

2008 Mississippi State University Combined Research and Extension Annual Report of Accomplishments and Results

Status: Accepted
Date Accepted: 07/08/09

2008 Mississippi State University Combined Research and Extension Annual Report of Accomplishments and Results

I. Report Overview

1. Executive Summary

This Plan of Work Report is a joint report from the Mississippi State University Extension Service (MSU-ES) and the Mississippi Agricultural and Forestry Experiment Station (MAFES) on 1862 extension and research efforts. The report is divided among 27 programs defined in the Five-Year Plan.

This report includes efforts and results related to a total Hatch appropriation of \$3,547,338 and a total Smith-Lever appropriation of \$6,381,572.

During FY 2008, MSU-ES professionals (259 total FTE) carried out 148,968 educational activities with a total of 4,373,923 contacts. In FY 2008 MAFES had 575 grants awarded for a total of over \$24 million.

Total Actual Amount of professional FTEs/SYs for this State

Year:2008	Extension		Research	
	1862	1890	1862	1890
Plan	191.0	0.0	53.0	0.0
Actual	259.0	0.0	65.7	0.0

II. Merit Review Process

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

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

2. Brief Explanation

Research projects utilized both an internal university panel and an expert peer review as part of the regional research networks. These reviews covered all aspects of research project proposals, including scientific merit, budgets, and suitability of the research mission for the unit, experiment station, and regional consortium. In addition, commodity-specific advisory committees are used to make research as applicable as possible to the state's needs.

Extension programs underwent 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. Each of the programs also has an advisory panel (external non-university panel) which reviewed programs in terms of the need, resources allocated, and expected outcomes. These advisory panels are specific to the programs being delivered. Each advisory panel consisted of industry and/or community leaders in the area of review. The panel members are selected to be reflective of the community represented, and as such reflect the diversity of race, gender and socioeconomic status of the programs' clientele.

III. Stakeholder Input

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

- Use of media to announce public meetings and listening sessions
- Targeted invitation to 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

Brief Explanation

Efforts to determine economic, social, and environmental issues began with County Extension Advisory Councils. Further needs assessment was 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 met 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 came 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 led discussions about programming and research efforts and assessed needs. Various subgroups of the advisory councils met several times during the year to discuss specific needs in research and extension programming.

Key Partners

MSU-ES and MAFES met 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, Mississippi Consumer Education Partnership, and numerous state and regional commodity groups.

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

1. Method to identify individuals and groups

- Use Advisory Committees
- 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 have been held for the general public through the area research and extension centers, including sessions specifically designed to reach under-served populations. The process began with county extension personnel identifying stakeholders, along with promotion of the meetings to the general public for their participation.

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

1. Methods for collecting Stakeholder Input

- 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 traditional 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.

Surveys of traditional stakeholder groups and non-traditional groups and individuals were conducted in specific situations. For example, this year a special needs-assessment survey was developed for family education agents to use in their counties.

3. A statement of how the input was considered

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

Brief Explanation

Stakeholder input had an influence on most aspects of this Plan of Work. Issues were identified through the needs assessment process discussed earlier. The issues helped extension agents and specialists determine their plans of action, including redirecting programs to meet clientele needs. Administration provided 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.

Brief Explanation of what you learned from your Stakeholders

1. Both traditional advisory groups and other key stakeholders (e.g., Mississippi Department of Environmental Quality) identified controlling animal waste runoff as a critical component of cleaning up the water resources of the state. The Department of Environmental Quality specified that animal producers develop environmental impact plans for their operations. Extension personnel have been working with producers, especially dairy, swine, and poultry producers to bring them into compliance with this requirement by helping them develop and implement plans to reduce runoff and protect our water resources.

2. A reduction in prices for cotton has led to a very large increase in corn acreage in the state the past few years. (10 years ago, production was less than 20 million bushels; in 2008 it was over 100 million bushels.) Agricultural leaders from the Delta (Northwest) Research and Extension Center Advisory Council recommended studying the use of a previously recommended automatic fungicide spraying program. Research and Extension professionals have been studying the system and made recommendations this year (see program reports for details).

3. The Mississippi Consumer Education Partnership, a key partner of the Extension Service, recommended programming geared toward helping citizens avoid consumer fraud and identity theft. This program was implemented in 2008.

IV. Expenditure Summary

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
6381572	0	4113168	0

2. Totaled Actual dollars from Planned Programs Inputs				
Extension			Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	6381572	0	3547338	0
Actual Matching	6381572	0	3594614	0
Actual All Other	0	0	25966601	0
Total Actual Expended	12763144	0	33108553	0

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous years				
Carryover	0	0	0	0

V. Planned Program Table of Content

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

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

Children, Youth, and Families at Risk

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being	10%		10%	
806	Youth Development	90%		90%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	17.0	0.0	0.0	0.0
Actual	3.5	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
85793	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
85793	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Provided

- leader training for teen and adult volunteers
- training on organization and maintenance of clubs
- training to Extension personnel on experiential education through subject-matter work
- recognition events for youth to exhibit project skills:
 - 4-H Club Congress
 - District Achievement Days
 - County, State, & Regional Fairs

2. Brief description of the target 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.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	18765	9382	112590	187649
2008	10779	1926	25151	4493

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	1	0	
2008	0	0	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Number of Youth who join 4-H clubs.

Year	Target	Actual
2008	500	838

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of youth who improve life skills.
2	Number of youth who increase knowledge of subject matter areas.
3	Number of 4-H projects completed.
4	Number of 4-H clubs sustained at the local level.

Outcome #1**1. Outcome Measures**

Number of youth who improve life skills.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	450	2125

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

The United States is falling dangerously behind other nations in developing its future workforce of scientists, engineers, and technology experts.

What has been done

In Mississippi, Extension Agents with 4-H responsibilities have been delivering educational programs that have addressed the issues facing our youth as it pertains to science, engineering, and technology.

Mississippi 4-H has expanded areas of technology to incorporate the virtual club concept. In this format clubs meet virtually across the state and carry out all functions via the internet. An action plan has been implemented to include water testing and analysis with findings presented publicly and steps for positive change identified. Mississippi State University 4-H has hosted a technology conference with concentrated training and hands-on experience in both major engineering and technology. Programs expressing the SET initiatives have been expanded on the county level. Topics of focus for Mississippi included water quality and testing, rocketry, robotics, GIS, web design, digital photography, software and programming, podcasting, animal science and safety.

Results

Over 2,000 youth learned how to control environments so that wildlife and other living things have a greater chance of survival. A healthy environment means better living conditions not only for wildlife but for humans as well. Having youth and adults taking actions to ensure healthy environments also creates a great economic impact in local communities.

The 125 youth who attended the robotics and rocketry educational sessions are already seeing the scientific benefit as it relates science classes and other related studies. As youth are faced with limited skills in the science arena, attending the robotics and rocketry workshops and seminars has created a change in attitude among youth as it relates to science.

4. Associated Knowledge Areas

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

Outcome #2**1. Outcome Measures**

Number of youth who increase knowledge of subject matter areas.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	450	709

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #3**1. Outcome Measures**

Number of 4-H projects completed.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	400	417

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #4**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	20	44

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)****What has been done****Results****4. Associated Knowledge Areas**

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Appropriations changes

Brief Explanation

The number of children/youth developing life skills and improving knowledge is estimated conservatively based on previous studies. The estimate is that at least 85% of 4-H club members accomplish these outcomes.

MSU overestimated the overall efforts we would undertake in this program. This has been addressed in the 2009-2013 and subsequent plans. This population is being reached, but the numbers are showing up in other 4-H areas (military & club program). That is why this program has been combined with others in the 4-H area in future plans of work.

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

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

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

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

4-H Community Club Development

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

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

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	17.0	0.0	0.0	0.0
Actual	72.6	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c 1783061	1890 Extension 0	Hatch 0	Evans-Allen 0
1862 Matching 1783061	1890 Matching 0	1862 Matching 0	1890 Matching 0
1862 All Other 0	1890 All Other 0	1862 All Other 0	1890 All Other 0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Activities 4-H Club Congress

- 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:
- District Achievement Days
- County, State, & Regional Fairs
- Livestock and Horse Shows

Financial Management

Chartering all 4-H Clubs and groups

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

-
-
-
-

2. Brief description of the target audience

All Mississippians between the ages of 6 and 18.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	37530	18765	93825	37530
2008	104542	113612	243932	265096

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

Year	Target
Plan:	0
2008 :	0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	1	0	
2008	0	0	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Number of youth enrolled in 4-H Clubs.

Year	Target	Actual
2008	16000	17259

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Youth increase their development of life-skills
2	Youth increase knowledge of subject matter taught.
3	Youth increase their levels of participation in community service activities
4	Youth increase the number of 4-H projects completed.
5	4-H clubs increase their use of youth/adult partnerships.
6	Youth increase their involvement in leadership events and activities at the district, state, and national levels.
7	4-H members are active contributing citizens of their communities.

Outcome #1**1. Outcome Measures**

Youth increase their development of life-skills

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	14500	16225

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2**1. Outcome Measures**

Youth increase knowledge of subject matter taught.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	14500	16225

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

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

806

Youth Development

Outcome #3**1. Outcome Measures**

Youth increase their levels of participation in community service activities

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	8000	13791

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #4**1. Outcome Measures**

Youth increase the number of 4-H projects completed.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	8000	8113

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #5**1. Outcome Measures**

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

Not reporting on this Outcome for this Annual Report

Outcome #6**1. Outcome Measures**

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

Not reporting on this Outcome for this Annual Report

Outcome #7**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	4000	8113

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Populations changes (immigration,new cultural groupings,etc.)

Brief Explanation

The number of children/youth developing life skills and improving knowledge is estimated conservatively based on previous studies. The estimate is that at least 85% of 4-H club members accomplish these outcomes.

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

1. 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.

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #3**V(A). Planned Program (Summary)****1. Name of the Planned Program**

4-H Military Program

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

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

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	6.0	0.0	0.0	0.0
Actual	0.9	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c 21366	1890 Extension 0	Hatch 0	Evans-Allen 0
1862 Matching 21366	1890 Matching 0	1862 Matching 0	1890 Matching 0
1862 All Other 0	1890 All Other 0	1862 All Other 0	1890 All Other 0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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 the following:

- 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

Provide in service training to Extension personnel in working with military families.

2. Brief description of the target 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.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	6255	3127	37530	18765
2008	972	793	2269	1850

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

Year Target

Plan: 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	0	0	
2008	1	0	1

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Number of 4-H Clubs operating on military bases.

Year	Target	Actual
2008	2	5

Output #2**Output Measure**

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

Year	Target	Actual
2008	250	350

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Military youth increase their knowledge of subject matter taught
2	Military youth increase their development of life skills
3	Military youth are active 4-H participants as evidenced by their involvement on the leadership team, district, state, and national event participation
4	Military adult family members are active in the District and State Volunteer Leaders Forum
5	4-H Clubs are sustained at Columbus and Keesler Air Force Bases and by National Guard families
6	Youth develop into productive citizens

Outcome #1**1. Outcome Measures**

Military youth increase their knowledge of subject matter taught

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	230	281

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2**1. Outcome Measures**

Military youth increase their development of life skills

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	230	281

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

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

806

Youth Development

Outcome #3**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	200	239

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #4**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	20	42

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #5**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	6	6

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #6**1. Outcome Measures**

Youth develop into productive citizens

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	150	140

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results**4. Associated Knowledge Areas**

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Appropriations changes
- Government Regulations

Brief Explanation

The number of children/youth developing life skills and improving knowledge is estimated conservatively based on previous studies. The estimate is that at least 85% of 4-H club members accomplish these outcomes.

MSU overestimated the overall efforts we would undertake in this program. This has been addressed in the 2009-2013 and subsequent plans.

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

- Retrospective (post program)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #4**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Volunteerism and Community Service for Youth

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

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

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	17.0	0.0	0.0	0.0
Actual	12.2	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
300880	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
300880	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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

2. Brief description of the target audience

Youth and adult volunteers for the 4-H program.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	93825	37530	37530	18765
2008	31141	104274	13346	44689

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	1	0	
2008	0	0	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Number of volunteers attended local and district training.

Year	Target	Actual
2008	300	1600

Output #2**Output Measure**

- Number of volunteers attending state volunteer leaders conference.

Year	Target	Actual
2008	200	386

Output #3**Output Measure**

- Number of volunteers attending the regional 4-H volunteer leaders forum

Year	Target	Actual
2008	50	61

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Adult and youth volunteers increase their knowledge and skills in being effective volunteer leaders
2	Volunteers participating in training conferences incorporate their skills gained from training to work with 4-H clubs
3	Adult volunteers serve as managers of community 4-H clubs and recruiting other volunteers for the 4-H program
4	Youth leaders serve in leadership roles at the county, district and state levels
5	Volunteer-managed 4-H clubs are sustained at the local level.

Outcome #1**1. Outcome Measures**

Adult and youth volunteers increase their knowledge and skills in being effective volunteer leaders

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	300	817

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2**1. Outcome Measures**

Volunteers participating in training conferences incorporate their skills gained from training to work with 4-H clubs

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	200	694

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #3**1. Outcome Measures**

Adult volunteers serve as managers of community 4-H clubs and recruiting other volunteers for the 4-H program

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	200	408

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #4**1. Outcome Measures**

Youth leaders serve in leadership roles at the county, district and state levels

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	50	204

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results**4. Associated Knowledge Areas**

KA Code	Knowledge Area
806	Youth Development

Outcome #5**1. Outcome Measures**

Volunteer-managed 4-H clubs are sustained at the local level.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	200	912

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results**4. Associated Knowledge Areas**

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Appropriations changes
- Competing Programmatic Challenges

Brief Explanation

MSU overestimated the overall efforts we would undertake in this program. This has been addressed in the 2009-2013 and subsequent plans.

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

- Retrospective (post program)
- During (during program)

Evaluation Results

{No Data Entered}

Key Items of Evaluation
{No Data Entered}

Program #5**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Agronomic Crops

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	10%		10%	
111	Conservation and Efficient Use of Water	15%		15%	
132	Weather and Climate	5%		5%	
202	Plant Genetic Resources	5%		5%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	10%		10%	
205	Plant Management Systems	30%		30%	
211	Insects, Mites, and Other Arthropods Affecting Plants	10%		10%	
212	Pathogens and Nematodes Affecting Plants	5%		5%	
213	Weeds Affecting Plants	10%		10%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	21.0	0.0	27.6	0.0
Actual	19.9	0.0	30.7	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
489025	0	1655926	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
489025	0	1532798	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	11338463	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	154572	38643	0	0
2008	71958	204220	0	0

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

Patent Applications Submitted

Year Target

Plan: 0

2008 : 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	1	20	
2008	7	85	92

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

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

Year	Target	Actual
2008	25762	46030

Output #2

Output Measure

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of producers adopting new technologies, strategies, or systems.
2	Number of producers increasing production levels.
3	Number of producers decreasing production inputs/expenses.
4	Number of producers improving their environmental stewardship.

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	5000	9206

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
212	Pathogens and Nematodes Affecting Plants
202	Plant Genetic Resources
102	Soil, Plant, Water, Nutrient Relationships
211	Insects, Mites, and Other Arthropods Affecting Plants
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
205	Plant Management Systems
111	Conservation and Efficient Use of Water
213	Weeds Affecting Plants
132	Weather and Climate

Outcome #2**1. Outcome Measures**

Number of producers increasing production levels.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	4000	7365

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done**Results****4. Associated Knowledge Areas**

KA Code	Knowledge Area
205	Plant Management Systems
202	Plant Genetic Resources
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water

Outcome #3**1. Outcome Measures**

Number of producers decreasing production inputs/expenses.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	4000	7365

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

A new crop management system advocating automatic fungicide use on field corn has been extensively promoted by industry across Mississippi and the United States during the past two years. This system advocates spraying a fungicide at corn tassel growth stage, regardless of cultural and environmental effects or any other factors commonly used to establish best crop and pest management practices or appropriate stewardship of crop pesticides.

What has been done

A multi-disciplinary team of Mississippi Agricultural and Forestry Experiment Station scientists MSU Extension Service specialists, including agronomists and plant pathologists, extensively evaluated the automatic application of fungicides on corn at tassel growth stage. These studies were conducted using sound scientific design and principles in various cropping systems common to Mississippi, including irrigated and rain-fed or dryland culture. Studies were evaluated for leaf and stalk disease development, plant health characteristics, grain yield and grain quality. Little, if any disease development generally occurred during both 2007 and 2008 crop seasons. Fungicide treatments did not affect any of the corn physiological or pathological parameters monitored.

Results

No benefits have been research documented to support a system advocating automatic fungicide use on Mississippi field corn. These results indicate that fungicide applications on corn are only necessary when disease development is confirmed by field scouting, the weather is conducive for disease development, the specific corn hybrid is susceptible to the disease, and the crop is at a growth stage when that disease could hurt crop yield. If any one of these parameters is not met, then fungicide application will likely accomplish little. Mississippi producers may use this information to make more prudent decisions regarding fungicide use on corn, which are more environmentally conscious, reduce threat of resistance development, avoid non-target pest escalation or other negative effects, and substantially improve grower profitability.

Farmers grew 720,000 acres of corn in Mississippi during 2008 and 930,000 acres in 2007. As much as 70% of this corn acreage was treated with a fungicide as an automatic program. This pesticide application costs about \$20.55 per acre (fungicide = \$15.75/a, additive = \$0.55/a, aerial application = \$4.25/a). Since Mississippi did not experience conditions conducive to disease development during the last two years, farmers could have potentially saved over \$10 million in 2008 and \$13 million in 2007.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
202	Plant Genetic Resources
212	Pathogens and Nematodes Affecting Plants
211	Insects, Mites, and Other Arthropods Affecting Plants
111	Conservation and Efficient Use of Water
102	Soil, Plant, Water, Nutrient Relationships
213	Weeds Affecting Plants

Outcome #4

1. Outcome Measures

Number of producers improving their environmental stewardship.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	2000	3682

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

During the last several years, tarnished plant bugs populations in cotton have increased substantially in the Delta region of Mississippi. Survey data indicates that Mississippi cotton producers treated nearly 25,000 acres between 14-16 times for tarnished plant bugs in 2007, while Mississippi producers applied a record high 7.5 average pesticide applications statewide to control this pest. There are several factors which have contributed to the increased tarnished plants bug numbers. The increase in grain crop acres such as corn which serve as an alternate host for tarnished plant bugs has contributed to the problem. Also, tarnished plant bugs have developed some insecticide resistance to pyrethroid and organophosphate chemistry, which has reduced pest control. The issue of controlling and limiting damage from tarnished plant bug has become such a problem that it is limiting expansion of cotton production in the Delta region of the state.

What has been done

A pilot Cotton D.E.M.O. (Demonstration and Education of Management Options) program was implemented in 2008. Feedback from clientele indicated strong support for the Cotton D.E.M.O. program, which resulted in increased funding to implement a fully functional program for 2009. We are successfully educating producers to use a fully integrated program to manage tarnished plant bugs. This can save producers an average of two insecticide applications per season. Also, by reducing sole reliance on insecticide applications, we are reducing selection pressure of tarnished plant bugs for insecticide resistance.

Results

Farmers grew 365,000 acres of cotton in Mississippi during 2008, and 665,000 acres in 2007. Approximately 75% of the cotton planted was in the Delta region of the state. Pesticide application for tarnished plant bugs cost about \$13.80 per acre (Insecticide = \$9.00/a, additive = \$0.55/a, aerial application = \$4.25/a). Therefore, producers could have potentially saved over \$21,321,000 over the last two years in the Delta region alone, if they used this strategy to reduce two insecticide sprays for tarnished plant bug.

4. Associated Knowledge Areas

KA Code	Knowledge Area
132	Weather and Climate
205	Plant Management Systems
213	Weeds Affecting Plants
111	Conservation and Efficient Use of Water
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
102	Soil, Plant, Water, Nutrient Relationships

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

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

1. Evaluation Studies Planned

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

Evaluation Results

See the impact statements provided in the outcomes. One note is that the reduction in fungicides and insecticides mentioned in the impact statements also necessarily contributed to an improved environmental stewardship among producers.

Additionally, producers have adopted genetically modified varieties of corn, cotton, and soybeans at a very high rate (> 80%), once again leading to a substantial decrease in pesticide use.

Key Items of Evaluation

Environmental stewardship.

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

Animal Production

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
301	Reproductive Performance of Animals	15%		15%	
302	Nutrient Utilization in Animals	20%		20%	
303	Genetic Improvement of Animals	20%		20%	
304	Animal Genome	5%		5%	
305	Animal Physiological Processes	10%		10%	
306	Environmental Stress in Animals	10%		10%	
307	Animal Management Systems	15%		15%	
308	Improved Animal Products (Before Harvest)	5%		5%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	11.5	0.0	4.8	0.0
Actual	17.1	0.0	5.6	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
418951	0	622892	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
418951	0	689999	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	1619410	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	77059	19265	0	0
2008	54149	138926	0	0

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

Patent Applications Submitted

Year Target

Plan: 0

2008 : 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	1	1	
2008	8	16	24

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

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

Year	Target	Actual
2008	12843	32179

Output #2**Output Measure**

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of producers adopting new technologies, strategies, or systems.
2	Number of producers increasing production levels.
3	Number of producers decreasing production inputs/expenses.
4	Number of producers improving their environmental stewardship.

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	2500	9206

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
302	Nutrient Utilization in Animals
304	Animal Genome
301	Reproductive Performance of Animals
306	Environmental Stress in Animals
303	Genetic Improvement of Animals
308	Improved Animal Products (Before Harvest)
307	Animal Management Systems
305	Animal Physiological Processes

Outcome #2**1. Outcome Measures**

Number of producers increasing production levels.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	2000	7365

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done**Results****4. Associated Knowledge Areas**

KA Code	Knowledge Area
307	Animal Management Systems
301	Reproductive Performance of Animals
303	Genetic Improvement of Animals
306	Environmental Stress in Animals
305	Animal Physiological Processes
302	Nutrient Utilization in Animals

Outcome #3**1. Outcome Measures**

Number of producers decreasing production inputs/expenses.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	2000	2574

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results**4. Associated Knowledge Areas**

KA Code	Knowledge Area
307	Animal Management Systems
303	Genetic Improvement of Animals
301	Reproductive Performance of Animals
308	Improved Animal Products (Before Harvest)
305	Animal Physiological Processes
306	Environmental Stress in Animals
302	Nutrient Utilization in Animals

Outcome #4**1. Outcome Measures**

Number of producers improving their environmental stewardship.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	1000	2574

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)****What has been done****Results**

Based on estimated numbers of beef, dairy, and swine producers developing and following environmental management plans.

4. Associated Knowledge Areas

KA Code	Knowledge Area
302	Nutrient Utilization in Animals
307	Animal Management Systems
306	Environmental Stress in Animals

V(H). Planned Program (External Factors)**External factors which affected outcomes**

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

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

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

Evaluation Results**Key Items of Evaluation**

Program #7**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Animal Protection

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
311	Animal Diseases	40%		40%	
312	External Parasites and Pests of Animals	10%		10%	
313	Internal Parasites in Animals	10%		10%	
314	Toxic Chemicals, Poisonous Plants, Naturally Occurring Toxins, and Other Hazards Affecting Animals	10%		10%	
315	Animal Welfare/Well-Being and Protection	30%		30%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	7.5	0.0	3.0	0.0
Actual	0.6	0.0	0.3	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
13984	0	38403	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
13984	0	29926	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	164082	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	51373	12843	0	0
2008	2182	5843	0	0

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

Patent Applications Submitted

Year Target

Plan: 0

2008 : 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	1	1	
2008	2	1	3

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

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

Year	Target	Actual
2008	8562	1338

Output #2**Output Measure**

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of producers adopting new technologies, strategies, or systems.
2	Number of producers improving overall heard health and/or protection.

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	1700	268

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
312	External Parasites and Pests of Animals
311	Animal Diseases
313	Internal Parasites in Animals
315	Animal Welfare/Well-Being and Protection
314	Toxic Chemicals, Poisonous Plants, Naturally Occurring Toxins, and Other Hazards Affecting Animals

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	1360	214

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results**4. Associated Knowledge Areas**

KA Code	Knowledge Area
313	Internal Parasites in Animals
311	Animal Diseases
314	Toxic Chemicals, Poisonous Plants, Naturally Occurring Toxins, and Other Hazards Affecting Animals
312	External Parasites and Pests of Animals
315	Animal Welfare/Well-Being and Protection

V(H). Planned Program (External Factors)**External factors which affected outcomes**

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

Brief Explanation

{No Data Entered}

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

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

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #8**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Aquaculture Production

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
302	Nutrient Utilization in Animals	50%		50%	
306	Environmental Stress in Animals	15%		15%	
307	Animal Management Systems	10%		10%	
308	Improved Animal Products (Before Harvest)	25%		25%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	2.0	0.7	0.0	0.0
Actual	2.0	0.0	6.6	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
50125	0	506176	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
50125	0	341655	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	3906137	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	2716	679	0	0
2008	3884	174	0	0

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

Patent Applications Submitted

Year	Target
Plan:	1
2008 :	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	2	2	
2008	3	8	11

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

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

Year	Target	Actual
2008	453	676

Output #2**Output Measure**

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of producers adopting new technologies, strategies, or systems.
2	Number of producers improving production efficiency.
3	Number of producers improving their environmental stewardship.

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	100	135

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
308	Improved Animal Products (Before Harvest)
302	Nutrient Utilization in Animals
306	Environmental Stress in Animals
307	Animal Management Systems

Outcome #2**1. Outcome Measures**

Number of producers improving production efficiency.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	80	108

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results**4. Associated Knowledge Areas**

KA Code	Knowledge Area
306	Environmental Stress in Animals
302	Nutrient Utilization in Animals
307	Animal Management Systems

Outcome #3**1. Outcome Measures**

Number of producers improving their environmental stewardship.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	40	54

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy
- Public Policy changes

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

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

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #9**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Aquaculture Health

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
311	Animal Diseases	35%		35%	
312	External Parasites and Pests of Animals	15%		15%	
313	Internal Parasites in Animals	15%		15%	
315	Animal Welfare/Well-Being and Protection	35%		35%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	1.5	0.0	0.0	0.0
Actual	0.8	0.0	0.1	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
19334	0	4688	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
19334	0	7760	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	391683	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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.

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	2222	555	0	0
2008	2391	640	0	0

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

Patent Applications Submitted

Year Target

Plan: 0

2008 : 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	1	0	
2008	1	0	1

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

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

Year	Target	Actual
2008	370	505

Output #2**Output Measure**

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of producers adopting new technologies, strategies, or systems.
2	Number of producers improving fish health management production efficiency.

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	50	101

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
312	External Parasites and Pests of Animals
311	Animal Diseases
315	Animal Welfare/Well-Being and Protection
313	Internal Parasites in Animals

Outcome #2**1. Outcome Measures**

Number of producers improving fish health management production efficiency.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	40	81

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results**4. Associated Knowledge Areas**

KA Code	Knowledge Area
312	External Parasites and Pests of Animals
311	Animal Diseases
315	Animal Welfare/Well-Being and Protection
313	Internal Parasites in Animals

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Government Regulations
- Competing Programmatic Challenges

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

- Retrospective (post program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

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

Forestry

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
122	Management and Control of Forest and Range Fires	20%		20%	
123	Management and Sustainability of Forest Resources	45%		45%	
124	Urban Forestry	10%		10%	
125	Agroforestry	15%		15%	
133	Pollution Prevention and Mitigation	10%		10%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	13.0	0.0	0.9	0.0
Actual	12.1	0.0	1.3	0.0

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

Extension		Research	
Smith-Lever 3b & 3c 298411	1890 Extension 0	Hatch 46002	Evans-Allen 0
1862 Matching 298411	1890 Matching 0	1862 Matching 70342	1890 Matching 0
1862 All Other 0	1890 All Other 0	1862 All Other 613869	1890 All Other 0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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.

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	66232	0	0	0
2008	52996	53462	0	0

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 1

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	2	0	
2008	1	3	4

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

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

Year	Target	Actual
2008	11039	17743

Output #2**Output Measure**

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of timber producers adopting new technologies and practices.
2	Number of forest producers increasing profitability of their forest operations.
3	Number of producers improving their environmental stewardship.

Outcome #1**1. Outcome Measures**

Number of timber producers adopting new technologies and practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	2000	3549

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

The Mississippi Board of Registration for Foresters requires that registered foresters have 1 hour of ethics training every two years to maintain certification.

What has been done

Two Ethics Courses for Professional Foresters and Loggers were developed and delivered in 2008. Both addressed areas where complaints about foresters and loggers are frequent. Each course met the 1-hour ethics training requirements for foresters. The first course was primarily for loggers and covered Timber Measurement and MS statutes that specify how timber products are measured. This course also addressed the problem of Sorting Timber Products which is included in contracts but is commonly ignored.

Results

As a results of these efforts, 91 loggers and 35 registered foresters were able to maintain their certification.

4. Associated Knowledge Areas

KA Code	Knowledge Area
124	Urban Forestry
133	Pollution Prevention and Mitigation
123	Management and Sustainability of Forest Resources
122	Management and Control of Forest and Range Fires
125	Agroforestry

Outcome #2**1. Outcome Measures**

Number of forest producers increasing profitability of their forest operations.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	1600	2839

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Invasive plant species have been a problem in south Mississippi for many years. Hurricane Katrina made this situation worse by blowing down trees, increasing light to invasive species, and enabling these plants to virtually explode across the landscape.

What has been done

In 2008, 15 Invasive Species Workshops were conducted in southeast Mississippi counties affected by Katrina and now facing greater challenges in dealing with these species. Workshops were typically 2-3 hours in length and focused on 1) identifying major invasive plant species, 2) current recommendations for dealing with invasive species, particularly cogon grass, 3) current research information regarding invasive species, and 4) where to get information and cost-share assistance in dealing with invasive species. A total of 1,059 people attended the workshops, averaging 71 per workshop. Participants owned 96,518 acres of forestland and managed an additional 780,166 acres.

Results

Participants estimated the economic value of the information received at \$1,696,500, or \$1,601 per participant. Landowners, foresters, and other land managers are now better prepared to make informed decisions about controlling various invasive species, where to get help, and potential technical and financial assistance that is available. These workshops will have positive impacts on these landowners for decades by enabling them to take back land that was choked with invasive species.

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
125	Agroforestry

Outcome #3**1. Outcome Measures**

Number of producers improving their environmental stewardship.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	800	871

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Mississippi has nearly 20 million acres of forestland, much of which is covered by pine trees. These pine forests provide numerous benefits to the people of Mississippi, including wood, water, wildlife habitat, and good paying jobs in the forest products industry. The southern pine bark beetles pose a significant threat to the health of these pine forests, as well as the forest products industry in Mississippi.

What has been done

The Mississippi southern pine beetle prevention project was initiated in the spring of 2006. This project has provided funds for extension education programs on the southern pine bark beetles, pine plantation thinning, and other forest health topics across Mississippi. In 2008, 25 programs for 871 participants were conducted across N. Mississippi. These programs dealt with pine plantation thinning and the southern pine bark beetles. In addition, a pine thinning cost share program was initiated with the Mississippi Forestry Commission to encourage landowners to thin their pine trees, thereby increasing forest health.

Results

To date, nearly 1,000 acres have been thinned across N. Mississippi, with another 4,000 acres enrolled in the program. This practice has allowed for a decrease in pesticides used for controlling the Southern Pine Beetle.

4. Associated Knowledge Areas

KA Code	Knowledge Area
122	Management and Control of Forest and Range Fires
133	Pollution Prevention and Mitigation

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

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

1. Evaluation Studies Planned

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

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #11**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Horticulture

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	15%		15%	
204	Plant Product Quality and Utility (Preharvest)	15%		15%	
205	Plant Management Systems	60%		60%	
601	Economics of Agricultural Production and Farm Management	10%		10%	
Total		100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	24.5	0.0	3.5	0.0
Actual	21.9	0.0	4.2	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
538536	0	237849	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
538536	0	209302	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	1049179	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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.

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	157209	39302	0	0
2008	119113	135424	0	0

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

Patent Applications Submitted

Year	Target
Plan:	0
2008 :	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	1	5	
2008	4	12	16

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

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

Year	Target	Actual
2008	26201	42423

Output #2

Output Measure

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of clientele adopting new technologies, strategies, systems, or cultivars.
2	Number of producers increasing profitability levels.
3	Number of clientele improving their environmental stewardship.

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	5000	8485

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems
102	Soil, Plant, Water, Nutrient Relationships

Outcome #2**1. Outcome Measures**

Number of producers increasing profitability levels.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	4000	6788

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results**4. Associated Knowledge Areas**

KA Code	Knowledge Area
204	Plant Product Quality and Utility (Preharvest)
601	Economics of Agricultural Production and Farm Management
205	Plant Management Systems

Outcome #3**1. Outcome Measures**

Number of clientele improving their environmental stewardship.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	2000	3394

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results**4. Associated Knowledge Areas**

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
102	Soil, Plant, Water, Nutrient Relationships
205	Plant Management Systems

V(H). Planned Program (External Factors)**External factors which affected outcomes**

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

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

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

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #12**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Nutrient Management/Water Quality

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	20%		20%	
111	Conservation and Efficient Use of Water	15%		15%	
401	Structures, Facilities, and General Purpose Farm Supplies	10%		10%	
402	Engineering Systems and Equipment	15%		15%	
403	Waste Disposal, Recycling, and Reuse	15%		15%	
404	Instrumentation and Control Systems	10%		10%	
405	Drainage and Irrigation Systems and Facilities	15%		15%	
Total		100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	8.0	0.0	3.1	0.0
Actual	1.4	0.0	1.5	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
35503	0	95298	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
35503	0	53478	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	485927	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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.

2. Brief description of the target 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.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	9379	2345	0	0
2008	3739	3267	0	0

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

Year Target

Plan: 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	1	0	
2008	3	6	9

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

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

Year	Target	Actual
2008	1563	1168

Output #2**Output Measure**

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of producers adopting new technologies, strategies, or systems.
2	Number of producers improving their environmental stewardship.

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	300	234

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
402	Engineering Systems and Equipment
102	Soil, Plant, Water, Nutrient Relationships
401	Structures, Facilities, and General Purpose Farm Supplies
111	Conservation and Efficient Use of Water
403	Waste Disposal, Recycling, and Reuse
404	Instrumentation and Control Systems
405	Drainage and Irrigation Systems and Facilities

Outcome #2**1. Outcome Measures**

Number of producers improving their environmental stewardship.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	240	187

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done**Results****4. Associated Knowledge Areas**

KA Code	Knowledge Area
403	Waste Disposal, Recycling, and Reuse
102	Soil, Plant, Water, Nutrient Relationships
404	Instrumentation and Control Systems
401	Structures, Facilities, and General Purpose Farm Supplies
111	Conservation and Efficient Use of Water
405	Drainage and Irrigation Systems and Facilities
402	Engineering Systems and Equipment

V(H). Planned Program (External Factors)**External factors which affected outcomes**

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

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

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

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

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

Poultry

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
301	Reproductive Performance of Animals	10%		10%	
302	Nutrient Utilization in Animals	10%		10%	
305	Animal Physiological Processes	10%		10%	
306	Environmental Stress in Animals	10%		10%	
307	Animal Management Systems	10%		10%	
308	Improved Animal Products (Before Harvest)	10%		10%	
311	Animal Diseases	10%		10%	
312	External Parasites and Pests of Animals	10%		10%	
313	Internal Parasites in Animals	10%		10%	
315	Animal Welfare/Well-Being and Protection	10%		10%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	1.0	0.0	3.6	0.0
Actual	1.1	0.0	2.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
25877	0	138504	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
25877	0	360344	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	1224125	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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.

2. Brief description of the target audience

The target audience for this program consists of commercial poultry producers and related industry personnel.

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	1058	265	0	0
2008	1943	784	0	0

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

Patent Applications Submitted

Year	Target
Plan:	0
2008 :	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	1	3	
2008	0	12	12

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

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

Year	Target	Actual
2008	176	455

Output #2**Output Measure**

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of producers adopting new technologies, strategies, or systems.
2	Number of producers increasing production efficiency.
3	Number of producers reducing the environmental impact of production.

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	50	91

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Although the current method of broiler slaughtering is effective and economical, consumer and industry parties have interest in developing alternative broiler slaughter systems. The analysis of alternative systems requires research projects that encompass efficiency, economical, and welfare aspects of broiler slaughter.

What has been done

A slaughter system that uses low atmospheric pressure was investigated in the laboratory as well as in a commercial broiler processing plant. Electrocardiogram in broilers was assessed by attaching electrodes to broilers prior to being exposed to low atmospheric pressure via a Type II electrocardiogram. The electrocardiogram signal was reduced on average to 90% within 32 seconds. Moreover, atria and ventricle fibrillation occurred within 35 seconds, whereas the desired loss of posture in broilers occurred at 37 seconds.

A second series of experiments were conducted to assess bird behavior during exposure to the low atmospheric pressure slaughter system. Video was assessed during slaughter for stress and vocalizations. Birds experienced no stress or vocalizations and behaviors mimicked by birds slaughtered via gas stunning.

Results

The assessment of the low atmosphere pressure system points to its use as being comparable or better to current systems in terms of bird welfare, processing plant efficacy and worker safety, and implementation into current commercial processing plant systems.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
312	External Parasites and Pests of Animals
315	Animal Welfare/Well-Being and Protection
311	Animal Diseases
307	Animal Management Systems
313	Internal Parasites in Animals
305	Animal Physiological Processes
302	Nutrient Utilization in Animals
308	Improved Animal Products (Before Harvest)
306	Environmental Stress in Animals

Outcome #2**1. Outcome Measures**

Number of producers increasing production efficiency.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	40	73

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

In-house composting (i.e., windrowing) is an important practice to maintain good litter quality. It is accomplished by piling caked or de-caked litter in a windrow between broiler flocks for a period of days. Composting duration and its impact on specific bacteria is poorly understood.

What has been done

Questions were raised regarding the management practices of in-house composting. How long does it take to prepare a windrow in a broiler house? How long does the litter need to be composted? Should the composted litter be turned? Does changing the compost strategy change litter pathogens? Two studies were carried out at the Mississippi State University commercial poultry unit to address the former questions. A three-point hitch blade was attached to a farm tractor and two windrows were created in a 43 X 400 ft broiler house. It took approximately 1 to 1.5 hours to complete in-house composting in one broiler house. Research suggested that turning the windrow may be an option for improved composting, especially if the litter was not de-caked. Hence, turning de-caked litter allowed for improved bedding characteristics of the caked litter portion. Also, turning the litter may allow for more uniformity of litter and result in lower litter pathogens. However, this seems to be dependent upon litter moisture. Regarding duration of composting, the maximum temperature will be attained by day two of composting. However, most standards recommend a windrow of five to seven days. Research conducted to address litter microbial populations indicated that composting reduced anaerobic counts of bacteria.

Results

This information indicated that broiler growers that use windrows to in-house compost have improved litter quality for brooding chickens with less pathogenic anaerobic bacteria. This is a practice that should especially be beneficial in situations of short down-times between flocks of chicks. Improved litter quality coupled with less bacteria is important to optimize chick quality.

4. Associated Knowledge Areas

KA Code	Knowledge Area
315	Animal Welfare/Well-Being and Protection
313	Internal Parasites in Animals
311	Animal Diseases
305	Animal Physiological Processes
307	Animal Management Systems
301	Reproductive Performance of Animals
312	External Parasites and Pests of Animals
306	Environmental Stress in Animals
302	Nutrient Utilization in Animals

Outcome #3**1. Outcome Measures**

Number of producers reducing the environmental impact of production.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	40	36

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)****What has been done****Results**

Based on estimates of development of environmental management plans by poultry producers.

4. Associated Knowledge Areas

KA Code	Knowledge Area
302	Nutrient Utilization in Animals
307	Animal Management Systems

V(H). Planned Program (External Factors)**External factors which affected outcomes**

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

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

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

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #14**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Wildlife and Fisheries

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
135	Aquatic and Terrestrial Wildlife	30%		30%	
136	Conservation of Biological Diversity	15%		15%	
214	Vertebrates, Mollusks, and Other Pests Affecting Plants	5%		5%	
314	Toxic Chemicals, Poisonous Plants, Naturally Occurring Toxins, and Other Hazards Affecting Animals	5%		5%	
605	Natural Resource and Environmental Economics	30%		30%	
722	Zoonotic Diseases and Parasites Affecting Humans	5%		5%	
903	Communication, Education, and Information Delivery	10%		10%	
Total		100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	8.5	0.0	0.6	0.0
Actual	8.2	0.0	0.5	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
202519	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
202519	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	365187	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

In-state and multistate research and extension activities will be carried out related to wildlife habitat management, wildlife enterprise development, and human-wildlife conflicts.

2. Brief description of the target 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.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	23736	5934	0	0
2008	33444	15693	0	0

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	1	0	
2008	0	2	2

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

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

Year	Target	Actual
2008	3956	8190

Output #2**Output Measure**

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of clientele adopting recommended wildlife habitat improvement practices.
2	Number of wildlife professionals improving their skills in handling wildlife damage issues.
3	Number of non-industrialized, private landowners initiating wildlife-related enterprises.
4	Number of landowners reporting improved wildlife conservation due to management practices.
5	Number of clientele reporting increased income levels due to wildlife enterprises.

Outcome #1**1. Outcome Measures**

Number of clientele adopting recommended wildlife habitat improvement practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	800	1638

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
135	Aquatic and Terrestrial Wildlife
214	Vertebrates, Mollusks, and Other Pests Affecting Plants
314	Toxic Chemicals, Poisonous Plants, Naturally Occurring Toxins, and Other Hazards Affecting Animals
136	Conservation of Biological Diversity
722	Zoonotic Diseases and Parasites Affecting Humans
903	Communication, Education, and Information Delivery
605	Natural Resource and Environmental Economics

Outcome #2**1. Outcome Measures**

Number of wildlife professionals improving their skills in handling wildlife damage issues.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	100	655

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done**Results****4. Associated Knowledge Areas**

KA Code	Knowledge Area
605	Natural Resource and Environmental Economics
903	Communication, Education, and Information Delivery
135	Aquatic and Terrestrial Wildlife

Outcome #3**1. Outcome Measures**

Number of non-industrialized, private landowners initiating wildlife-related enterprises.

Not reporting on this Outcome for this Annual Report

Outcome #4**1. Outcome Measures**

Number of landowners reporting improved wildlife conservation due to management practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	320	1310

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results**4. Associated Knowledge Areas**

KA Code	Knowledge Area
605	Natural Resource and Environmental Economics
135	Aquatic and Terrestrial Wildlife

Outcome #5**1. Outcome Measures**

Number of clientele reporting increased income levels due to wildlife enterprises.

Not reporting on this Outcome for this Annual Report

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

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

1. Evaluation Studies Planned

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

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #15**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Early Care and Education

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being	80%		80%	
803	Sociological and Technological Change Affecting Individuals, Families and Communities	20%		20%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	13.5	0.0	0.0	0.0
Actual	10.0	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
249207	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
249207	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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; ITTERS; and FDCRS Certification.

2. Brief description of the target 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

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	103515	25879	0	0
2008	29429	58821	0	0

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

Patent Applications Submitted

Year **Target**

Plan: 0

2008 : 0

Patents listed

3. Publications (Standard General Output Measure)**Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	1	0	
2008	0	0	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

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

Year	Target	Actual
2008	17252	14708

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of clientele increasing knowledge in child care and development content areas.
2	Number of care providers maintaining certification requirements.
3	Number of care providers increasing the quality of care provided.

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	3400	2942

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Current government regulations permit the educational levels of non-Head Start early care and education providers to be minimal, creating a disparity in the quality of care provided to infants, toddlers, and pre-school age children. In order to improve the quality of care for Mississippi's most vulnerable population, it is critically important to maintain a rigorous training system with numerous opportunities for face-to-face training, distance training, and personal technical assistance. This ensures the two-fold gain of increased school readiness for young children and improved capacity of the early childhood workforce.

What has been done

Over the past five years, Mississippi State University developed its community college partnerships to increase the number of Mississippi Child Care Resource & Referral sites from the original three to ten. The sites provide a wide array of materials, supplies, equipment, and services to parents, early care and education providers, students, child development centers, and community members at little or no charge. In addition to the sites, the MSCCR&R Network expanded its training coordinator staff from three to fourteen, significantly increasing the number of educational opportunities for early care and education providers across the state. Additionally, seven MSU-ES Child and Family Development Area Agents work with the MSCCR&R Network to provide training.

Results

Twelve sites now serve all 82 counties in Mississippi. In the 2008 calendar year the MSCCR&R Network presented 438 training workshops attended by 13,344 participants. 1,583 visits were made to MSCCR&R Network sites. The number of items checked out was tracked beginning in April of 2008, and for the period of April through December 2008, 4,735 educational items were checked out from the Resource & Referral offices. 925 hours of technical assistance were provided to 39 child care centers. 59 child care referrals were made. Expanding the training and educational opportunities for early care and education providers will increase the quality of current child care programs throughout the state, supporting the Quality Rating System established by the Mississippi Department of Human Services.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families and Communities

Outcome #2**1. Outcome Measures**

Number of care providers maintaining certification requirements.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	2720	2353

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)****What has been done****Results****4. Associated Knowledge Areas**

KA Code	Knowledge Area
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families and Communities

Outcome #3**1. Outcome Measures**

Number of care providers increasing the quality of care provided.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	1360	1177

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

The relationship between caregiver and child is a key indicator of the quality of care. The social, emotional, cognitive, and physical development of children is dependent on the quality of interactions with caregivers and the environment established by child caregivers. Children who receive supportive, stimulating care are more likely to show normal development at two, six, and ten years old. With an estimated fifty-seven percent (57%) of Mississippi's children in unlicensed settings, it is vital to provide additional educational information and programs to those in-home care providers.

What has been done

The Nurturing Homes Initiative (NHI) project provides educational information, training and technical assistance to in-home care providers who offer full-day, full-year childcare services to children. Since 2001, the Nurturing Homes Initiative, a collaborative effort between the Mississippi State University Extension Service, the Mississippi Department of Human Services, and the Office for Children and Youth, has provided educational programming and technical assistance to in-home early care and education providers. The program uses a nationally normed assessment tool, the Family Day Care Rating Scale (FDCRS), to assess the quality of childcare provided by the in-home providers. Through a unique system of support, NHI training coordinators utilize printed educational materials, one-on-one technical assistance, and interaction with the children to provide training that is time efficient, economically feasible for the early care and education providers, and tailored to each provider's specific needs. In 2008, the NHI team focused on the Mississippi Early Learning Guidelines for three and four year old children, in addition to basic curricular topics such as health and safety (i.e. hand-washing) and reading aloud.

Results

During 2008 the Nurturing Homes Initiative was conducted in 38 counties with 120 in-home child care providers. 6 Field Staff Technical Assistants worked with the 120 in-home child care providers.

Of the 120 providers on whom posttest data were collected, all improved. All of the participating providers improved at least one rating point or to the score of 4.0-4.5 on the Family Day Care Rating Scale. Results of the Arnett Caregiver Interaction Scale show that one hundred percent (100%) of the participating providers demonstrated positive and appropriate interactions with their children.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families and Communities

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations

Brief Explanation

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

1. Evaluation Studies Planned

- Before-After (before and after program)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

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

Family Resource Management

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

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

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	12.0	0.0	0.0	0.0
Actual	7.9	0.0	3.3	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
193578	0	28640	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
193578	0	40878	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	815332	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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.

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	59189	14797	0	0
2008	29913	28747	0	0

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	3	0	
2008	0	7	7

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

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

Year	Target	Actual
2008	9865	9777

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of clientele adopting new practices related to financial management.
2	Number of clientele reducing debt.
3	Number of clientele increasing wealth.

Outcome #1**1. Outcome Measures**

Number of clientele adopting new practices related to financial management.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	2000	1955

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

In March 2008, the United States Environmental Protection Agency (EPA) announced new requirements for training in using lead-safe work practices for contractors and maintenance workers who renovate and repair older housing, child care facilities, and schools by 2010. It will be very difficult for all contractors and painters to comply with the new training requirements with such a short time-frame for so many to receive training. It will also be very difficult for home and property owners who wish to renovate pre-1978 structures to find certified workers and/or to receive training themselves to avoid spreading lead to their children and families and causing permanent brain damage, other health effects, or death. Structures built before 1978 when lead paint was restricted are likely to contain lead-based paint.

What has been done

MSU Extension Service Family Resource Management (FRM) Agents entered into a partnership with the National Center for Healthy Housing to receive and then provide training in their local areas using a unique delivery method. National expert consultants taught all-day intensive 'Lead Safe Work Practices' training sessions for contractor/painting professionals and do-it-yourselfers through statewide interactive video conferences using PowerPoint presentations provided by HUD and EPA. Trained FRM Area Extension Agents served as interactive video-conference hosts at eight sites in the state and were ready to teach if problems with technology arose. They carried out the most important portion of the training at each site by leading participants through hands-on exercises using equipment needed for implementing lead safe work practices. Agents also taught do-it-yourselfer property owners in shorter face-to-face 'Don't Spread Lead' workshops. Grant funding was secured to provide for training materials, travel, and expert consultant expenses, and an assistant for program coordination. Participants who passed a test at the end of training received certificates of completion.

Results

: In addition to the health impacts for Mississippi citizens who avoid lead poisoning as a result of this training, our Lead Safe Work Practices training is having a significant economic impact for the State of Mississippi and the property owners affected by Hurricane Katrina. The small Rental Assistance Program administered by the Mississippi Development Authority (MDA) has taken over 1,200 applications for up to \$30,000 grants to assist property owners in repairs and restoration, more than half of which are for pre-1978 residences. MDA is requiring owners of pre-1978 residences in mitigation for lead-based paint to attend training before issuing permission to rebuild and grants. At least 59 of MDA's property owner- grant applicants have participated in MSU's training with a potential impact of \$1,770,000 in grants that would not be received without required training. Thus far, 111 contractors have received 'Lead-Safe Work Practices' training and 142 property owners have participated in 'Don't Spread Lead' workshops.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #2**1. Outcome Measures**

Number of clientele reducing debt.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	1600	1564

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Between January and December 2007, Consumer Sentinel, the complaint database developed and maintained by the Federal Trade Commission (FTC), received over 800,000 consumer fraud and identity theft complaints. Consumers reported losses from fraud of more than \$1.2 billion in the United States. In the same year, 2,644 of these consumer complaints were from Mississippians who lost at least \$2,679,439 (an average of \$1,114 per consumer). Identity theft complaints accounted for 1,673 of the complaints from citizens of Mississippi. In fact, identity theft is one of the fastest growing crimes.

What has been done

To address these consumer fraud issues and leverage state resources, Family Resource Management Area Agents convene and facilitate the Mississippi Consumer Education Partnership, a group composed of members from the State Offices of the Attorney General, Secretary of State, Treasurer, Human Services, Development Authority's Energy Division, the Better Business Bureau, MS Center for Justice, Agencies on Aging, AARP, the Jump\$tart Coalition, and the MS Housing Initiative. The group reached more than 1,000 consumers directly in face-to-face activities and thousands more through news articles, television, and radio stressing issues in four primary areas: Avoiding Identity Theft, Discouraging the Use of Payday Loans, Encouraging Americans to Save, and Preventing Fraud Against Senior Adults. Over 300 senior adults learned to avoid scams in workshops at Belk Stores and community organizations. At least 120 students participated in consumer activities in the classroom. Nearly 600 participated in Shred Day events held in Jackson, Tupelo, Hattiesburg, and Gulfport where 31,040 pounds of personal papers were shredded to prevent Identity Theft.

Results

If these 1,000 consumers avoid losing the \$1,114 average of individual Mississippi victims of fraud this is a potential saving of more than one million dollars and untold amounts of grief and hours spent in recovering from consumer fraud.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #3**1. Outcome Measures**

Number of clientele increasing wealth.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	800	782

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Competing Programmatic Challenges

Brief Explanation

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

1. Evaluation Studies Planned

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

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #17**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Human Health

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
724	Healthy Lifestyle	100%		100%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	14.5	0.0	0.4	0.0
Actual	9.7	0.0	1.2	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
238530	0	8914	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
238530	0	7614	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	312312	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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

2. Brief description of the target 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.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	137888	34472	0	0
2008	62660	87669	0	0

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	2	1	
2008	0	2	2

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

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

Year	Target	Actual
2008	22981	25055

Output #2**Output Measure**

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of clientele reporting changes in lifestyle to improve health.
2	Number of clientele reporting decreases in at least one indicator (blood pressure, blood cholesterol, body mass index).

Outcome #1**1. Outcome Measures**

Number of clientele reporting changes in lifestyle to improve health.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	4500	5011

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	3600	4009

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy
- Other (Cultural traditions)

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

- Before-After (before and after program)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #18**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Human Nutrition/Food Safety

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
703	Nutrition Education and Behavior	85%		85%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	15%		15%	
Total		100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	17.5	0.0	1.0	0.0
Actual	22.5	0.0	2.9	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
552713	0	58282	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
552713	0	54384	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	1200379	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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.

2. Brief description of the target 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.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	213891	133473	320000	0
2008	231097	461333	346645	692000

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	2	1	
2008	0	22	22

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

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

Year	Target	Actual
2008	88982	288513

Output #2**Output Measure**

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of clientele who learn how to use the food pyramid and nutritional guidelines to make food decisions.
2	Number of clientele who adopt practices to fit their diets within the dietary guidelines.
3	Number of clientele reporting improvements in food preparation techniques.
4	Number of clientele reporting improved health and/or well-being due to changes in diet.
5	Reduce the incidence of reported food-borne illnesses.

Outcome #1**1. Outcome Measures**

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

Not reporting on this Outcome for this Annual Report

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	14400	46162

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

In 2006, the per capita income in Mississippi was \$27,028, with the poverty level being 21%. If the rate of unemployment continues to rise, it will become almost impossible for Mississippians to feed their families nutritious meals.

What has been done

Mississippi State University's Expanded Food and Nutrition Education Program teaches limited income families how to eat nutritious meals at minimal costs. EFNEP works with adult participants teaching them how to compare prices, prepare nutritious meals, and stretch food dollars as to not run out of food before the end of the month. In 2008, more than 700 adult participants completed the EFNEP Program. They learned about feeding their children, reading food labels, shopping with coupons, the importance of including physical activity in their daily lives and much, much more.

Results

Of the 759 adult participants that graduated from the program, 95.5 percent showed a positive change in eating habits at completion. All foods showed a positive increase in the following areas:

Food Group	Intake at Entry	Intake at Exit
Grains	6.1	6.4
Fruits	0.6	0.8
Vegetables	1.5	1.7
Milk	0.7	0.9

The meats and beans group remained the same from entry to exit. At the end of the program, the amount spent on food decreased by \$50.00 for participants. There was an 18.8 percent overall positive change to the inclusion of physical activity in their lives, with half of them spending from 30-60 minutes a day doing moderate exercise.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #3

1. Outcome Measures

Number of clientele reporting improvements in food preparation techniques.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	7200	23081

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Ensuring the safety of aquaculture and seafood products from *Listeria monocytogenes* is a continuing challenge. There is a high prevalence of *L. monocytogenes* in catfish fillets. Recent studies demonstrated that about 25 to 47% of fresh channel catfish fillets sampled from processing plants are contaminated with *L. monocytogenes* due to inadequacy of current intervention strategies in these raw products. One promising technology for the control of *L. monocytogenes* problem is the use of a lytic bacteriophage that can selectively kill this target pathogen.

What has been done

Listex P100 (phage P100) is a bacteriophage preparation approved by FDA and USDA for raw and ready-to-eat foods. Our research findings demonstrated that phage P100 was effective in reducing *L. monocytogenes* counts on catfish fillet tissue. We have demonstrated that P100 efficacy was influenced by contact time and application dose regardless of higher or lower temperature regimes tested on catfish fillet tissue. Such overall reductions in *L. monocytogenes* counts were still maintained at the end of the 10-day shelf-life of fresh catfish fillet tissue stored at 4Å,Å°C or 10Å,Å°C after phage P100 treatment.

Results

This is the first proof of concept on the listericidal activity of FDA-approved/USDA-approved bacteriophage Listex P100 on the surface of fresh channel catfish fillet tissue. Our findings illustrate the effectiveness of lytic bacteriophage Listex P100 in reducing *L. monocytogenes* counts from the surface of fresh catfish fillet tissue. This is a promising new technology that can selectively kill target *L. monocytogenes* on fresh catfish fillets.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #4**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	7200	23081

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)**What has been done****Results****4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #5**1. Outcome Measures**

Reduce the incidence of reported food-borne illnesses.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Meat and Poultry Processors must comply with the USDA's Pathogen Reduction and Hazard Analysis Critical Control Point (HACCP) regulation.

What has been done

The USDA's Pathogen Reduction and Hazard Analysis Critical Control Point (HACCP) regulation states that certain functions in the processing plant be conducted by certified personnel and/or HACCP trained individuals. Trainers in the Department of Food Science, Nutrition, and Health Promotion fulfilled the needs of the industry with their annual training course. USDA Food Safety Inspection Service personnel also assisted with the training.

Results

Seventeen people from the meat and poultry processing industries in MS and AL completed the training session. Since 1998, MSU-ES specialists have trained 470 people, meeting the need of all size processing plants and related industries to comply with the federal regulations.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy
- Competing Public priorities
- Competing Programmatic Challenges

Brief Explanation

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

1. Evaluation Studies Planned

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

Evaluation Results

The Mississippi State University Extension Service (MSU-ES) continues to be a major provider of the ServSafe Food Safety certification course administered by the National Restaurant Association Education Foundation (NRAEF). MSU-ES provides the programs to commercial establishment operators, hospital and long-term care facility administrators, and school cafeteria managers and child nutrition directors.

Certification is required by the Mississippi Food Code and regulated by the Mississippi Department of Health. Recertification is required every five years. MSU-ES primarily teaches the ServSafe course in the 16-hour format; however, some courses are offered as an 8-hour course depending on clientele experience, class size, and location.

In 2008, 47 courses were conducted throughout the state by 15 certified MSU-ES instructors. A total of 603 individuals were tested and 452 passed for a passage rate of 75%.

Key Items of Evaluation

452 of 603 restaurant workers participating in ServSafe courses achieved passage of food safety certification test.

Program #19**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Family Leadership Development

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
805	Community Institutions, Health, and Social Services	100%		100%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	9.5	0.0	0.0	0.0
Actual	10.4	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
255833	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
255833	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	13878	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Extension programming efforts on numerous aspects of leadership and volunteerism

2. Brief description of the target 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.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	102452	25613	0	0
2008	51033	119222	0	0

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	0	0	
2008	0	0	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

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

Year	Target	Actual
2008	17075	28376

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of clientele who improve their leadership skills.
2	Number of clientele who make use of leadership skills by volunteering for community organizations.

Outcome #1**1. Outcome Measures**

Number of clientele who improve their leadership skills.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	3400	4540

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Decision-making skills and leadership skills are needed throughout the state in thousands of clubs and organization to contribute to making them better leaders.

What has been done

The Leadership Development Agents educated approximately 14,088 during 2008: volunteers, members of civic organizations, local and state government officials, community leaders, decision makers, agencies, and agents of social services. They have taught these groups various aspects of leadership. The various programs have been presented to (but not limited to) the following: Ability Works, AARP, Family Services, Domestic Violence, Lion's Clubs, and Lion's State Convention, Rotary Clubs, Cosmopolitan Clubs, Exchange Clubs, Farm Bureau, MDHS, MS Correctional Facilities, MS State Highway Patrol, UM Medical Center, MS Homemaker Volunteers, Master Clothing Volunteers, Whitfield State Hospital, the Ronald McDonald House, Legislators, County Board of Supervisors, Parent Teacher Associations (PTA), Parent Teacher Organizations (PTO), Boys and Girls Clubs, MS Youth Courts, Boy Scouts, Girl Scouts and Pilot Clubs.

Results

Based on follow-up questionnaires from leadership development agents, at least 4,000 participants have improved their leadership and decision-making skills during the past year.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	2720	2582

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Due to the poor economic status and job layoffs today, more and more agencies, hospitals, domestic violence groups, and families need assistance in providing services, donations, donated items and monetary gifts.

What has been done

Mississippi Homemaker Volunteer (MHV) Clubs in Mississippi strive to strengthen and improve our families, communities, state, and country through continuing education so they can serve all people. Leadership Development provides the training for the members of MS Homemaker Volunteers who in turn train their club members. For example, each MHV club signed up to make or provide items to the Blair Children's Hospital (a total of 821 blankets, 1128 hats for cancer patients, 1,204 pairs of slippers, 505 teddy bears, 987 cough pillows, 793 therapy dolls, 721 gowns, 523 pairs of glasses, 172 silent layettes, 1321 tote bags, and many other items such as cleaning and office supplies, food, and activities for children).

Results

Overall, 2,582 MHV members contributed a total of 288,798 volunteer hours to local organizations. This service was valued at almost \$5 million last year.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy
- Competing Programmatic Challenges

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

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

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #20**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Family Life

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

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

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	4.5	0.0	0.3	0.0
Actual	4.1	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
101112	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
101112	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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

2. Brief description of the target audience

The target audience for this program includes all Mississippi families.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	34505	8626	0	0
2008	15322	39052	0	0

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	3	0	
2008	0	0	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

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

Year	Target	Actual
2008	5751	9062

Output #2**Output Measure**

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of families adopting recommended family strategies and behaviors.
2	Number of families reporting improved strengthened family life.

Outcome #1**1. Outcome Measures**

Number of families adopting recommended family strategies and behaviors.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	1100	1812

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

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

Outcome #2**1. Outcome Measures**

Number of families reporting improved strengthened family life.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	880	1450

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy
- Competing Programmatic Challenges

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

- Retrospective (post program)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #21**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Integrated Pest Management

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
205	Plant Management Systems	10%		10%	
206	Basic Plant Biology	5%		5%	
211	Insects, Mites, and Other Arthropods Affecting Plants	10%		10%	
212	Pathogens and Nematodes Affecting Plants	5%		5%	
213	Weeds Affecting Plants	5%		5%	
214	Vertebrates, Mollusks, and Other Pests Affecting Plants	5%		5%	
215	Biological Control of Pests Affecting Plants	10%		10%	
216	Integrated Pest Management Systems	50%		50%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	3.5	0.0	0.2	0.0
Actual	5.5	0.0	3.9	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
134607	0	58928	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
134607	0	114216	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	978087	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	25603	6401	0	0
2008	42836	14577	0	0

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

Patent Applications Submitted

Year	Target
Plan:	0
2008 :	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	2	0	
2008	2	10	12

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

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

Year	Target	Actual
2008	4267	9569

Output #2

Output Measure

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of producers adopting IPM production practices.
2	Number of producers increasing profits.
3	Number of producers reducing environmental impacts of pesticide use.

Outcome #1**1. Outcome Measures**

Number of producers adopting IPM production practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	800	1914

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
213	Weeds Affecting Plants
214	Vertebrates, Mollusks, and Other Pests Affecting Plants
215	Biological Control of Pests Affecting Plants
205	Plant Management Systems
206	Basic Plant Biology
216	Integrated Pest Management Systems
212	Pathogens and Nematodes Affecting Plants
211	Insects, Mites, and Other Arthropods Affecting Plants

Outcome #2**1. Outcome Measures**

Number of producers increasing profits.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	640	1531

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done**Results****4. Associated Knowledge Areas**

KA Code	Knowledge Area
205	Plant Management Systems
216	Integrated Pest Management Systems

Outcome #3**1. Outcome Measures**

Number of producers reducing environmental impacts of pesticide use.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	640	766

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done**Results****4. Associated Knowledge Areas**

KA Code	Knowledge Area
211	Insects, Mites, and Other Arthropods Affecting Plants
205	Plant Management Systems
214	Vertebrates, Mollusks, and Other Pests Affecting Plants
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems
213	Weeds Affecting Plants
212	Pathogens and Nematodes Affecting Plants

V(H). Planned Program (External Factors)**External factors which affected outcomes**

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

Brief Explanation

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

1. Evaluation Studies Planned

- Retrospective (post program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #22**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Community and Business Analysis

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
609	Economic Theory and Methods	100%		100%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	2.5	0.0	0.0	0.0
Actual	1.6	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
39211	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
39211	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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).

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	21895	5474	0	0
2008	4294	7256	0	0

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	1	0	
2008	0	2	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

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

Year	Target	Actual
2008	3649	1925

Output #2**Output Measure**

- Number of local communities requesting economic analyses.

Year	Target	Actual
2008	30	22

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of community leaders improving their knowledge of factors influencing business success and local economies.
2	Number of local communities adopting recommended strategies to improve their local economy.
3	Number of local communities improving their local economy through retention and expansion of existing businesses and/or attraction of new businesses.

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	700	385

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

The Internet has great potential for small businesses in terms of increasing their exposure to possible buyers.

What has been done

A national conference was held to help small businesses, 'eCommerce Strategies for Small Businesses and Communities.' Participants went back to their states and provided workshops for business owners on the local level (47 programs or workshops were conducted, reaching a total of 1,030 people).

Results

So far, 19 new eCommerce web sites have been created, and 5 participants have reported an increase in sales.

4. Associated Knowledge Areas

KA Code	Knowledge Area
609	Economic Theory and Methods

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	20	14

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)****What has been done****Results**

4. Associated Knowledge Areas

KA Code	Knowledge Area
609	Economic Theory and Methods

Outcome #3**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	10	7

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
609	Economic Theory and Methods

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy
- Appropriations changes
- Public Policy changes

Brief Explanation

MSU overestimated the overall efforts we would undertake in this program. This has been addressed in the 2009-2013 and subsequent plans.

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

- Retrospective (post program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #23**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Community Health

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

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

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	3.0	0.0	0.0	0.0
Actual	2.9	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
71750	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
71750	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Extension will assist local communities in conducting the following activities:

Develop market strategies

Conduct strategic planning workshops

Create provider surveys

Facilitate community forums

Publish a directory of local services

Develop quantitative profiles of health organizations

Conduct feasibility studies

Produce gap analyses

Promote coalition building trainings.

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	25179	6295	0	0
2008	9799	7256	0	0

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

Patent Applications Submitted

Year Target

Plan: 0

2008 : 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	1	0	
2008	0	0	0

V(F). State Defined Outputs

Output Target

Output #1**Output Measure**

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

Year	Target	Actual
2008	4196	1925

Output #2**Output Measure**

- Number of communities participating in community health improvement activities.

Year	Target	Actual
2008	30	14

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of community leaders improving their knowledge of local health care services and factors that influence their viability.
2	Number of communities adopting strategies to improve local care services.
3	Number of communities improving access to quality health care services.

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	800	385

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #2**1. Outcome Measures**

Number of communities adopting strategies to improve local care services.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	20	14

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #3**1. Outcome Measures**

Number of communities improving access to quality health care services.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	10	7

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy
- Government Regulations
- Competing Programmatic Challenges

Brief Explanation

MSU overestimated the overall efforts we would undertake in this program. This has been addressed in the 2009-2013 and subsequent plans.

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

- Retrospective (post program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #24**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Community Leadership Development

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
803	Sociological and Technological Change Affecting Individuals, Families and Communities	100%		100%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	1.5	0.0	0.0	0.0
Actual	3.5	0.0	0.5	0.0

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

Extension		Research	
Smith-Lever 3b & 3c 85344	1890 Extension 0	Hatch 16814	Evans-Allen 0
1862 Matching 85344	1890 Matching 0	1862 Matching 14584	1890 Matching 0
1862 All Other 0	1890 All Other 0	1862 All Other 1028393	1890 All Other 0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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

2. Brief description of the target audience

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

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	13137	3284	0	0
2008	18785	42537	0	0

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

Patent Applications Submitted

Year	Target
Plan:	0
2008 :	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	1	0	
2008	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

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

Year	Target	Actual
2008	2189	10220

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of participants improving their knowledge and skills in public decision-making and engagement.
2	Number of participants implementing strategies to improve public decision-making and/or increase civic engagement.
3	Number of local communities reporting improved sustainability and engagement as a result of implemented strategies.

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	400	1635

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families and Communities

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	320	818

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families and Communities

Outcome #3**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	20	25

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families and Communities

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy
- Competing Public priorities
- Competing Programmatic Challenges

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

- Retrospective (post program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #25**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Community Tourism Development

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

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

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	1.0	0.0	0.0	0.0
Actual	1.9	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
46782	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
46782	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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

Community forums

Focus groups

Business, resident, and inventory surveys

Leadership development courses

Tourism development workshops

Customer service/hospitality trainings

2. Brief description of the target audience

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

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

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	7663	1916	0	0
2008	37975	27202	0	0

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

Year Target

Plan: 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	0	0	
2008	0	0	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

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

Year	Target	Actual
2008	1277	10863

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of participants improving their knowledge of tourism-related concepts.
2	Number of communities implementating strategies for improvement, development, and/or marketing of tourist attractions.
3	Number of communities reporting increased levels of tourist activity.

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	250	1738

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	30	40

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #3**1. Outcome Measures**

Number of communities reporting increased levels of tourist activity.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	20	25

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy
- Competing Programmatic Challenges

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

- Retrospective (post program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #26**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Agribusiness/Risk Farm Management

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
601	Economics of Agricultural Production and Farm Management	40%		40%	
604	Marketing and Distribution Practices	40%		40%	
610	Domestic Policy Analysis	20%		20%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	4.5	0.0	3.3	0.0
Actual	2.3	0.0	1.2	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
57081	0	30022	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
57081	0	67334	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	460158	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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.

2. Brief description of the target audience

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

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

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	16289	4072	0	0
2008	6106	18039	0	0

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

Year Target

Plan: 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	1	4	
2008	4	8	12

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

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

Year	Target	Actual
2008	2715	4024

Output #2**Output Measure**

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

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of producers adopting recommended strategies in management, marketing, and government program use.
2	Number of producers indicating increased profitability due to implementation of recommended strategies.

Outcome #1**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	500	805

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
604	Marketing and Distribution Practices
601	Economics of Agricultural Production and Farm Management
610	Domestic Policy Analysis

Outcome #2**1. Outcome Measures**

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

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	400	644

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results**4. Associated Knowledge Areas**

KA Code	Knowledge Area
604	Marketing and Distribution Practices
601	Economics of Agricultural Production and Farm Management

V(H). Planned Program (External Factors)**External factors which affected outcomes**

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

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)****1. Evaluation Studies Planned**

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

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #27**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Local Government Education and Training

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
805	Community Institutions, Health, and Social Services	100%		100%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	0.0	0.0	0.0
Actual	2.9	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
72459	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
72459	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

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.

2. Brief description of the target audience

This program serves the educational needs of the following associations of local government officials: Mississippi

Association 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, Mississippi

Assessors 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.

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	41600	10400	0	0
2008	9792	1271	0	0

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

Patent Applications Submitted

Year Target

Plan: 0

2008 : 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	1	0	
2008	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of local government officials attending workshops, seminars, and short courses.

Year	Target	Actual
2008	8000	1844

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Number of local government officials improving their job-related knowledge and skills.
2	Number of local government officials obtaining required certifications.
3	Number of local government officials reporting improvement in work-related efficiency as a result of skills/knowledge learned and applied in their jobs.

Outcome #1**1. Outcome Measures**

Number of local government officials improving their job-related knowledge and skills.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	4000	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Mississippi has a diverse population with many residents in need of specialized care by trained responders for safe evacuation or sheltering during natural or man-created emergencies. Hurricanes and other weather-related events, or a threatened or real terrorist attack, can create panic among citizens disrupting normal routines without emergency management leadership. Dealing with these types of events requires specialized training for citizens, volunteers, and emergency services personnel at the community, municipality, county, and state levels. Returning the state, counties, and municipalities to normalcy in a time of disruption of the normal activities of its residents requires all continuing governmental, public safety, and response services to work together in an efficient and effective manner.

What has been done

In response to this concern, the Mississippi State University Extension Service works with Mississippi Office of Homeland Security (MOHS), Mississippi State Department of Health (MSDH), and Mississippi Emergency Management Agency (MEMA) in coordinating and conducting National Incident Management System Incident Command System training for state and local governments, citizen groups, and volunteer agencies that assist government during disasters. Mississippi State University Extension Service also works with the State Coordinating Council of the Mississippi Citizens Corps in developing readiness programs for the communities and citizen groups of the state. Mississippi State University Extension Service also works with MOSH, MEMA and MSDH on conducting exercises that test the state's Comprehensive Emergency Management Plan for dealing with disasters and distribution of the Centers for Disease Control and Prevention Strategic National Stockpile. The Mississippi State University Extension Service coordinates the state's Three-Year Exercise Plan for testing emergency services preparedness throughout Mississippi.

Results

The Center for Governmental Training and Technology in the Mississippi State University Extension Service taught about 700 Mississippians how to work in a unified command structure under the Incident Command System, preparing us for uncertain outcomes during emergency situations. MSU Extension Service personnel have conducted full-scale exercises that challenge plans for utilization of federal, state, and local resources during emergencies, helping our state reach nationally-recognized standards established by the U.S. Department of Health and Human Services.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

Outcome #2**1. Outcome Measures**

Number of local government officials obtaining required certifications.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	250	437

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)****What has been done****Results****4. Associated Knowledge Areas**

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

Outcome #3**1. Outcome Measures**

Number of local government officials reporting improvement in work-related efficiency as a result of skills/knowledge learned and applied in their jobs.

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	1000	653

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Mississippi has 1300 community public water systems. Every water system is governed by a board and receives an annual capacity development inspection from the Mississippi State Department of Health (MSDH). The capacity development inspection focuses on the three base functions of a community public water system; technical (certified water operator), managerial (governing board), and financial. The base functions of a water system are sometimes neglected and are in need of assistance, which puts the water supply of Mississippi citizens in question.

What has been done

In response to the need for assistance, the Mississippi State University Extension Service (MSUES) has developed programs to address each of these base functions. The Board Management Training (BMT) program is a result of Mississippi legislation that required all board members of public water systems with a population of 10,000 and/or below to attend an eight hour training course that would certify that individual board member for life. The MSUES has partnered with the Mississippi Rural Water Association, the Mississippi Water and Pollution Control Operators Association, and the Community Resource Group to provide BMT to all geographic areas of the state and has developed an accompanying training manual targeted to municipalities in addition to the existing manual dealing with rural water associations. The Peer Review program is a result of collaborative interest in the overall well being of water systems to have a program that will allow certified water operators (operator) to interact with and provide suggestions to improve the capacity development inspection score of participating water systems. The Peer Review program functions as an operator to operator interaction, with nine regions having three volunteer operators in each region. The Water Operator Expense Reimbursement Grant program was implemented to offset the cost of certified water operators that are the designated operators for public water systems with a population of 3300 and/or below. With a very high attrition rate for certified water operators, the program looks to keep Mississippi water operators in the business and realize the long term importance of the water industry.

Results

Since the Board Management Training programs inception in 1997, there have been 768 training sessions with 6,442 public water system board members receiving certification and in the current year, there were 24 training sessions with 437 public water system board members receiving certification. The Peer Review program is in its seventh year and there have been 99 water systems that participated in a peer review with an overall capacity development inspection score increase of 26% in the years prior to FY2008. For the current year, twelve systems participated in the program. The Water Operator Expense Reimbursement Grant program has been able to dispense financial stipends to 653 certified water operators totaling \$226, 865.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Appropriations changes
- Government Regulations
- Competing Public priorities

Brief Explanation

MSU overestimated the overall efforts we would undertake in this program. This has been addressed in the 2009-2013 and subsequent plans.

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

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}