

2011 Texas A&M University Combined Research and Extension Annual Report of Accomplishments and Results

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I. Report Overview

1. Executive Summary

Texas is the second largest state in the nation with approximately 25 million citizens. The size and scope of Texas poses unique challenges with a wide range of diversity including both the agricultural and human sectors. The issues and needs of Texans vary by numerous factors and, in many cases, are complex. Texas is one of the most rural and most urban states in the nation with a majority of its citizens living in 20 of the 254 counties in the state.

Texas AgriLife Research and the Texas AgriLife Extension Service are the land grant research and Extension components of the Texas A&M System and are headquartered in College Station, Texas. Since its beginning in 1876 as a land grant institution, Texas A&M University has been a recognized leader in agriculture, food, and natural resources. Today, Texas A&M University, Texas AgriLife Research (AgriLife Research), and the Texas AgriLife Extension Service (AgriLife Extension) continue this legacy through outstanding academic programs, important contributions to science through research and discovery, and lifelong learning and youth development through Extension programs. The work of both AgriLife Research and AgriLife Extension is guided by strategic plans and/or roadmaps. The major topical areas in the AgriLife Research strategic plan are identified as imperatives. These imperatives are vital and equally important to ensuring a positive future for Texas and its citizens. The imperatives are as follows:

- 1) Sustain healthy ecosystems and conserve our natural resources.
- 2) Enhance competitiveness, prosperity, and sustainability of urban and rural agricultural industries.
- 3) Improve public health and well-being.
- 4) Mitigate negative effects of global climate change.
- 5) Create and utilize fundamental information (genomic, proteomic and metabolomic) to optimize plant and animal production, and human health.

The Extension Roadmap, developed by AgriLife Extension, is designed to enable the dissemination of research based information to the citizens of Texas on issues of importance as identified through grassroots and other stakeholder input processes. This information is intended to allow the citizens of Texas to make sound decisions that will improve the overall quality of life for themselves and all Texans. The goals of the Extension Roadmap are: 1) Ensure a sustainable, profitable, and competitive food and fiber system in Texas. 2) Enhance natural resource conservation and management. 3) Build local capacity for economic development in Texas communities. 4) Improve the health, nutrition, safety, and economic security of Texas families. 5) Prepare Texas youth to be productive, positive, and equipped with life skills for the future. 6) Expand access to Extension education and knowledge resources.

2011 was a challenging year for Texas. Extreme drought gripped the state causing a major impact on families, producers and communities across the state. Wildfires, water rationing, high temperatures, and impacts on peoples occupations were the norm. Both AgriLife Extension and AgriLife Research had focused efforts to help the citizens of Texas cope with these extreme conditions.

Work on issues of importance in the state is a joint endeavor by both AgriLife Research and AgriLife Extension. Research based information is translated to practical best management practices and

disseminated via multiple channels including the network of agents in all 254 counties in the state. Identification of issues and needs is conducted at multiple levels by both AgriLife Research and AgriLife Extension. Grassroots involvement by citizens, advisory groups, and commodity and industry groups are just a few of the ways this information is generated. Work with other states on areas of shared interest is also of high priority. Efforts by AgriLife Research and the AgriLife Extension in 2011 were very successful. Data in this report highlight the activities and success of major program areas supported by AgriLife Research and AgriLife Extension.

Total Actual Amount of professional FTEs/SYs for this State

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	443.5	0.0	182.0	0.0
Actual	557.5	0.0	130.4	0.0

II. Merit Review Process

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

- Internal University Panel

2. Brief Explanation

AgriLife Research and AgriLife Extension Administrative Leaders serve as merit reviewers for the Federal Plan of Work, the Federal Report of Accomplishments and Results, and associated grants and contracts. This team is comprised of senior administrative staff, as well as department heads, associate department heads for Extension, and resident directors at research centers. This leadership team is responsible for the oversight and management of all programs conducted by research and Extension faculty.

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
- Targeted invitation to selected individuals from general public
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals
- Survey specifically with non-traditional groups

Brief explanation.

Both AgriLife Extension and AgriLife Research utilize various methods to reach stakeholder groups within the State of Texas. AgriLife Extension uses multiple sources of input from stakeholders. These include local clientele, commodity/special interest groups, trend data monitored by specialists, various county committees, elected officials, and emerging issues. Teams of Extension and research faculty meet based on need to analyze these issues, which leads to priority setting and development of programs to address the needs and issues raised by the various stakeholder groups and methods.

In 2010 and carrying on into 2011, and as part of AgriLife Extension's strategic planning effort, local Leadership Advisory Boards (LABs) are leading an effort to raise new and validate current issues being addressed in local communities. The process allows for flexibility in approaches based on community resources. Face-to-face meetings and an online data collection effort are part of the options offered. Approximately 2,500 individuals serve on Leadership Advisory Boards across the state. To date, over 4,000 individuals have been involved in this process. In addition, another 10,000 citizens serve on program area committees, task forces, coalitions, and youth boards. These volunteers represent specific areas of the local program and are involved in issues identification, program development and delivery, evaluation and interpretation of programs, and management of other volunteers. These volunteers represent all 254 counties in the state.

AgriLife Research Administration, Department Heads, and Resident Directors regularly met with the major agricultural industries and commodity groups in Texas. AgriLife Research has encouraged the public to participate in helping set priorities, assess current program and process effectiveness, and determine future directions. These processes were open, fair, and accessible to encourage individuals, groups, and organizations to have a voice, and treated all with dignity and respect. Stakeholders were initially identified by membership in listed organizations, though all events were public and were announced in the press and other written notice. Input from these events was captured by AgriLife Research participants, and in some cases, was published for further public use.

Stakeholder input has always been critical to AgriLife Research processes and programs, and listed events and organizations continue as essential partners in setting the AgriLife Research agenda, and recognizing and addressing emerging issues. A concentrated effort was done for small grains, corn, sorghum, cotton, peanuts, cow-calf and beef cattle feedlots, resulting in a jointly developed strategic plan.

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
- Use Internal Focus Groups
- Use External Focus Groups
- Open Listening Sessions
- Needs Assessments
- Use Surveys
- Other (Meetings with various stakeholder groups)

Brief explanation.

The basis for AgriLife Research and AgriLife Extension's relevance in the State of Texas is

grassroots involvement. AgriLife Extension has utilized local community listening sessions and advisory board validation as part of the grassroots issue identification process. These sessions provide local clientele the opportunity to voice their opinion on issues of importance to their lives and the lives of others in their community.

In 2010 and carrying on into 2011, and as part of AgriLife Extension's strategic planning effort, local Leadership Advisory Boards (LABs) are leading an effort to raise new and validate current issues being addressed in local communities. The process allows for flexibility in approaches based on community resources. Face-to-face meetings and an online data collection effort are part of the options offered. Approximately 2,500 individuals serve on Leadership Advisory Boards across the state. In addition, another 10,000 citizens serve on program area committees, task forces, coalitions, and youth boards. These volunteers represent specific areas of the local program and are involved in issues identification, program development and delivery, evaluation and interpretation of programs, and management of other volunteers. These volunteers represent all 254 counties in the state.

Information from other stakeholders is obtained in various ways. Regular meetings are held with various commodity and interest groups. These groups provide input into programmatic decisions including development of new efforts, modification of existing efforts, and termination of programs that are no longer relevant. Finally, various subject matter groups employ the use of surveys and other needs assessment processes to gain information about their subject area. Data from these processes are used to develop programs to address issues.

AgriLife Research has incorporated data from the AgriLife Extension's process, as well as other stakeholder input methods, for development of initiatives and programs.

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

Brief explanation.

Both AgriLife Extension and AgriLife Research use multiple methods to reach stakeholder groups within the State of Texas. AgriLife Extension uses multiple sources of input from various stakeholders. These include local clientele, commodity/special interest groups, trend data monitored by specialists, various county committees, elected officials, and emerging issues. Teams of Extension and Research faculty meet to analyze these issues which promotes priority setting and development of programs to address the needs and issues raised by the various stakeholder groups

and methods. Methods of data collection include surveys, focus group sessions, data collected as a result of program evaluations, expert panels, meetings with stakeholders, and open forum type meetings to solicit input. All data from all sources is considered when decisions are made regarding the future directions of Research and Extension efforts.

3. A statement of how the input will be considered

- In the Budget Process
- To Identify Emerging Issues
- Redirect Extension Programs
- Redirect Research Programs
- In the Staff Hiring Process
- In the Action Plans
- To Set Priorities
- Other (Create strategic plans)

Brief explanation.

Both AgriLife Research and AgriLife Extension use data from the various stakeholder input processes to direct programming efforts at the local, district, regional, and state level. Regional Teams to meet to analyze current and emerging issues raised from various stakeholders. Information from these meetings will lead to the refinement of current programs and the development of new programs to address high priority issues.

In addition, strategic plans and roadmaps for AgriLife Research and AgriLife Extension have been developed to guide our efforts. Priority areas of this plan have been used to guide the efforts of this POW.

Brief Explanation of what you learned from your Stakeholders

Information from key stakeholder groups both informs and validates the strategic plans, and research and programming efforts for both AgriLife Research and AgriLife Extension. This information allows both agencies to remain relevant and accountable for the public funds entrusted via partnerships with local, state, and federal governments.

IV. Expenditure Summary

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
12476380	0	8482730	0

2. Totaled Actual dollars from Planned Programs Inputs				
Extension			Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	7217147	0	8445612	0
Actual Matching	7216147	0	17113584	0
Actual All Other	63241690	0	22262174	0
Total Actual Expended	77674984	0	47821370	0

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous				
Carryover	4298900	0	0	0

V. Planned Program Table of Content

S. No.	PROGRAM NAME
1	Range Management
2	Economics and Management
3	Diabetes Education
4	Exercise and Wellness
5	Community Resource and Economic Development
6	Water Management
7	Parenting and Dependent Care
8	Character Education
9	Youth Leadership and Out of School Programs
10	Adult Leadership and Volunteer Development
11	Food Safety
12	Food and Nutrition Education for Limited Resource Audiences
13	Livestock and Meat Quality, Safety, and Productivity
14	Life Skills for Youth
15	Crop and Forage Production Systems
16	Child Passenger Safety
17	Cancer Risk Reduction and Early Detection
18	Family Financial Security
19	Global Food Security and Hunger
20	Childhood Obesity
21	Climate Change
22	Sustainable Energy

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Range 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
112	Watershed Protection and Management	40%		40%	
121	Management of Range Resources	60%		60%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	17.5	0.0	20.0	0.0
Actual Paid Professional	38.0	0.0	11.4	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
495039	0	512358	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
495039	0	1658007	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
4337878	0	2138190	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Primary activities in this program focused on development and conducting of research and educational programs to support proper management and restoration of native rangelands for clientele. Applied

research and result demonstrations to support improved rangeland management were also conducted. Training and support for County Extension Agent and Specialist training was provided on appropriate and timely aspects of rangeland management. Emphasis was placed on continued development of appropriate publications, websites, online courses, and other teaching materials.

Work of the AgriLife Research and AgriLife Extension is conducted jointly where research-based information is generated and transferred to clientele.

2. Brief description of the target audience

The target audiences for this program include federal and state agencies, youth and adults. The adult audiences specifically include traditional landowners, operators, absentee landowners, and "new", novice landowners that either just bought land or have made a career off the land and has returned to it.

3. How was eXtension used?

We have two training courses on the eXtension moodle site and are active in the eXtension ask the expert community.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	42041	192854	1697	0

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

Patent Applications Submitted

Year: 2011
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	228	228

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2011	1758

Output #2

Output Measure

- # of research-related projects.

Year	Actual
2011	92

Output #3

Output Measure

- # of result demonstrations conducted.

Year	Actual
2011	236

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	% of Land Managers who report increased knowledge leading to better decision-making for wise pesticide use.
2	% of livestock producers who report increased knowledge of rangeland monitoring, watershed management, weed and brush control.

Outcome #1

1. Outcome Measures

% of Land Managers who report increased knowledge leading to better decision-making for wise pesticide use.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	65

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Pesticide applicators in Texas must obtain continuing education units in order to maintain their pesticide license. Many of these private applicators have full time jobs outside of Agriculture and cannot attend traditional Extension programs.

What has been done

A new webinar series was developed by the Ecosystem Science and Management Unit as an opportunity to expand its educational outreach and increase workshop audience sizes by offering state of the art, web-based educational opportunities entitled. The Texas Range Webinar Series topics presented in 2011 were: Invasive Plants of Texas Rangelands, Pricklypear Biology and Management; 4-1-1 on Rangeland Herbicides; Common Herbicides Use Mistakes; Do it Yourself Brush Control Equipment; and Online Resources for Plant ID and Management.

Results

During the 6 webinars, 108 clientele and 14 Extension Specialists and Agents participated and were awarded 114 Pesticide CEU certificates. 120 attendees said they were very likely or would adopt the techniques taught in the webinars. Sixty five percent had a significant increase in knowledge based on the information they received while on the webinar.

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
121	Management of Range Resources

Outcome #2

1. Outcome Measures

% of livestock producers who report increased knowledge of rangeland monitoring, watershed management, weed and brush control.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	53

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Through 2011, most parts of Texas have been in exceptional or extreme drought conditions since 2008 while the State has now reported 3.2 million acres burned through wildfire (both natural and accidental by human activity) and about 2,400 wildfire incidents since October of 2010.

What has been done

The Extension Range Program Unit has been a part of the Beef Cattle Short Course since 1955 and has endeavored to bring the latest knowledge on rangeland management and current issues to the beef cattle producers of the state. For the 2011 Beef Cattle Short Course, the topic of Recovery from Wildfire and Drought was selected to be the central focus of a 3 ½ hour training for the range management workshop. This event was conducted on August 2, 2011, for 141 attendees to assist them with understanding of the current situation and decisions that could be made.

Results

A retrospective post evaluation was administered to participants to determine the amount of perceptual knowledge gained and the landowner's response to the workshop. Across the seven knowledge areas evaluated, there was an average of 53% perceptual knowledge gained. Knowledge gained ranged from 41% gain for understanding the resulting bare ground to 62% knowledge gained on the understanding of the amount time required for recovery from wildfire and drought. Forty-six Texas counties were represented and one county in New Mexico. Evaluation respondents represented 112,571 acres of managed lands. The average land holding was 2,010 acres. Managed lands ranged from 10 acres to 70,000 acres. Participants were asked if what they had learned in the training provided them with the ability to analyze land situations and make better land management decisions. One-hundred percent of those answering this

question answered "yes".

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
121	Management of Range Resources

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

The extreme drought of 2011 and expansive wildfire season in Texas has played a major role in current programming efforts for our Ecosystem Science and Management Extension Unit. We continue to do drought/wildfire recovery meetings throughout the state to help producers determine when de-stocking and re-stocking is necessary, recovery techniques and practices available and other aspects associated with drought recovery and management.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

The ESSM Unit uses a variety of mechanisms to evaluate programmatic results. Our Unit's new Webinar distance technology program, Texas Range Webinar Series, allows us to reach more people with less travel and expense while at the same time gives a unique opportunity for evaluation. The program began in 2011 with 6 monthly webinars on a variety of topics related to pesticide application on rangelands. A full 12 monthly webinars are scheduled for 2012. Evaluations by participants are very positive through the first 6 webinars. Initial indications are that knowledge gained through this delivery technology is adequate (65% gain in knowledge) and 100% of respondents were happy with the use of distance technology in Extension programming.

Key Items of Evaluation

Through 2011, most parts of Texas have been in exceptional or extreme drought conditions since 2008, while the State has now reported 3.2 million acres burned through wildfire (both natural and accidental by human activity) and about 2,400 wildfire incidents since October of 2010. We use traditional Extension delivery methods and are incorporating new technology to address the clientele needs such as this in Texas.

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Economics and 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
602	Business Management, Finance, and Taxation	25%		25%	
604	Marketing and Distribution Practices	25%		25%	
605	Natural Resource and Environmental Economics	10%		10%	
606	International Trade and Development	10%		10%	
608	Community Resource Planning and Development	5%		5%	
610	Domestic Policy Analysis	25%		25%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	23.0	0.0	14.0	0.0
Actual Paid Professional	35.0	0.0	5.7	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
449443	0	473856	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
449443	0	771688	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
3938336	0	684956	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Numerous activities, events and experiences were conducted to address the needs of producers and other clientele in the area of economics and management. These include 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 focused on the identified needs of those who participated in our programs.

Work of AgriLife Research and AgriLife Extension was conducted jointly where research-based information was 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 were also an important part of this area. Work with various commodity groups and other agencies were routinely conducted by both AgriLife Research and AgriLife Extension faculty. Examples of this work included 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. Severe drought conditions in Texas in 2011 made the cotton crop vulnerable to damage from a little known thrip. Research and Extension activities reduced estimated losses by \$40.9 million.

2. Brief description of the target audience

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

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

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 new 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

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	25681	216459	67	0

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

Patent Applications Submitted

Year: 2011

Actual: 1

Patents listed

* System and Method of Shrimp Aquaculture Using Floating Feeds

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	20	240	260

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2011	769

Output #2

Output Measure

- # of research-related projects.

Year	Actual
2011	54

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
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	60

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 2009 Master Marketer program held in San Angelo 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 48% pre-Master Marketer to 89% post-Master Marketer, an increase in determining production costs and incorporating those into the marketing plan from 38% pre-Master Marketer to 65% post-Master Marketer, an increase in using market fundamentals in developing their personal market outlook from 41% pre-Master Marketer to 84% post-Master Marketer, and knowing when to use forward cash contracting from 40% pre-Master Marketer to 82% post-Master Marketer. Master Marketer education had an average individual economic impact of \$18,343 or 2.1% of gross farm income for the San Angelo class.

4. Associated Knowledge Areas

KA Code	Knowledge Area
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
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	79

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. 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

Pre-test in post-test instruments and retrospective post-tests were used to determine knowledge gained at Master Marketer, Advanced Topics Series, and Profitability Workshops.

Results

The 23rd Master Marketer program (approximately 70 hours of classroom training over a six-week period of time) was conducted in Waco Texas during January/February 2011. Pre-test and post-test scores of subject matter knowledge level indicated a 43.48% improvement in participant's scores from the beginning of the Master Marketer program (average pretest score 50.00%) to the end of the Master Marketer program (average posttest score 71.74%). 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 \$35,779 per year, on average, can be expected for each of the 39 graduates of this year's program. If so, these returns would work out to over \$1.4 million per year for the graduates of the 2011 Master Marketer program in Waco. Results of a pre and post test administered to participants from Advanced Topic Series and Profitability Workshops yielded increase/gain in knowledge ranging from 33.12%, 50%, to 133%.

4. Associated Knowledge Areas

KA Code	Knowledge Area
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
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	192

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The FARM Assistance model (financial simulation strategic planning tool) was used to complete 192 analyses for producers, for demonstrations or agent planning purposes. Survey respondents showed that as a result of participating in FARM Assistance, 87% claim a better understanding of the financial aspects of their own rations, and 91% 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, 87% claim a better understanding of the financial aspects of their operation and 91% 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 82% indicated that they would be more likely to use formal financial analysis (like FARM Assistance) to help make decisions in the future. 96% of respondents indicated they would recommend FARM Assistance to another producer. Finally, in responding to anticipated economic value, respondents estimated an average \$23,800 annual benefit to their operation as a result of their FARM Assistance participation.

4. Associated Knowledge Areas

KA Code	Knowledge Area
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 resulted in a reduction in FTEs available to carry out educational activities. While remaining faculty picked up additional responsibilities, some educational opportunities were missed due to reduced faculty numbers. The record-breaking drought of 2011 caused a temporary realignment of educational priorities. While traditional risk management educational programs were still popular, and increasing amount of faculty time and effort was redirected toward immediate clientele needs associated with the impacts of drought and wildfires.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Clientele/participants involved in Master Marketer, Advanced Topic Series, Profitability Workshops, 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

The 23rd Master Marketer program (approximately 70 hours of classroom training over a six-week period of time) was conducted in Waco Texas during January/February 2011. Pre-test and post-test scores of subject matter knowledge level indicated a 43.48% improvement in participant's scores from the beginning of the Master Marketer program (average pretest score 50.00%) to the end of the Master Marketer program (average posttest score 71.74%). 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 \$35,779 per year, on average, can be expected for each of the 39 graduates of this year's program. If so, these returns would work out to over \$1.4 million per year for the graduates of the 2011 Master Marketer program in Waco. Results of a pre and post test administered to participants from Advanced Topic Series and Profitability Workshops yielded increase/gain in knowledge ranging from 33.12%, 50%, to 133%.

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Diabetes 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
724	Healthy Lifestyle	100%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	18.0	0.0	0.0	0.0
Actual Paid Professional	21.0	0.0	0.0	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
273574	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
273574	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
2397248	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

In response to rising incidence of diabetes in Texas with associated costs, Extension health professionals developed a statewide diabetes programming effort. The plan was to partner with: local health care professionals to provide 5 classes with a 9-lesson nutrition/self-care education using the Do Well, Be Well

with Diabetes curriculum; chefs, home economists, dietitians, diabetes educators and other volunteers to provide a 4 lesson Cooking Well with Diabetes class series; and with leaders in Hispanic communities (priests, preachers, promotoras, and members of other Hispanic organizations) to provide ¡Si, Yo Puedo Controlar Mi Diabetes! in 6 classes each with Spanish novelas, curriculum with handouts, food cards, Spanish recipes with nutritive value of each recipe, etc. After the pilot testing of the Hispanic class series for low-literacy, this Hispanic series is being offered in additional counties. In addition, an adaptation for other low-literacy populations such as a segment of the African-American population will be an ethnically appropriate resources created, pilot-tested and adapted for future use.

2. Brief description of the target audience

The target audience is all people with type 2 diabetes who need training to learn nutrition and self-care management skills such as eating more healthfully (limiting carbohydrate intake, cutting fat and sodium and increasing fiber through eating more whole grains, fruits and vegetables in their meal plan), increasing physical activity, taking prescribed medications, checking their blood glucose levels, and regularly visiting their health care providers. Average age of Texas clientele are those 62 years of age not yet eligible for Medicare and have not had opportunity to have diabetes education. Now that the Hispanic under-served audience has been targeted with a culturally-sensitive program and pilot tested, the African-American audience is now targeted with a culturally-appropriate diabetes programming effort.

3. How was eXtension used?

A search on eXension yielded no diabetes programming resources available. Our agents use the Texas AgriLife Extension FCS website: fcs.tamu.edu for the public and agents only websites for diabetes programming efforts: Do Well, Be Well with Diabetes, Cooking Well with Diabetes and Yo Puedo.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	9892	80289	453	0

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

Patent Applications Submitted

Year: 2011
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2011	902

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of participants who report improved before meals blood glucose levels after attending 4 of the 5 Do Well, Be Well with Diabetes and 3 of 4 Cooking Well with Diabetes classes.
2	# of individuals who complete the first diabetes series of 5 lessons.
3	# of Wesley nurses trained on diabetes education.
4	# of underserved Hispanic participants enrolled in ¡Si, Yo Puedo, Yo Puedo Controlar Mí Diabetes! (Yo Puedo) a six-week diabetes self-management education program for low literate, Spanish-speaking

Outcome #1

1. Outcome Measures

of participants who report improved before meals blood glucose levels after attending 4 of the 5 Do Well, Be Well with Diabetes and 3 of 4 Cooking Well with Diabetes classes.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	432

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Diabetes is growing health problem in Texas. Poor diabetes management leads to increased health-care costs. People with diabetes who maintain their blood glucose, blood pressure, and cholesterol numbers within recommended ranges can keep their costs, health risks, quality of life, and productivity very close to those without the disease. Currently, however, only 7 percent of people with diabetes are at the recommended levels.

What has been done

County agents are trained to organize local health professionals to help plan, market, and provide the Nutrition/Self-care class series and Diabetes Cooking class series. The program's primary goal is to improve blood glucose management through increasing knowledge and skills in nutrition and self-care education.

Results

At the beginning of Nutrition/Self-care classes, the average blood glucose before meals reported by participants (634 reporting) was 134 mg/dL, decreasing to 121 mg/dL at 5 weeks (554). In diabetes cooking classes, the self-reported average hemoglobin A1C was 7.1.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #2

1. Outcome Measures

of individuals who complete the first diabetes series of 5 lessons.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	679

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Diabetes nutrition/self-care classes are not available in many communities across the state. Percentages of Texas populations with diabetes range from about 6 to 10.5 percent. Total for both diabetes courses were 1,433 for 2011.

What has been done

Trained County Agents work through local health coalitions to provide class curriculum consistent with the American Diabetes Standards of Care to plan, implement and conduct the 5 week class series.

Results

707 (68 percent) participants (mean age=62 years old) reported having no previous diabetes classes. Some 415 (40 percent) reported receiving no meal plan from their doctor. At the beginning of classes, the average blood glucose before meals reported by participants (515 reporting) was 130 mg/dL, decreasing to 120 mg/dL at 5 weeks (432 reporting).

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #3

1. Outcome Measures

of Wesley nurses trained on diabetes education.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	75

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

75 + Wesley nurses were trained by Extension nutrition/health specialists and serve underserved parts of Texas along the Texas-Mexico border up to San Angelo to help extend the diabetes education in nutrition and self-care and assist agents. Some of these counties may not have access to Family and Consumer Science agents so these nurses work with the local agent and take leadership role in seeing that diabetes education can be delivered to these remote counties.

What has been done

Whether assisting the FCS agent or taking the leadership role in the delivery of these programs, some 75 trained Wesley nurses are helping Extension clientele to participate in these diabetes programming efforts. Help clientele to know how to keep their blood glucose levels in control.

Results

When agents live in some of these counties served by Wesley nurses, they are able to conduct both diabetes programming efforts. They provide the health care professionals needed to conduct these programs in those underserved areas. Wesley nurses teaching the self-care/nutrition concepts are helping clientele to have better blood glucose control as well.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #4

1. Outcome Measures

of underserved Hispanic participants enrolled in ¡Si, Yo Puedo, Yo Puedo Controlar Mi Diabetes! (Yo Puedo) a six-week diabetes self-management education program for low literate, Spanish-speaking

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	190

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Texas Hispanic/Latinos over the age of 18 are disproportionately affected by diabetes prevalence (12.3 percent) than their White, non-Hispanic counterparts (8.5 percent). 1 In 2005, mortality rates were more than double among Texas Hispanic/Latinos (52 per 100,000) than Whites, non-Hispanics (21 per 100,000).1 Medically underserved Texas Hispanic/Latinos are adversely impacted by diabetes. Among persons with diabetes, a higher proportion of Hispanic/Latinos (32.5 percent) could not see a doctor in the last 12 month due to cost compared to Whites (16.5 percent).

What has been done

Proper management is critical to minimize the potential negative effects of diabetes. Self-management education is the cornerstone for diabetic care and vital for blood glucose control. Recognizing the need for a culturally-relevant type 2 diabetes self-management education targeting Texas Hispanic/Latinos Yo Puedo was developed to address this gap in health programming.

Results

Pilot testing for intervention group (n=84) and control (n=60) for the Hispanic initiative was conducted in Hidalgo and Starr Counties. Key Findings were that Yo Puedo can do as follows: increase diabetes management self-confidence; improve diabetes self-care behaviors; help participants maintain good blood glucose control; and is an effective diabetes community-based self-management education.

4. Associated Knowledge Areas

KA Code Knowledge Area

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

Brief Explanation

Any of the above factors could influence whether a class attendee improves their management of type 2 diabetes. For example, if Medicare or Medicaid improved reimbursement for private or group instruction by health professionals, our class participants might choose that option over our classes. Also, if there were better reimbursement for more and better medicines or care by skilled health care professionals such as endocrinologists, certified diabetes educators, dietitians, or pharmacists, people might choose these options instead of our classes or even show greater improvement in blood glucose management when attending our classes. If the economy worsens, people might not be able to afford adequate medicines or supplies such as blood glucose strips which is already a problem for the under-served population and those on fixed incomes.

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

The Do Well, Be Well (DWBW) program's primary goal is to improve blood glucose management.

In 2011, 1,044 people with diabetes registered for classes; 679 (65%) completed the five-week series and the Wrap-Up or post-test. The classes were provided in 71 counties.

- The average age of participants was 62 years. 142 (14%) were African American; 194 (19%) were Hispanic/Latino; 15 (1%) were Native American; 7 (1%) were Asian; 664 (64%) were Caucasian; and 12 classified themselves as "other"; 10 did not respond.
- At the beginning of classes, the average blood glucose before meals reported by participants (515 reporting) was 130 mg/dL, decreasing to 120 mg/dL at 5 weeks (432 reporting).
- The potential health-care cost savings, resulting from improved management of diabetes, is an estimated \$61.6 million for their remaining years of life.

Qualitative Results from Nutrition/Self Care:

- "...This class has helped me to be able to understand how to better manage my type 2

diabetes. For the first time since being diagnosed, I was able to go to a restaurant and confidently order a meal. You've given me my freedom back."

- "For the first time since being diagnosed, my blood sugar is in the normal range. It had always been over 185."
- "This program made me more aware of the types of food I should eat to stabilize my glucose levels. The information on the difference between a portion and serving has been very helpful."
- "I learned from the at-home activity that exercise really does lower blood sugar. I am convinced of the importance of exercise."

In 2011, the following additional surveys were completed by individuals with diabetes enrolled in the diabetes cooking classes (CWWD):

In diabetes cooking classes, these results were:

- In 2011, the following additional surveys were completed by those with diabetes enrolled in the diabetes cooking classes: 389 registration pretest, 265 wrap-up, and 117 posttest surveys.
- When asked about the type of meal plan they followed on the: 389 registration pretest surveys, some 18.9 percent (38) answered diabetes food exchanges; carbohydrate counting, 17.5 percent (61); plate method, 4.6 percent (16); 6.3 percent (22) other meal plans; and 49.4 percent (172) receiving no meal plan at all.
- The 2011 wrap-up evaluations (265) revealed that 88.9 percent (216) could recognize starchy vegetables; at least 92.5 percent (239) knew how to make foods taste sweeter by adding vanilla; and 93.5 percent (244) knew which cooking method would not reduce the fat content of the food. Many other food preparation techniques were learned during the Cooking Well lessons. The program was designed to have the short-term impacts of knowledge gain and adoption of healthy cooking practices.

Qualitative Results from Cooking Well with Diabetes:

- "Taught me how to be more aware of food labels and which foods are better for me. Very informative!"
- "Now know the differences between high carbohydrates (starchy foods) versus low carbohydrate vegetables (nonstarchy with higher fiber), and how they affect my blood glucose."
- "Vanilla makes foods sweeter so I can use less sugar. I can substitute applesauce in are recipes for some of the oil."
- "I can use more herbs and spices instead of salt or salt substitutes to cut down the sodium content of my meals!"
- "Practical application of methods of food preparation. Clear, concise examples. Multi-methods (hear-see-do) of learning."

In Yo Puedo, these are key findings in pilot study (2009 to 2010) results reported in 2011 were:

- Demographic characteristics among the intervention and control group were similar: 75% were female; average age was 60 years; 70% were living at \$20,000 or less; and 97% were Hispanic and speaking Spanish at home.
- Both groups were minimally acculturated. More than half the sample had a score of 0 out of 20, where a total score of 20 indicated highly acculturated.
- At post-test, the intervention group reported significantly higher self-care and self-efficacy scores than the controls.
- Post-test HbA1c (collected at an average of 3 months) revealed a median 0.3%

reduction from baseline among the intervention group. Conversely, median HbA1c for the control group increased by 0.1% between pre- and post-test.

Qualitative Results from Yo Puedo included:

This pilot project demonstrates that the ¡Sí, Yo Puedo Controlar Mi Diabetes! program significantly improves participants' knowledge and skill so that it:

- increases diabetes management self-confidence.
- improves diabetes self-care behaviors.
- helps participants maintain good blood glucose control, and
- demonstrates that effective diabetes self-management education that can be implemented in community-based settings.

Key Items of Evaluation

These diabetes series have all been created using the American Diabetes Association's Standards of Practice plus knowledge of educational theories for health education which have shown results in helping persons with diabetes understand nutrition and self-care education so that they can practice behaviors which lead to blood glucose control. With the rising diabetes national problem, it would behoove the NIFA-USDA to provide these programs nationally to help fight and control this devastating disease. What is unique is that all this data is collected online directly from each participant's test results and at end of each year we have exact data to help us see the strengths and weaknesses of our educational diabetes programming.

V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Exercise and Wellness

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%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	10.0	0.0	0.0	0.0
Actual Paid Professional	13.0	0.0	0.0	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
169355	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
169355	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1484011	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

A local coalition will recruit participants and provide leadership to implement Walk Across Texas! Teams of eight or classes of children at schools will be recruited to walk for eight weeks. Teams and classes are challenged to walk regularly for eight weeks, reporting their mileage on <http://walkacrosstexas.tamu.edu>, to

achieve the goal of walking the approximate 830 miles across Texas on a map that allows comparisons of teams and class progress. Participants are personally recruited as well as groups like worksites, schools, churches and clubs using free media time.

2. Brief description of the target audience

Walk Across Texas! is open to anyone wanting to increase their physical activity level if they live in a community with a AgriLife Extension educator.

3. How was eXtension used?

Agents used materials from eXtension to support programming efforts as appropriate.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	14334	90963	15251	0

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

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year

Actual

2011

661

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Increased number of miles walked per week at week one compared to week eight.

Outcome #1

1. Outcome Measures

Increased number of miles walked per week at week one compared to week eight.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	3

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

27% of Texans are obese. Texas ranks 13th as the state with the highest adult obesity and 7th with highest childhood obesity rates. Texas ranks 9th in the nation as the most physically inactive state. Regular physical activity and controlling weight can significantly reduce the incidence and impact of chronic diseases like heart disease, stroke, diabetes, cancer, high blood pressure, and depression. Regular physical activity is associated with fewer physician visits, hospitalizations, and medications. Community-wide programs like Walk Across Texas have been strongly associated with significant increases in physical activity.

What has been done

Walk Across Texas is a best practice program with a goal of helping people establish a habit of regular physical activity. County Extension agents work with schools, churches, worksites, and other community groups to organize teams of eight to work together to walk the 830 miles. The school option allows teachers to organize their classes to walk across the state too. Individuals may also choose to walk alone. Everyone enters their mileage at <http://walkacrosstexas.tamu.edu>. All data is immediately analyzed and available to agents 24/7.

Results

In 2011, there were 45,219 participants, including 14,234 school team student walkers. The average age of adult walkers was 43 years old. Week one average mileage for walkers was 22 miles; mileage significantly increased to 25 miles by week eight for a mean difference of 2.7 miles. Over the lifetime of the team participants in 2011, it is estimated that 4,118 could prevent the onset of diabetes through increased physical activity. Including the cost of lost wages, the total potential economic impact for the 2011 team participants is approximately \$267 million.

4. Associated Knowledge Areas

KA Code **Knowledge Area**
724 Healthy Lifestyle

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

State agencies were able to award 8 hours leave to employees completing the 8 weeks if they documented their miles on our data base. This helped us increase our numbers in spite of our significant budget cuts.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

In 2011, there were 45,219 participants, including 14,234 school team student walkers. The average age of adult walkers was 43 years old. Week one average mileage for walkers was 22 miles; mileage significantly increased to 25 miles by week eight for a mean difference of 2.7 miles. Over the lifetime of the team participants in 2011, it is estimated that 4,118 of them could prevent the onset of diabetes through increased physical activity. Including the cost of lost wages, the total potential economic impact for the 2011 team participants is approximately \$267 million.

Key Items of Evaluation

There were 45,219 participants, including 14,234 school team student walkers. Week one average mileage for walkers was 22 miles; mileage significantly increased to 25 miles by week eight for a mean difference of 2.7 miles. Including the cost of lost wages, the total potential economic impact for the 2011 team participants is approximately \$267 million.

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Community Resource and Economic 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
504	Home and Commercial Food Service	5%		0%	
602	Business Management, Finance, and Taxation	10%		0%	
608	Community Resource Planning and Development	50%		0%	
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	30%		0%	
806	Youth Development	5%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	32.0	0.0	0.3	0.0
Actual Paid Professional	53.0	0.0	0.0	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
690449	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
690449	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
6050198	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Provided training and curriculum materials to County Extension Agents and volunteers for the purpose of conducting educational programs on community leadership, workforce preparedness, adult and youth entrepreneurship, emergency management, and nature based tourism at the county level. Specialists provided in-depth educational programs to targeted audiences relative to community and economic development strategies, based on local needs. Provided multi-county, regional and statewide educational programs on various topics to business owners and community stakeholders utilizing specialist faculty and other government and private sector partners. Coordinated and collaborated with state and federal agencies on rural development activities as well as worked with regional rural development centers in curriculum and professional development. Provided technical assistance to communities on analysis of various socioeconomic databases or surveys. Continued to foster working relationships with rural community colleges to obtain support and follow-up for local educational activities. Expanded web-based information delivery relative to community resource and economic development topics.

2. Brief description of the target audience

Primary target audiences for the program consist of residents, elected and appointed officials, community leaders/potential leaders (including youth), individuals with specific workforce training needs, and existing and potential business owner/managers in and around the over 1,200 communities in all 254 counties of the state of Texas.

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 new 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

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	59825	522024	168429	0

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

Patent Applications Submitted

Year: 2011
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2011	3420

Output #2

Output Measure

- # of state or regional leadership conferences held for county officials or industry groups.

Year	Actual
2011	7

Output #3

Output Measure

- # of participants in state or regional leadership conferences held for county officials or industry groups.

Year	Actual
2011	1620

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Percent of targeted counties conducting educational programs and activities related to strategies for community resource and economic development
2	Percent of landowners/managers participating in group educational meetings on effectively evaluating nature-based tourism resources that increased their knowledge.
3	Percent of participants of in-depth leadership educational programs who increase knowledge of community and individual leadership principles.
4	Number of participants in workforce development or continuing education training activities conducted by the Texas AgriLife Extension Service who increase knowledge to support their current employment needs.

Outcome #1

1. Outcome Measures

Percent of targeted counties conducting educational programs and activities related to strategies for community resource and economic development

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	82

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Issue identification activities continue to show that economic growth, jobs, income, and quality of life are concerns of communities. Community leaders, elected officials, and local business people want their area to survive and thrive in order to maintain an economic base to grow their population and provide opportunities for you rural areas.

What has been done

The imperative of the Texas CRED program is the development of individual abilities and community support for creating and growing businesses, jobs, wealth, and income. Programs such as rural entrepreneurship, community leadership, nature tourism, workforce training and certifications, Texas friendly hospitality, and community-based planning address priority issues facing rural Texas.

Results

Some 198 of the targeted 241 counties have reported educational programming to the piece addressing issues of community resources and economic development. Key programs were entrepreneurship, leadership, workforce preparedness, nature-based tourism, and disaster preparedness. Throughout the year specialists delivered 3354 total hours of educational programming in Community Resources and Economic Development topics to 1589 residents. Examples of program topics included Entrepreneurship as a Tool for Economic Development, Tips on Starting Your Own Business, Creating Entrepreneur Ready Communities, Youth Entrepreneurship and Communities in Economic Transition. Target audiences included CEAs, economic developers, city and county officials, rural business and agribusiness owners and youth. A webinar and series of YouTube videos was produced to help community economic development practitioners to access data for reports, profiles, and funding applications.

4. Associated Knowledge Areas

KA Code	Knowledge Area
504	Home and Commercial Food Service
602	Business Management, Finance, and Taxation
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #2

1. Outcome Measures

Percent of landowners/managers participating in group educational meetings on effectively evaluating nature-based tourism resources that increased their knowledge.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	80

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Natural resources owners are looking for ways to generate additional income to maintain the economic viability of their enterprises. Entrepreneurs are looking to diversification or nature tourism has strategies to expand nontraditional or other activities for economic development. Entrepreneurs want information on what other successful operations are doing, and communities want to support local business.

What has been done

Educational activities made up of workshops, webinars, and tours were conducted statewide for natural resource owners, entrepreneurs, and community leaders. Technical assistance was provided to individual business owners relative to either nature tourism offer to lease or other business counseling. Web access to information increased. In addition, Educational sessions were offered on Urban Parks and Community Development in Extension, Sustainable Parks, Counting Trail Users, Trail Triage, Needs Assessments, GIS and Spatial Research, Natural Land Management Practices, Economic Impacts of Extension Led Events, Community Residents? Perceptions of Events, Designing and Facilitating Citizen Input, Site Analysis Techniques in Park Design, Volunteer Training for conducting Door to Door Surveys, and How to Plan and Implement a Stratified Door-to-Door Data Collection process, and Asset Mapping.

Results

The self-paced course Nature Tourism Business Plan Development is offered online through the Extension Moodle System. The online self-paced tool for business plan development was utilized by ~60 individuals as part of the Wildlife Guide Training program. The Corpus Christi CVB officially awarded its Certified Wildlife Guide designation to ~60 individual guides that had participated in the AgriLife Extension Wildlife Guide Training program. 100% of those individuals reporting on use of the nature tourism business development course reported an increase in knowledge. 50% of individuals participating in the nature tourism business plan reported intention to adopt learned practices. The nature tourism program web page resources were greatly enhanced. Extensive use of e-learning technologies including upgrades to program content was added to the web site including workshop calendars, image gallery, tourism industry webinars, online survey and client data forms, online course (Moodle) trainings for clients and video calls, and a YouTube nature tourism channel was created and populated with initial videos. Beef Cattle Short Course and the Range Management University Course, participants (approximately ~215 individuals) post-program evaluation reported 100% increased knowledge of Nature Tourism.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #3

1. Outcome Measures

Percent of participants of in-depth leadership educational programs who increase knowledge of community and individual leadership principles.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	80

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Issues identification processes at the local level continue to emphasize the importance of leadership to foster sustainable and vibrant communities. Community stakeholders must be

prepared to build on local strengths through leadership and partner with others to create support for economic development and quality of life. This is particularly true given the importance of regionalism to development.

What has been done

Building Connections: Community Leadership, is an in-depth curriculum to assist participants in determining their individual leadership traits and in developing strategies for effectively leading organizations/communities. Developing Critical Thinking Leaders, Texas Agricultural Life Leadership, Texas Event Leadership Program, and the Commissioners Court Leadership Academy are other curriculum-based programs that help develop leadership in various areas of Texas organizations and communities.

Results

The Leadership Matagorda Class XIII, utilized the building connections curriculum over five sessions containing 40 hours of training. Evaluation results suggested; 100% of participants had a 94% increase in understanding (knowledge gain) of the steps in the LEAD model, 100% of participants had a 40% increase understanding (knowledge gain) of the theories of motivation. Specialists assisted the Texas Rural Leadership Program (TRLP) with development of an organizational strategic plan to promote, distribute and support the Developing Critical Thinking Leaders program in all Texas counties. Specialist administered the TRLP program by responding to requests for information and resources, by teaching classes at local programs, by updating and modifying curriculum and by developing an operational plan for the organization. Successful programs were completed under the coordination of Coastal Bend College and Cisco College with a total of 40 graduates representing several rural counties. The TRLP Annual Workshop was held in March in College Station. During the conference, 14 TRLP modules were conducted reaching 167 contacts. Evaluations from the Legal and Regulatory Concerns session show 92% of participants reported they intended to adopt the information learned in the session, and 85% reported knowledge gain.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #4

1. Outcome Measures

Number of participants in workforce development or continuing education training activities conducted by the Texas AgriLife Extension Service who increase knowledge to support their current employment needs.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	80

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Local community leaders, resource owners, and other businesses need a well-trained workforce and the ability to provide greater knowledge and tools to potential employees to meet the challenges of increased globalization, increased international trade, and an increasingly competitive business environment. Communities are concerned about individual, community and regional economic viability, maintenance/improvement of quality of life, and sustainability/growth. Providing the existing labor force with the tools and training to remain competitive in today's ever more competitive labor environment, and providing job opportunities that will attract rule and youth back to the community are of major importance.

What has been done

Educational activities made up of workshops, webinars, and online training materials were conducted/provided statewide for training new and existing labor force participants, to increase knowledge, to improve workforce skills, and to enhance/expand job opportunities. These efforts should increase job opportunities, earning potential and provide employers with a more efficient/competitive workforce.

Results

County Extension agents and their community partners conducted 25 child care provider training conferences throughout the state of Texas for over 3,000 child care providers and directors. Over 90 percent of participants acquired new information (knowledge gain 97%). Food Safety (GAPs) for Small Acreage Producers, workshop participants indicated a 100% increase in knowledge of food safety and generally accepted practices as a result of attending the workshop, and 100% of survey respondents indicated that they anticipated a positive economic benefit as a direct result of participating in the workshop. A series of one-day GAPs/GHPs training was organized to introduce vegetable producers to GAPs/GHPs recommendations. Over 160 individuals attended the two-day Texas Food Safety Conference, and participants indicated a 31% increase in knowledge. In FY 2011 965 individuals completed the test for the food manager's course. 1623 individuals completed the Food Handlers course. For the food handler's course, participants scored an average of 68 on the pre-test. Post-test scores averaged 86 which was statistically higher.

4. Associated Knowledge Areas

KA Code	Knowledge Area
504	Home and Commercial Food Service

608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth 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
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Budget reductions as a result of reduced state appropriations resulted in a reduction in FTEs available to carry out educational activities. While remaining faculty picked up additional responsibilities, some educational opportunities were missed due to reduced faculty numbers. The record-breaking drought of 2011 caused a temporary realignment of educational priorities. While traditional Community Resource Economic Development programs were still popular, an increasing amount of faculty time and effort was redirected toward immediate clientele needs associated with the impacts of drought and wildfires, including emergency and disaster preparedness programs.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Clientele/participants involved in Community Resource Economic Development programs 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 potential economic impacts over time. Results indicate that participants are learning, and adopting/changing practices, and these changes are producing potential economic benefits.

Key Items of Evaluation

See outcome measures.

V(A). Planned Program (Summary)

Program # 6

1. Name of the Planned Program

Water 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
111	Conservation and Efficient Use of Water	50%		50%	
112	Watershed Protection and Management	50%		50%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	25.0	0.0	14.0	0.0
Actual Paid Professional	25.0	0.0	5.3	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
325684	0	377679	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
325684	0	1157573	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
2853867	0	2097654	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Published research findings generated through evaluation of best management practices to efficiently manage available water resources, limit off-site contaminant transport from production, processing, and

landscaping systems, and to remove contaminants from impaired/alternative water sources.

Conducted research and developed and delivered educational programs utilizing direct and indirect methods to promote adoption and sustained implementation of best management practices on agricultural production lands and rural and urban landscapes that protect water resources from contamination, enable proper management of surface and ground water resources, and promote water conservation. Examples of impacts from research include the finding that a biological control program for giant reed along the Rio Grande River would contribute \$9 to \$18 million per year to South Texas and create 197 to 351 jobs. Another representative research effort reduced phosphorus pollution in wastewater from dairies by 45%.

The work of the AgriLife Research and AgriLife Extension is coordinated so that research-based information is efficiently transferred to clientele. Technology transfer efforts involve development and delivery of educational resources such as news articles, fact sheets, bulletins, curriculum materials, short course manuals and other teaching resources.

2. Brief description of the target audience

Programs focusing on the issue of water address target audiences including, but not limited to, agricultural producers, homeowners, landscape managers, industry practitioners, water resource managers, city and county officials and personnel, state and federal agency personnel, and others who identify themselves with this issue.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	75658	543455	35653	0

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

Patent Applications Submitted

Year: 2011

Actual: 2

Patents listed

- * Stabilization and Disinfection of Wastes Using High Energy E-Beam and Chemical Oxidants
- * A Hybrid Zerovalent Iron/FeOx/Fe(II) Reactor for Treating Heavy Metals in the Flue Gas Desulfurization Wastewater

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	208	208

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2011	885

Output #2

Output Measure

- # research-related projects.

Year	Actual
2011	71

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	% of participants who report an increased knowledge of best management practices related to water management.
2	% of participants who report the plan to or have adopted best management practices related to water management.

Outcome #1

1. Outcome Measures

% of participants who report an increased knowledge of best management practices related to water management.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	94

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Growing demands on limited water resources coupled with climate variation are increasing the incidence of anthropogenic water impairments and water shortages. More than 50% of the assessed water bodies in Texas are impaired by bacteria and/or nutrients. At the same time, Texas experienced the most extreme drought on record in 2011. Greater awareness and understanding of local water quality and quantity issues are critical to protect vital water resources. Empowering and engaging citizens to become active in water resource management is essential for long-term sustainability. Focused training programs enable proper selection, implementation and management of best management practices to achieve local and regional water quality and water conservation goals.

What has been done

The School of Irrigation taught 21 short courses to 326 irrigators on topics including auditing, drip irrigation, weather stations, irrigation scheduling, computer-aided design and smart irrigation controllers. A total of 7 introductory and advanced on-site wastewater treatment short courses were conducted for 131 homeowners and practitioners providing information on homeowner maintenance of aerobic treatment systems and analysis of wastewater treatment systems for high strength and hydraulic loading. Four rainwater harvesting training events were conducted for landscape professionals, teachers and homeowners with total participation of 379 individuals. A total 514 individuals participated in 11 watershed training programs conducted across the state.

Results

The irrigation short courses produced an average increase in knowledge of 91%. Ninety-three percent of attendees at on-site septic system management training programs and 97% of participants at rainwater harvesting training events reported an increase in knowledge and understanding. The Texas Watershed Steward training program increased the basic knowledge

and understanding of 99% of attendees.

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management

Outcome #2

1. Outcome Measures

% of participants who report the plan to or have adopted best management practices related to water management.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	75

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Proper selection, installation and management of best management practices are essential to achieve water quality and water conservation goals. Extension education programs enable citizens to identify the most appropriate best management practices for their situation and provide information and training on installation and management to ensure that practices function effectively to conserve and protect water resources.

What has been done

Texas AgriLife developed and delivered education and training programs to citizens and watershed stakeholders across the state. This included 21 irrigation management short courses for 326 irrigators on topics including auditing, drip irrigation, weather stations, irrigation scheduling, computer aided design and smart irrigation controllers; 7 introductory and advanced on-site wastewater treatment short courses for 131 homeowners and practitioners providing information on homeowner maintenance of aerobic treatment systems and analysis of wastewater treatment systems for high strength and hydraulic loading; 4 rainwater harvesting training events for 379 landscape professionals, teachers and homeowners; and, 11 watershed stewardship training programs for 514 stakeholders (3,598 contact hours).

Results

Survey results for the irrigation short courses indicated that 68% of attendees planned to make changes to their irrigation practices. Sixty-six percent of individuals receiving training on analysis of wastewater treatment systems for high strength and hydraulic loading reported an intention to adopt the practice of utilizing evaluation forms to assess commercial systems. For the Texas Watershed Steward program, 92% of trainees indicated they had adopted or planned to adopt a best management practices on their property.

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Other (Other Program Areas)

Brief Explanation

Texas experienced the most severe drought on record in 2011 which affected program content, but did not impact achievement of overall project goals and outcomes. Economic stresses also impacted program delivery efforts; however, effective planning and the use of web-based resources and distance education tools enabled successful implementation of all key programs.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Pre-post and delayed 6-month post surveys were used to evaluate changes in knowledge and intentions to adopt recommended practices to protect and conserve water resources in Texas. The irrigation short courses produced an average increase in knowledge of 91%, with 68% of attendees indicating an intention to make changes to their irrigation practices. Ninety-three percent of attendees at on-site septic system management training programs reported an increase in knowledge and 66% indicated an intention to adopt recommended practices. Ninety-seven percent of participants at rainwater harvesting training events reported an increase in knowledge and understanding, and 63% indicated an intention to implement rainwater harvesting. The Texas Watershed Steward training program increased the basic knowledge and understanding of 99% of attendees, and 92% of trainees indicated they had adopted or planned to adopt a best management practice on their property.

Key Items of Evaluation

Water resource management programs conducted by Texas AgriLife had significant impacts on citizen knowledge, understanding, and intentions to implement recommended management practices. Measured changes in knowledge and understanding ranged from 91 to 99% at various events, depending on pre-existing competency levels of the audience, and averaged over 85% for all non-technical audiences. Most importantly, participant intentions to adopt practices were highly significant, ranging from 63 to 92% across all audiences, and demonstrating the high degree of program effectiveness for both technical and non-technical audiences across a wide range of water resource management and protection subject matter areas.

V(A). Planned Program (Summary)

Program # 7

1. Name of the Planned Program

Parenting and Dependent Care

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%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	10.0	0.0	0.0	0.0
Actual Paid Professional	11.0	0.0	0.0	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
143301	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
143301	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1255701	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension's Family Development and Resource Management Unit is committed to providing educational programs to support and strengthen Texas families. In the areas of parenting, childcare, and dependent care, Extension offers a wide range of programs and resources to citizens across the

state. Programs and resources include train-the-trainer workshops for professionals and volunteers, multi-session parent education workshops, 1-2 hour lectures, and Internet resources (e.g., online child care courses, fact sheets, research briefs, trend data, links to websites), and newsletters.

2. Brief description of the target audience

Target audiences for child care programming include adults and teens providing care for preschool and school-age children in family, center and school-aged settings. Target dependent care audiences include adults and teens providing care for adults and children who are unable to provide some portion of care for themselves due to illness or age-related disabilities. Programs and resources are accessible to target audiences regardless of gender, marital status, family status, race/ethnicity, income level, or educational level. It is estimated that 70% of this audience falls under the category of "low-income."

3. How was eXtension used?

Agents used materials from eXtension to support programming efforts as appropriate.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	20103	73644	1133	0

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

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational methods conducted.

Year	Actual
2011	791

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	% of child care providers who increase their knowledge of child care best practices as a result of participating in child care provider trainings.
2	% of dependent care providers who increase their knowledge of dependent care best practices as a result of participating in depend care trainings.
3	% of parents who increase their knowledge of parenting practices as a result of attending parenting trainings.
4	% of fathers (father-figures) who increase the amount of time spent reading to their children.

Outcome #1

1. Outcome Measures

% of child care providers who increase their knowledge of child care best practices as a result of participating in child care provider trainings.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	97

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Over 60% of children from birth through age 6 (not yet in kindergarten) receive some form of child care on a regular basis from persons other than their parents. Researchers have found that quality matters when it comes to child care. Children who receive high-quality care develop better language, math, and social skills; exhibit fewer behavior problems; and tend to be better prepared for entrance into school. Having a well-trained child care workforce is essential to providing the high quality child care that children need to reach their developmental potential. Evidence indicates that professional preparation is linked to higher quality care environments for children.

What has been done

In 2011, county Extension agents and their community partners conducted 29 child care provider training conferences for over 2,800 child care providers and directors who provide care for approximately 35,900 children enrolled in child care centers or family day homes. Over 17,000 clock hours of training were provided to child care professionals through these face-to-face trainings. In addition, early childhood educators in the U.S. completed 67,146 online courses in 2011. Participants were awarded 105,325 clock hours of professional development training from completing these online courses.

Results

Results from a 2011 evaluation study indicate that child care providers found the face-to-face trainings to be very beneficial. Over 90% of participants acquired new information (97%), plan to utilize the information to improve their programs (95%), consider themselves better equipped to work with children (97%), and consider the trainings to be very cost effective (94%). Moreover, 71% of child care providers rated the quality of the trainings "Better" or "Much Better" compared to other trainings they have attended that were not conducted by Extension. Evaluation data collected from over 9,500 online participants revealed the following: Over 90% rated the online courses as "Very good" or "Excellent". Ninety-seven percent of respondents stated that they

learned new information from the courses, and 99% would recommend the online courses to others. In addition, over 77% indicated that Extension's online courses were "Better" or "Much Better" in quality than online courses they have taken from other organizations.

4. Associated Knowledge Areas

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

Outcome #2

1. Outcome Measures

% of dependent care providers who increase their knowledge of dependent care best practices as a result of participating in depend care trainings.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	91

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

More than 10% of the population in Texas is over age 65. The fastest-growing segment of this population within Texas and across the U.S. is adults over age 85. Families provide an estimated 80% of care to older adults, with the remaining 20% provided by formal community agencies and institutional facilities. Texas has the second largest number in the U.S. of grandparents rearing their grandchildren. Estimates show that Texas has approximately 2.1 million caregivers, who provide more than 2.2 billion hours of care valued at more than \$22 billion.

What has been done

In 2011, the Texas AgriLife Extension Service sponsored and/or actively participated in eldercare conferences throughout the state. AgriLife Extension eldercare programs on improving health literacy, fall prevention, memory improvement, and grandparents raising grandchildren reached more than 960 educational contacts, providing more than 2,246 contact hours. Specifically, AgriLife Extension provided primary leadership and/or speaker support for conferences on aging that targeted professionals. One of these conferences reached 1,987 persons.

Results

In an evaluation study conducted with 61 eldercare conference attendees, 64% reported that the conference was "Better/Much Better" than conferences previously attended. 98% percent will use

the information they learned "now", and 91% indicated the information would help them improve the quality of their work. Five counties piloted the "Health Literacy" series in 2011. Evaluation data revealed the following: 100% indicated that they can name resources in their area to help improve their health and wellness; 98% indicated they understood how to prepare for an appointment with their health provider; and 100% indicated that they would schedule an annual wellness visit with their health provider. Finally, a study was conducted 48 participants who completed the Master of Memory series. Significant differences from pre to post were noted in the following areas: confidence in ability to improve memory, understanding controllable risk factors associated with memory loss, and understanding steps to improve memory.

4. Associated Knowledge Areas

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

Outcome #3

1. Outcome Measures

% of parents who increase their knowledge of parenting practices as a result of attending parenting trainings.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	99

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Parents are the primary influence in the lives of their children. Their contributions to their children's development are unparalleled, especially during their early childhood years. Research indicates that children who grow up with actively involved and nurturing parents reap numerous benefits, including better school performance, increased self-esteem, healthier relationships with peers, healthier sex-role development, and greater access to financial resources. Quality educational programs, according to years of research, can assist parents in developing the skills they need to effectively raise their children.

What has been done

The Texas AgriLife Extension Service provides parents with a wide variety of research-based information and resources to assist them in their efforts to raise healthy children. In addition to newsletters, fact sheets, and single-session parenting seminars, AgriLife Extension offers parents

the opportunity to participate in county Extension agent and volunteer led parenting programs designed to increase participants' knowledge of key parenting concepts and to improve parenting practices. In 2011, AgriLife Extension, in collaboration with other agencies and volunteers, delivered 287 educational programs, reaching 13,029 parents, grandparents, and other caregivers (e.g., foster parents).

Results

Results from an evaluation study with more than 300 parents who participated in the Parenting Connections series indicated that the program had a very positive impact on specific parenting practices. Statistically significant attitudinal and behavioral changes from pre to post occurred in the following areas: parent-child communication, parental self-efficacy (i.e., confidence in parenting skills), parental involvement, and use of positive disciplinary practices. In addition, parents reported a significant improvement in their children's behavior after participating in the program (the percentage of parents describing their child's behavior as "Excellent" or "Very Good" increased from 25.7% - pre-test to 54.6% - post-test).

4. Associated Knowledge Areas

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

Outcome #4

1. Outcome Measures

% of fathers (father-figures) who increase the amount of time spent reading to their children.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	67

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Reading aloud to children is a simple, yet powerful, activity that has been shown to improve children's literacy development across a variety of domains. Children who are reading proficiently at an early age are more likely to perform better in school, and as a result, graduate from high school and/or pursue a post-secondary education. It is well established that fathers play a critical role in their children's development. Fathers who find time to read with their children are taking advantage of one of the best opportunities to care for, connect with, and contribute to their

children's future.

What has been done

Fathers Reading Every Day (FRED) is a family literacy program designed by the Texas AgriLife Extension Service to increase parental involvement in children's early literacy development, with a specific focus on fathers. Since its inception in 2002, over 20,000 fathers and children have participated in FRED nationally, including more than 10,000 from Texas. In 2011, more than 1,200 fathers and children completed the FRED program in Texas.

Results

Results from a 2011 evaluation study with 260 fathers/father-figures who completed the FRED program revealed the following: statistically significant differences from pre to post were noted in a number of areas, including the amount of time fathers spent reading to their children, number of books read during a typical week, level of involvement in their children's education, quality of time spent with their children, and level of satisfaction with the father-child relationship. The percentage of fathers reading to their children three or more times per week increased from 48% (pre-test) to 72% (post-test). Additionally, 56% of participating fathers reported an increase in the quality of time spent with their children; 56% reported an increase in their involvement in their children's education; and 52% reported an improved father-child relationship.

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Appropriations changes
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Legislation was recently passed in Texas increasing the number of professional development hours required by the State. This, in turn, has increased demand for Extension's face-to-face and online child care trainings. In 2011, there was a 41% increase in the number of online course completions by child care provider enrolled in Extension's Early Childhood Educator Online Training Program.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Results from a 2011 evaluation study with more than 2,000 child care providers who attended face-to-face trainings organized by Extension found the conferences to be very beneficial. Over 90% of participants acquired new information (97%), plan to utilize the information to improve their programs (95%), consider themselves better equipped to work

with children (97%), and consider the trainings to be very cost effective (94%). Moreover, 71% of child care providers rated the quality of the trainings "Better" or "Much Better" compared to other trainings they have attended that were not conducted by Extension.

Evaluation data collected from over 9,500 online participants revealed the following concerning child care providers' perceptions of the quality of the online courses: Over 90% rated the online courses as "Very good" or "Excellent." Ninety-seven percent of respondents stated that they learned new information from the courses, and 99% would recommend the online courses to others. In addition, over 77% indicated that Extension's online courses were "Better" or "Much Better" in quality than online courses they have taken from other organizations.

Results from a 2011 evaluation study with 260 fathers/father-figures who completed the Fathers Reading Every Day (FRED) program revealed that the program had a very positive impact on fathers' involvement in their children's early education. Statistically significant differences from pre to post were noted in a number of areas, including the amount of time fathers spent reading to their children, number of books read during a typical week, level of involvement in their children's education, quality of time spent with their children, and level of satisfaction with the father-child relationship. The percentage of fathers reading to their children three or more times per week increased from 48% (pre-test) to 72% (post-test).

Results from an evaluation study with more than 300 parents who participated in the Parenting Connections series indicated that the program had a very positive impact on specific parenting practices. Statistically significant attitudinal and behavioral changes from pre to post occurred in the following areas: parent-child communication, parental self-efficacy (i.e., confidence in parenting skills), parental involvement, and use of positive disciplinary practices. In addition, parents reported a significant improvement in their children's behavior after participating in the program (the percentage of parents describing their child's behavior as "Excellent" or "Very Good" increased from 25.7% - pre-test to 54.6% - post-test).

In an evaluation study conducted with 61 eldercare conference attendees, 64% reported that the conference was "Better/Much Better" than conferences previously attended. 98% percent will use the information they learned "now," and 91% indicated the information would help them improve the quality of their work. Five counties piloted the "Health Literacy" series in 2011. Evaluation data revealed the following: 100% indicated that they can name resources in their area to help improve their health and wellness; 98% indicated they understood how to prepare for an appointment with their health provider; and 100% indicated that they would schedule an annual wellness visit with their health provider. Finally, a study was conducted with 48 participants who completed the Master of Memory series. Significant differences from pre to post were noted in the following areas: confidence in ability to improve memory, understanding controllable risk factors associated with memory loss, and understanding steps to improve memory.

Key Items of Evaluation

See evaluation results.

V(A). Planned Program (Summary)

Program # 8

1. Name of the Planned Program

Character 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
806	Youth Development	100%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	12.0	0.0	0.0	0.0
Actual Paid Professional	0.0	0.0	0.0	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
0	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	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

All information related to the Character Education program is being consolidated with the Life Skills for Youth program.

2. Brief description of the target audience

All information related to the Character Education program is being consolidated with the Life Skills for Youth program.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	0	0	0	0

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

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.
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	% of youth who report abilities (skills) changed as a result of participation in character education programs.
2	% of youth who plan to adopt character practices as a result of participation in character education programs.
3	% of youth who report an increased knowledge of character education principles.

Outcome #1

1. Outcome Measures

% of youth who report abilities (skills) changed as a result of participation in character education programs.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

% of youth who plan to adopt character practices as a result of participation in character education programs.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

% of youth who report an increased knowledge of character education principles.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Other (All information related to the Character Education program is being consolidated with the Life Skills for Youth program.)

Brief Explanation

All information related to the Character Education program is being consolidated with the Life Skills for Youth program.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

All information related to the Character Education program is being consolidated with the Life Skills for Youth program.

Key Items of Evaluation

All information related to the Character Education program is being consolidated with the Life Skills for Youth program.

V(A). Planned Program (Summary)

Program # 9

1. Name of the Planned Program

Youth Leadership and Out of School Programs

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%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	3.0	0.0	0.0	0.0
Actual Paid Professional	0.0	0.0	0.0	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
0	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	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

All information related to the Youth Leadership and Out of Schools program is being consolidated with the Life Skills for Youth program.

2. Brief description of the target audience

All information related to the Youth Leadership and Out of Schools program is being consolidated with the Life Skills for Youth program.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	0	0	0	0

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

Year: 2011
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group education sessions conducted.
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- Number of trainings conducted by Extension educators with out of school time programs.
Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of youth reached in out of school time programming with Extension curriculum.
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	% of 4-H club participants who develop new leadership skills.
2	# of new 4-H clubs established.
3	# of outcome plans conducted by agents in leadership.
4	% of 4-H club participants applying leadership skills.

Outcome #1

1. Outcome Measures

% of 4-H club participants who develop new leadership skills.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of new 4-H clubs established.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of outcome plans conducted by agents in leadership.

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

% of 4-H club participants applying leadership skills.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Other (All information related to the Youth Leadership and Out of Schools program is being consolidated with the Life Skills for Youth program.)

Brief Explanation

All information related to the Youth Leadership and Out of Schools program is being consolidated with the Life Skills for Youth program.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

All information related to the Youth Leadership and Out of Schools program is being consolidated with the Life Skills for Youth program.

Key Items of Evaluation

All information related to the Youth Leadership and Out of Schools program is being consolidated with the Life Skills for Youth program.

V(A). Planned Program (Summary)

Program # 10

1. Name of the Planned Program

Adult Leadership and Volunteer 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	40%		0%	
806	Youth Development	60%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	25.0	0.0	0.0	0.0
Actual Paid Professional	33.0	0.0	0.0	0.0
Actual Volunteer	230.0	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
429902	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
429902	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
3767104	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The following activities will be used to implement this program:

*Provide training for Extension professionals on the ISOTURE volunteer management model and key concepts related to volunteer administration.

New Extension employees are trained two times annually on volunteer management principles. The training provides an overview of the ISOTURE model and how the model can be applied. Training also focuses on engaging and empowering volunteers in the program development process.

*Provide training and guidance to Extension specialists in the role and support of program development related to volunteerism.

Extension specialists also participate in training in their first year of employment with Texas Extension. The training provides an overview of the role of volunteers in Extension programs and how volunteers can be engaged in program planning and implementation.

*Provide orientation and training directly to volunteers in preparation for their service resulting in a positive experience.

Volunteers are provided with training and orientation specific to their volunteer role - whether Master Volunteer, 4-H Volunteer, Livestock Mentor or program area committee member. Training and orientation is provided in a variety of methods - face-to-face and online. An online 4-H volunteer orientation is also available for completion.

2. Brief description of the target audience

The following groups are included in the target audience for this program:

*Youth and adult volunteers who have a need or interest in a Texas Extension program.

*Extension educators

*Youth and adults who have an interest in community development and partnerships.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	111750	696478	32869	0

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

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # group educational sessions conducted.

Year	Actual
2011	4744

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	% of participants who report an increased knowledge of leadership development practices.
2	% of participants who plan to or adopt leadership development practices.
3	# of counties who adopt and implement County Youth Boards.
4	# of counties who adopt and implement at least one youth oriented Master Volunteer program.
5	# of counties who adopt and implement youth and adult partnerships.

Outcome #1

1. Outcome Measures

% of participants who report an increased knowledge of leadership development practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Leadership in rural counties was identified as a significant issue through long-term strategic planning. This was an issue for both youth and adults. It is important for young people to develop and gain leadership life skills in order to grow into successful, contributing members of society in adulthood.

What has been done

In 2011, there were more than 2,000 contacts through leadership development programs for youth and adults. Youth leadership programs were focused on youth developing knowledge skills to serve in leadership roles through traditional 4-H program experiences and through Leaders 4 Life program. Adult leadership development programs were held for community members to learn about leadership, gain skills needed to serve in community leadership positions and acquire knowledge of community and economic development.

Results

For adults involved in the leadership development program, evaluations indicated that 100% of the program participants indicated they gained knowledge of leadership development and practices. Additionally, there was a 38% positive change in knowledge of local business and economy.

Evaluation of youth involved in leadership programs, such as Leaders 4 Life, indicated 100% gained knowledge of leadership development. 88% acquired skills, 86% a change in attitude and 90% indicated a change in behavior.

4. Associated Knowledge Areas

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

Outcome #2

1. Outcome Measures

% of participants who plan to or adopt leadership development practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

There is a strong need to develop and maintain sustainable communities using appropriate community and economic development tools and programs in dynamic social and economic environments. Community and Economic Development has been identified as the number one issue in Texas. One educational response is to develop adults and youth in counties to be leaders of tomorrow.

What has been done

Leadership development programs have been implemented in a variety of ways for youth and adults. The youth leadership programs were focused on youth developing knowledge skills to serve in leadership roles through traditional 4-H program experiences and through Leaders 4 Life program. Adult leadership development programs were held for community members to learn about leadership, gain skills needed to serve in community leadership positions and acquire knowledge of community and economic development.

Results

As a result of participating in leadership development programs, participants indicated they believed what they learned gives them the ability to lead more effectively (100%) and 88% indicated that they acquired skills they will be able to apply in future leadership positions.

4. Associated Knowledge Areas

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

Outcome #3

1. Outcome Measures

of counties who adopt and implement County Youth Boards.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	250

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Youth Boards support the youth development program and give youth and adults the opportunity to create a youth-adult partnership, identify youth issues in the county and work as a team to address the issue(s) facing youth. It is important for youth to have a voice and be involved in the planning and development of programs that address issues affecting youth.

What has been done

Counties have implemented Youth Boards in their county to carry out a needs assessment process and give youth and adults the opportunity to work together to accomplish a task. Youth Boards have been established in all 250 county programs in Texas, participating in the program development process of youth development programs by identifying issues, determining youth program needs for each year, helping program reach new audiences and determining the impacts of such programs.

Results

Youth Boards are being recognized in the county and youth are given the opportunity to serve in leadership positions. Youth and adults (4-H and non 4-H) are creating partnerships and working together to accomplish a task and meet the needs of youth. In 2011, 2,281 youth and adults created partnerships to meet the needs of youth locally by implementing programs on preparing for higher education, character education, agriculture awareness, engaging youth in the community, leadership and healthy lifestyles.

4. Associated Knowledge Areas

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

Outcome #4

1. Outcome Measures

of counties who adopt and implement at least one youth oriented Master Volunteer program.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	120

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Volunteers are the heart and hands of Extension programs and help extend the educational programs to the people of Texas. These volunteers also serve as mentors to youth.

What has been done

Volunteers have been trained through the 4-H Livestock Mentor Program and give back to the program by providing support to the youth livestock program. In 2011, more than 700 livestock mentors, representing 120+ counties, provided leadership to the youth livestock programs and mentored youth throughout their livestock project experience.

Results

Adult project leaders trained as 4-H Livestock Mentors have indicated an increase in their ability to:

- * better plan 4-H livestock project activities,
- * carry out leader responsibilities as a volunteer,
- * provide proper animal care through nutrition, shelter and illness prevention
- * lead others,
- * adjust to new situations, and
- * resolve conflict.

4. Associated Knowledge Areas

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

Outcome #5

1. Outcome Measures

of counties who adopt and implement youth and adult partnerships.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	250

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Youth-adult partnerships give youth and adults the opportunity to work together as a team, respect each other and work together for a common cause.

What has been done

Youth-adult partnerships have been established within Youth Boards in Texas counties. These partnerships are fostered through teamwork and board members working together with an equal voice to meet the needs of youth in the county. Five counties in Texas participate in the Engaging Youth, Serving Community program which supports the establishment of youth-adult partnerships, facilitating forums and issue discussion and planning a program to meet the issue needs identified.

Results

As a result of the youth-adult partnerships established within Youth Boards, youth and adults are learning to work together and respect each other while accomplishing a goal. Open-ended responses about youth-adult partnerships obtained from project outcomes evaluation instrument include:

- * Youth and adults have learned to respect each other.
- * Youth and adults take an equal, active role in planning meetings and activities.
- * Youth are leading program with adult support.
- * Youth are given the opportunity to be involved in giving input and make decisions.

- * Adults have learned to listen to youth's point of view, be sensitive to their abilities and work with them in equal roles.
- * The partnerships are teaching youth and to work with adults and learn to look at community issues.
- * Learning to get along with others; even learning to "agree to disagree".
- * Youth have a say in what programming is going to be conducted.
- * All are learning to cooperate to get things done.

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Other (No external factors affected this program for 2011.)

Brief Explanation

No external factors affected this program for 2011.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Various evaluations are conducted for individual volunteer and leadership development programs facilitated by the Texas AgriLife Extension Service. Evaluation results specific to these programs are summarized and included in each program report. The evaluations include after only, retrospective post and before-after.

Key Items of Evaluation

See outcomes.

V(A). Planned Program (Summary)

Program # 11

1. Name of the Planned Program

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
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	100%		100%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	0.0	3.0	0.0
Actual Paid Professional	7.0	0.0	2.7	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
91191	0	159041	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
91191	0	182050	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
799083	0	489037	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

County Extension Agents were provided training to become a qualified instructor for the Food Protection

Management (FPM) program. Additional training was provided/identified so instructors were able maintain their instructor qualification status per the Texas Department of State Health Services. The FPM program was implemented in counties across the state that have a County Extension Agent who is qualified to teach the program. Program materials were available in both English and Spanish.

The Certified Food Manager (CFM) course was evaluated examining the passage rate for the CFM exam.

The food handler's course was offered by qualified instructors (CEA-FCS) in both English and Spanish. An on-line (English language) was also offered. Pre and post knowledge surveys were used to evaluate the course.

2. Brief description of the target audience

Individuals who are employed in the commercial food service industry. This includes cooks, managers, and owners who are affiliated with foodservice establishments including restaurants, school food service, bed and breakfasts, prisons, and other establishments that prepare and serve food to individuals.

3. How was eXtension used?

eXtension was used to help identify professional development opportunities for Agents related to retail food safety.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	3723	53508	484	0

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

Patent Applications Submitted

Year: 2011

Actual: 1

Patents listed

* Maxim Electron Scatter Chamber

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	29	29

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2011	891

Output #2

Output Measure

- # of research-related projects.

Year	Actual
2011	22

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	FPM Pass/Fail Rate - percentage of participants who pass the DSHS Certified Food Manager exam on the first attempt.
2	Self-reported adoption of washing hands for 20 seconds using soap and hot water (% of participants who report practicing this behavior "always" after participating in the program).
3	Self reported increase in the adoption of using a thermometer to determine the doneness of food (percentage of participants who report practicing this behavior "always" after participating in the program).
4	Percentage of employees who clean and sanitize food contact surfaces and utensils between uses as a result of what they learned in the CFM program.
5	Percentage of employees who store raw foods below ready-to-eat foods in the refrigerator 'always' as a result of what they learn in the CFM course.
6	Percentage increase in knowledge as a result of completing the food handler's course.

Outcome #1

1. Outcome Measures

FPM Pass/Fail Rate - percentage of participants who pass the DSHS Certified Food Manager exam on the first attempt.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	79

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In Texas, every retail establishment that is inspected by the state health department must have a Certified Food Manager on site. In order to become a certified food manger, one must successful pass the CFM exam.

What has been done

In 2011, 751 individuals completed the Certified Food Manager course. This 14-hour course covers food safety from a retail perspective. Time and temperature control, HACCP, pest management, preventing cross contamination, and personal hygiene are some of the topics addressed. In addition, hands-on activities and discussion are used to help participants apply the knowledge gained to their own place of employment.

Results

At the end of the program, individuals take the CFM exam. The Texas Department of State Health Services discontinued using their own exam so we now offer two national exams (ServeSafe and Prometric). This allows individuals to transfer their CFM credential to other states. In 2011, 79% of the individuals passed the CFM exam on the first attempt. Although we did not conduct a follow-up survey to assess the extent to which targeted behaviors were being practiced in the workplace, a survey administered immediately after the program ended found that more than 88% of the participants felt "likely" or "very likely" that they would be able to practice the skills/knowledge they learned in the course.

4. Associated Knowledge Areas

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

Outcome #2

1. Outcome Measures

Self-reported adoption of washing hands for 20 seconds using soap and hot water (% of participants who report practicing this behavior "always" after participating in the program).

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Self reported increase in the adoption of using a thermometer to determine the doneness of food (percentage of participants who report practicing this behavior "always" after participating in the program).

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

Percentage of employees who clean and sanitize food contact surfaces and utensils between uses as a result of what they learned in the CFM program.

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

Percentage of employees who store raw foods below ready-to-eat foods in the refrigerator 'always' as a result of what they learn in the CFM course.

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

Percentage increase in knowledge as a result of completing the food handler's course.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	26

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

More than half of all foodborne illnesses are attributed to improper food handling in restaurants. Because almost half of our food dollars are spent on food prepared outside the home, food safety is a top concern among consumers. Therefore, food safety education is a critical prevention component for reducing the risk for foodborne diseases.

What has been done

Food Safety: It's in Your Hands is an accredited food handler's course offered by county Extension agents. The two-hour course focuses on reducing cross contamination and time/temperature abuse as well as personal hygiene. This course is also available on-line for on-demand completion.

Results

In 2011, 2395 individuals completed the food handler's program. Upon entry into the program, we assessed their knowledge of targeted food safety concepts via the use of a survey instrument. Mean score was 68. After the program ended, we assessed knowledge and found that the average score had improved to 86 which was a statistically significant increase.

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
- Appropriations changes
- Government Regulations
- Competing Public priorities

Brief Explanation

The cost of conducting a follow-up survey for the Certified Food Manager program

combined with the low participation rate observed in 2010/2011 led us to discontinue that portion of our evaluation process. However, for more than 3 years that the follow-up survey had been conducted we found similar results with respect to the adoption of targeted behaviors. We will continue to identify new ways to assess program impact that is both cost effective and meaningful.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Evaluation of the certified food manager program has historically been based on the pass-rate for the exam and the results of a follow-up survey sent to participants 6 weeks after the course was completed. The survey allowed us to assess the extent targeted behaviors had been adopted. Consistently, survey results demonstrated an improvement in these behaviors, but the response rate to the surveys began to diminish to the point that it became too expensive to continue this method of program evaluation (postage costs, costs of printing surveys, etc). Therefore, for 2011 we are using the pass-rate for the certified food manager exam along with knowledge change for the food handler program.

For the food handler program, we developed a survey instrument that assesses knowledge of core concepts of food safety. This survey is offered to the participants upon entry and again upon completion so change in knowledge can be determined.

Key Items of Evaluation

Food handler program: we found a statistically significant increase in knowledge from entry (mean score 68) to course completion (mean score 86).

Certified Food Manager program: we found the overall pass rate for the CFM exam was 79%.

V(A). Planned Program (Summary)

Program # 12

1. Name of the Planned Program

Food and Nutrition Education for Limited Resource Audiences

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	40%		0%	
704	Nutrition and Hunger in the Population	20%		0%	
801	Individual and Family Resource Management	40%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	57.0	0.0	0.0	0.0
Actual Paid Professional	57.0	0.0	0.0	0.0
Actual Volunteer	3.6	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
742559	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
742559	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
6506817	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Nutrition education was conducted using a variety of methods including group, individual, media, and newsletters. Group methods included single education events that focused on a very specific concept/behavior (e.g. washing fresh produce to reduce the risk of a foodborne illness) or a series of lessons that focused on broader concepts such as label reading or food resource management. Networking with agencies and organizations to expand outreach and identify new audiences also occurred.

2. Brief description of the target audience

The target audience for the Better Living for Texans program is primarily individuals who participate in the supplemental nutrition assistance program (food stamp). However, Texas has been granted waivers by USDA/FNS to include limited resource audiences. These audiences include: women receiving WIC benefits, children attending schools in which 50% or more of the children receive free or reduce meals; children and parents in Head Start programs; individuals receiving food at a food bank or food pantry; children who participate in the Summer Food Service Program; and individuals living in census tracks where 50% or more of the population is at 130% of the poverty level or below.

3. How was eXtension used?

eXtension was used at the local level to identify supporting resources to enhance educational programs.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	152241	211944	134657	0

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

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2011	9899

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Teams of BLT participants who enroll in Walk Across Texas will increase the number of miles walked by 15% at the end of the 8 week program.
2	Amount of monthly out-of-pocket food expenses reported saved by program participants.
3	The percentage of participants who use the food label to determine the amount of food to eat either "always," "almost always," or "sometimes" will increase.
4	The percentage of participants who shop with a list will increase.

Outcome #1

1. Outcome Measures

Teams of BLT participants who enroll in Walk Across Texas will increase the number of miles walked by 15% at the end of the 8 week program.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	15

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Regular physical activity has been shown to help with weight management, reduce one's risk for chronic disease (cardiovascular, type 2 diabetes, some forms of cancer), strengthen bones and muscles, and improve mental health. According to the Dietary Guidelines for Americans, it is recommended that adults engage in moderate-intensity physical activity for at least 150 minutes a week.

What has been done

Individuals who enroll in the Better Living for Texans program are provided information about the Walk Across Texas program and encouraged to participate.

Results

During 2011-12 year, 1496 BLT clients participated in the Walk Across Texas program and recorded their weekly miles. At the beginning of the program, participants walked an average of 22.15 miles per week. At the end of the 8-week program, the number of miles walked had increased to 26.03 (up 3.88 miles per week or 15%).

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #2

1. Outcome Measures

Amount of monthly out-of-pocket food expenses reported saved by program participants.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	29

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

According to the 2010 Consumer Expenditures Survey, households with the lowest incomes spend as much as 33% of their income on food. As food prices continue to rise, so does the challenge of preparing healthy meals on a budget. Adopting sound food resource management practices can help individuals and families stretch their resources so healthy food (or the ability to purchase food) is available for the entire month.

What has been done

Participants completing the Back to Basics program series learned how to plan healthy meals using MyPlate concepts. In addition, they learned sound shopping strategies (comparing prices, unit pricing, store vs. national brands, avoiding impulse buys, coupons) to get the most nutrition and food from their food resources, including their SNAP benefits. The goal is to help participants utilize their food resources in the most economical manner possible to help them save money.

Results

For the 1,015 participants who provided information on out-of-pocket monthly food expenses, the average was \$229.22. Thirty days after the program ended, those participants reported they were spending an average of \$199.91, a decrease of \$29.31. This change in out-of-pocket food expenses was determined to be statistically significant. For these 1,015 participants, if the reduction in out-of-pocket food expenses were not due to some economic hardship (e.g. loss of a job, unforeseen expense, or loss of SNAP benefits) then over the course of a year, the total dollar savings for these individuals could be as high as \$356,995.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #3

1. Outcome Measures

The percentage of participants who use the food label to determine the amount of food to eat either "always," "almost always," or "sometimes" will increase.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	300

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The health issues related to poor diet and excessive intakes of fat, sodium, and calories are significant and well documented. To help individuals improve their overall diet, tools like The Dietary Guidelines for Americans and MyPlate are available. These tools include specific recommendations for fat, sodium, and portion size to help improve the diets of most Americans.

What has been done

Get the Facts is a three-session series that teaches low-income individuals how to use the food label to select foods that are low in sodium, fat, and trans fat. In addition, emphasis is placed on using the food label to determine healthy food portions. Food demonstrations are also included to help teach participants how to use low-fat and low sodium foods to improve their diets at home.

Results

In a sample of individuals (n=803) who completed the BLT series Get the Facts, 22% of them reported using the food label to determine the amount of food to eat at the beginning but that percentage rose to 73% 30 days after the program ended. In addition, we saw increases in the percentage of individuals using label to check fat content (31% pre vs. 78% post) and sodium content (24% pre vs. 75% post). Overall, knowledge about food labels increased significant ($p < .001$) immediately after the program series ended. The knowledge gained was sustained when participants were contacted for a final follow-up survey more than 30 days later.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #4

1. Outcome Measures

The percentage of participants who shop with a list will increase.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	22

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Helping limited-resource individuals and families stretch their food dollars so food is available in the home for the entire month can be a daunting task during these economically challenged times. Adopting source food resource management practices such as shopping with a list, comparing prices, and using unit pricing can help individuals and families get the most nutrition for their dollar while assuring that food is available from one pay period to the next.

What has been done

The Back to Basics program series is designed features the principles of food resource management, meal planning and food safety. Low-income audiences who complete this program learn how to manage their food dollars (which include SNAP benefits and cash) to reduce the likelihood of running out of food before the end of the month. Participants learn how to plan their meals and develop their shopping list to get the most nutrition for their dollar.

Results

In a sample of 1233 individuals who completed the pre, post, and 30-day follow-up surveys, we found that the percentage of individuals who shopped with a list "always" or "sometimes" rose from 80% (n=992 for pre-survey) to 98% (n=1204 for 30-day follow-up). Equally important was the finding that the percentage who "never" shopped with a list fell from a pre-survey of 18% (n=220) to less than 2% (n=19) thirty days after the program ended.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

All of our goals were met for 2011. However, there are a number of external factors that impact our program delivery and the outcomes. These factors include but are not limited to the motivation of the target audience to change behaviors, the ability of the target audience to have access to healthy foods at reasonable prices, and transportation to get to grocery stores/food outlets, and Extension programs.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Individuals coming to our Better Living for Texans program series (Get the Facts, Back to Basics) are invited to complete a pre, post and thirty-day follow up survey. The pre and post surveys are used to assess participants' intent to change targeted behaviors while the thirty-day follow-up survey helps assess the extent to which target behaviors were adopted. In addition to the results identified above, we also noted the following:

The percentage of individuals who planned their meals in advance "always" or "sometimes" rose from an entry point of 85% (n=1043) to 99% (n=1220) thirty days later. The percentage using unit pricing "always" or "sometimes" to help identify economical food buys rose from an initial 58% (n=710) to 92% (n=1132) thirty-days after the program ended.

Key Items of Evaluation

The estimated reduction in out of pocket food expenses was determined to be \$29.31 per month for those individuals who completed the Back to Basics series. While it is possible that changes in income or unforeseen expenses played a role in the decline we did not find any significant increase in the use of SNAP, WIC, TANF benefits among those individuals who reported their out-of-pocket food expenses. In addition, we did not find an increase in the use of emergency food resources (e.g. food banks or pantries), which suggests that this program is helping individuals save more money without compromising their household food security.

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

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	45.0	0.0	25.0	0.0
Actual Paid Professional	38.0	0.0	22.6	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
495039	0	1582162	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
495039	0	2778128	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
4337878	0	2716647	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Research as well as group and individual education was conducted 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.

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.

3. How was eXtension used?

The Texas AgriLife EDEN disaster management website is linked to the National EDEN website and the eXtension network. Animal Science faculty developed educational materials dealing with management of livestock during and following catastrophic events such as wildfires, drought and floods.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	31275	251028	6921	0

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

Patent Applications Submitted

Year: 2011

Actual: 1

Patents listed

* Controlled Release Vaccines and Methods of Treating Brucella Diseases and Disorders

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	10	543	553

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2011	922

Output #2

Output Measure

- # of research-related projects.

Year	Actual
2011	143

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	Actual
2011	80

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 TAMU Beef Cattle Short Course, Texas Beef Quality Producer, Beef and Pork 101, Beef 706, Beef 2025, Bull Selection, Low-Stress Livestock Handling, Stockmanship schools, Southwest Dairy Conference, Livestock management during and following wildfires and drought. Youth programs included the 38th Annual Summer Horsemanship Schools, Lamb/Goat Camps and Judging camps for Beef Cattle, Horses, and Sheep. In addition to specialist driven programs listed above Animal Science Extension faculty support producer education through delivery of educational programs at 1036 county programs

Results

From measures including beef/dairy cattle, sheep/goats, horses and meats, 65% to 100% reported adoption of at least one best management practice. 68% to 94% expected to increase income or profitability by adoption of best management practices. 55% to 96% reported elimination of non-productive practices. 66% implemented financial plans, 68% hay analysis, 82% reported use of cost/lb of nutrient strategies for alternative feedstuffs and 92% use 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	Actual
2011	85

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 conducted include TAMU Beef Cattle Short Course, Texas Beef Quality Producer, Beef and Pork 101, Beef 706, Beef 2025, Bull Selection, Low-Stress Livestock Handling, Stockmanship schools, Southwest Dairy Conference, Livestock management during and following wildfires and drought. Youth programs included the 38th Annual Summer Horsemanship Schools, Lamb/Goat Camps and Judging camps for Beef Cattle, Horses, and Sheep. In addition to specialist driven programs listed above Animal Science Extension faculty support producer education through delivery of educational programs at 1036 county programs

Results

68% to 100% reported improved decision making ability. 67% to 100% reported increased confidence in management ability. 92% indicated knowledge gains of 41% to 85% for livestock management following drought and wildfires, cattle handling, food safety control, environmental management, financial management during drought, livestock evaluation and general livestock and ranch 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	Actual
2011	55

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Animal management systems must go beyond striving to improve quality of life, quality of production and increased knowledge to achieve a level of sustainability. For production systems to be sustainable they must be profitable. To improve profitability income needs to increase and costs need to be lowered or controlled.

What has been done

Economic benefit was measured from responses from participants in the TAM Beef Cattle Shortcourse, Small Landowner Conferences, Beef Quality Assurance programs, Southwest Beef Symposium, Reproductive Management, Cattle Handling and Dairy Programs.

Results

45% to 100% of the participants in these programs indicated they would benefit economically through adoption of management practices outlined in these programs. Participants in the small landowner programs indicated an expected increase in income of \$10.60 per head. Participants in Quality Assurance programs indicated increased income from \$30 to \$99 per head. Reproductive management practices on beef and dairy operations indicated returns of \$35 to \$70 per head. Economic impact across the livestock sector is projected to be between and \$1.5 and \$20 million from adoption of management practices.

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

Livestock ownership, production and use in Texas has been influenced by natural disasters such the driest year on record and the second hottest year on record. Weather related challenges such as one of the worst wildfire seasons in recorded history occurred at the same time as record drought continue to alter program delivery and adoption of some management practices. Routine management of livestock has been influenced and significant need exists for education in emergency and alternative management plans. Production costs and incentives for livestock production, management, and use are influenced by economic changes. Higher fuel prices, agriculture valuation, feed costs and health care costs are all factors. Public policy changes and government regulations

challenge educators to provide up-to-date, neutral information that helps livestock participants make decisions. Population shifts and use of available land for productive and meaningful livestock production bring opportunities and challenges to livestock owners/producers/users and the associations/corporations/groups that make up this diverse industry.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

45% to 100% of the participants in these programs indicated they would benefit economically through adoption of management practices outlined in these programs. Participants in the small landowner programs indicated an expected increase in income of \$10.60 per head. Participants in Quality Assurance programs indicated increased income from \$30 to \$99 per head. Reproductive management practices on beef and dairy operations indicated returns of \$35 to \$70 per head. Economic impact across the livestock sector is projected to be between and \$1.5 and \$20 million from adoption of management practices.

Key Items of Evaluation

See outcome measures.

V(A). Planned Program (Summary)

Program # 14

1. Name of the Planned Program

Life Skills 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%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	65.0	0.0	0.0	0.0
Actual Paid Professional	120.0	0.0	0.0	0.0
Actual Volunteer	112.0	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
1563281	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1562281	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
13698561	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Life Skills

This program is based on five learning experiences, of a minimum of 30 minutes each, tied to the work of the project for which they participate. Each project is experientially focused. Examples of activities include

workshops, demonstrations, and hands-on experiences.

Numerous materials and support are provided by the Texas 4-H faculty to agents and specialists. These items are used for implementation of projects and for professional development of staff. Use of volunteers is significant in enhancing and extending efforts to reach and provide youth with positive experiences.

Character Education

Extension agents will form coalitions of community organizations to deliver character education to young people and adults and will train other adults as teachers for a variety of community groups and organizations as well. Character education will be delivered through the 4-H program, public and private schools and school-based clubs, juvenile courts and probation, activities directed to at-risk youth, sports programs, youth livestock activities and job skills and workforce training.

Youth Leadership and Out of School

The following activities will be used to conduct the Out of School Time program:

- Provide training for Extension professionals on collaborating with out of school programs, establishing 4-H clubs in after-school programs, and after-school curriculum resources.
- Write model outcome plan for 6-8 grade after-school curriculum.
- Establish collaborations between county 4-H programs and out of school programs.
- Extension educators conduct training for out of school programs in youth development, curriculum resources, and establishing 4-H clubs in out of school programs.
- Evaluate youth involved in out of school time programs on their development of life skills.

2. Brief description of the target audience

Life Skills

All youth of 4-H age are targeted for programs depending on location, issues identified by the local communities, and programs of interest.

Character Education

County Extension Agents, Ag Science teachers, youth 5 -19, volunteer leaders, parents, schools, community education and service organizations.

Youth Leadership and Out of School

The following groups are the target audience for this program:

- Youth in Texas involved in out of school time programs and activities
- Extension educators
- Out of school time educators and programs.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	85483	3671982	253491	0

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

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2011	12185

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	% of youth who increase knowledge of life skills concepts and practices.
2	% of youth who report they have adopted life skills concepts and practices.
3	% of youth who plan to pursue higher education interest or career interest as a result of their project work.
4	% of youth who report abilities (skills) changed as a result of participation in character education programs.
5	% of youth who plan to adopt character practices as a result of participation in character education programs.
6	% of youth who report an increased knowledge of character education principles.
7	% of 4-H club participants increasing knowledge in leadership.
8	# of new 4-H clubs established.
9	# of outcome plans conducted by agents in leadership.
10	% of 4-H club participants applying leadership skills.

Outcome #1

1. Outcome Measures

% of youth who increase knowledge of life skills concepts and practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Youth today need to be a part of programs that teach life skills to help prepare them for adulthood. Every single program and project offered by Texas 4-H and Youth Development is focused on teaching youth life skills in the areas of accepting responsibility, decision making, public speaking, listening skills, and team work.

What has been done

Over 60,000+ youth participated in 4-H community and project clubs across Texas during 2011. As a part of this experience, these young people learn responsibility, decision making, public speaking, listening skills, and team work. This is done through 4-H club meetings and more importantly, through the 4-H Livestock project experience.

Results

78% believe their knowledge level of different marketing strategies is good or excellent.

97% believe their understanding of different leadership styles is good or excellent.

85% believe their understanding of the purpose and principles of parliamentary procedure is good or excellent.

67% believe their knowledge of how to build an agenda for a business meeting is good or excellent.

96% believe they can define leadership and leadership qualities

94% believe they have developed or improved their teamwork skills.

76% believe they are a better manager of conflict and how to apply different management styles to conflict.

86% believe they can use creativity to brainstorm and come up with the best solution to a problem.

86% believe they can effectively participate in a business meeting using correct parliamentary procedure.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2

1. Outcome Measures

% of youth who report they have adopted life skills concepts and practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Youth today need to be a part of programs that teach life skills to help prepare them for adulthood. Every single program and project offered by Texas 4-H and Youth Development is focused on teaching youth life skills in the areas of accepting responsibility, decision making, public speaking, listening skills, and team work.

What has been done

Over 60,000+ youth participated in 4-H community and project clubs across Texas during 2011. As a part of this experience, these young people learn responsibility, decision making, public speaking, listening skills, and team work. This is done through 4-H club meetings and more importantly, through the 4-H Livestock project experience.

Results

83% said they have or plan to implement a community service/service learning project.
82% said they often think about doing things so people in the future can have things better.
94% believe it is important to them to contribute to their community and their society.
50% believe that if they had to choose between helping to raise money for a neighborhood project and enjoying their free time, they would help support their neighborhood.

4. Associated Knowledge Areas

KA Code **Knowledge Area**
806 Youth Development

Outcome #3

1. Outcome Measures

% of youth who plan to pursue higher education interest or career interest as a result of their project work.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Texas 4-H has been working to establish new career based programs and camps for older youth. As a program, this has become a priority because we are losing older (high school aged) youth and we want to implement strategies to incentivize them to stay with the 4-H program. In the last year, we have implemented an outdoor camp and a health map in an effort to teach based career and higher education opportunities to these youth.

What has been done

MASH CAMP. MASH Camp is a hands-on learning experience that allows youth to learn about careers in the medical, athletic training, safety and health fields. During the three-day, two-night camp, youth participated in activities with the Texas A&M Athletic Department, Texas A&M College of Veterinary Medicine, College of Medicine and Health Science Center to explore and discover career opportunities. The camp was offered to youth enter the 7th, 8th or 9th grade and those who had completed the 9th grade in the 2010-2011 school year. Membership in the 4-H program was not a requirement for participation in MASH Camp.

Results

There was a 73% knowledge increase related to careers in the field of first responders.
There was a 65% knowledge increase related to careers in the field of emergency managers.
There was a 58% knowledge increase related to careers in the field of athletic training.
There was a 46% knowledge increase related to careers in the field of medical field.
There was a 39% knowledge increase related to careers in the field of veterinary medicine.

Before participating in MASH Camp, 48 (75%) indicated they planned to explore a health or

medical related career and after participating in MASH Camp, 54 (84.4%) indicated they planned to explore a health or medical related career.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #4

1. Outcome Measures

% of youth who report abilities (skills) changed as a result of participation in character education programs.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Character education is pinnacle to the 4-H Program. The purpose of character education is to teach youth responsibility, respect, caring, and trustworthiness. Character education is taught through programs like Take a Stand, Texans Building Character, and Quality Counts.

What has been done

In 2011, thirty counties in Texas implemented the outcome program ?Take a Stand.? This is a program that addresses bullying through character education. The 40 lesson series teaches youth why bullying is wrong and uses character education to do so. There is a curriculum for 2-5th graders, 6-8th graders, and 9-12th graders.

Results

- 81.7% can recognize signs of anger in themselves and others and know how to control it.
- 79.4% can accept and understand consequences of violence.
- 78.2% can explain their point of view to others.
- 84.2% can listen to other points of view.
- 70.5% can compromise to solve conflict.
- 89.8% respect others.
- 80.8% practice good manners.

- 86.1% are a good team member when working with a group.
- 85.6% can work with others to make decisions.
- 77.5% can identify ways people are alike and different.
- 84.2% respect customs and traditions of others.
- 89.8% were satisfied with the program.
- 94.2% felt that the activities were enjoyable.
- 86.0% felt that the information was easy to understand.
- 88.3% were satisfied with the range of topics covered.
- 88.3% were satisfied with the instructor's response to questions.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #5

1. Outcome Measures

% of youth who plan to adopt character practices as a result of participation in character education programs.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Character education is pinnacle to the 4-H Program. The purpose of character education is to teach youth responsibility, respect, caring, and trustworthiness. Character education is taught through programs like Take a Stand, Texans Building Character, and Quality Counts.

What has been done

In 2011, thirty counties in Texas implemented the outcome program ?Take a Stand.? This is a program that addresses bullying through character education. The 40 lesson series teaches youth why bullying is wrong and uses character education to do so. There is a curriculum for 2-5th graders, 6-8th graders, and 9-12th graders.

Results

- 55.6% always or often can identify the characteristics of a bully.
- 67.9% always or often avoids becoming a bully.
- 45.9% always or often uses communication to work out problems.
- 34.1% always or often uses peer mediation to avoid conflict.
- 47.9% always or often can identify a cyberbully.
- 65.9% always or often avoids using cyberbullying to deal with conflict.
- 55.6% always or often can identify roles of team members.
- 46.9% always or often uses teamwork to solve problems.
- 74.0% always or often appreciates people for their differences.
- 67.6% always or often will get to know someone before judging them.
- 76.0% were completely or mostly satisfied with the program.
- 73.3% completely or mostly felt that the activities were enjoyable.
- 77.2% completely or mostly felt that the information was easy to understand.
- 74.5% were completely or mostly satisfied with the range of topics covered.
- 80.9% were completely or mostly satisfied with the instructor's response to questions.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #6

1. Outcome Measures

% of youth who report an increased knowledge of character education principles.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	90

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Character education is pinnacle to the 4-H Program. The purpose of character education is to teach youth responsibility, respect, caring, and trustworthiness. Character education is taught through programs like Take a Stand, Texans Building Character, and Quality Counts.

What has been done

For this particular measure, the results of Quality Counts are provided below. Quality Counts is a curriculum to teach youth character education through 4-H livestock projects. In 2011, all 4-H and FFA youth exhibiting livestock projects were required to go through a Quality Counts Program in Texas either face-to-face or online.

Results

Over 38,000 4-H and FFA youth passed the exam on Quality Counts. This was an online exam measuring knowledge of character education and quality assurance with livestock projects. In order to pass, the youth had to correctly answer 80% of the exam questions.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #7

1. Outcome Measures

% of 4-H club participants increasing knowledge in leadership.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

It is important for young people to develop and gain leadership life skills as youth to grow into successful, contributing members of society in adulthood. The 4-H & Youth Development program prides itself on teaching these leadership skills to its youth members involved in the program. Youth are able to develop these skills at numerous activities and events conducted at the county, district, and state levels.

What has been done

Each June, the District 4-H & Youth Development programs offers a three-day, two night event called Leadership Lab as a tool to further teach and develop the life skills of our teenage 4-H members. The following workshops and activities were offered to the participants: parliamentary procedure, team building and problem solving, diversity, agriculture and agriculture product identification, and science. The workshops and activities were primarily conducted by the District

4-H Council Officer Team under the direction of the agent advisors.

Results

- 37% increase in knowledge regarding public speaking
- 32% increase in knowledge regarding strengths based leadership
- 28% increase in knowledge regarding teamwork
- 27% increase in knowledge regarding responsibilities of being a leader
- 26% increase in knowledge regarding parliamentary procedure
- 25% increase in knowledge regarding how to cooperate with others

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #8

1. Outcome Measures

of new 4-H clubs established.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	2300

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Studies reveal that the most meaningful 4-H experience for youth is when they participate in a club program. These clubs are typically established as project or community clubs and are aimed to teach youth about their projects. However, the main purpose of these clubs are to teach youth how to conduct meetings, build confidence, and for them to learn parliamentary procedure.

What has been done

In September 2011, Texas 4-H initiated the new 4-H year. Over 2,300 clubs were chartered through a club manager. In addition, County Extension Agents and 4-H club managers were trained on how to organize, lead, and manage these clubs. Some of the training results are noted below.

Results

54 (96%) volunteers indicated they feel like what they learned at the training provides them with the knowledge and ability to be a better 4-H volunteer.

53 (95%) volunteers indicated they would participate in another training.

51 (91%) volunteers have used and/or shared the information acquired from the training. In addition, 5 (9%) indicated they plan to share the information acquired from the training.

The most significant things learned at the conference on club management included: how to be a club manager, networking and interacting with other volunteers, recordbooks, and clothing.

Items shared with other club managers back in their counties included: general club management information, how to conduct a meeting, recordbook changes, strategies to recruit new 4-H members.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #9

1. Outcome Measures

of outcome plans conducted by agents in leadership.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	15

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

One of the major issues identified in the latest Leadership Advisory Board Issue Validation in Texas AgriLife Extension was community leadership. This was especially noteworthy in rural and urban counties. The perception behind the issue is that people are simply moving into leadership positions, but may not have the necessary tools to lead. Programs were designed by Texas AgriLife Extension to address this issue.

What has been done

Fifteen counties (Kaufman, Zavala, Bandera, Rockwall, Dallas, Harrison, Hunt, Cherokee, Bexar, Denton, Anderson, Cass, Wilbarger, Collin and Comal) conducted outcome programs in leadership. This included programs with youth and adults aimed to teach best practices associated with leadership. Topics include visioning, planning, teamwork, group dynamics, interpretation, parliamentary procedure, teamwork, and volunteer development.

Results

- 87.0% greatly increased how they show respect for others and their feelings
- 78.8% greatly increased how they cooperate with others
- 77.5% greatly increased their positive attitude towards others
- 71.2% greatly increased how well they listen to what others have to say
- 67.5% greatly increased completing their obligations & following through with promises

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #10

1. Outcome Measures

% of 4-H club participants applying leadership skills.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	85

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

It is important for young people to develop and gain leadership life skills as youth to grow into successful, contributing members of society in adulthood. The 4-H & Youth Development program prides itself on teaching these leadership skills to its youth members involved in the program. Youth are able to develop these skills at numerous activities and events conducted at the county, district, and state levels.

What has been done

Each June, the District 4-H & Youth Development programs offers a three-day, two night event called Leadership Lab as a tool to further teach and develop the life skills of our teenage 4-H members. The following workshops and activities were offered to the participants: parliamentary procedure, team building and problem solving, diversity, agriculture and agriculture product identification, and science. The workshops and activities were primarily conducted by the District 4-H Council Officer Team under the direction of the agent advisers.

Results

93.6% respondents indicated they feel more confident in their abilities as a leader.

92.0% respondents indicated they feel more confident in making decisions.

91.9% respondents indicated they feel more confident in their ability to use problem solving skills as part of a team to reach a common goal.

91.1% respondents indicated they feel more confident in their ability to use parliamentary procedure.

91.1% respondents indicated they feel more confident in serving in a leadership role in their county.

90.4% respondents indicated they feel more comfortable working in a team.

87.2% respondents indicated they feel more comfortable speaking with others.

79.2% respondents indicated they feel more confident with public speaking.

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 Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

For 2011, all measures were met. Like most states, we have been going through budget cuts and losses in personnel. In 4-H, we have lost key specialists that have moved to other jobs. One specifically was able to return to her home state and be much closer to home.

We also implemented a 4-H membership fee of \$20 for 4-H members.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

We continue to place a high priority on 4-H outcomes. This will continue in the areas outlined in this report.

Highlights include:

Foods and Nutrition

Participants also indicated the following changes in behavior based on what they learned and as a result of participating in the 4-H Foods and Nutrition Program.

- 1,072 (81.3%) have changed the way they handle and prepare food.
- 980 (74.3%) have made healthier food choices.
- 880 (66.7%) have planned or prepared a recipe at home.
- 645 (48.9%) have altered a recipe according to dietary needs.

Participants also revealed the following perceived changes in behavior as a result of participating in the Foods and Nutrition Program.

- 1,241 (94.1%) have the ability to make better leadership decisions.
- 1,064 (80.6%) are more comfortable working in a team.
- 992 (75.2%) are more willing to listen to others.
- 958 (72.6%) are more comfortable serving in a leadership role.
- 937 (71.0%) plan to do a better job of following through on obligations.
- 879 (66.6%) are more comfortable with speaking with others.

Healthy Lifestyles Evaluation

- (93.8%) participants were completely or mostly satisfied with MASH Camp.
- (93.8%) participants were completely or mostly satisfied with the activities at the Student Recreation Center.
- 60 (93.8%) participants were completely or mostly satisfied with the Health Science Center Simulations.
- (92.2%) participants were completely or mostly satisfied with the College of Medicine tour.
- (89.0%) participants were completely or mostly satisfied with the Disaster City experience.
- (78.1%) participants were completely or mostly satisfied with the MASH Olympics.
- (73.4%) participants were completely or mostly satisfied with the sports medicine/athletic training facility tour.
- (71.9%) participants were completely or mostly satisfied with the A&M campus tour.
- (62.5%) participants were completely or mostly satisfied with the Veterinary Medicine session.

Leadership Development

As a result of participating in Leadership Programs:

- (78%) believe their knowledge level of different marketing strategies is "good" or "excellent."
- (97%) believe their understanding of different leadership styles is "good" or "excellent."
- (85%) believe their understanding of the purpose and principles of parliamentary procedure is "good" or "excellent."
- (67%) believe their knowledge of how to build an agenda for a business meeting is "good" or "excellent."
- (96%) believe they can define leadership and leadership qualities
- (94%) believe they have developed or improved their teamwork skills.
- (76%) believe they are a better manager of conflict and how to apply different management styles to conflict.
- (86%) believe they can use creativity to brainstorm and come up with the best solution to a problem.

- (86%) believe they can effectively participate in a business meeting using correct parliamentary procedure.

The following questions provide insight on the participant's feelings about service and helping others.

- 83% said they have or plan to implement a community service/service learning project.
- (82%) said they often think about doing things so people in the future can have things better.
- (94%) believe it is important to them to contribute to their community and their society.
- (50%) believe that if they had to choose between helping to raise money for a neighborhood project and enjoying their free time, they would help support their neighborhood.
- (69%) said getting to know people who are different than me is "important" or "very important."
- (99%) said helping other people is "important" or "very important."
- (95%) said giving time and money to make life better for other people is "important" or "very important."
- (95%) said helping to make sure all people are treated fairly is "important" or "very important."

Youth Bullying Prevention

Behavior Changes

The 3-5th grade Participants indicated the following results because of what they experienced and learned from the Take A Stand Pilot Program:

- (81.7%) can recognize signs of anger in themselves and others and know how to control it.
- (79.4%) can accept and understand consequences of violence.
- (78.2%) can explain their point of view to others.
- (84.2%) can listen to other points of view.
- (70.5%) can compromise to solve conflict.
- (89.8%) respect others.
- (80.8%) practice good manners.
- (86.1%) are a good team member when working with a group.
- (85.6%) can work with others to make decisions.
- (77.5%) can identify ways people are alike and different.
- (84.2%) respect customs and traditions of others.
- (89.8%) were satisfied with the program.
- (94.2%) felt that the activities were enjoyable.
- (86.0%) felt that the information was easy to understand.
- (88.3%) were satisfied with the range of topics covered.
- (88.3%) were satisfied with the instructor's response to questions.

The 6-8th grade participants indicated the following results because of what they experienced and learned from the Take A Stand Pilot Program:

- (55.6%) "always" or "often" can identify the characteristics of a bully.
- (67.9%) "always" or "often" avoids becoming a bully.
- (45.9%) "always" or "often" uses communication to work out problems.
- (34.1%) "always" or "often" uses peer mediation to avoid conflict.
- (47.9%) "always" or "often" can identify a cyberbully.

- (65.9%) "always" or "often" avoids using cyberbullying to deal with conflict.
- (55.6%) "always" or "often" can identify roles of team members.
- (46.9%) "always" or "often" uses teamwork to solve problems.
- (74.0%) "always" or "often" appreciates people for their differences.
- (67.6%) "always" or "often" will get to know someone before judging them.
- (76.0%) were "completely" or "mostly" satisfied with the program.
- (73.3%) "completely" or "mostly" felt that the activities were enjoyable.
- (77.2%) "completely" or "mostly" felt that the information was easy to understand.
- (74.5%) were "completely" or "mostly" satisfied with the range of topics covered.
- (80.9%) were "completely" or "mostly" satisfied with the instructor's response to questions.

Key Items of Evaluation

See outcomes and information above.

V(A). Planned Program (Summary)

Program # 15

1. Name of the Planned Program

Crop and Forage Production Systems

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%	
202	Plant Genetic Resources	10%		10%	
205	Plant Management Systems	20%		20%	
211	Insects, Mites, and Other Arthropods Affecting Plants	10%		10%	
212	Pathogens and Nematodes Affecting Plants	10%		10%	
213	Weeds Affecting Plants	10%		10%	
216	Integrated Pest Management Systems	30%		30%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	58.5	0.0	99.0	0.0
Actual Paid Professional	71.0	0.0	76.2	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
924941	0	4909001	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
924941	0	10035293	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
8104982	0	12450229	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension

AgriLife Extension plays a key role in the development of programming, translational research and field demonstrations of emerging technologies for crops and forages. Crop production (including hay) in Texas results in annual gross revenues of over \$10 billion. Monetary value is not typically placed on forages apart from their contribution to the grazing animals which consume them, but they are the primary component of the diets of cattle, sheep and goats (>70%), which collectively account for more than 8 billion in annual sales. Extension education in crops and forages involves many faculty across the agency and programming in every county. Agents and specialists work in very diverse climates and cropping systems, ranging from rice fields of east Texas to cotton, dryland wheat and stocker cattle operations in the High Plains; from sugarcane and cotton in the Rio Grande Valley to bermudagrass pastures in East Texas. Major educational efforts cover cotton, corn, sorghum, rice, wheat, sorghum, peanut, bermudagrass, sunflowers, biofuels feedstocks, oilseeds, silage and hay crops, vegetable crops and turfgrass.

Examples of successful programming include:

Drought tolerant corn: As irrigation water for crops becomes more limited due to depletion or regulation, the importance of developing drought tolerant corn hybrids, along with the cultural practices to best utilize them, will be critical in Texas. In 2011, AgriLife Research and Extension scientists initiated a project to examine the newly released first generation drought tolerant corn hybrids under different irrigation levels and seeding rates. Irrigation levels ranged from 14 to 29 inches of water during the season. One of the drought tolerant hybrids yielded 10 bu/acre more than the conventional hybrid under limited irrigation. Approximately 190,000 acres in the northern Texas High Plains were abandoned due to stress from the 2011 drought. If these abandoned acres could have been salvaged by planting a drought tolerant hybrid, the economic benefit of the 10 bu/acre increase alone would have been worth \$11.9 million to the area economy. Results from these studies were presented at 16 regional meetings to approximately 1,250 producers.

Winter Pastures for Central and East Texas: The Winter Pastures program is a one-day program focused on providing information on selection, establishment and management of winter pastures. Practical suggestions, research results, and the knowledge needed to effectively incorporate winter pastures into an operation were provided. An interactive demonstration of USDA web soil survey tool was conducted to illustrate how to create a custom soil and production map of property. The program included discussions on utilization and grazing strategies, transitioning from winter to spring forages, bloat and grass tetany prevention and appropriate mineral supplementation.

Attendees increased knowledge on winter pasture establishment, including cost associated, utilization, prevention of bloat & grass tetany, by 100%. Survey results indicate a significant increase in practices per participant soon to be adopted and a fairly significant economic impact (80% agreed that this particular program would have an economic impact on their operation).

Responding to Higher Fertilizer Prices: Fertilizer prices rose sharply in early 2011, placing greater input cost pressure on agricultural production systems in Texas. In response, a series of 13 educational programs were delivered to agricultural producers of cotton, corn and grain sorghum in the High Plains, Rolling Plains and Blackland Regions of Texas. The primary focus of these programs was efficient use of fertilizer through soil testing, with special emphasis on deep profile sampling for nitrogen; the most needed and most expensive plant nutrient.

Results from over 10 years of research were presented which demonstrate that crediting of residual soil nutrients can save growers an average of \$13 to \$18 per acre. Additional advantages for cotton producers include reduced need for growth regulators, insecticides and defoliants, and reduced risk through earlier crop harvest. A total of 935 producers participated in these events receiving approximately 1,120 contact hours.

PALMAN novice landowner workshop has high scores: The Pasture and Livestock Management Workshop (PALMAN) focused on providing information on soil fertility, forage establishment, management, and utilization. The workshop provides information that is relevant and valuable to both novice and more experienced producers.

Surveys indicate that landowners attending PALMAN workshop increased knowledge on best management practices by 100%. In the 2011 survey, results indicate a significant increase in practices soon to be adopted; cost savings (\$4,111); increased revenues expected (\$6,750). The benefit to cost ratio based on registration fee of \$350 was 52:1.

Twenty six face to face and 12 electronic sessions provided training and program materials to 879 attendees to assist County Extension Agents in conducting educational programs on crops and forages at the county level. Technical assistance is provided to agents by specialists in the area of result demonstrations, field diagnosis and applied research. Provide multi-county, regional and statewide educational programs via specialist faculty to various stakeholders. Coordinate and collaborate with state and federal agencies in crop and forage activities (Texas Department of Agriculture, US-EPA, USDA-ARS, Texas State Soil and Water Conservation Board, USDA-NASS, Texas Commission on Environmental Quality, others).

AgriLife Research

Texas is diverse in climate with a corresponding diversity in crops and forages production systems by its farmers and ranchers. Texas AgriLife Research has a correspondingly diverse effort in crop and forage production systems research. Some highlights for ongoing research efforts include:

- Crop forage and turfgrass breeding are major efforts with programs in cotton, wheat, sorghum, corn, rice, turfgrass, a variety of vegetable and fruit crops, perennial forage and biofuel feedstocks, peanut and others. Texas A&M wheat varieties are planted on more acres in the U.S. than those from any other program.
- These breeding programs are complemented with the development of molecular technologies to introgress important traits such as drought and pest resistance.
- New technology is being developed for deficit irrigation in turfgrass to reduce summer water demand in urban areas.
- Other scientists are developing in-field sensing technologies for drip irrigation to maximize yield and

production efficiency with crop irrigation water.

- Aflatoxin continues to be a major limiting factor in corn production. Research is taking multiple roads to ameliorate this problem including plant breeding and use of atoxogenic strains of *A. flavus*.
- Gossypol limits cottonseed use as a functional feed and food crop. We are making good progress in developing no and low gossypol cottonseed through transformation and RNAi blocking technologies.
- Scientists have had success in defining cereal quality parameters for sorghum and wheat. Of particular interest are advances in tortilla quality for wheat.
- A paper was published defining the contribution of turfgrass and woody plants in water use in the landscape.
- The efficient utilization of biochar may be the key to the development of a lignocellulosic biofuels industry in the state. We are completing a major study defining the quality of this product as a fertilizer for crops and forages.

2. Brief description of the target audience

The target audience for this program consists of agricultural producers who produce food, fiber, and forages in the state. Specific focus is on those commodities listed in the program overview. In addition, these programs are interpreted to the urban public through various methods.

3. How was eXtension used?

AgriLife Extension faculty participate in the major crop and forage related COPs, contributing to publications and content.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	42599	553909	1773	0

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

Patent Applications Submitted

Year: 2011

Actual: 6

Patents listed

- * Stem-Regulated, Plant Defense Promoter and Uses Thereof in Tissue-Specific Expression in Monocots
- * Uses of Bran from Tannin and Black Sorghum as a Cocoa extender and Natural Colarant
- * Oligomer-based Cellular Targeting Systems
- * Cotton Plant with Seed-Specific Reduction in Gossypol
- * Compositions, Organisms, Systems, and Methods for Expressing a Gene Product Plants
- * Potato Transformation Compositions, Systems, Methods, Microorganisms, and Plants

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	1261	1261

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2011	1929

Output #2

Output Measure

- # of research-related projects.

Year	Actual
2011	232

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	% of crop and forage producers that adopt or plan to adopt best management practices to improved quality and profitability.
2	% of crop and forage producers that report increased knowledge of best management practices to improve quality and profitability.

Outcome #1

1. Outcome Measures

% of crop and forage producers that adopt or plan to adopt best management practices to improved quality and profitability.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	80

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Winter Pastures program is a one-day program focused on providing information on selection, establishment and management of winter pastures. Practical suggestions, research results, and the knowledge needed to effectively incorporate winter pastures into an operation were provided. An interactive demonstration of USDA web soil survey tool was conducted to illustrate how to create a custom soil and production map of property. The program included discussions on utilization and grazing strategies, transitioning from winter to spring forages, bloat and grass tetany prevention and appropriate mineral supplementation. Most livestock operations are based on warm season perennial grasses. These operations require supplemental feed during the winter months. The use of quality winter pastures provides a high quality feed source with a significantly reduced cost of external feed sources.

What has been done

A regional winter pasture workshop provided BMPs for planting, management and grazing of winter pastures. Central and East Texas were in great need of winter pastures as hay supplies were non-existent due to a record drought during the spring and summer.

Results

Attendees increased knowledge on winter pasture establishment, including cost associated, utilization, prevention of bloat & grass tetany, by 100%. Survey results indicate a significant increase in practices per participant soon to be adopted as well as a significant economic impact (80% agreed that this particular program would have an economic impact on their operation).

4. Associated Knowledge Areas

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

102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
216	Integrated Pest Management Systems

Outcome #2

1. Outcome Measures

% of crop and forage producers 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	Actual
2011	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Most livestock operations are based on warm season perennial grasses. These operations require supplemental feed during the winter months. The use of quality winter pastures provides a high quality feed source with a significantly reduced cost of external feed sources.

What has been done

A regional winter pasture workshop provided BMPs for planting, management and grazing of winter pastures. Central and East Texas were in great need of winter pastures as hay supplies were non-existent due to a record drought during the spring and summer.

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KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
205	Plant Management Systems
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212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
216	Integrated Pest Management Systems

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

Brief Explanation

The worst drought in recorded history impacted the entire state of Texas in 2011, resulting in unprecedented loss of crops and forages. Due to extreme heat, wind and evaporative demand, irrigation supplies were inadequate to meet demand and more than half of dryland crops were lost.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Attendees increased knowledge on winter pasture establishment, including cost associated, utilization, prevention of bloat & grass tetany, by 100%. Survey results indicate a significant increase in practices per participant soon to be adopted as well as a significant economic impact (80% agreed that this particular program would have an economic impact on their operation).

Key Items of Evaluation

See outcome measures.

V(A). Planned Program (Summary)

Program # 16

1. Name of the Planned Program

Child Passenger 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
723	Hazards to Human Health and Safety	100%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	0.0	0.0	0.0
Actual Paid Professional	6.0	0.0	0.0	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
78164	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
78164	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
684928	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

County Extension agents and law enforcement officers trained and certified as child passenger safety technicians will conduct child safety seat checkup events in under-served rural areas of Texas. In addition, child safety seat fitting stations have been established at county Extension offices and fire/EMS

departments to allow families additional access to certified technicians. When needed, a replacement seat is issued at no charge to parents and caregivers at checkup events and fitting stations.

2. Brief description of the target audience

Under-served residents of rural areas in Texas.

3. How was eXtension used?

Agents used materials from eXtension to support programming efforts as appropriate.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	10744	90355	5401	0

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

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group education sessions conducted.

Year	Actual
2011	311

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of car seats inspected.

Outcome #1

1. Outcome Measures

of car seats inspected.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	1795

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Motor vehicle crashes are the leading cause of accidental injury-related death among children ages 14 and under. The total annual cost of motor vehicle occupant-related death and injury is \$7 billion for children ages 14 and under. Child safety seats are 71% effective in reducing fatal injury for infants and 54% effective for toddlers. The use of belt-positioning booster seats lowers the risk of injury to children in crashes by 59%. Rural areas have a higher crash incidence and death rate than urban areas.

What has been done

Funding was sought and obtained from the Texas Department of Transportation to provide child safety seat check-up events. These events are staffed by certified child safety seat technicians, 696 of whom were trained by this project over the years. Events are primarily held in under-served rural areas to educate parents on the correct usage and provide safety seats to replace incorrect ones.

Results

1,795 seats were inspected in 2011 with an economic benefit of \$2 million. The project trained 54 participants as certified child passenger safety technicians.

4. Associated Knowledge Areas

KA Code	Knowledge Area
723	Hazards to Human Health and Safety

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes

Brief Explanation

While the Texas Department of Transportation cut funding to the project after 6 months, goals were still met with other funding support for the project.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

1,795 safety seats were inspected in 2011. The economic benefit is an estimated \$2 million. The project trained 54 participants as certified child passenger safety technicians.

Key Items of Evaluation

1,795 safety seats were inspected in 2011. The economic benefit is an estimated \$2 million. The project trained 54 participants as certified child passenger safety technicians.

V(A). Planned Program (Summary)

Program # 17

1. Name of the Planned Program

Cancer Risk Reduction and Early Detection

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
723	Hazards to Human Health and Safety	100%		100%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	1.5	0.0	2.4	0.0
Actual Paid Professional	5.0	0.0	3.5	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
65137	0	19564	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
65137	0	176390	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
570773	0	246157	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

County agents worked with regional cancer prevention program specialists and volunteers to implement Friend to Friend, an evidence based program, to increase the number of women in rural, frontier, and border counties who find breast and cervical cancer earlier, when treatments are most effective. Once a

year, a Friend to Friend event is provided in selected counties. Each event included a presentation by a local physician, a chance to meet and make appointments with nearby clinical sources of mammograms and Pap tests, and a discussion group for networking support and finding solutions for problems like cost and transportation. Funding is provided by the Cancer Prevention and Research Institute of Texas.

2. Brief description of the target audience

Under-served rural, frontier, and border residents of Texans who are at risk for cancer.

3. How was eXtension used?

Agents used materials from eXtension to support programming efforts as appropriate.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	4668	38393	2020	0

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

Patent Applications Submitted

Year: 2011

Actual: 2

Patents listed

* Chemoresensitizers for Use in Treating Drug-Resistant Cancers and Associated Methods

* Canine T Cell Therapy for B Cell Lymphoma

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	18	18

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of education sessions conducted.

Year	Actual
2011	271

Output #2

Output Measure

- # research-related projects.

Year	Actual
2011	8

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of people reporting knowledge gained through participation in educational activities.
2	# of people reporting a willingness to adopt practices through participation in educational programs.

Outcome #1

1. Outcome Measures

of people reporting knowledge gained through participation in educational activities.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	1730

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Women living in rural areas of Texas are less likely than their urban counterparts to have had a mammogram or Papanicolaou (Pap) test within the past two years. Screening and diagnostic services tend to be "disconnected" and not easy to locate or access in rural Texas, especially for underserved and older women. As a result, women in these rural areas tend to be diagnosed in later stages of breast or cervical cancer, making treatment more difficult and impairing their future quality of life.

What has been done

With the help of 507 volunteers, agents, and cancer prevention program specialists, Friend to Friend events were offered in 44 rural, frontier, and border counties. 1,730 women attended these events. Of those women attending events, who had not had a mammogram in the last year, 630 signed a commitment card to obtain a mammogram within the next six months. Of those women attending events, who needed a Pap test, 907 signed a commitment card to obtain one within the next six months.

Results

1,730 women attended Friend to Friend events. Of those women attending events, who had not had a mammogram in the last year, 630 signed a commitment card to obtain a mammogram within the next six months. Of those women attending events, who needed a Pap test, 907 signed a commitment card to obtain one within the next six months. The Cancer Prevention and Research Institute of Texas awarded \$2.7 million to be used over the next three years to continue the Friend to Friend events, transport women to clinical sources of mammograms and Pap tests, and pay for screening and diagnostic services for women needing financial assistance.

4. Associated Knowledge Areas

KA Code **Knowledge Area**
723 Hazards to Human Health and Safety

Outcome #2

1. Outcome Measures

of people reporting a willingness to adopt practices through participation in educational programs.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	1730

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Women living in rural areas of Texas are less likely than their urban counterparts to have had a mammogram or Papanicolau (Pap) test within the past two years. Screening and diagnostic services tend to be ?disconnected? and not easy to locate or access in rural Texas, especially for underserved and older women. As a result, women in these rural areas tend to be diagnosed in later stages of breast or cervical cancer, making treatment more difficult and impairing their future quality of life.

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4. Associated Knowledge Areas

KA Code	Knowledge Area
723	Hazards to Human Health and Safety

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Appropriations changes
- Competing Public priorities

Brief Explanation

This year we switched to a total focus on improving the early detection of breast and cervical cancer in rural, frontier, and border counties. In past years, we focused on prevention and early detection of many other cancers such as skin and lung.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

1,730 women attended Friend to Friend events. Of those women attending events, who had not had a mammogram in the last year, 630 signed a commitment card to obtain a mammogram within the next six months. Of those women attending events, who needed a Pap test, 907 signed a commitment card to obtain one within the next six months. The Cancer Prevention and Research Institute of Texas awarded \$2.7 million to be used over the next three years to continue the Friend to Friend events, transport women to clinical sources of mammograms and Pap tests, and pay for screening and diagnostic services for women needing financial assistance.

Key Items of Evaluation

Because of the large number of women coming to our Friend to Friend events, we requested and were awarded follow up funding. The Cancer Prevention and Research Institute of Texas awarded \$2.7 million to be used over the next three years to continue the Friend to Friend events, transport women to clinical sources of mammograms and Pap tests, and pay for screening and diagnostic services for women needing financial assistance.

V(A). Planned Program (Summary)

Program # 18

1. Name of the Planned Program

Family Financial Security

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%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	7.0	0.0	0.0	0.0
Actual Paid Professional	2.0	0.0	0.0	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
26055	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
26055	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
228309	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Implement the Money Smart Financial Education Curriculum.

Implement the Wi\$e Financial Planning for Generation X and Y Curriculum

2. Brief description of the target audience

Money Smart: unbanked, less financially-sophisticated consumers.

Wi\$eUp: Generations X and Y, with emphasis on women ages 22-35.

3. How was eXtension used?

eXtension FAQs provided by the Family Financial Security Community of Practice were consulted as needed. Texas AgriLife Extension specialists also served as subject-matter experts for the financial FAQ database.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	10282	70270	726	0

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

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2011	534

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Money Smart: # increased knowledge.
2	Wi\$eUp: # reduced debt and increased savings.

Outcome #1

1. Outcome Measures

Money Smart: # increased knowledge.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	1034

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Money Smart participants included programs conducted for clients in a variety of community organizations, including Individual Development Account (IDA) participants, Catholic Family Services, Upward Bound, workforce centers, adult probationers, child support programs, Volunteers for America, and Goodwill Industries. The educational needs of these audiences were addressed by the content covered in the Money Smart curriculum, as many are customary users of non-traditional financial service providers, often at high personal cost.

What has been done

Normal implementation consists of a series of workshops taught by the local county Extension agent. A pre- and post-survey are used to determine any changes in participants' financial management practices and attitudes toward money as a result of participating in Money Smart classes.

Results

Results consistently show a statistically significant increase in participants' knowledge of the program's concepts after the class compared to their knowledge before the class. Participants have reported adoption of several recommended financial management practices and improvement in their attitudes toward money over the 5-10 week series, including improvement in the frequency with which bills are paid on time, increased savings, opening of savings and checking accounts, and developing a plan for spending.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #2

1. Outcome Measures

Wi\$eUp: # reduced debt and increased savings.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	70

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Financial management continues to be a major issue facing Texans as a result of the economic issues in the country. Extension programs are aimed at helping individuals and families deal with these issues and become more financially secure.

What has been done

A revised version of the Wi\$eUp Handbook (144 pages) was developed by Texas AgriLife Extension and published in December 2010 as a for-sale publication. During 2011, 1,186 individuals participated in Wi\$eUp, including 200 from Texas. Nearly all participants were engaged with the online course version of Wi\$eUp. Texas AgriLife Extension began the process of posting the online course in Spanish. A webinar was offered to Texas AgriLife Extension educators interested in implementing the program.

Results

Since 2004, more than 21,900 persons nationwide have participated in the program by taking the online course or attending classes and workshops led by community-based organizations. Between 2004 and 2011, 4,199 Texans have participated in Wi\$eUp, including 200 who participated during 2011. AgriLife Extension educators in 11 Texas counties have conducted the Wi\$eUp community workshop series.

Wi\$eUp reaches diverse audiences across the nation, including limited-resource heads of household, middle-class mothers, young professionals, male and female military service members, Head Start staff and mothers, county employees, hospital employees, and incarcerated women. Because Wi\$eUp will be available in Spanish in 2012, more outreach to Hispanic audiences is expected.

Between July 2005 and December 31, 2011, the Wi\$eUp website had 311,855 unique visitors

and 3,240,853 page views. In 2011, there were 63,257 unique visitors and 639,682 page views. Google search statistics for the term, Gen X financial education, give 6,170,000 results, with <http://wiseupwomen.tamu.edu> topping the list as the first link.

The U.S. Department of Treasury's Office of Financial Education recognizes Wi\$eUp as a national financial education curriculum resource, and the U.S. Department of Labor ? Women?s Bureau has been recognized for excellence in its promotion of the Wi\$eUp program.

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

Brief Explanation

External funding for Wi\$eUp from the U.S. Department of Labor - Women's Bureau ended in 2011. The result was a decline in the number of participants nationwide, including Texas, as funding priorities shifted to support other types of women's programs in the Bureau. However, during Fall 2011, Texas AgriLife received a small grant from the Bureau to begin posting a Spanish language version of the online course. The full, positive impact of having a Spanish language version of Wi\$eUp will not be observed for another year.

The newly revised Wi\$eUp Handbook (144 pages) developed by Texas AgriLife Extension has not been widely marketed, but has future potential.

Taking Wi\$eUp to scale through Texas AgriLife Extension efforts or through other community partners remains a challenge, despite reaching more than 21,900 persons nationwide since its inception in 2004.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Wi\$eUp's evaluation database consists of responses to pre and post-assessments for each of the eight modules in the curriculum as well as responses to the three-month follow-up post-assessment. The pre-assessment gathers information about current financial practices and the post-assessment provides participants with a way to identify financial goals/behaviors they plan to adopt. The number of participants who completed each assessment tool varies, depending upon the modules they completed, and the items that participants chose to answer. The number of responses to pre and post-assessment items varies from a few hundred to several thousand. The three-month post-assessment database is a cumulative database for Wi\$eUp since the three-month follow-up was established and consists of responses from 935 participants.

Key Items of Evaluation

Key findings from the evaluation database are expected to be summarized and published in 2012.

V(A). Planned Program (Summary)

Program # 19

1. Name of the Planned Program

Global Food Security and Hunger

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
704	Nutrition and Hunger in the Population	50%		50%	
801	Individual and Family Resource Management	50%		50%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	15.0	0.0	0.0	0.0
Actual Paid Professional	10.0	0.0	0.0	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
130273	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
130273	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1141547	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension

Nutrition education was conducted using a variety of methods including group, individual, media, and newsletters. Group methods included single education events that focused on a very specific concept/behavior (e.g. washing fresh produce to reduce the risk of a foodborne illness) or a series of lessons that focused on broader concepts such as food safety when shopping for food and when eating out. Networking with agencies and organizations to expand outreach and identify new audiences will also occur.

AgriLife Research

Research were conducted in Africa, Latin America and the Middle East in cooperation with the Gates Foundation, Howard G. Buffett Foundation, local extension services, local universities, Texas Department of Agriculture, Department of Defense and USAID. Examples of activities include the Texas Israeli Exchange, Iraq Trade and Development, and the Kurdistan Initiative.

2. Brief description of the target audience

AgriLife Extension

The target audience for the Better Living for Texans program is primarily recipients and applicants of the Supplemental Nutrition Assistance Program (SNAP; formerly food stamps). However, Texas has been granted waivers by USDA/FNS that allow us to extend our program to other limited resource audiences. These audiences include: women receiving WIC benefits, children attending schools in which 50% or more of the children receive free or reduce meals; children and parents in Head Start programs; individuals receiving food at a food bank or food pantry; children who participate in the Summer Food Service Program; and individuals living in census tracts where 50% or more of the population is at 130% of the poverty level or below.

AgriLife Research

Target audiences include the United Nations, governments and non-governmental organizations in Africa, Latin America and the Middle East.

3. How was eXtension used?

eXtension is used at the County level to identify supplemental resources that enhance current education programs.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	152241	211944	134657	0

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

Patent Applications Submitted

Year: 2011
 Actual: 2

Patents listed

* Rio Rojo

* TAMsoft 700

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2011	9899

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Amount of monthly out-of-pocket food expenses reported saved by program participants.

Outcome #1

1. Outcome Measures

Amount of monthly out-of-pocket food expenses reported saved by program participants.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	29

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

According to the 2010 Consumer Expenditures Survey, households with the lowest incomes spend as much as 33% of their income on food. As food prices continue to rise, so does the challenge of preparing healthy meals on a budget. In fact, an estimated 18.8% of households in Texas experienced food insecurity during 2010 (USDA Economic Research Service), which is considerably higher than the national figure of nearly 15%.

What has been done

Participants completing the Back to Basics program series learned how to plan healthy meals using MyPlate concepts. In addition, they learned sound shopping strategies (comparing prices, unit pricing, store vs. national brands, avoiding impulse buys, coupons) to get the most nutrition and food from their food resources, including their SNAP benefits. The goal is to help participants utilize their food resources in the most economical manner possible to help them save money so food lasts throughout the month and households do not have to rely on emergency food systems such as food banks or food pantries.

Results

For the 1,015 participants who provided information on out-of-pocket monthly food expenses, the average was \$229.22. Thirty days after the program ended, those participants reported they were spending an average of \$199.91, a decrease of \$29.31. This change in out-of-pocket food expenses was determined to be statistically significant. For these 1,015 participants, if the reduction in out-of-pocket food expenses were not due to some economic hardship (e.g. loss of a job, unforeseen expense, or loss of SNAP benefits) then over the course of a year, the total dollar savings for these individuals could be as high as \$356,995.

Also, at the beginning of the program, a total of 73% of the participants (n=895) reported that they ran out of food either "always" (21%; n=257) or "sometimes" (52%; n=638) before the end of the

month. Thirty days after completing the program, that percentage

4. Associated Knowledge Areas

KA Code	Knowledge Area
704	Nutrition and Hunger in the Population
801	Individual and Family Resource Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

There are a number of external factors that impact our program delivery and the outcomes. These factors include but are not limited to the motivation of the target audience to adopt targeted behaviors, the ability of the target audience to have access to reasonable priced food, and transportation to get to grocery stores/food outlets, and Extension programs. A loss of job or unexpected expenses (for which there is no emergency fund to draw from) can place a household's food security status at risk.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Individuals coming to our Better Living for Texans program series (Get the Facts, Back to Basics) are invited to complete a pre, post and thirty-day follow up survey. The pre and post surveys are used to assess participants' intent to change targeted behaviors while the thirty-day follow-up survey helps assess the extent to which target behaviors were adopted. For the pre- and follow-up survey, we ask individuals to estimate their monthly out-of-pocket food expenses. This data allows us to assess any changes in those expenses. We also ask whether individuals participate in selected assistance programs (WIC, TANF, SNAP, Free/reduced price school meals, or emergency food systems) pre- and 30-days after the program ends as a proxy for a household's food security status. As noted above, results suggest the program is helping a segment of our population reduce their out-of-pocket food expenses without compromising their food security status.

Key Items of Evaluation

At the beginning of the program, a total of 73% of the participants (n=895) enrolled in the BLT Back to Basics series reported that they ran out of food either "always" (21%; n=257) or

"sometimes" (52%; n=638) before the end of the month. Thirty days after completing the program, that percentage had dropped to a total 52% with 24% (n=296) responding "always" and 28% (n=350) responding "sometimes." The percentage that "never" ran out of food increased from 23% (n=277) to 44% (n=546).

V(A). Planned Program (Summary)

Program # 20

1. Name of the Planned Program

Childhood Obesity

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 FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	3.0	0.0	1.0	0.0
Actual Paid Professional	4.0	0.0	0.2	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
52109	0	124322	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
52109	0	8699	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
456619	0	11669	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Balancing Food and Play was developed by a multi-disciplinary team. It is an integrated, interactive third-grade enrichment curriculum on nutrition and physical activity. The curriculum is based on the Texas Essential Knowledge and Skills (TEKS). The curriculum was designed to improve knowledge and

behaviors related to the following four educational constructs: snacking on fruits and vegetables, drinking milk with meals and water with snacks, encouraging 60 minutes of physical activity each day, and limiting screen time to two hours or less per day.

Walk Across Texas, an eight week physical activity program, was offered in schools. Teachers walked with their classes to increase the children's physical activity levels.

Communities Putting Prevention to Work (CPPW), a project funded by the American Recovery and Reinvestment Act, focused on using elementary schools as community access points in eight Texas communities. The goal of the CPPW project was for these schools to serve as hubs where communities could access safe places for free physical activity and fresh fruits and vegetables.

2. Brief description of the target audience

The target audience for Balancing Food and Play were third graders in schools.

Walk Across Texas was open to any teacher and her/his students.

Communities Putting Prevention to Work was implemented in schools with at least 50% of students eligible for free and reduced lunches in eight different regions of Texas.

3. How was eXtension used?

Agents used materials from eXtension to support programming efforts as appropriate.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	1095	3892	17981	0

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

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	5	5

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # youth participating in WAT Program.

Year	Actual
2011	14234

Output #2

Output Measure

- # of Educational Sessions

Year	Actual
2011	569

Output #3

Output Measure

- # of research-related projects

Year	Actual
2011	3

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Increased number of miles walked by youth during the WAT Eight Week Program
2	Percentage point increase in 60 minutes of physical activity.

Outcome #1

1. Outcome Measures

Increased number of miles walked by youth during the WAT Eight Week Program

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Percentage point increase in 60 minutes of physical activity.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	21

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Many health professionals and educators are alarmed by the increase in the rate of child obesity. Nationally, 19 percent of children ages 6 to 11 years are obese (95th percentile for body mass index [BMI] by age/sex). Texas ranks seventh in the nation and has a child obesity rate of 20.4 percent. Programs that increase awareness of food and physical activity recommendations and change behaviors associated with obesity are needed.

What has been done

Three programs were offered in 2011 to address the child obesity problem: Balancing Food and Play, Walk Across Texas, and Communities Putting Prevention to Work.

Results

Balancing Food and Play results: Getting at least 60 minutes of physical activity increased from 52 percent to 73 percent; drinking soda almost never or never increased from 29 percent to 39 percent; and limiting screen time to 2 hours or less increased from 77 percent to 89 percent.

14,234 students participated in Walk Across Texas.

In the Communities Putting Prevention to Work project, local community stakeholders supported

the development of 8 school gardens, 4 walking trails/tracks, and the establishment of monthly fitness classes across all 8 counties. Each county installed signage and received either portable or permanent water stations to go around their gardens or walking tracks to encourage community member to utilize these new areas. Additionally, 3 counties established Farmers Markets, 5 held regular cooking healthy demonstrations, and 1 constructed an outdoor basketball court. All the schools signed Joint Use Agreements.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Grant funding was sought and obtained to support the Communities Putting Prevention to Work project.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Balancing Food and Play results: Getting at least 60 minutes of physical activity increased from 52 percent to 73 percent; drinking soda almost never or never increased from 29 percent to 39 percent; and limiting screen time to 2 hours or less increased from 77 percent to 89 percent.

14,234 students participated in Walk Across Texas.

In the Communities Putting Prevention to Work project, local community stakeholders supported the development of 8 school gardens, 4 walking trails/tracks, and the establishment of monthly fitness classes across all 8 counties. Each county installed signage and received either portable or permanent water stations to go around their gardens or walking tracks to encourage community member to utilize these new areas. Additionally, 3 counties established Farmers Markets, 5 held regular cooking healthy demonstrations, and 1 constructed an outdoor basketball court. All the schools signed Joint Use Agreements.

Key Items of Evaluation

Communities Putting Prevention to Work successfully improved eight underserved communities' access to physical activities and fruits and vegetables.

V(A). Planned Program (Summary)

Program # 21

1. Name of the Planned Program

Climate Change

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
132	Weather and Climate	100%		100%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	0.0	1.5	0.0
Actual Paid Professional	5.0	0.0	1.8	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
65137	0	205682	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
65137	0	137796	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
570773	0	519508	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension

Develop and conduct educational programs utilizing direct and indirect educational methods to increase knowledge of and support adoption of management practices capable of mitigating the effect of weather

and climate change in animal agriculture.

- Formed the Southwest Region Advisory Team composed of seven individuals representing six of eight states within the designated project region. The purpose of the Team is to provide to identify and communicate regional animal agriculture priorities, guide in the development, review and delivery of educational information, and help organize and conduct training focusing on climate change mitigation and adaptation strategies for animal agriculture producers. The first Advisory Team meeting was held in Denver, CO in July.
- Developed and conducted three educational programs in Texas and New Mexico (April, May and October) which included information on greenhouse gas emissions produced in animal agriculture and digester technologies for reducing methane emissions for dairy operations.
- Developed a fact sheet entitled "Why Does Climate Change? Basic Scientific Principles and Terminology" co-authored by the Texas State Climatologist. This fact sheet is available to the general public at the Texas AgriLife Bookstore.

AgriLife Research

The research response to this pressing issue is to generate reliable, verifiable data regarding carbon sequestration, carbon cycling, and interrelationships of cropping systems, livestock production and climate change. An example of this effort is using carbon dioxide from coal fired power generation as a feedstock for algae production. Research is also ongoing to develop and add value to co-products from algae production as a means of making algae biofuel systems economically viable without the need for subsidies.

Carbon sequestration was determined for various management strategies for loblolly pine forests and grazing systems. Carbon sequestration analyses were conducted for the Senate Ag Committee and were cited in Congress when the carbon sequestration bill was debated.

2. Brief description of the target audience

Research products and educational programs focusing on the issue of weather and climate change address target audiences including but not limited to producers, corporate businesses, landscape managers, water resource managers, decision makers, and others who identify themselves with this issue.

Target audience for the Climate Change and Animal Agriculture project includes Extension professionals, technical service providers, commodity groups, and livestock and poultry producers in Texas and surrounding states.

3. How was eXtension used?

Coordinated a webinar on eXtension hosted by the Livestock and Poultry Environmental Learning Center (LPELC) in November. The webinar was delivered by Dr. Gordon Carstens, Associate Professor - Animal Nutrition, Texas A&M University which featured current research on mitigation of greenhouse gas emission from beef cattle operations through feed and nutrition, genetic selection and herd management.

Developed a web page under eXtension Livestock and Poultry Environmental Learning Center featuring the Climate Change and Animal Agriculture project which provides contact information for national and regional project members, and information on basic climate science, origin and trends of animal agriculture greenhouse gas emission, and mitigation and adaptation strategies for climate change in agriculture.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	11036	1150660	667	0

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

Patent Applications Submitted

Year: 2011

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	47	47

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of educational programs conducted.

Year	Actual
2011	365

Output #2

Output Measure

- # of research related projects.

Year	Actual
------	--------

2011

5

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of people reporting knowledge gained through participation in educational activities.
2	# of people reporting a willingness to adopt practices through participation in educational programs.
3	% of people reporting a willingness to adopt practices through participation in educational programs.
4	% of people reporting expected economic impact as a result of actions learned in programmatic efforts.
5	% of people reporting knowledge gained through participation in educational activities.

Outcome #1

1. Outcome Measures

of people reporting knowledge gained through participation in educational activities.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of people reporting a willingness to adopt practices through participation in educational programs.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

% of people reporting a willingness to adopt practices through participation in educational programs.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	29

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The 2008 USEPA Inventory of U.S. Greenhouse gas Emissions and Sinks identified manure management to be generating 24% and 5% of methane and nitrous oxide emissions, respectively, from agricultural sources including enteric fermentation and manure. In the future, it is likely that some animal producers will be required to report these emissions originating from their operations.

What has been done

Presentations conducted at three events in 2011 were intended to educate animal producers on the sources of greenhouse gas emissions, and strategies to mitigate their emissions. Presentations also highlighted current research underway to quantify greenhouse gas emission ground level sources in dairy operations.

Results

Of the event participants surveyed, 29% indicated that they did plan to take action or make changes as a result of the activity, 58% were "not sure", and 13% did not plan to take action. Seventy-one percent of respondents reported that they would recommend these activities to others.

4. Associated Knowledge Areas

KA Code	Knowledge Area
132	Weather and Climate

Outcome #4

1. Outcome Measures

% of people reporting expected economic impact as a result of actions learned in programmatic efforts.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	86

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The drought in Texas that started in the fall of 2010 has had a devastating impact on crops, pastures and hay meadows. There is little that can be done during a drought to improve pasture/hay meadow conditions during the drought, however, management and decisions made following a drought can either lead to forage recovery or forage loss. Information was provided to participants on BMPs before the recovery process actually began, saving money, protecting natural resources and speeding the recovery process.

What has been done

Beyond the Drought is a program focused on providing information on drought recovery of pastures and hay meadows. The focus of the program includes practical suggestions, research

results, and the knowledge needed to effectively manage pastures and hay meadows following a drought were provided. The program included discussions on the importance of soil fertility, the need for conservative stocking rates, and the need for time to allow pastures/meadows to rebuild their root systems.

Results

Attendees increased knowledge on drought recovery by 100%. Survey results indicate a significant increase in practices per participant soon to be adopted and a significant economic impact (86% agreed that this particular program would have an economic impact on their operation).

4. Associated Knowledge Areas

KA Code	Knowledge Area
132	Weather and Climate

Outcome #5

1. Outcome Measures

% of people reporting knowledge gained through participation in educational activities.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2011	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The drought in Texas that started in the fall of 2010 has had a devastating impact on crops, pastures and hay meadows. There is little that can be done during a drought to improve pasture/hay meadow conditions during the drought, however, management and decisions made following a drought can either lead to forage recovery or forage loss. Information was provided to participants on BMPs before the recovery process actually began, saving money, protecting natural resources and speeding the recovery process.

What has been done

Beyond the Drought is a program focused on providing information on drought recovery of pastures and hay meadows. The focus of the program includes practical suggestions, research results, and the knowledge needed to effectively manage pastures and hay meadows following a drought were provided. The program included discussions on the importance of soil fertility, the need for conservative stocking rates, and the need for time to allow pastures/meadows to rebuild their root systems.

Results

Attendees increased knowledge on drought recovery by 100%. Survey results indicate a significant increase in practices per participant soon to be adopted and a significant economic impact (86% agreed that this particular program would have an economic impact on their operation).

4. Associated Knowledge Areas

KA Code	Knowledge Area
132	Weather and Climate

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Other (changing programming areas)

Brief Explanation

A major challenge for Extension is the limited capacity to address educational needs in historically non-prioritized topic areas such as climate change. One of the primary limitations is the lack of Extension-ready information on basic climate science and personnel with knowledge and expertise in delivering educational programs and materials to agricultural producers. Another challenge involves establishing collaborations with integrated projects and Extension professionals to develop climate change-related resources that meet specific regional program needs and are able to be incorporated into established Extension venues.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Evaluation results revealed that at least 90% of those attending educational programs judged the information presented on greenhouse gas emissions and mitigation strategies were 'timely' and 'helpful', although only 30% indicated that they would take action or make changes based on the information. This hesitation to make changes is likely due to economic risk. When asked "would you benefit economically as a direct result of this activity", only 80% responded 'No'.

For drought education, attendees increased knowledge on drought recovery by 100%.

Survey results indicate a significant increase in practices per participant soon to be adopted and a significant economic impact (86% agreed that this particular program would have an economic impact on their operation).

Key Items of Evaluation

See outcome measures.

V(A). Planned Program (Summary)

Program # 22

1. Name of the Planned Program

Sustainable Energy

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	10%		10%	
205	Plant Management Systems	50%		50%	
402	Engineering Systems and Equipment	30%		30%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	1.0	0.0	0.5	0.0
Actual Paid Professional	3.5	0.0	1.0	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
6514	0	81947	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
6514	0	207960	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
57077	0	908127	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension

Agricultural producers and the energy industry have a keen interest in the role that agriculture will play in contributing to renewable energy for America, and are looking to AgriLife Extension to help define which second generation crops will fit this market and how they will be produced. Texas is a major livestock feeding state and faces a feed grain deficit at current production levels, making second generation crops the only practical feed stocks for bioenergy. AgriLife Extension has responded by applied and demonstrations of candidate oilseed and lignocellulosic feedstock crops; holding workshops and field days for agricultural producers, by meeting with commercial interests from the energy sector to interpret the potential for a variety of plant based bioenergy options. As crop-based bioenergy other than the traditional ethanol from feed grains and biodiesel from soybeans is still in its infancy, actual adoption of second generation bioenergy is limited by the development of commercial scale cellulosic ethanol plants and the market that they for feedstocks that they will generate. Research involved the development of cropping system BMPs, testing and development of novel dedicated oilseeds and lignocellulosic bioenergy crops, advanced plant breeding systems, micro- and macro-algae, logistics and conversion technologies.

Our focus is on second generation oilseeds and lignocellulosic feed stocks rather than on corn, soybeans, and other crops that can be used for food and feed. Drought and salinity tolerance, adaptation to marginal growing conditions and wide hybridization are emphasized in research in order to increase adaptation and sustainability of alternative energy systems. Organic residuals at livestock production systems and cotton gin trash each offer a concentrated source of feedstock for the bioenergy production.

Demonstration of identification, selection, harvesting and transportation of quality organic residuals for entering bioenergy production is critical to ensuring a sufficient energy resource.

AgriLife Research

Research involves cropping systems, novel dedicated energy crops, advanced plant breeding systems, micro- and macro-algae, logistics and conversion technologies. Our focus is on lignocellulosic feedstock with emphasis on sorghums and perennial grass rather than on corn, soybeans, and other crops that can be used for food and feed. Drought tolerance and wide hybridization are emphasized in breeding research in order to increase adaptation and sustainability of alternative energy feedstocks. Best management practices are needed to identify, collect, separate, transport and process these organic residuals. Development of best management practices will ensure to availability of quality organic residuals for entering bioenergy production.

2. Brief description of the target audience

The target audience includes traditional petroleum and natural gas energy companies, seed companies, start-up companies in bioenergy, electric generating companies and agricultural leadership. As no second generation bioenergy producing companies have built facilities in Texas, AgriLife Extension has not had focused programming to educate crop producers on bioenergy production technologies as a local market does not exist, the preferred feedstock has not been identified and BMPs are being developed.

3. How was eXtension used?

AgriLife Extension has been an active participant in the Farm Energy Community of Practice, developing fact sheets on second generation Bioenergy feedstocks.

V(E). Planned Program (Outputs)

1. Standard output measures

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	0	0	0	0

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

Patent Applications Submitted

Year: 2011

Actual: 3

Patents listed

- * Methods and Contracts for Producing Transgenic Plants and Methods of Recovering Expressed Proteins
- * Transformation of Glycerol into High Energy Fuel applications by *Debaryomyces hansenii*
- * Hydrocarbon Fuel Generation via Direct Methane Intervention

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2011	Extension	Research	Total
Actual	0	38	38

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of educational programs conducted
- Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # of research related projects.

Year	Actual
2011	9

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of people reporting knowledge gained through participation in educational activities.
2	# of people reporting a willingness to adopt practices through participation in educational programs.

Outcome #1

1. Outcome Measures

of people reporting knowledge gained through participation in educational activities.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of people reporting a willingness to adopt practices through participation in educational programs.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

The factors listed above could have either positive or negative effects on the educational programs and research activities. The issue availability of water for agricultural irrigation and of climate change requires an inter-disciplinary response to development of practices and sharing of information. External factors affecting individual disciplinary fields can impact the ability to develop and deliver information on weather and climate change.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

No evaluation results are available to report for this program.

Key Items of Evaluation

No evaluation results are available to report for this program.