective and before-after methods to measure changes in food buying, preparation, and consumption behaviors. Time series analysis will be used to monitor incedents of food-borne illness.

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# 22. Data Collection Methods

- Sampling
- Mail
- On-Site

### Description

Some measurements will be taken on-site (current behavior and planned behavioral changes). Others will use mail questionnaires (behavioral changes continued after program ends).

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Integrated Pest Management

### 2. Program knowledge areas

- 216 50% Integrated Pest Management Systems
- 206 5% Basic Plant Biology
- 213 5% Weeds Affecting Plants
- 215 10% Biological Control of Pests Affecting Plants
- 214 5% Vertebrates, Mollusks, and Other Pests Affecting Plants
- 211 10% Insects, Mites, and Other Arthropods Affecting Plants
- 205 10% Plant Management Systems
- 212 5% Pathogens and Nematodes Affecting Plants

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

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

### 5. Brief summary about Planned Program

This program focuses on the control and prevention of pests, including such concepts as pest identification, pest biology, inspection and monitoring, pest thresholds, habitats and habitat management as it relates to pest control, exclusion, and pesticide chemistry and formulations.

#### 6. Situation and priorities

Mississippi's mild temperatures, high humidity, long growing season, and abundant rainfall make it a haven for numerous pests. Integrated pest management (IPM) helps producers of agronomic, turf, and horticultural crops control pest damage while decreasing pesticide costs and protecting the environment. The principles of IPM can also be applied in home and business settings.

#### 7. Assumptions made for the Program

IPM principles can be applied in a number of settings and offer producers a viable option for lowering expenses and maintaining effective control of pests.

### 8. Ultimate goal(s) of this Program

The ultimate goal of IPM is to increase profits and reduce harmful environmental impacts by decreasing the use of pesticides in agricultural and horticultural production.

### 9. Scope of Program

Multistate Integrated Research and Extension

# Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

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Va an	Extension		Research	
Year	1862	1890	1862	1890
2007	3.5	0.0	0.2	0.0
2008	3.5	0.0	0.2	0.0
2009	3.5	0.0	0.2	0.0
2010	3.5	0.0	0.2	0.0
2011	3.5	0.0	0.2	0.0

# **Outputs for the Program**

# 13. Activity (What will be done?)

Research and extension programming will be conducted many IPM areas, including the following: urban entomology and plant pathology plant disease and nematode diagnostics cotton pest management greenhouse tomato pest management soybean management by application of research and technology

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

Extension			
Direct Methods	Indirect Methods		
<ul> <li>Workshop</li> <li>One-on-One Intervention</li> <li>Demonstrations</li> </ul>	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> <li>Web sites</li> </ul>		

#### 15. Description of targeted audience

The target audience for this program includes home pest control providers, homeowners, cotton producers, soybean producers, and greenhouse tomato producers.

### 16. 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
2007	25603	6401	0	0
2008	25603	6401	0	0
2009	25603	6401	0	0
2010	25603	6401	0	0
2011	25603	6401	0	0

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### 17. (Standard Research Target) Number of Patents

**Expected Patents** 

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

#### 18. Output measures

### **Output Target**

Number of clientele attending workshops, seminars, short courses, and demonstrations.

2007: 4267 2008: 4267 2009: 4267 2010: 4267 2011: 4267

### **Output Target**

Number of articles/abstracts in journals, proceedings, and edited books.

2007: 2 2008: 2 2009: 2 2010: 2 2011: 2

## **Outcomes for the Program**

#### 19. Outcome measures

### **Outcome Text: Awareness created**

#### **Outcome Target**

Number of producers adopting IPM production practices.

Outcome Type: Medium

2007: 800 2008: 800 2009: 800 2010: 800 2011: 800

### **Outcome Target**

Number of producers increasing profits.

Outcome Type: Long

2007: 640 2008: 640 2009: 640 2010: 640 2011: 640

#### **Outcome Target**

Number of producers reducing environmental impacts of pesticide use.

Outcome Type: Long

2007: 640 2008: 640 2009: 640 2010: 640 2011: 640

# 20. External factors which may affect outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Government Regulations
- Competing Public priorities
- Competing Programatic Challenges

### Description

The IPM program's success is influenced by many factors. Like most programs based on production agriculture, natural disasters and government regulations have the largest potential impact.

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# 21. Evaluation studies planned

• {NO DATA ENTERED}

# Description

Retrospecitve studies will be utilized to measure implementation and impacts of IPM. Case study methods will be used to verify implementation.

# 22. Data Collection Methods

- Sampling
- Observation

#### Description

Clientele will be sampled for conducting retrospective studies. Observation and case study techniques will be used with a few selected producers.

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Local Government Education and Training

#### 2. Program knowledge areas

• 805 100% Community Institutions, Health, and Social Services

3. Program existence : Mature (More then five years)4. Program duration : Long-Term (More than five years)

### 5. Brief summary about Planned Program

This program assists local government officials, local units of government, and associations of local government officials in their efforts to improve governance at the grassroots and delivery of services to the citizens of Mississippi.

#### 6. Situation and priorities

Within their respective election cycles, some 3,000 local elected officials are given responsibility by the electorate for the formulation, adoption, and implementation of public policy in Mississippi's 82 counties and 297 municipalities. Typically, from one-third to one-half of these officials will be newly-elected, having never held public office. In addition, some 2,000 major appointed county and municipal officials assist these elected officials in governing and providing services. These local government officials need orientation with respect to their duties and responsibilities when they are new to office. They also need continuing education throughout their term of office to help them stay current in the face of constant change. Local government law and practice change with each session of the Legislature.

### 7. Assumptions made for the Program

The better educated a local official, the better job he or she will do in meeting the needs of the citizens. The Mississippi legislature will continue to recognize the importance of training of public officials and will mandate this responsibility to the extension service.

#### 8. Ultimate goal(s) of this Program

To equip local government officials, both elected and appointed, with the skills and knowledge they need to be effective in their jobs and provide better local government to the citizens of the State of Mississippi.

#### 9. Scope of Program

In-State Extension

## Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

Year	Extension		Research	
	1862	1890	1862	1890
2007	5.0	0.0	0.0	0.0
2008	5.0	0.0	0.0	0.0
2009	5.0	0.0	0.0	0.0
2010	5.0	0.0	0.0	0.0
2011	5.0	0.0	0.0	0.0

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# **Outputs for the Program**

### 13. Activity (What will be done?)

Extension staff provide technical assistance to counties and municipalities in such areas as general management, financial administration, personnel administration, leadership development, economic development, community facilities and services, and solid waste management. Technical assistance is provided on a "time available" basis.

.Through these activities, program staff assist local government officials, local units of government, and associations of local government in their efforts to improve governance at the grassroots and delivery of services to the citizens of Mississippi.

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

Extension			
Direct Methods	Indirect Methods		
<ul> <li>Workshop</li> <li>Group Discussion</li> <li>One-on-One Intervention</li> <li>Demonstrations</li> </ul>	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> <li>Web sites</li> </ul>		

#### 15. Description of targeted audience

This program serves the educational needs of the following associations of local government officials: MississippiAssociation of Supervisors, Mississippi Municipal League, Mississippi Association of County Board Attorneys, Mississippi Municipal Clerks and Tax Collectors Association, Mississippi Chancery Clerks Association, Mississippi Association of County Administrators/
Comptrollers, Building Officials Association of Mississippi, MississippiAssessors and Collectors Association, Mississippi Chapter of International Association of Assessing Officers, and the Mississippi Association of County Engineers.

In cooperation with the State Department of Audit and the State Tax Commission, program personnel manage legislatively-mandated certification programs for county purchase clerks, receiving clerks, inventory control clerks, and tax assessors and manages professional education programs for county supervisors and county administrators. Program personnel have assisted the Office of the Secretary of State in coordinating a training program for county and municipal election officials. Also included are homeland security and emergency management officials at state and local levels.

### 16. 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
2007	41600	10400	0	0
2008	41600	10400	0	0
2009	41600	10400	0	0
2010	41600	10400	0	0
2011	41600	10400	0	0

# 17. (Standard Research Target) Number of Patents

### **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

#### 18. Output measures

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### **Output Target**

Number of local government officials attending workshops, seminars, and short courses.

2007: 8000 2008: 8000 2009: 8000 2010: 8000 2011: 8000

# **Outcomes for the Program**

#### 19. Outcome measures

#### **Outcome Text: Awareness created**

#### **Outcome Target**

Number of local government officials improving their job-related knowledge and skills.

Outcome Type: Short

2007: 4000 2008: 4000 2009: 4000 2010: 4000 2011: 4000

## **Outcome Target**

Number of local government officials obtaining required certifications.

Outcome Type: Medium

2007: 20 2008: 250 2009: 20 2010: 20 2011: 20

### **Outcome Target**

Number of local government officials reporting improvement in work-related efficiency as a result of skills/knowledge learned and applied in their jobs.

Outcome Type: Long

2007: 1000 2008: 1000 2009: 1000 2010: 1000 2011: 1000

## 20. External factors which may affect outcomes

- Appropriations changes
- Government Regulations
- Competing Public priorities

### Description

The two primary factors that might affect this program's ability to meet its goals are changes in funding of personnel and regulations regarding required training for local government officials.

# 21. Evaluation studies planned

{NO DATA ENTERED}

### Description

After-only and retrospective studies will be used to determine knowledge/skills gained and implemented. Case studies will be used to verify implementation and impacts.

## 22. Data Collection Methods

- Sampling
- Mail
- On-Site
- Case Study

#### Description

Sampling will be used with after-only, retrospective, and case study methodologies.

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Nutrient Management/Water Quality

### 2. Program knowledge areas

- 102 20% Soil, Plant, Water, Nutrient Relationships
- 405 15% Drainage and Irrigation Systems and Facilities
- 404 10% Instrumentation and Control Systems
- 403 15% Waste Disposal, Recycling, and Reuse
- 402 15% Engineering Systems and Equipment
- 111 15% Conservation and Efficient Use of Water
- 401 10% Structures, Facilities, and General Purpose Farm Supplies

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

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

#### 5. Brief summary about Planned Program

This program focuses on water (quality, use, and conservation) as it relates to production agriculture, with an emphasis on proper disposal of agricultural wastes, including pesticides, solid animal wastes, and other waste products.

#### 6. Situation and priorities

Agriculture is one of Mississippi's most important industries. Mississippi is among the nation's leaders in broiler production, and other animal agriculture enterprises such as swine, beef and dairy cattle, constitute an important segment of the state's agricultural production. Row crop agriculture, including predominantly cotton, soybeans and corn, and other crops such as rice and wheat are other major crops produced in the state.

Issues associated with nutrient management and water - including water quality, water use and water conservation - continue to be important focus areas of research and Extension education programs. Proper disposal of agricultural wastes such as waste pesticides, solid wastes and other waste products are other important issues among agricultural producers. Research and education programs are targeted toward agricultural producers to address potential water quality and environmental impacts associated with nutrient management, animal and row crop production, as well as reach other rural audiences potentially impacted by agricultural production.

Both internal and external linkages are employed to reach research and education program objectives. Internal linkages include integrated, multi-disciplinary approaches through multi-departmental efforts. Externally, multi-institutional and multi-state linkages are maintained with agricultural support groups and agencies, 1890 institutions, state environmental and water quality agencies, multi-state water quality agencies, and other linkages in Mississippi, the region and nationally.

Stakeholders and customers of research and Extension programs represent a broad section of audiences, including agricultural producers and other rural audiences, agricultural support groups, environmental and water quality agencies, consumers, and traditionally under-served groups. These stakeholders are accessed through direct linkages, mass media, special influence groups and other methods.

## 7. Assumptions made for the Program

Two primary assumptions are integral to this plan: (1) the participating entities (Extension and research) are equipped to conduct the research pertinent to the plan and effectively deliver its components to the targeted audiences; and (2) the targeted audiences are in a position to and are willing to implement the particular components of the plan.

### 8. Ultimate goal(s) of this Program

To change agricultural production practices to reduce the potential impact of agricultural operations on water quality and the environment.

### 9. Scope of Program

• {NO DATA ENTERED}

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# Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : No

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

Van	Extension		Research	
Year	1862	1890	1862	1890
2007	8.0	3.1	0.0	0.0
2008	8.0	3.1	0.0	0.0
2009	8.0	3.1	0.0	0.0
2010	8.0	3.1	0.0	0.0
2011	8.0	3.1	0.0	0.0

# **Outputs for the Program**

### 13. Activity (What will be done?)

Varied activities, services and products are anticipated as a result of this plan. These include formation of state and regional advisory groups, assignment of work groups to address specific issues and tasks associated with nutrient management and water quality, participation of targeted audiences such as agricultural producers in environmental education programs, development of publications, fact sheets, web pages and other educational materials as program support, and reporting documents. Specific programs targeted toward agricultural producers in this plan include environmental stewardship programs, waste pesticide collection and disposal programs, recycling and solid waste management programs, and other initiatives related to water quality and nutrient management.

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

Extension			
Direct Methods Indirect Methods			
<ul><li>Workshop</li><li>Group Discussion</li><li>One-on-One Intervention</li><li>Demonstrations</li></ul>	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> <li>Web sites</li> </ul>		

### 15. Description of targeted audience

Stakeholders and customers of research and Extension programs represent a broad section of audiences, including agricultural producers and other rural audiences, agricultural support groups, environmental and water quality agencies, consumers, and traditionally under-served groups.

#### 16. Standard output measures

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

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	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	9379	2345	0	0
2008	9379	2345	0	0
2009	9379	2345	0	0
2010	9379	2345	0	0
2011	9379	2345	0	0

#### 17. (Standard Research Target) Number of Patents

# **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

#### 18. Output measures

### **Output Target**

Number of producers attending seminars, workshops, short courses, and demonstrations.

2007: 1563 2008: 1563 2009: 1563 2010: 1563 2011: 1563

### **Output Target**

Number of articles/abstracts in journals, proceedings, and edited books.

2007: 5 2008: 5 2009: 5 2010: 5 2011: 5

# **Outcomes for the Program**

# 19. Outcome measures

# **Outcome Text: Awareness created**

### **Outcome Target**

Number of producers adopting new technologies, strategies, or systems.

Outcome Type: Medium

2007: 300 2008: 300 2009: 300 2010: 300 2011: 300

# **Outcome Target**

Number of producers improving their environmental stewardship.

Outcome Type: Long

2007: 240 2008: 240 2009: 240 2010: 240 2011: 240

# 20. External factors which may affect outcomes

• {NO DATA ENTERED}

# Description

Many potential factors may affect the implementation and success of this plan. Among these are changing political climates and priorities, changing internal policies and priorities, potentially conflicting interests of stakeholders and customers, the impact of

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natural disasters such as hurricanes, floods and tornadoes and the resulting changes in priorities, and funding limitations.

### 21. Evaluation studies planned

- Retrospective (post program)
- Time series (multiple points before and after program)
- Case Study

### Description

Evaluation of this program will include retrospective producer surveys and case studies of selected producers. The time series analysis will include water quality statistics.

### 22. Data Collection Methods

- Sampling
- Mail
- On-Site
- Case Study
- Observation

#### Description

Producer surveys will use a sample of the population. The case study and observation methods will be used with a few selected producers.

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### **Poultry**

### 2. Program knowledge areas

- 306 10% Environmental Stress in Animals
- 315 10% Animal Welfare/Well-Being and Protection
- 312 10% External Parasites and Pests of Animals
- 313 10% Internal Parasites in Animals
- 302 10% Nutrient Utilization in Animals
- 308 10% Improved Animal Products (Before Harvest)
- 311 10% Animal Diseases
- 305 10% Animal Physiological Processes
- 301 10% Reproductive Performance of Animals
- 307 10% Animal Management Systems

**3. Program existence**: Mature (More then five years)

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

#### 5. Brief summary about Planned Program

This program describes university extension and research efforts to aid producers in increasing poultry production efficiency, health and quality of marketed products.

### 6. Situation and priorities

The commercial poultry industry continues to expand as consumers increasingly demand high quality, affordable poultry products. To meet this growing demand, poultry producers have historically relied heavily on university extension and research personnel to aid them in increasing poultry production efficiency, health and quality of marketed products. Increases in production have largely been attained by increasing the size of poultry operations to take advantage of economy of scale principles. As poultry operations become larger to increase efficiencies and remain economically viable, the potential for negative environmental impacts and unfavorable public perception is increased.

Air emissions (ammonia, dust, and odor) from poultry production facilities is currently and will continue to be an important issue for poultry producers. Economically feasible methods to reduce the generation of air contaminates and mitigate emissions need to be developed and implemented. Projects to improve the use trees and other plant barriers to mitigate environmental impact will be investigated. Other methods to improve the utilization of nutrients, such as composting, need to be expanded to preserve water quality in poultry production areas. Due to rising energy costs and concerns regarding global warming from increased use of fossil fuels, strategies to reduce energy consumption in poultry housing through improved design, operation and ventilation will be investigated. In addition, practices to improve drinking water quality and management to growing poultry need to be developed and emphasized. Poor water quality can contribute to excess moisture problems in poultry housing, leading to increased ammonia and odor generation. Measures to prevent disease, reduce animal stress and improve animal welfare are issues of continuing concern requiring constant improvement. To accomplish all of these goals, cooperation with personnel with additional expertise in engineering, chemistry, nutrition, and soil and water sciences will be needed.

Improvements in poultry housing operation and nutrient utilization and reduced environmental impact will help to assure the sustainability of commercial poultry operations in Mississippi. Poultry production is important to the economies of many rural areas of the state. In 2005, 763 million broilers were grown on approximately 2,000 farms in Mississippi, with a farm value in excess of \$2 billion. Broilers are slaughtered and further processed in 20 plants in Mississippi. In 2000, poultry firms operating in Mississippi directly employed almost 19,000 people.

#### 7. Assumptions made for the Program

It is expected that adoption of new practices will be slow. As with any industry, the benefits and economic feasibility of new technologies must be proven before widespread adoption can occur.

#### 8. Ultimate goal(s) of this Program

The goal of this program is to increase poultry production efficiency, health and quality of marketed products

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#### 9. Scope of Program

• {NO DATA ENTERED}

# Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : No

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

Van	Extension		Research	
Year	1862	1890	1862	1890
2007	1.0	0.0	3.6	0.0
2008	1.0	0.0	3.6	0.0
2009	1.0	0.0	3.6	0.0
2010	1.0	0.0	3.6	0.0
2011	1.0	0.0	3.6	0.0

# **Outputs for the Program**

#### 13. Activity (What will be done?)

Extension personnel will communicate with poultry producers and the general public through seminars, workshops, and extension bulletins and newsletters distributed in paper copy and electronically via the internet. Field demonstrations may also be required to encourage acceptance of new practices and methodologies. Results of research projects may also be published in peer-reviewed scientific journals. Research disseminated to the stakeholders will consist of, but is not limited to, the following:

Flock hatchability and fertility

Male broiler breeder viability measurements

Dietary and managerial regimes to decrease layer Mycoplasma infections

Optimizing early chick performance through: broiler and breeder nutrition, embryo physiological assessment, incubation management, and physiological assessment

Applied nutrition with feed additives and alternative feed ingredients

Ammonia management in broiler houses: minimization of nitrogen input, ammonia chemical modification and capture, and ammonia impacts on bird performance

Minimization of physiological stress in broilers and layers

Understanding broiler intestinal microorganisms and their role in nutrient utilization and disease

Identification of physiological responses associated with poultry welfare.

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

Extension			
Direct Methods Indirect Methods			
Workshop	Public Service Announcement		
Group Discussion	Newsletters		
One-on-One Intervention	Web sites		
Demonstrations			

#### 15. Description of targeted audience

The target audience for this program consists of commercial poultry producers and related industry personnel.

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### 16. 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
2007	1058	265	0	0
2008	1058	265	0	0
2009	1058	265	0	0
2010	1058	265	0	0
2011	1058	265	0	0

#### 17. (Standard Research Target) Number of Patents

#### **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

### 18. Output measures

# **Output Target**

Number of producers attending seminars, workshops, short courses, and demonstrations.

2007: 176 2008: 176 2009: 176 2010: 176 2011: 176

# **Output Target**

Number of articles/abstracts in journals, proceedings, and edited books.

2007: 5 2008: 5 2009: 5 2010: 5 2011: 5

# **Outcomes for the Program**

#### 19. Outcome measures

# **Outcome Text: Awareness created**

# **Outcome Target**

Number or producers adopting new technologies, strategies, or systems.

Outcome Type: Medium

2007: 50 2008: 50 2009: 50 2010: 50 2011: 50

**Outcome Target** 

Number of producers increasing production efficiency.

Outcome Type: Long

2007: 40 2008: 40 2009: 40 2010: 40 2011: 40

### **Outcome Target**

Number of producers reducing the environmental impact of production.

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Outcome Type: Long

2007: 40 2008: 40 2009: 40 2010: 40 2011: 40

# 20. External factors which may affect outcomes

Natural Disasters (drought, weather extremes, etc.)

Economy

Government Regulations

Competing Programatic Challenges

#### Description

Many factors can influence the success and profitability of poultry producers. Inclement weather and storms, such as hurricanes, can have devastating effects on poultry facilities and production. Economic factors such as feed, energy, transportation and product market prices can determine if producers will be willing or able to invest in new systems and technologies. Market demand and prices can also be affected by consumer fears regarding safety of poultry products; for example, fears about contamination with pathogenic bacteria or avian influenza. Recent publicity from animal welfare advocates have also swayed consumer concerns and demands regarding methods used to rear and process poultry

#### 21. Evaluation studies planned

- Retrospective (post program)
- Time series (multiple points before and after program)
- Case Study

#### Description

Evaluation of this program will primarily use retrospective producer surveys and case studies of selected producers. The time series analysis will include production statistics for poultry production in Mississippi.

### 22. Data Collection Methods

- Sampling
- Mail
- On-Site
- Case Study
- Observation

#### Description

Producer surveys will be conducted using a sample of the population. The case study and observation methods will be used with a few selected producers. Production statistics will be used for the time series analysis.

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Volunteerism and Community Service for Youth

### 2. Program knowledge areas

• 806 100% Youth Development

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

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

### 5. Brief summary about Planned Program

Volunteers are the backbone of 4-H Youth programming in Mississippi. The MSU Extension Service provides the training and support that is vital to the success of volunteers.

#### 6. Situation and priorities

Volunteers are vital to the Mississippi State University Extension Service 4-H Youth Development Program. Currently, there are over 6,100 adult volunteers and 98 youth are serving as volunteers in Mississippi 4-H. There is a need to provide Extension Agents with the skills that they need to become effective managers of volunteers. There is a need to equip 4-H volunteers with the skills that they need to become successful as 4-H club managers. There also is a need to provide learn-by-doing opportunity for youth to develop as leaders in their clubs and serve in county, district, and state leadership roles in Mississippi 4-H.

### 7. Assumptions made for the Program

It is assumed that many 4-H activities will continue to be staffed by volunteers and that new volunteers will need training to help them be successful.

### 8. Ultimate goal(s) of this Program

Strong 4-H clubs at the local level that are sustained through volunteer efforts.

### 9. Scope of Program

• {NO DATA ENTERED}

# Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

Year	Extension		Research	
	1862	1890	1862	1890
2007	17.0	0.0	0.0	0.0
2008	17.0	0.0	0.0	0.0
2009	17.0	0.0	0.0	0.0
2010	17.0	0.0	0.0	0.0
2011	17.0	0.0	0.0	0.0

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# **Outputs for the Program**

# 13. Activity (What will be done?)

#### Activities:

- Collaborate with local Extension staff and current volunteers who can identify potential volunteers to assist with 4-H youth development
- Provide training opportunities at the area, district, state, and regional levels to strengthen the skills of all volunteers and youth leaders in 4-H.
- Extension staff in-service training
- District Volunteer Leaders Forums
- State 4-H Volunteer Leaders Conferences
- Regional 4-H Volunteer Leaders Forums

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

Extension				
Direct Methods	Indirect Methods			
<ul><li>Education Class</li><li>Workshop</li><li>Group Discussion</li></ul>	Newsletters			

# 15. Description of targeted audience

Youth and adult volunteers for the 4-H program.

# 16. 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
2007	93825	37530	37530	18765
2008	93825	37530	37530	18765
2009	93825	37530	37530	18765
2010	93825	37530	37530	18765
2011	93825	37530	37530	18765

### 17. (Standard Research Target) Number of Patents

### **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

# 18. Output measures

### **Output Target**

Number of volunteers attended local and district training.

2007: 300 2008: 300 2009: 300 2010: 300 2011: 300

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### **Output Target**

Number of volunteers attending state volunteer leaders conference.

2008: 200

**Output Target** 

2007: 200

Number of volunteers attending the regional 4-H volunteer leaders forum

2007: 50 2008: 50 2009: 50 2010: 50 2011: 50

2009: 200

2010: 200

2011: 200

# **Outcomes for the Program**

#### 19. Outcome measures

#### **Outcome Text: Awareness created**

#### **Outcome Target**

Adult and youth volunteers increase their knowledge and skills in being effective volunteer leaders

Outcome Type: Short

2007: 300 2008: 300 2009: 300 2010: 300 2011: 300

**Outcome Target** 

Volunteers participating in training conferences incorporate their skills gained from training to work with 4-H clubs

Outcome Type: Medium

2007: 200 2008: 200 2009: 200 2010: 200 2011: 200

**Outcome Target** 

Adult volunteers serve as managers of community 4-H clubs and recruiting other volunteers for the 4-H program

Outcome Type: Medium

2007: 200 2008: 200 2009: 200 2010: 200 2011: 200

**Outcome Target** 

Youth leaders serve in leadership roles at the county, district and state levels

Outcome Type: Medium

2007: 50 2008: 50 2009: 50 2010: 50 2011: 50

**Outcome Target** 

Volunteer-managed 4-H clubs are sustained at the local level.

Outcome Type: Long

2007: 200 2008: 200 2009: 200 2010: 200 2011: 200

### 20. External factors which may affect outcomes

- Appropriations changes
- Competing Programatic Challenges

# Description

Volunteerism and community service for youth is a program that should be mostly immune to external factors. Some changes in programming could occur if appropriations are changed or other programs require resources currently devoted to 4-H volunteer development.

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# 21. Evaluation studies planned

- Retrospective (post program)
- During (during program)

# Description

Training efforts will be evaluated during programming.

Outcomes evaluations will be conducted using post-program retrspective analyses.

# 22. Data Collection Methods

- Sampling
- Mail

# Description

Volunteer outcomes will be conducted using a mail survey of a sample of the population.

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Wildlife and Fisheries

#### 2. Program knowledge areas

- 605 30% Natural Resource and Environmental Economics
- 136 15% Conservation of Biological Diversity
- 214 5% Vertebrates, Mollusks, and Other Pests Affecting Plants
- 903 10% Communication, Education, and Information Delivery
- 314 5% Toxic Chemicals, Poisonous Plants, Naturally Occurring Toxins, and Other Hazards Affecting Animals
- 722 5% Zoonotic Diseases and Parasites Affecting Humans
- 135 30% Aquatic and Terrestrial Wildlife

**3. Program existence :** Mature (More then five years)

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

#### 5. Brief summary about Planned Program

This program focuses on wildlife habitat managment, wildlife enterprise development, and management of human-wildlife conflicts.

#### 6. Situation and priorities

Mississippi is rich in wildlife and fisheries resources that are important to its heritage, culture and economic well-being. State residents and non-residents aged 16 years and older spend approximately \$2 billion in consumptive and non-consumptive wildlife-related recreation. Over 600,000 Mississippians (16 years or older) fish, hunt or watch wildlife. Most of Mississippi is either privately owned or industrial forest or agricultural land with a high potential for fish and wildlife production and management. Many landowners do not know how to manage their land properly for different species of these resources, and need current research-based information. Much of the state's 18.2 million acres of commercial and private forestland, 225,000 acres of small impoundments, 14,205 miles of streams and rivers, and 13 million acres of agricultural open lands is not managed for wildlife/fisheries. Additionally, opportunities for quality recreational experiences and/or additional revenue generation through development of wildlife/fisheries related enterprises exist on Mississippi land bases for property owners and resource stakeholders.

Sociological and demographic changes associated with increased urbanization and changing lifestyles, coupled with greater public demand for enjoyment of wildlife and fisheries resources, have led to new dilemmas in conservation issues, as well as user conflicts. These dilemmas are frequently compounded by increased public awareness and involvement in issues such as endangered/threatened species conservation, traditional hunting/fishing activities, environmental stewardship and quality of life, wildlife/fisheries population management, ecosystem restoration and habitat management, and agricultural and agroforestry intensification.

To address current and future challenges in wildlife and fisheries management, Mississippians need accurate and reliable information. This need can be met through well-designed and executed research, combined with pro-active, client-driven extension programming.

## 7. Assumptions made for the Program

The following assumptions are made regarding this program:

The public of Mississippi needs the guidance of wildlife & fisheries professionals to address past, current, and immerging issues A need exists for continuing education among professionals who manage wildlife & fisheries populations NIP landowners in the Southeast are interested in ways to diversify family incomes from agriculture and forestry. Demand for quality outdoor recreation continues to expand on a national and worldwide basis and sporting clientele are exploring potential experiences in the Southeast

A need exists for continuing education among wildlife professionals who must manage human-wildlife conflicts.

A need exists for continuing education among non-wildlife professionals who must sometimes address human-wildlife conflicts. The most significant niche for this program is to provide direct educational services to professionals, not the general public.

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### 8. Ultimate goal(s) of this Program

The ultimate goal for this program is to increase the enjoyment and profitability of human and wildlife interactions in Mississippi.

### 9. Scope of Program

• {NO DATA ENTERED}

### Inputs for the Program

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

11. Expending other then formula funds or state-matching funds : Yes

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

Year	Extension		Research	
	1862	1890	1862	1890
2007	8.5	0.0	0.6	0.0
2008	8.5	0.0	0.6	0.0
2009	8.5	0.0	0.6	0.0
2010	8.5	0.0	0.6	0.0
2011	8.5	0.0	0.6	0.0

# **Outputs for the Program**

#### 13. Activity (What will be done?)

In-state and multistate research and extension activities will be carried out related to wildlife habitat management, wildlife enterprise development, and human-wildlife conflicts.

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

Extension				
Direct Methods	Indirect Methods			
Workshop     Group Discussion	<ul> <li>Public Service Announcement</li> <li>Newsletters</li> </ul>			
One-on-One Intervention     Demonstrations	Web sites			

### 15. Description of targeted audience

The target audience for this project consists of most Mississippians, including those who hunt, fish, and watch wildlife, those who interact with wildlife and work and home, and those who work in related industries and professions.

### 16. Standard output measures

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

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	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	23736	5934	0	0
2008	23736	5934	0	0
2009	23736	5934	0	0
2010	23736	5934	0	0
2011	23736	5934	0	0

### 17. (Standard Research Target) Number of Patents

# **Expected Patents**

2007: 0 2008: 0 2009: 0 2010: 0 2011: 0

#### 18. Output measures

### **Output Target**

Number of clientele attending seminars, workshops, short courses, and demonstrations.

2007: 3956 2008: 3956 2009: 3956 2010: 3956 2011: 3956

### **Output Target**

Number of articles/abstracts in journals, proceedings, and edited books.

2007: 4 2008: 4 2009: 4 2010: 4 2011: 4

# **Outcomes for the Program**

# 19. Outcome measures

# **Outcome Text: Awareness created**

# **Outcome Target**

Number of clientele adopting recommended wildlife habitat improvement practices.

Outcome Type: Medium

2007: 800 2008: 800 2009: 800 2010: 800 2011: 800

# **Outcome Target**

Number of wildlife professionals improving their skills in handling wildlife damage issues.

Outcome Type: Medium

2007: 100 2008: 100 2009: 100 2010: 100 2011: 100

### **Outcome Target**

Number of non-industrialized, private landowners initiating wildlife-related enterprises.

Outcome Type: Medium

2007: 320 2008: 320 2009: 320 2010: 320 2011: 320

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### **Outcome Target**

Number of landowners reporting improved wildlife conservation due to management practices.

Outcome Type: Long

2007: 320 2008: 320 2009: 320 2010: 320 2011: 320

#### **Outcome Target**

Number of clientele reporting increased income levels due to wildlife enterprises.

Outcome Type: Long

2007: 50 2008: 50 2009: 50 2010: 50 2011: 50

# 20. External factors which may affect outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Government Regulations
- Competing Programatic Challenges

#### Description

The most likely limiting factor for the program is competing programmatic challenges that might impact funding for wildlife research and extension programming. The economy, natural disasters, and government regulations might influence clientele interest in the program by replacing wildlife conservation with other concerns, especially short-term.

#### 21. Evaluation studies planned

- Retrospective (post program)
- Time series (multiple points before and after program)
- Case Study

## Description

Evaluation of this program will include retrospective producer surveys and case studies of selected clientele. The time series analysis will consist of wildlife population and harvest statistics for Mississippi.

### 22. Data Collection Methods

- Sampling
- Mail
- On-Site
- Case Study
- Observation

#### Description

Clientele surveys will use a sample of the populations. The case study and observation methods will be used with a few selected producers. Wildlife population and harvest statistics will be used for the time series analysis.

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