V(A). Planned Program (Summary)

Program # 13

1. Name of the Planned Program

Livestock and Meat Quality, Safety, and Productivity

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%		15%	
302	Nutrient Utilization in Animals	20%		25%	
303	Genetic Improvement of Animals	15%		25%	
306	Environmental Stress in Animals	5%		5%	
307	Animal Management Systems	5%		0%	
308	Improved Animal Products (Before Harvest)	35%		20%	
313	Internal Parasites in Animals	2%		0%	
315	Animal Welfare/Well-Being and Protection	8%		10%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

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

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	45.0	0.0	25.0	0.0
Actual	43.5	0.0	17.5	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**
627458	0	820896	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
627458	0	2605137	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
4240372	0	1967215	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Research as well as group and individual education was ongoing across the 7 key subject matter/commodity areas. Methods of education included public meetings, individual support, printed and video/DVD materials and web-based materials. Collaboration with breed associations, commodity groups and corporations targeted research and educational needs of a diverse livestock industry across the state, involving both youth and adults. Examples of food safety research include reduction of pathogens on fruits and vegetables at our E-Beam center and food safety research conducted jointly with JBS, the largest meat packer in the U.S.

2. Brief description of the target audience

The target audience is composed of beef cattle, horse, dairy, sheep, goat and swine producers/owners/users, commodity group leadership, associations and registries, and youth enrolled in 4-H and FFA livestock projects.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	65000	500000	10000	0
Actual	62236	333954	10953	0

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

Patent Applications Submitted

Year: 2010
Plan: 0
Actual: 1

Patents listed
?Method of Control of Seasonal Breeding Cycle Mares Using Gonadotropin-Releasing Hormone?
application number: 61/362,654

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	10	300	
Actual	11	532	543

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Target	Actual
2010	1500	1685

Output #2

Output Measure

- # of research-related projects.

Year	Target	Actual
2010	105	111

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	% of livestock owners/producers that adopt or plan to adopt best management practices to improve quality and profitability.
2	% of livestock owners/producers/commodity group representatives that report increased knowledge of best management practices to improve quality and profitability.
3	% of livestock owners/producers that report a savings in money or increased profit by best management practices adopted.

Outcome #1

1. Outcome Measures

% of livestock owners/producers that adopt or plan to adopt best management practices to improve quality and profitability.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	50	56

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Best management practices to ensure quality, profitability, productivity and optimal utility help clientele make changes to improve livestock, management, resources and time to increase income and improve profit opportunities.

What has been done
Programs conducted include Texas Beef Quality Producer, Beef and Pork 101, Beef 706, 2010, Bull Selection, Low-Stress Livestock Handling, Mare Foal Workshops and Dairy Outreach. Youth programs: 37th Annual Summer Horsemanship Schools, Lamb/Goat Camps and Judging Camps.

Results
From measures including beef cattle, meats, dairy, sheep/goats and horses, 65% to 100% reported adoption of at least one best management practice. 50% to 93% reported elimination of non-productive practices. 68% implemented financial plans, 60% hay analysis, 85% adopted EPD's and fertility testing 80% reported use of cost/lb of nutrient strategies for alternative feedstuffs and 90% body condition scoring as a management tool.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals

306	Environmental Stress in Animals
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)
313	Internal Parasites in Animals
315	Animal Welfare/Well-Being and Protection

Outcome #2

1. Outcome Measures

% of livestock owners/producers/commodity group representatives that report increased knowledge of best management practices to improve quality and profitability.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	70	75

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Increased knowledge prompts adoption of best management practices to ensure quality, profitability, productivity and utility of livestock, management, resources and time. Knowledge of best management prompts time savings, increased confidence in management decisions and problem solving for producer and youth involved in the livestock industry.

What has been done
Programs were conducted and evaluated for both large and small scale producers/owners and youth who produce, own, market and enjoy livestock. Programs evaluated included Texas Beef Quality Producer, Beef and Pork 101, Beef 706, 2010, Bull Selection, Low-Stress Livestock Handling, Drought Management, Mare Foal Workshops and Dairy Outreach. Youth programs: 37th Annual Summer Horsemanship Schools, Lamb/Goat Camps and Judging Camps.

Results
65% to 99% reported improved decision-making ability. 75% to 100% reported increased confidence in management and use. 90% had knowledge gains of 50 to 75% for cattle handling, record keeping, food safety control, environmental management, livestock evaluation and general management.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals
306	Environmental Stress in Animals
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)
313	Internal Parasites in Animals
315	Animal Welfare/Well-Being and Protection

Outcome #3

1. Outcome Measures

% of livestock owners/producers that report a savings in money or increased profit by best management practices adopted.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	10	12

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Animal management system must go beyond striving to improve quality of life, quality of production and increased knowledge to achieve a significant outcome. For production systems to survive they must reduce costs, increase profit or both.

What has been done
Economic benefit was measured from the Beef Cattle Short Course, Texas Beef Quality Assurance, Southwest Beef Symposium, Reproductive Management, low-stress livestock handling, and dairy programs.

Results

Of the participants in the BQA online program 100% felt the adoption of management practices would increase income and estimated that income to be approximately $65 per head. Throughout the year participants in Beef 706 programs estimated savings of $50 to $100/head with total savings between $1.5 and $25 million.. Southwest Beef Symposium valued at $600/person attending. Cattle producers reported saving money 91% said knowledge gained in livestock handling and managing input costs saved from $10 to $30/head. 60% of dairy producers and 97% of Beef Cattle Conference participants expected savings from adoption of practices. Reproductive management practices produced returns of $67/ cow.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals
306	Environmental Stress in Animals
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)
313	Internal Parasites in 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
- Public Policy changes
- Government Regulations
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Excessive rainfall in the spring and extreme dry conditions in the summer, fall and winter affect programming efforts and outcomes. Changes in policy and regulations related to confined animal operations continue to affect approach to programming and ability to conduct programs on production practices unrelated to these events.

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

1. Evaluation Studies Planned

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

Evaluation Results

Key Items of Evaluation