V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Global Food Security and Hunger - Enterprise Economics

☑ Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
501	New and Improved Food Processing Technologies	0%		5%	
502	New and Improved Food Products	0%		16%	
503	Quality Maintenance in Storing and Marketing Food Products	0%		8%	
504	Home and Commercial Food Service	0%		1%	
511	New and Improved Non-Food Products and Processes	0%		10%	
601	Economics of Agricultural Production and Farm Management	30%		20%	
602	Business Management, Finance, and Taxation	10%		7%	
603	Market Economics	0%		7%	
604	Marketing and Distribution Practices	40%		2%	
605	Natural Resource and Environmental Economics	0%		14%	
606	International Trade and Development Economics	0%		1%	
608	Community Resource Planning and Development	0%		1%	
609	Economic Theory and Methods	0%		1%	
610	Domestic Policy Analysis	20%		7%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	5.2	0.0	4.0	0.0
Actual Paid	3.9	0.0	12.4	0.0

Actual Volunteer	0.0	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	**1890 Extension**	**Hatch**	**Evans-Allen**
100524	0	311985	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
100524	0	643879	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
0	0	2188099	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.

3. How was eXtension used?

The resources provided through eXtension were used to supplement and enhance our public learning experiences provided by MSU Extension agents and specialists. eXtension was also used as a resource in state-based planning processes. Overall, 230 MSU employees are eXtension users. Further, MSU Extension has 71 employees that serve on one or more of the 66 Communities of Practice (COPs); MSU Extension employees are members of 39 COPs. 10 MSU Extension employees serve as a leader for a COP, leading 7 COPs. 3 MSU Extension personnel are members of the Extension Disaster Education Network COP. 1 MSU Extension employee is a member of the Volunteerism COP. 7 MSU Extension

personnel are members of the Entrepreneurs and Their Communities COP.

V(E). Planned Program (Outputs)

1. Standard output measures

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	6702	10369	0	0

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

Patent Applications Submitted

Year: 2014

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2014	Extension	Research	Total
Actual	0	35	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

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

Year	Actual
2014	2845

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	Actual
2014	569

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
U.S. farm policy has increasingly focused on crop insurance as risk protection offered to crop producers. The Agricultural Act of 2014 was projected to spend $89 billion on crop insurance while the commodity title was projected to spend $44 billion. Key elements of this new legislation are two area-triggered shallow-loss insurance programs: the Supplemental Coverage Option (SCO) and Stacked Income Protection Plan (STAX). These programs borrow from procedures developed for deep loss area insurance, but modifications in procedures were required to operationalize these programs.

What has been done
MSU agricultural economists had developed the rating mechanism used by USDA/RMA. Building upon this base, a team modified models to simulate the implications of SCO and STAX and to evaluate the efficacy of these farm bill proposals. These results were shared with congressional staffers and RMA actuaries prior to passage of the bill. Continued analysis has been shared at multiple national Extension conferences to inform producers regarding options under the Act. It has also been used to advise USDA/RMA on implementation.

Results
This analysis provided policymakers information used in crafting these programs that are expected to provide $5 billion in support to U.S. producers. Analysis of how to provide coverage in counties without long NASS county yield series facilitated expanding these programs to counties where they would otherwise be missing. This analysis is also being shared with producers evaluating the optimal crop insurance coverage levels which determine the upper limit of individual coverage and the lower limit of the shallow loss coverage.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
603	Market Economics
604	Marketing and Distribution Practices
609	Economic Theory and Methods
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	Actual
2014	455

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Diesel engines power the majority of fishing vessels in the United States, and diesel fuel is the largest component of operating costs on Gulf shrimp vessels. To survive, shrimpers need to increase fuel efficiency to decrease operational costs.

What has been done
The use of energy-efficient trawl gear with less drag can reduce fuel costs. The MS-AL Sea Grant Consortium conducted field research and documented the fuel savings and catch retention associated with available energy-efficient trawl gear and more efficient turtle excluder/bycatch reduction devices. MASGC shared the results with fishermen through demonstrations. Vietnamese Americans with limited English language skills own and operate a large percentage of the offshore fishing fleet in the northern Gulf. A staff member used his Vietnamese language skills to reach underserved clientele.

Results

Over 20 shrimp vessels have adopted the use of energy-efficient trawl gear. All reported fuel savings are similar to the field trials, and most have continued to use the gear. Based on conservative estimates of fuel savings (1.5 gallons per hour, a 12-hour fishing day, 180 days per year and fuel cost of $3 per gallon), each vessel is saving about $10,000 a year in operating costs. Cost savings continue to accrue and are greater with rising fuel costs. Total savings to the fleet has topped $1 million since the program's inception.

4. Associated Knowledge Areas

KA Code	Knowledge Area
501	New and Improved Food Processing Technologies
502	New and Improved Food Products
503	Quality Maintenance in Storing and Marketing Food Products
504	Home and Commercial Food Service
511	New and Improved Non-Food Products and Processes
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
605	Natural Resource and Environmental Economics
606	International Trade and Development Economics
608	Community Resource Planning and Development

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

{No Data Entered}

V(I). Planned Program (Evaluation Studies)

Evaluation Results

MSU Extension agents and specialists, as well as MAFES faculty, used a variety of recommended methods to gather needed information. Specific strategies were initiated and utilized for collecting evaluation information to determine program outputs and outcomes (see impact statements for examples). In FY 2014, MSU Extension agents and

specialists were required to submit four quarterly reports (January, April, July, and September). This quarterly report collects information about the number of contacts, types of contacts, and number of programs conducted in each Planned Program Area. In addition, two narrative Accomplishment Reports are required from each MSU Extension employee each year. Finally, a specific request for impact statements from MSU Extension and MAFES faculty and staff is also made. The evaluation results shared through our impact statements are a combination of this quantitative and qualitative data.

Late in the 2014 program year, we introduced a Standardized Extension Evaluation Survey. The Standardized Extension Evaluation Survey was designed for use in any MSU Extension Service program, workshop, or event with adults. The survey assesses program process, participant satisfaction, knowledge and/or skill change, and behavioral intentions. It provides a ready-made evaluation for agents and specialists to use and will allow us to aggregate data across the state. A small number of agents and specialists have utilized the survey to date, but we hope use will increase over time.

Key Items of Evaluation