

**V(A). Planned Program (Summary)**

**Program # 1**

**1. Name of the Planned Program**

Economics and Management for Sustainable Agriculture

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
601	Economics of Agricultural Production and Farm Management	0%	70%	0%	0%
602	Business Management, Finance, and Taxation	25%	10%	25%	0%
604	Marketing and Distribution Practices	25%	10%	25%	0%
605	Natural Resource and Environmental Economics	10%	0%	10%	0%
606	International Trade and Development Economics	10%	0%	10%	0%
608	Community Resource Planning and Development	5%	0%	5%	0%
610	Domestic Policy Analysis	25%	0%	25%	0%
903	Communication, Education, and Information Delivery	0%	10%	0%	0%
	<b>Total</b>	100%	100%	100%	0%

**V(C). Planned Program (Inputs)**

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

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	20.0	11.0	10.0	0.0
<b>Actual Paid</b>	17.6	3.5	12.7	0.0
<b>Actual Volunteer</b>	0.0	20.0	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
230252	246126	487004	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
230252	150407	881725	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1906383	0	2102222	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

#### **AgriLife Extension and AgriLife Research**

Numerous activities, events and experiences were conducted to address the needs of producers and other clientele in the area of economics and management. These included but are not limited to workshops, one-on-one intervention, marketing clubs, cooperatives, popular press articles, extension publications, and other methods as needed. These educational approaches focus on the identified needs of those who participate in our programs.

Work of AgriLife Research and AgriLife Extension is conducted jointly where research-based information is generated and then transferred to clientele. This work was conducted primarily on campus with dissemination efforts both on campus and at various research and extension centers across the state.

Collaborative efforts are also an important part of this area. Work with various commodity groups and other agencies are routinely conducted by both AgriLife Research and AgriLife Extension faculty. Examples of this work include cooperating with Grain and Livestock organizations on risk management and Biofuels programming and the Texas FSA office on price forecasts for lending purposes for the coming year.

#### **Cooperative Extension Program**

Educational programs, trainings and workshops were conducted to assist agricultural producers in the areas of Farm Financial Management and Marketing. Additionally, one on one consultations and business planning sessions were provided to clientele.

### 2. Brief description of the target audience

#### **AgriLife Extension and AgriLife Research**

The target audience for the economics and management program includes all Texas producers. Specifically, commercially viable agricultural producers are targeted, but additional efforts are targeted to small scale operators, part-time producers, new/young landowners/producers, and commodity groups.

The target audiences are very diverse in knowledge, skills, attitudes, and aspirations to learn and adopt important strategies to be successful. Therefore, the methods used in this area vary depending on which audience is being addressed.

**Cooperative Extension Program**

Our programs assisted a diverse audience, with emphasis on the underserved, hard to reach, and have limited social and economic resources to improve their quality of life; this include farmers and ranchers, private land and forest owners, military veterans and their families.

**3. How was eXtension used?**

The Cooperatives Community of Practice for eXtension is supported by Texas AgriLife Extension personnel. It provides a resource to individuals and groups interested in cooperative agricultural business practices. A focus for the community of practice is youth leadership, with the intent of drawing talented youth to careers in cooperatives. Such careers are typically located in rural communities and help to strengthen rural economies. In addition, several faculty members answer the ask an expert questions that come in through eXtension.

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	25786	97591	195	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
<b>Actual</b>	0	176	176

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- # of group educational sessions conducted.

<b>Year</b>	<b>Actual</b>
2014	505

**Output #2**

**Output Measure**

- # of research-related projects.

<b>Year</b>	<b>Actual</b>
2014	53

**Output #3**

**Output Measure**

- # of one-on-one technical assistance/consultations.

<b>Year</b>	<b>Actual</b>
2014	60

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Percent of producers that report a savings in money or increased profit by best management practices adopted.
2	% of target audience that reports an increased knowledge of economics and management strategies.
3	Number of producers who conduct whole farm or ranch risk assessment evaluations.

## **Outcome #1**

### **1. Outcome Measures**

Percent of producers that report a savings in money or increased profit by best management practices adopted.

### **2. Associated Institution Types**

- 1862 Extension
- 1890 Extension
- 1862 Research

### **3a. Outcome Type:**

Change in Condition Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	84

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Producers attending in-depth workshops are learning the information needed to improve their risk management skills, and increase their economic returns. This improvement in risk management skills, and increased economic returns should improve the long-run viability of the agricultural sector, result in improved economic returns to related businesses and employment in the region as well.

#### **What has been done**

A 2.5 year post survey was mailed to participants of the 2012 Master Marketer program held in Plainview Texas, to determine knowledge gain, adoption of new practices, and economic impact. The survey was an in-depth 14-page survey that was followed up with reminder postcards and phone calls. The survey was done 2.5 years after the initial program to allow time for adoption of new practices and to identify economic impacts.

#### **Results**

Results from survey questions indicated; an increase in the use of a marketing plan from 29% pre-Master Marketer to 82% post-Master Marketer, an increase in determining production costs and incorporating those into the marketing plan from 50% pre-Master Marketer to 78% post-Master Marketer, an increase in using market fundamentals in developing their personal market outlook from 41% pre-Master Marketer to 82% post-Master Marketer, and knowing when to use forward cash contracting from 50% pre-Master Marketer to 100% post-Master Marketer. Master Marketer education had an average individual economic impact of \$39,884 or 3.4% of gross farm income for the Plainview class. At a Ranch Management University workshop, participants

showed that there was a 104% increase in knowledge as a direct result of the workshop. In addition, 100% of respondents anticipate a positive economic benefit as a direct result of the information presented at the workshop.

#### 4. Associated Knowledge Areas

<b>KA Code</b>	<b>Knowledge Area</b>
602	Business Management, Finance, and Taxation
604	Marketing and Distribution Practices
605	Natural Resource and Environmental Economics
610	Domestic Policy Analysis

#### Outcome #2

##### 1. Outcome Measures

% of target audience that reports an increased knowledge of economics and management strategies.

##### 2. Associated Institution Types

- 1862 Extension
- 1890 Extension
- 1862 Research

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

<b>Year</b>	<b>Actual</b>
2014	85

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

AgriLife Extension and Research:

Producers attending in-depth workshops are learning the information needed to improve their risk management skills. This improvement in risk management skills, and increased economic returns should improve the long-run viability of the agricultural sector, result in improved economic returns to related businesses and employment in the region as well.

Cooperative Extension Program:

For farmers in general and more specifically for small scale agricultural producers, obtaining adequate financing is a major concern in their operations. While a majority of these producers

have access to land, there is a great need for farm equipment upgrades and for farm operating funds. In order to obtain the needed funds, the farmers need to obtain knowledge to keep basic farm records and the skills to apply for funds to operate their businesses.

### **What has been done**

AgriLife Extension and Research:

Pre-test and post-test instruments and retrospective post-tests were used to determine knowledge gained at Master Marketer, Advanced Topics Series, Crops and Cattle Trails Conferences and workshops.

Cooperative Extension Program:

The Cooperative Extension Program conducted a series of educational programs focusing on business management, record keeping land loan assistance. Program provided producers with information about sources of funding including both grant and loan opportunities. Much of the focus on loans related to obtaining funding through the USDA - Farm Service Agency (FSA). In addition to the workshops, Extension staff members assist small scale agricultural producers with hands-on, one-on-one assistance in completing the loan applications which consisted of farm ownership and farm operating loans. A special focus was placed on assisting individuals to complete microloan and youth loan applications.

### **Results**

AgriLife Extension and Research:

The 26th Master Marketer program (approximately 70 hours of classroom training over a six-week period of time) was conducted in Vernon, Texas during January-March 2014. Pre-test and post-test scores of subject matter knowledge level indicated a 30.43% improvement in participant's scores from the beginning of the Master Marketer program (average pretest score 57.50%) to the end of the Master Marketer program (average posttest score 75.00%). In an exit evaluation, participants suggested that they were much more confident in how and when to use various risk management/marketing tools. If this increase in knowledge levels and confidence translates to improved marketing performance similar to preceding Master Marketer graduates, then an increase in annual income of approximately \$35,267 per year, on average, can be expected for each of the 45 graduates of this year's program. If so, these returns would work out to over \$1.5 million per year for the graduates of the 2014 Master Marketer program in Vernon. At the Big Country Wheat Conference, evaluation results showed that understanding of the 2014 farm bill increased by 89%, and that 85% of producers had a better understanding of the decisions they will need to make as they sign up.

Cooperative Extension Program:

Educational programs and workshops focusing on sources of funding were held. Cooperative Extension Program agents and specialists assisted local farmers and youth in obtaining and developing applications for Farm Service Agency (FSA) microloans, FSA youth loans and Texas Department of Agriculture (TDSA) Young Farmer Grants.

In 2014 the CEP agents provided technical assistance in filling out traditional FSA loan requests for 60 applicants. Loans requests totaled \$7,759,650.00. The CEP staff assisted 20 small farmers to apply for the microloan through USDA for a total of \$700,000. Cooperative Extension staff assisted producers to apply for the TDA Young Farmer Grant program. To date, four applicants have been approved.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
604	Marketing and Distribution Practices
605	Natural Resource and Environmental Economics

#### Outcome #3

##### 1. Outcome Measures

Number of producers who conduct whole farm or ranch risk assessment evaluations.

##### 2. Associated Institution Types

- 1862 Extension
- 1890 Extension
- 1862 Research

##### 3a. Outcome Type:

Change in Action Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	105

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

The FARM Assistance model (financial simulation strategic planning tool) was used to complete 105 analyses for producers, for demonstrations or agent planning purposes. Survey respondents showed that as a result of participating in FARM Assistance, 94% claim a better understanding of the financial aspects of their own operations, and 93% claim an improved ability to assess the financial risks and potential impacts of strategic decisions they make. A comparison of various scenarios analyzed showed that strategic planning tools can have economic benefits.

###### **What has been done**

Participants are able to analyze their own economic situation over a 10-year planning horizon using the FARM Assistance model. Producers were able to utilize their own financial, yield, and production information to analyze alternative strategic opportunities such as adding or reducing acreage, changing the crop/livestock mix, changing the machinery complement or purchase/lease arrangements, financing options, irrigation investments etc., to determine long run impacts on the

operations financial situation for planning purposes.

### **Results**

The outcome of client participation is measured through participant evaluations. Client assessments of the FARM Assistance program over the last year indicate a very positive impact on management ability. As a result of participating in the FARM Assistance program, 94% claim a better understanding of the financial aspects of their operation and 93% claim an improved ability to assess the financial risks and potential impacts of strategic decisions they make. One of the objectives of the program is to help managers become more comfortable with formal financial analysis, and 86% indicated that they would be more likely to use formal financial analysis (like FARM Assistance) to help make decisions in the future. 93% of respondents indicated they would recommend FARM Assistance to another producer. Finally, in responding to anticipated economic value, respondents estimated an average \$24,659 annual benefit to their operation as a result of their FARM Assistance participation.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
602	Business Management, Finance, and Taxation
604	Marketing and Distribution Practices
610	Domestic Policy Analysis

### **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 Programmatic Challenges

#### **Brief Explanation**

Budget reductions as a result of reduced state appropriations in 2011 resulted in a reduction in FTEs available to carry out educational activities during 2012, 2013, 2014 and into the future. While remaining faculty picked up additional responsibilities, some educational opportunities were missed due to reduced faculty numbers. In addition, the signing of a new Farm Bill that put responsibility for education on Extensions shoulders resulted in substantial redirection of educational program emphasis. While traditional risk management educational programs were still popular, significant faculty time and effort was redirected toward immediate clientele needs associated with Farm Bill education and training.

### **V(I). Planned Program (Evaluation Studies)**

#### **Evaluation Results**

Clientele/participants involved in Master Marketer, Advanced Topic Series, Crops and Cattle Trails Conferences, and FARM Assistance are evaluated in several ways, depending on the length of the training activity, whether we are trying to identify short-term knowledge gains, or adoption/change of practices and economic impacts over time. Pre-tests and post-tests are used at the beginning and end of programs to better identify knowledge gains. Retrospective post evaluation surveys are used to identify adoption/change of practices and economic impacts over time. Results indicate that producers are learning, and adopting/changing practices, and these changes are producing economic benefits.

**Key Items of Evaluation**