

2013 Texas A&M University and Prairie View 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.

AgriLife Extension and AgriLife Research

Texas A&M AgriLife Research (AgriLife Research) and the Texas A&M AgriLife Extension Service (AgriLife Extension) 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, AgriLife Research, and 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 Strategic Plan, 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. 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 2013 were very successful. Data in this report highlight the activities and success of major program areas supported by AgriLife Research and AgriLife Extension.

Cooperative Extension Program and Cooperative Agricultural Research Center

The Cooperative Extension Program at Prairie View A&M University is a link of the triad (Academics,

Research and Service) within the College of Agriculture and Human Sciences. The mission of the Cooperative Extension Program is to respond to the needs of underserved Texans through life changing opportunities that empower families, promote agriculture, strengthen communities and foster leadership development in youth. The Cooperative Extension Program uses various methods to engage stakeholder groups to identify and address emerging issues and meet state and federal priorities.

According to the 2013 Quick facts Census, Texas population is approximately 26 million which includes a population of over 6.5 million individuals and families at or below the poverty level. The federal priorities classified by the National Institute of Food and Agriculture (NIFA) are addressed through both formal and informal educational programs and activities conducted in 34 of the 254 Texas counties. Given the targeted audience that encompasses various ethnic groups, religions, cultural and socioeconomic backgrounds, the outreach methods used to address the needs of the clientele are focused and in alignment with the audience which the institution has served purposefully since its inception. The present and emerging needs such as Global Food Security and Hunger, Childhood Obesity, Climate Change, Food Safety, Human Development and Family-Well Being, Youth Development, Individual and Family Resource Management provided the direction for development and implementation of educational outreach methods in the counties. These methods were delivered through cooperation between Extension program areas and Research system groups.

The Agriculture and Natural Resources (AgNR) unit focused its efforts on developing sustainable farming and ranching operations through increased diversification of production and marketing strategies. The program's goal is to ensure that these agriculture operations are not only profitable but that they are also friendly to the community and the environment, thereby increasing viability, competitiveness, and sustainability of rural communities. Three flagship programs conducted by agents and specialists were: Sustainable Livestock Production, Sustainable Crop Production and Financial and Risk Management. This year's major interest was to introduce producers to the production of high value horticulture crops and seasonal extension high tunnels. Model plots were established on campus and certain counties. Producers introduced the community to growing grafted vegetables, heirloom vegetables, and strawberries. Four Strawberry plots are presently in place to teach farmers how to grow as well as illustrate the economic value associated with a high value crops. Our partnership with National Resource Conservation Service (NRCS) resulted in six high tunnels being funded. Access to capital is often expressed as the number one issue facing limited resource producers. The new Microloan programs gave us the opportunity to work with our USDA partners at the Farm Service Agency (FSA) to conduct workshops to youth and adult audiences. Agents and specialists provided technical assistance in filling out loan requests for 78 applicants totaling \$5,207,600.00. To date approximately 75% of these loans have been approved. New initiatives started or expanded upon this year are beekeeping, seasonal high tunnels, specialty crops (Asian Melons, Strawberry) establishing coops and farmers markets. Also information was made available to market produce, plan community and urban gardens and address areas traditionally considered food deserts.

The Community and Economic Development (CED) unit continues to impact Texas communities through group and individualized training in small business development, home ownership, financial literacy, youth entrepreneurship, and Agri-business practices. In 2013 the CED staff provided one on one consulting to 7199 individuals. Ninety-one (91) new small businesses were started thus adding to the Texas economy. Records indicate 41 individuals participated in the Individual Development Account (IDA) financial literacy and savings program. A financial savings of \$246,000 will be calculated among the 41 low income participants at the conclusion of this program. During the implementation of home ownership programs, over 169 families applied to USDA home ownership or rehabilitation funding. Twenty-eight (28) homes were refinanced resulting in avoiding foreclosure and reduced monthly mortgage; also 17 homes were rehabilitated and upgraded with an estimated total of \$340,000. Additionally, in 2013 the BID (Businesses In Development) certification pilot program was established. CED staff provided weekly intensive trained to historically underutilized businesses on best business to secure bids within the State of Texas. As a

result 50 (fifty) small businesses were trained, 25 businesses became BID certified and 16 new businesses became HUB certified with the State of Texas. Approximately \$22.1 Million in Bids were submitted (Based on 25% survey response) for funding.

Through several new youth development initiatives and planned programs, the 4-H and Youth Development unit reached 75,000 educational contacts with youth and their adult leaders in 20 Texas counties. Youth ages 5 to 19 and adult leaders in limited-resource communities benefited from receiving 1845 hours of research-based information and non-formal education. Extension agents organized and managed 4-H clubs, provided in-school curriculum enrichment, and coached youth for a variety of multi-level contests. They also mobilized over 200 community organizations and an equal number of concerned adults in underserved communities to address the local needs of youth. Participants developed life, leadership, and job skills in the areas of healthy living, science, and citizenship. Some participants improved their ability to solve problems and resolve conflict positively, while others increased healthy eating and physical activity.

Families face critical challenges and issues related to obesity, health and wellness, parenting, and financial management. The Family and Consumer Sciences unit conducted engaging activities to address the critical challenges and issues related to obesity with the intent to prevent consequent chronic diseases. These face-to-face activities included educational programs that reached over 37,774 youth and adults helped participants adopt a healthy lifestyle and reduce the risk for chronic illness and disease. Fact sheets, newsletters, and other media outlets reached more than 356,673 individuals addressing obesity and chronic diseases. A total of 3,743 volunteers assisted Extension agents in implementing programs. Extension agents from 6 of the 7 urban counties in Texas are implementing the Urban X7 initiative as well as a cooking school known as "Dinner Tonight" to educate more clients on how to adopt healthier lifestyles. These programs taught limited resource families how to eat healthy by preparing quick easy low-cost meals. Extension agents are recording healthy meals for families to view at their convenience and engage their children in nutritious meal preparation and family time.. Additionally, FCS agents are working with their Ag & Natural Resource and 4-H agents to demonstrate healthy meals made from their cylinder and family gardens.

Current research data has been translated into best management practices and disseminated throughout the state via Extension programs and other delivery channels. Both needs and issues are assessed through the involvement of advisory groups and other citizens to generate the information needed to assist the clientele. Ongoing collaborative research projects are focused on the Texas Gulf Coast Prairie and Wetland Ecosystems in the following areas: (1) adaptation and mitigation of climate variation on cropping systems and biomass production, (2) optimum crop water management and allocation, (3) inventory of water resources at different scales across the state, (4) Biodegradable polymer systems, (5) watershed management; (6) flood prediction and mitigation in the greater Houston area, and (7) in-situ and remote sensing of natural resources, e.g. water resources. Natural and human induced climate variability affects the different components of the water cycle (soil water, surface water, and ground water resources) in the Gulf Coast Prairie. These and other factors have serious potential impact on the Greater Houston area and the rest of Texas. Two research scientists and a research professor in water resources management, e.g., watershed hydrology and management, remote sensing, flood and extreme events, were hired to strengthen research capacity in natural and agricultural resources management, and water resources management. Additionally, scientists have been hired to strengthen and expand animal and plant systems.

As a part of the Cooperative Extension Program's Teaching Agriculture Sustainability Through Economics (T.A.S.T.E) project, research is being conducted on strawberry trails in Jefferson and Liberty counties. Strawberry production will be used to train youth in entrepreneurship through agriculture production. Data will be collected and generated upon completion to explore the growth potential of field strawberries throughout the southeast and other parts of Texas. Research findings are based on soil type, weather conditions, and length of cropping season and fertilization programs.

Each of the aforementioned accomplishments have addressed and provided assistance for the limited resource clientele served by the Cooperative Extension Program and the Cooperative Agricultural Research Center in critical areas of importance to the State of Texas. In addition, the programs have persistently addressed federal initiatives for agriculture and natural resources, individuals, families and communities as well as youth and adult leadership development in accordance with the land-grant mission championed by the College of Agriculture and Human Sciences at Prairie View A&M University.

Total Actual Amount of professional FTEs/SYs for this State

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	404.0	79.0	147.9	61.0
Actual	452.1	67.0	206.0	22.5

II. Merit Review Process

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

- Internal University Panel

2. Brief Explanation

AgriLife Extension and AgriLife Research

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.

Cooperative Extension Program and Cooperative Agricultural Research Center

Extension programs initiated in the state of Texas are funded in whole or part from Smith Lever or Section 1444 and 14445 funds requiring a merit review process. The review panel is comprised of Cooperative Extension Program administrative leaders, Dean of the College of Agriculture, Cooperative Agricultural Research Center director, scientists, faculty, and Texas AgriLife middle managers. Particular focus to the plan is to determine if appropriate strategies are designated to reach the limited resource clientele mandated by the United States Department of Agriculture. The plans are reviewed based on needs assessment, planned programs, outcomes and evaluation. This combined leadership team is responsible for the oversight and management of all programs planned and implemented by Extension staff members.

All proposed research projects that are funded under either Evans-Allen, Experiment Station (Hatch), or otherwise, undergo a merit review process. Each proposal submitted for support is routed through an internal review committee for review and if deemed necessary, each proposal is routed through the University Committee on Research. The Research Director selects a set of individuals to serve as members of an internal review panel in consultation with the University's Vice President for Research. At minimum, three individuals review and evaluate each proposed project prior to approval for external submittal and/or internal fund allocation. Scientific peer review is incorporated in that all project reports including Current Research Information System must show evidence of external review. Written comments should be included with final proposals for campus routing. Routing proposals through quality control

check points (Research Director, Dean of the College and Vice President for Research) are designed to ensure that proposals meet RFP guidelines as well as meet scientific merit qualifications. All proposals are quality checked by our on campus Office of Sponsored Programs.

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.

AgriLife Extension and AgriLife Research

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. Local Leadership Advisory Boards (LABs) lead efforts 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.

Cooperative Extension Program and Cooperative Agricultural Research Center

The Cooperative Extension Program (CEP) used various methods to reach stakeholder groups within the State of Texas. Multiple sources of input from stakeholders including local clientele commodity/special interest groups, emerging issues, various county committees and elected officials. CEP also used media outlets such as public service announcements and online communications. Focused programs were conducted and analyzed, which led to priority setting and development of educational programs addressing the needs and issues raised by various stakeholder groups in stakeholder input process. Extension used Leadership Advisory Boards (LABs) to validate issues raised in local stakeholder input process. Leadership Advisory Board serve as a conduit to local citizens and their needs. These boards are comprised of community opinion leaders charged with providing visioning and advocacy for the local Extension program. Additional 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 the counties in the state serviced by the Cooperative Extension and Research Programs.

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.

AgriLife Extension and AgriLife Research

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. Local Leadership Advisory Boards (LABs) lead efforts 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.

Cooperative Extension Program and Cooperative Agricultural Research Center

Cooperative Extension used open listening sessions in 36 counties as a means of getting grassroots involvement in its program planning and data collection process. These sessions allow local clientele to give their opinion on issues of importance to their communities. Additionally, Leadership Advisory Boards and other program advisory committees and/or groups were used to provide input on program direction and implementation. Cooperative Extension staffs also meet with various commodity and interest groups that provided insight into issues facing the targeted audience.

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.

AgriLife Extension and AgriLife Research

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 promote 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.

Cooperative Extension Program and Cooperative Agricultural Research Center

Data was collected via numerous methods from the stakeholders mentioned in the previous section including meeting with advisory committees, holding open forums with clientele and other groups and collected need assessment and/or surveys at educational programs across the state. Likewise, Extension staff members identify needs while conducting research and working with clientele.

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 (Strategic plans)

Brief explanation.

AgriLife Extension and AgriLife Research

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 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.

Cooperative Extension Program and Cooperative Agricultural Research Center

The Cooperative Extension Program used various methods to reach stakeholder groups within the State of Texas. Extension used multiple sources of input from stakeholders including local clientele, commodity/special interest groups, emerging issues, various county committees and elected officials. Extension staff analyzed these issues, which led to the priority setting and development of programs to address the needs and issues identified by stakeholders. Extension also used Leadership Advisory Boards (LABs) to validate issues raised in the local stakeholder input process. Leadership Advisory Boards serve as a conduit to local citizens and their needs. These boards are comprised of community opinion leaders charged with providing long-term visioning and advocacy for the local Extension program. Additional 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 the counties in the state serviced by the Cooperative Extension Program.

Brief Explanation of what you learned from your Stakeholders

AgriLife Extension and AgriLife Research

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.

Cooperative Extension Program and Cooperative Agricultural Research Center

Health issues such as chronic diseases and childhood obesity are major concerns within the targeted audience. Family financial stability, community economics, sustainable agriculture, parenting education and youth development are also issues of high importance.

IV. Expenditure Summary

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
11524515	3803591	7688391	4436652

2. Totaled Actual dollars from Planned Programs Inputs				
Extension			Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	6190532	4037344	7085983	3155713
Actual Matching	6190532	2285399	17841868	2593242
Actual All Other	50796065	0	33475726	0
Total Actual Expended	63177129	6322743	58403577	5748955

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous				
Carryover				
	6190532	550020	0	443023

V. Planned Program Table of Content

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

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Range Management

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
112	Watershed Protection and Management	40%	0%	40%	0%
121	Management of Range Resources	60%	0%	60%	0%
	Total	100%	0%	100%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	20.0	0.0	15.0	0.0
Actual Paid Professional	17.6	0.0	23.4	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
240994	0	482676	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
240994	0	1801823	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1977462	0	3582339	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension and AgriLife Research

Primary activities in this program were focused on development and conducting of research and educational programs to support best management practices 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 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

AgriLife Extension and AgriLife Research

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

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	40875	182265	8757	0

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	0	233	233

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2013	1708

Output #2

Output Measure

- # of research-related projects.

Year	Actual
2013	92

Output #3

Output Measure

- # of result demonstrations conducted.

Year	Actual
2013	175

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
2013	63

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Pesticide applicators in Texas must obtain continuing education units 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

The Texas Range Webinar Series was developed by the Ecosystem Science and Management (ESSM) Unit as an opportunity to expand its educational outreach by offering state of the art, web-based educational opportunities. In addition, the ESSM Unit conducted a face-to-face Brush Busters Workshop in conjunction with the 2013 Texas A&M Beef Cattle Workshop.

Results

The 2013 Texas Range Webinar Series presented eight webinars which included 344 hours of instruction (157 live and 187 archived), with 88 pesticide CEUs awarded. County Extension agents participated in these events for a total of 36 hours of training. An average of 94% of participants indicated that they would recommend the webinars. Also, an average of 56% of participants indicated that they were very likely or would adopt practices taught in the webinars.

One-hundred four landowners participated in Brush Busters Workshop representing 52 counties and reporting owning or operating an estimated 144,456 acres. Increase in understanding of the nine topics presented averaged 76%. One-hundred percent of those returning the evaluation indicated that the information received would help them make better management decisions. Ninety-four percent of these participants indicated that they planned to do some form of brush management in the near future.

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
2013	58

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Through 2011, the driest year on record in Texas, most parts of Texas were in exceptional or extreme drought conditions. These conditions have existed in many parts of the state since 2008. Landowners are concerned about how to manage rangelands for recovery after 2011 and other recent drought years.

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 2013 Beef Cattle Short Course, the topic of Grazing Management for Texas Rangelands was selected to be the central focus of a 3.5 hour training for the range management workshop. This event was conducted in August, 2013, featuring stocking rates, how grasses grow, grazeable acres, monitoring methods, and restocking considerations.

Results

One hundred sixty-five landowners participated in this workshop. A retrospective-post evaluation was conducted with this workshop. Increased understanding of eight teaching points evaluated averaged 56% with a range of 35 to 77%. About 58% of the workshop participants returned the evaluation. These participants represented 76 different counties and reported that they owned or

operated a total 257,094 acres (average 2,678 acres/participant). Based on this average, total estimated acres represented was over 441,870. One-hundred percent of those returning the evaluation indicated that the information received would help them make better management decisions. Intended adoption of 8 monitoring practices presented during the workshop ranged from 13 to 67%.

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

Much of Texas is still struggling to recover from extreme drought of 2011. 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 a new audience with less travel and expense while at the same time providing a unique opportunity for evaluation. For the 2013 webinars, 94% of clientele indicated they would recommend webinars and 56% were very likely to adopt or would adopt practices presented.

For the Brush Busters Workshop conducted in conjunction with the 2012 Texas A&M Beef Cattle Workshop a retrospective-post evaluation indicated that the increase in understanding of the nine topics presented averaged 76%. One-hundred percent of those returning the evaluation indicated that the information received would help them make better management decisions. Ninety-four percent of these participants indicated that they planned to do some form of brush management in the near future.

For the 2013 Beef Cattle Short Course Grazing Management for Texas Rangelands Workshop, a retrospective-post evaluation indicated a 56% average increase in understanding for eight teaching points evaluated with a range of 35 to 77%. One hundred percent of those returning the evaluation indicated that the information received would help them make better management decisions.

Key Items of Evaluation

Since 2008, including the exceptional state-wide drought in 2011, many parts of Texas have been in exceptional or extreme drought conditions at some time. Wildfire incidents have increased with increased drought and an increase in land management emphasis from traditional livestock operations to absentee ownership and wildlife management . We use traditional Extension delivery methods and are incorporating new technology to address the clientele needs such as these in Texas.

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Economics and Management for Sustainable Agriculture

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
601	Economics of Agricultural Production and Farm Management	0%	70%	0%	0%
602	Business Management, Finance, and Taxation	25%	10%	25%	0%
604	Marketing and Distribution Practices	25%	10%	25%	0%
605	Natural Resource and Environmental Economics	10%	0%	10%	0%
606	International Trade and Development	10%	0%	10%	0%
608	Community Resource Planning and Development	5%	0%	5%	0%
610	Domestic Policy Analysis	25%	0%	25%	0%
903	Communication, Education, and Information Delivery	0%	10%	0%	0%
	Total	100%	100%	100%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	20.0	11.0	10.0	0.0
Actual Paid Professional	12.3	6.0	8.9	0.0
Actual Volunteer	0.0	20.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
180745	361553	439643	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
180745	204663	943409	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1483097	0	1388911	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension and AgriLife Research

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

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

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

Cooperative Extension Program

Workshops and trainings were conducted for both staff and clientele
 Conducted educational programs
 Provided one-on-one consultations
 Develop and maintain social media sites

2. Brief description of the target audience

AgriLife Extension and AgriLife Research

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

The target audiences are very diverse in knowledge, skills, attitudes, and aspirations to learn and adopt

important strategies to be successful. Therefore, the methods used in this area vary depending on which audience is being addressed.

Cooperative Extension Program

Limited resource farmers, ranchers, and agribusiness owners needing to increase profitability through efficient business practices.

3. How was eXtension used?

AgriLife Extension and AgriLife Research

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

Cooperative Extension Program

Agents and Specialist were able to download publications customized with PVAMU-CEP logo to share with Producers. Agents also direct producers to the eXtension website to search for information.

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	21109	216882	169	809

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	0	340	340

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2013	497

Output #2

Output Measure

- # of research-related projects.

Year	Actual
2013	51

Output #3

Output Measure

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

Year	Actual
2013	342

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.
4	Number of loan packages submitted and approved for funding

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

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	84

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

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

What has been done

A 2.5 year post survey was mailed to participants of the 2011 Master Marketer program held in Waco 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 42% pre-Master Marketer to 89% post-Master Marketer, an increase in determining production costs and incorporating those into the marketing plan from 47% pre-Master Marketer to 74% post-Master Marketer, an increase in using market fundamentals in developing their personal market outlook from 22% pre-Master Marketer to 89% post-Master Marketer, and knowing when to use forward cash contracting from 33% pre-Master Marketer to 88% post-Master Marketer. Master Marketer education had an average individual economic impact of \$41,657 or 3.1% of gross farm income for the Waco class. At a Business Planning for Small Acreage Producers workshop, participants showed that there was a 72% increase in knowledge as a direct result of the workshop. In addition, 100% of respondents anticipate a positive economic benefit as a direct result of the information presented at the workshop.

4. Associated Knowledge Areas

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
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	85

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension

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

Cooperative Extension Program

Access to Capital ranks as the most important issue facing small producers in Texas and most other states. Many producer fail to understand the process they must undertake to obtain loans from banks. CEP conducted educational programs in this area to address this issue.

What has been done

AgriLife Extension

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

Cooperative Extension Program

Five programs were conducted utilizing staff persons from FSA to educate producers on the new Microloan program offered by FSA. Each program was followed up with One-on-One training to help individuals interested in applying for loans on how to fill out the application.

An ongoing outreach program is being conducted in a three county area in South Texas to assist producers obtain operating loans. This program also assists producers obtain the necessary training to meet FSA's Borrower Training requirements.

Results

AgriLife Extension

The 25th Master Marketer program (approximately 70 hours of classroom training over a six-week period of time) was conducted in El Campo, Texas during September-October 2013. Pre-test and post-test scores of subject matter knowledge level indicated a 50.77% improvement in participant's scores from the beginning of the Master Marketer program (average pretest score 48.15%) to the end of the Master Marketer program (average posttest score 72.59%). 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 \$35,268 per year, on average, can be expected for each of the 35 graduates of this year's program. If so, these returns would work out to over \$1.2 million per year for the graduates of the 2013 Master Marketer program in El Campo. At the Upper Sabine Cattlemen's Conference, evaluation results from a pre and post survey analysis indicated that participants in the workshop increased their understanding of what is involved in determining what a replacement female is worth by 87.5%.

Cooperative Extension Program

The following results were shared from the program evaluations to indicate the achievements of the program.

- 92% gained knowledge of FSA loan programs
- 95% gained knowledge on keeping production and financial.
- 95% gained knowledge on developing a farm operating budget.
- 98% gained knowledge on net worth/owner equity
- 68% ability to fill out FSA loan application.

150 individual producers attended the five Microloan workshops conducted by CEP. Agents and Specialist worked one-on-one with 50 producers in preparing loan applications for submission to FSA. The South Texas Loan Assistance program assisted 66 producers in applying for loans. Another 15 producers were serviced in the Borrower Training program. Five young farmers attended the Texas Young Farmer Grant Program workshop. Three submitted applications for grants. One received a grant for \$10,000.00.

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

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	132

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The FARM Assistance model (financial simulation strategic planning tool) was used to complete 132 analyses for producers, for demonstrations or agent planning purposes. Survey respondents showed that as a result of participating in FARM Assistance, 91% claim a better understanding of the financial aspects of their own operations, and 92% 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, 91% claim a better understanding of the financial aspects of their operation and 92% 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 83% indicated that they would be more likely to use formal financial analysis (like FARM Assistance) to help make decisions in the future. 92% of respondents indicated they would recommend FARM Assistance to another producer. Finally, in responding to anticipated economic value, respondents estimated an average \$23,788 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

Outcome #4

1. Outcome Measures

Number of loan packages submitted and approved for funding

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	66

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Access to Capital ranks as the most important issue facing small producers in Texas and most other states. Many producer fail to understand the process they must undertake to obtain loans from banks. CEP conducted educational programs in this area to address this issue.

What has been done

Each program was followed up with one-on-one training to help individuals interested in applying for loans on how to fill out the applications.

Results

150 individual producers attended the five Microloan workshops conducted by CEP. Agents and Specialist worked one-on-one with 50 producers in preparing loan applications for submission to FSA. The South Texas Loan Assistance program assisted 66 producers in applying for loans. Another 15 producers were serviced in the Borrower Training program. Five young farmers attended the Texas Young Farmer Grant Program workshop. Three submitted applications for grants. One received a grant for \$10,000.00.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

AgriLife Extension and AgriLife Research

Budget reductions as a result of reduced state appropriations in 2011 resulted in a reduction in FTEs available to carry out research and educational activities during 2012, 2013 and into the future. While remaining faculty picked up additional responsibilities, some educational opportunities were missed due to reduced faculty numbers. The record-breaking drought of 2011 carried over into 2013 across parts of the state and caused a continued realignment of educational priorities. While traditional risk management educational programs were still popular, significant faculty time and effort was redirected toward immediate clientele needs associated with the impacts of drought, management issues tied to continued livestock destocking in some areas, restocking in others, and crop producers dealing with reduced irrigation water availability and related economic decisions.

Cooperative Extension Program

One of the limiting factors in working with small farmers is the fact that many of them are working part time on their farm or ranch. They do not treat their operation like a business i.e. no records, no business plan and in many cases no title to the land they are farming or ranching. The education curve is very steep requiring a lot one-on-one assistance to move the needle.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

AgriLife Extension Program

Clientele/participants involved in Master Marketer, Advanced Topic Series, Livestock Management Economics 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.

Cooperative Extension Program

Agents conducted an initial participant survey to gauge producer's level of understanding and the likelihood of adoption of the information being presented. Each Participant was contacted using the enrollment list to follow up on their interest and adopting the information. Those who wanted to apply for a loan were worked with one-on-one. One-on-one evaluations were conducted to monitor progress of each producer.

Key Items of Evaluation

Cooperative Extension Program

Number of producers submitting applications for loans.

Number of producers receiving loans and grants.

Number of producers completing Borrower Training requirements

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Diabetes Education

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
724	Healthy Lifestyle	100%	100%	0%	0%
	Total	100%	100%	0%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	15.0	0.0	0.0	0.0
Actual Paid Professional	8.5	2.0	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
116389	120519	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
116389	68220	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
955024	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension and Cooperative Extension Program

Partner with local health care professionals to provide a 5 classes with 9-lesson nutrition and self-care

education classes using the Do Well, Be Well with Diabetes curriculum and 4 class series using the Cooking Well with Diabetes cooking school series. Classes are offered throughout Texas with leadership from county Family and Consumer Sciences (FCS) Extension agents.

Partner with leaders in Hispanic community members/groups such as priests, preachers, promotoras, and other Hispanic organizations to provide 6 classes each with novelas (Spanish), ¡Si, Yo Puedo Controlar Mi Diabetes! curriculum with lessons, handouts, food cards, recipes in Spanish with nutritive value of each recipe. After the pilot testing of the Hispanic class series for low-literacy, ¡Si, Yo Puedo Controlar Mi Diabetes! is being offered throughout Texas.

In addition, an adaptation for other low-literacy populations such as a segment of the African-American population was created, pilot-tested and adapted for future use. Partner with leaders in African American communities with faith-based organizations, sororities, preachers, health professionals, and other African American organizations to provide 6 classes each with videotaped stories, curriculum with 6 lessons, handouts, recipes including ethnic adaptation with nutritive value of each recipe.

2. Brief description of the target audience

AgriLife Extension and Cooperative Extension Program

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 in meal plan), increasing physical activity, taking prescribed medications, checking their blood glucose levels, and regularly visiting their health care providers.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	9830	73847	885	0

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

Patent Applications Submitted

Year: 2013
Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	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
2013	800

Output #2

Output Measure

- # participating in educational efforts.

Year	Actual
2013	345

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 classes; 3 of 4 Cooking Well with Diabetes classes; and 5 of 6 ¡Si, Yo Puedo Controlar Mí Diabetes!
2	# of individuals who complete the first diabetes series of 5 lessons.
3	# of Wesley nurses trained on diabetes education.
4	# of individuals who complete the diabetes cooking lessons.
5	# of individuals who complete 5 of 6 lessons of ¡Si, Yo Puedo Controlar Mí Diabetes!

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 classes; 3 of 4 Cooking Well with Diabetes classes; and 5 of 6 ¡Si, Yo Puedo Controlar Mí Diabetes¡.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	341

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The number of Americans with diabetes is 26 million. Health care costs for people with diabetes are significantly higher. Men with diabetes miss an average of 11 work days each year and women miss about 9 days. Almost \$1 of every \$5 spent on health care is for people with diabetes. Currently only 7% of people with diabetes are at the recommended levels for blood glucose, cholesterol and blood pressure. Access to affordable and accessible diabetes education is very difficult even for people with insurance due to high co-pays. This is especially significant in rural areas.

What has been done

Extension developed and tested 4 diabetes education programs aimed at improving diabetes management by individuals all of which are offered at little or no cost to participants.

Results

Participants report improved blood glucose measures as well as improved knowledge and self-management skills.

For DWBW 844 attended classes during 2013. At the beginning of classes, the average blood glucose before meals reported by participants (345 reporting) was 134 mg/dL, decreasing to 125 mg/dL at 5 weeks (341 reporting).

For CWWD 375 participants registered with 229 completing the series. 183 (85%) participants demonstrated improved recognition of foods raising blood glucose.

For ¡Si, Yo Puedo Controlar Mí Diabetes¡ 114 registered for classes and 86 (87.7%) completed

the class series. Among those completing the program series, they demonstrated diabetes knowledge between pre and post test scores (6.7/10 items to 8.9/10 items). They also reported significantly higher self-care scores (24.0/44 items to 31.6/44 items).

For Wisdom, Power and Control, 160 registered and 112 (70% completed) the class series. Among those completing the program series, they demonstrated diabetes knowledge between pre and post test scores (7.2/10 items to 8.4/10 items). They also reported significantly higher self-care scores (24.0/44 items to 29.4/44 items).

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
2013	341

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The number of Americans with diabetes is 26 million. Health care costs for people with diabetes are significantly higher. Men with diabetes miss an average of 11 work days each year and women miss about 9 days. Almost \$1 of every \$5 spent on health care is for people with diabetes. Currently only 7% of people with diabetes are at the recommended levels for blood glucose, cholesterol and blood pressure. Access to affordable and accessible diabetes education is very difficult even for people with insurance due to high co-pays. This is especially significant in rural areas.

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Participants report improved blood glucose measures as well as improved knowledge and self-management skills.

For DWBW 844 attended classes during 2013. At the beginning of classes, the average blood glucose before meals reported by participants (345 reporting) was 134 mg/dL, decreasing to 125 mg/dL at 5 weeks (341 reporting).

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #3

1. Outcome Measures

of Wesley nurses trained on diabetes education.

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of individuals who complete the diabetes cooking lessons.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	229

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The number of Americans with diabetes is 26 million. Health care costs for people with diabetes are significantly higher. Men with diabetes miss an average of 11 work days each year and women miss about 9 days. Almost \$1 of every \$5 spent on health care is for people with

diabetes. Currently only 7% of people with diabetes are at the recommended levels for blood glucose, cholesterol and blood pressure. Access to affordable and accessible diabetes education is very difficult even for people with insurance due to high co-pays. This is especially significant in rural areas.

What has been done

AgriLife Extension

Extension developed and tested 4 diabetes education programs aimed at improving diabetes management by individuals all of which are offered at little or no cost to participants.

Cooperative Extension Program

Limited resource clientele participated in over 380 food demonstrations designed to improve their diets and food related behaviors. These demonstrations focused on meal preparation and planning, comparing food prices, choosing health foods, preparing foods without adding salt and using more vegetables. Participants have engaged in series of workshops and engaged in physical activity.

Results

AgriLife Extension

Participants report improved blood glucose measures as well as improved knowledge and self-management skills.

For CWWD 375 participants registered with 229 completing the series. 183 (85%) participants demonstrated improved recognition of foods raising blood glucose.

Cooperative Extension Program

1977 youth improved their abilities to choose foods according to Federal Dietary Recommendations. 42% more often thought about healthy food choices when deciding what to feed their families. 47% more often prepared foods without adding salt.

Comments from some of the participants include:

"I learned the importance to eat a variety and control portions will improve our health and avoid obesity." "I learned the importance of physical activity, that even 30 minutes per day will make you feel much better."

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #5

1. Outcome Measures

of individuals who complete 5 of 6 lessons of ¡Si, Yo Puedo Controlar Mí Diabetes!

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	86

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The number of Americans with diabetes is 26 million. Health care costs for people with diabetes are significantly higher. Men with diabetes miss an average of 11 work days each year and women miss about 9 days. Almost \$1 of every \$5 spent on health care is for people with diabetes. Currently only 7% of people with diabetes are at the recommended levels for blood glucose, cholesterol and blood pressure. Access to affordable and accessible diabetes education is very difficult even for people with insurance due to high co-pays. This is especially significant in rural areas.

What has been done

Extension developed and tested 4 diabetes education programs aimed at improving diabetes management by individuals all of which are offered at little or no cost to participants.

Results

Participants report improved blood glucose measures as well as improved knowledge and self-management skills.

For ¡Si, Yo Puedo Controlar Mi Diabetes¡ 114 registered for classes and 86 (87.7%) completed the class series. Among those completing the program series, they demonstrated diabetes knowledge between pre and post test scores (6.7/10 items to 8.9/10 items). They also reported significantly higher self-care scores (24.0/44 items to 31.6/44 items).

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

Brief Explanation

Because there are so many new agents, much time was spent training them and evaluating their skills to implement one of these 4 programs. Online, on-demand training was created for all 4 programs to allow more efficient and timely training of new agents to implement these programs.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

For DWBW 844 attended classes during 2013. At the beginning of classes, the average blood glucose before meals reported by participants (345 reporting) was 134 mg/dL, decreasing to 125 mg/dL at 5 weeks (341 reporting).

For CWWD 375 participants registered with 229 completing the series. 183 (85%) participants demonstrated improved recognition of foods raising blood glucose.

For ¡Si, Yo Puedo Controlar Mí Diabetes¡ 114 registered for classes and 86 (87.7%) completed the class series. Among those completing the program series, they demonstrated diabetes knowledge between pre and post test scores (6.7/10 items to 8.9/10 items). They also reported significantly higher self-care scores (24.0/44 items to 31.6/44 items).

For Wisdom, Power and Control, 160 registered and 112 (70% completed) the class series. Among those completing the program series, they demonstrated diabetes knowledge between pre and post test scores (7.2/10 items to 8.4/10 items). They also reported significantly higher self-care scores (24.0/44 items to 29.4/44 items).

Key Items of Evaluation

DWBW, ¡Si, Yo Puedo Controlar Mí Diabetes¡, and Wisdom, Power and Control are diabetes education programs that improve self-management skills of people with type 2 diabetes.

V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Exercise and Wellness

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
724	Healthy Lifestyle	100%	0%	0%	0%
	Total	100%	0%	0%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	7.0	0.0	0.0	0.0
Actual Paid Professional	7.5	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
102696	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
102696	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
842669	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension

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

AgriLife Extension

Walk Across Texas! is open to anyone of any age wanting to increase their physical activity level if they live in a community with a AgriLife Extension educator or have access to <http://walkacrosstexas.tamu.edu>.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	14540	80141	16974	0

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

Patent Applications Submitted

Year: 2013
Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

2013 Texas A&M University and Prairie View A&M University Combined Research and Extension Annual Report of Accomplishments and Results

Year	Actual
2013	853

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
2013	5

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Medical research shows that exercise and weight loss can permanently or temporarily delay the onset of type 2 diabetes in 58 percent of people. Over the lifetimes of team participants in 2013, it is estimated that 1,511 could prevent the onset of diabetes through increased physical activity. Annual health care costs for people without diabetes are estimated between \$2,560 and \$5,642 and at \$13,243 for people with diabetes. Including the cost of lost wages, the total potential economic impact for the 2013 team participants is approximately \$106 million.

What has been done

County Extension agents are provided an annual training to implement Walk Across Texas in their county. During 2013, 27,156 adults and youth registered. People in 166 Texas counties participated. Participants increased their mileage from 4.76 miles from week 1 to week 8.

Results

27,156 adults and youth registered. People in 166 Texas counties participated. Participants increased their mileage from 4.76 miles from week 1 to week 8.

Over the lifetimes of team participants in 2013, it is estimated that 1,511 could prevent the onset of diabetes through increased physical activity. Annual health care costs for people without diabetes are estimated between \$2,560 and \$5,642 and at \$13,243 for people with diabetes. Including the cost of lost wages, the total potential economic impact for the 2013 team participants is approximately \$106 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

No external factors affected this program.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

During 2013, 27,156 adults and youth registered. People in 166 Texas counties participated. Participants increased their mileage from 4.76 miles from week 1 to week 8.

Key Items of Evaluation

Walk Across Texas is a low cost program which improves physical activity levels for participants of all ages.

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Community Resource and Economic Development

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
504	Home and Commercial Food Service	5%	0%	0%	0%
602	Business Management, Finance, and Taxation	10%	60%	0%	0%
608	Community Resource Planning and Development	50%	30%	0%	0%
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	30%	0%	0%	0%
806	Youth Development	5%	0%	0%	0%
903	Communication, Education, and Information Delivery	0%	10%	0%	0%
	Total	100%	100%	0%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	35.0	7.0	0.0	0.0
Actual Paid Professional	28.0	4.0	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
383400	241035	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
383400	136442	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
3145963	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension

Provide 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 will provide in-depth educational programs to targeted audiences relative to community and economic development strategies, based on local needs. Provide 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. Coordinate and collaborate with state and federal agencies in rural development activities as well as work with regional rural development centers in curriculum and professional development. Provide technical assistance to communities in analysis of various socioeconomic databases or surveys. Continue to foster working relationships with rural community colleges to obtain support and follow-up for local educational activities. Expand web-based information delivery relative to community resource and economic development topics.

Cooperative Extension Program

Conducted educational programs
 Conducted business development seminars
 Provided one-on-one consultations
 Conducted business development training
 Assisted clients with writing business plans
 Maintained social media sites

2. Brief description of the target audience

AgriLife Extension

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.

Cooperative Extension Program

Rural communities, low-income individuals, underrepresented groups, limited resource business owners and small farm and potential small farm producers.

3. How was eXtension used?

The Cooperatives Community of Practice for eXtension is supported by Texas AgriLife Extension personnel. It provides a resource to individuals and groups interested in cooperative agricultural business practices. A focus for the community of practice is youth leadership, with the intent of drawing talented youth to careers in cooperatives. Such careers are typically located in rural communities and help to strengthen rural economies. The eXtension Tourism Community of Practice has been formally accepted and is under development. 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

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	54042	538013	27892	0

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

Patent Applications Submitted

Year: 2013
Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	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

2013 2791

Output #2

Output Measure

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

Year	Actual
2013	7

Output #3

Output Measure

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

Year	Actual
2013	7300

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 who increase knowledge to support their current employment needs.
5	Number of minority business owners completed BUSINESSES In DEVELOPMENT (BID) Certification Pilot Program and participated in the state contracting process.
6	Number of inmates trained on prison Entrepreneurship Program and business plans initiated.

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
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension

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.

Cooperative Extension Program

The stagnant economic situation and higher than acceptable unemployment among majority and minority population groups continues to threaten the health and prosperity of families and communities. Non-traditional skills sets and education are needed to allow a paradigm shift that improves economic outcomes. Minority agricultural producers, agri-businesses, and startup micro-businesses, the majority of whom are first generation entrepreneurs, continue to suffer from a lack of qualified technical assistance, financial record-keeping, and access to capital. The unemployment rate for minorities continues to be significantly higher than unemployment in the majority population (exceeding 20% in some communities). Pervasive layoffs and continuing high unemployment numbers have forced a new wave of aspiring entrepreneurs who are ill-equipped to survive in an already tough marketplace flooded with displaced public and private sector individuals attempting to earn a living as business owners.

Equally important the housing market downturn has continued to make a significant impact on the U.S. economy since 2007 when the recession officially began. Home ownership has decreased, property values have dwindled resulting in loss of equity and in some cases has forced foreclosure. Home buying has always been a means of building wealth and increasing assets, but as a result of the economy and lack of home purchasing knowledge more people are hesitant to purchase a home. Limited resource clientele specifically find it difficult apply and purchase a

home and find it easier to purchase a depreciating asset like a new expense vehicle than a home.

What has been done

AgriLife Extension

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.

Cooperative Extension Program

Community & Economic Development staff has provided one-on-one technical assistance to home owners, first time home buyers, business owners and aspiring entrepreneurs through small business workshops, general consultation, business planning assistance, efficient business management, business opportunities, and loan package development with emphasis placed in working with economically depressed communities.

Results

AgriLife Extension

Some 205 of the TOTAL 254 counties have reported educational programming 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 1228 educational programs in Community Resources and Economic Development topics to 1,787,392 residents. Examples of program topics included Entrepreneurship as a Tool for Economic Development, Business, Creating Entrepreneur Ready Communities, Stronger Economies Together, Supporting and Developing Local Economies, Community Capacity, Emergency Management and Disaster Preparedness, And County Judges and Commissioners programs. Target audiences included CEAs, economic developers, city and county officials, rural business and agribusiness owners and youth.

Cooperative Extension Program

Nearly a quarter million dollars in small farm and micro-enterprise funding.91 new small businesses started and added to the Texas economy.

Over 50 existing and future entrepreneurs received BID Certification program training.

Over 20 state staff assisted contracts submitted by small businesses.

\$590,000 in grant applications for community and governmental organizations. Over 515 volunteers involved in programming and workshop assistance.41 individuals participated in our Individual Development Account (IDA) financial literacy and savings program.

Over \$246,000 will be saved among the 41 low income individuals at conclusion of program.

Over 169 families were assisted with USDA home ownership or rehabilitation financing 28 homes refinanced that resulted in avoiding foreclosure and reduced monthly mortgage 17 homes rehabilitated. Approximately \$340,000 in upgrades and rehab.14 families assisted with loan modification.

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
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	80

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension

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.

Cooperative Extension Program

Community members throughout the State and specifically in poverty stricken rural areas are plagued with minimal resources and in most cases surroundings filled with dilapidated properties that perpetuate the hopelessness often felt throughout these communities. Leadership and direction among community members coupled with local resources are necessary to change the economic conditions, community beautification, and activity available to youth and adults.

What has been done

AgriLife Extension

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.

Cooperative Extension Program

Community & Economic Development staff has organized local committees including community leaders and county officials to organize tourism initiatives and beautification projects involving volunteers and patrons from surrounding counties.

Results

AgriLife Extension

The Chambers County Recovery Team ChaRT required assistance with the inventory and marketing of nature tourism. They now has an active Nature Tourism web site, Facebook page and Blog, which highlight nature and wildlife based activities and sites in Chambers County including hunting, fishing, birdwatching, paddling, agritourism and special events. The client has succeeded in their goal of increasing visitation to their website and Facebook page. Extension help provide Blog articles and Facebook postings for the site along with the development of a new Twitter account. The web site had 4783 unique visitors and 13620 page views. Approximately 60 professionals attended the NET conference with over 100% of those attending the nature tourism track reporting increased knowledge. Content was developed for the web site naturetourism.tamu.edu and 4696 unique visitors with 10357 pageviews were recorded. Content was developed for the National Extension Tourism program web site extensiontourism.net and 2232 unique visitors with 9275 pageviews were recorded. Evaluations of participants in the Nature Tourism Business Plan Development class indicated that 80 percent of users increased knowledge.

Cooperative Extension Program

Every year CED staff coordinates volunteers and community leaders and organizes a county wide tourism event that host vendors from in and around the county called the Mission Trail Association's Red and Green Chile War Festival. Both local and surrounding vendors gather to sell their products and compete. Hundreds and thousands of people attend, increasing the local economy through purchases they make from the event.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
608	Community Resource Planning and Development

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
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	80

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension

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.

Cooperative Extension Program

Youth and adults lack the leadership and training necessary to cause effective change in their local community. As a result, communities lack the services and community programs that are accessible to thriving and urban areas. Non-profit service providers and community leaders need training on how to be effective leaders, best management practices, and use those skills the create and influence change through non-profit initiatives and the learning of new practices that effect their quality of life.

What has been done

AgriLife Extension

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.

Cooperative Extension Program

CED staff is active in working with local non-profit and community organizations in building their capacity and providing resources and training that help them to increase their programming and productivity, supporting an increase in community services and activities.

Results

AgriLife Extension

Through its V. G. Young Institute of County Government conducted educational schools, providing training related to the duties and responsibilities of the county officials. In FY 2013, 1,137 individuals took part at four major schools generating 13,167 continuing education hours. Leadership Marion County received training in Strategies for Obtaining and Using Qualitative and Quantitative Data as part of the Developing Critical Thinking Leaders Curriculum. Participants indicated that their enhanced understanding of data would be helpful in their decision making efforts as members of local government and other organizations. Texas Event Leadership

Program (TELP) workshops served over 300 registrants representing tourism managers from Texas municipalities. Texas Friendly Instructor Training workshops trained professional tourism managers, enlisting community leaders as Extension volunteers that will have a positive impact within their community. Evaluation indicated an 80% increase in knowledge, 89% will adopt information learned from the training, 100% agreed the customer service training will provide confidence to change their level of commitment in creating positive customer service experiences, and 88% anticipated an economic benefit as a direct result from the training.

Cooperative Extension Program

Over \$70,000 in volunteer community hours are a direct result of staff involvement with community organizations.

Over 136 community programs have been initiated in collaboration with or as a direct result of staff involvement. \$590,000 in grant applications for community and governmental organizations.

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 who increase knowledge to support their current employment needs.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	116475

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension

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 and youth back to the community are of major importance.

Cooperative Extension Program

Low-income families and individuals are unaware of community programs and resources that can assist them in asset development and wealth building means that can increase their standard of living. Often limited resource clientele are uninformed in the areas of community protection and safety, senior programs, credit building, saving, investing, debt management and budgeting which has an overall effect on their decision making and the lifestyle they live.

What has been done

AgriLife Extension

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.

Cooperative Extension Program

Cooperative extension program staff has conducted community workshops for individuals, small businesses, and community organizations. Over 7,199 individuals have received one-on-one training in areas that promote credit improvements, better budgeting and debt management, opportunities to increase their assets and program development within community organizations.

Results

AgriLife Extension

County Extension agents and their community partners conducted 29 child care conferences reaching over 3,335 child care providers and directors. Over 20,600 clock hours of training were provided to these professionals. Evaluation results indicate that over 90% of participants acquired new information (98%), plan to utilize the information to improve their programs (98%), consider themselves better equipped to work with children (97%), and consider the trainings to be very cost effective (95%). In addition, 109,550 (178,545 clock hours) online child care courses have been completed by child care professionals. Food Protection Management Programs in Texas are targeted at food managers and front-line food service workers. Over 790 food service employees completed the manager program. More than 2600 individuals completed the food handlers course, face-to-face or online. Texas AgrAbility assisted over 200 agriculture producers and employees with disabling conditions to be retained. Evaluation data from matched pre and post survey results reveal positive gains in the areas of overall quality of life (61%). In addition, 88% of clients reported that they would not have been able to continue farming/ranching without the assistance of Texas AgrAbility.

Cooperative Extension Program

Participants in the program reported an increase in knowledge of asset and capacity building procedures. Nearly a quarter million dollars in small farm and micro-enterprise funding. Funding has allowed aspiring entrepreneurs to fulfill their dreams of working for themselves, avoiding unemployment and providing jobs in their communities. CED staff has assisted 91 entrepreneurs to establish a new small business, adding to the Texas economy.

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

Outcome #5

1. Outcome Measures

Number of minority business owners completed BUSINESSES In DEVELOPMENT (BID) Certification Pilot Program and participated in the state contracting process.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Limited exposure to knowledge and resources that can assist entrepreneurs has been one of the prevailing reasons why generations of minority business owners have been lacking what it takes to be successful in business. The lack of training and a viable network are key reasons why there are minority-owned disadvantaged business enterprises (DBEs) generating minimal income and failing at a much more alarming rate than those businesses owned by traditional entrepreneurs. As a result, minority tax payers have not been positioned to participate in receiving their fair share of business conducted between State agencies and business entities.

What has been done

In order to address some of the problems faced by existing minorities and other disadvantaged businesses, Prairie View A&M University-Cooperative Extension Program has engaged minority vendors and DBEs operating in Texas to participate in a pilot curriculum program that provides them with the necessary training to successfully cultivate business relationships, obtain and fulfill purchasing requests, and sustain their businesses through efficient and professional business practices. This pilot project is currently being marketed in various regions of the State through our Businesses In Development or B.I.D. Certification Program.

Though offered and made available to all Texans, the Prairie View A&M Cooperative Extension Program has targeted eligible minority participants based on minority status, income, business size, and bankable status. The certification program included:

- a)Creating training materials and curriculum based on input from existing clients via focus groups;
- b)Branding and marketing the program and curriculum to state agencies, trade and business organizations, and individual businesses in Texas;
- c)Working to create specific credit and loan opportunities with financial institutions that provide financing opportunities for program graduates;
- d)Beginning the process of formalizing working agreements and partnerships with state agencies and departments, business associations, and others that will lead to the creation and revision of local policies and programs that will ensure the expansion and long-term sustainability of DBEs.
- e)Providing DBE's with access to training to become Historically Underutilized Business (HUB) certified businesses;
- f)Assisting small businesses with identification of mentor-ship opportunities; and
- g)Conducting follow-up training, tracking client successes and collecting performance data from program participants for 1 year.

Results

Upon completion of our B.I.D. Certification program, minority businesses have gained a foundation for good business practices and have received training in Customer Service, Contracts, bids/ negotiations, Securing Suppliers, Financing/Credit Lines, Marketing, Business Planning, Accounting, Managing Employees, Pricing Strategies, and Best practices for working with State agencies.

Additionally:

50 (fifty) small businesses received intensive training

25 businesses became BID certified

16 new businesses became HUB certified with the State of Texas

50% of the BID certified businesses have completed a bid opportunity for their business

Approximately \$22.1 Million in Bids submitted (Based on 25% survey response) Minimum of \$450,000 in funded contracts.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation

Outcome #6

1. Outcome Measures

Number of inmates trained on prison Entrepreneurship Program and business plans initiated.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Prison Entrepreneurship Program is a program at the Cleveland Correctional Facility dedicated to providing inmates the tools needed to redirect their talents and become productive members of society. Currently, when a person is released from prison they have an extremely hard time of finding a job, not only because of prior convictions, but because the unemployment line is already long. Through working with the Prison Entrepreneurship Program prisoners are taught not only on how to become entrepreneurs, but are also given lessons on leadership, grammar, written/oral presentations, interview skills, computer literacy, budgeting and resume writing. The training does not stop there; once the inmates graduate 67% of them enter PEP transition homes located in Dallas and Houston. At the transition homes they continue to receive entrepreneurship training as well as help finding a job. Because of this continuous help the PEP program boasts a 100% employment rate within 3 months of being released from Prison. This program not only helps the inmates, but it helps their economic development of communities. Without PEP inmates are often left on their own with a 23% recidivism rate in the state of Texas. PEP currently has a recidivism rate of less than 7%. By staying out of prison these men lower the amount that their selves and their families have to depend on government assistance, decrease the amount that the state spends to house inmates (PEP is a funded through donations and volunteers like myself), increases the tax revenue of the city that the business is started in increases the amount of child support that mothers receive for kids.

What has been done

The CED staff in Liberty County has provided business planning and advisory services to inmates that are currently serving time at the Cleveland Correctional Facility. The consulting services consisted of training, reviewing, and providing feedback to various inmates' business plans. The program also included a Venture Capitalist Panel of industry professional judges created to observe and provide constructive feedback to inmates their small business oral presentations. The program helped guide inmates on what to do if panel members were potential investors for their company and things that they can do in order to gain a competitive advantage. They were provided real world experience on what CED staff has seen on the successes and failures of businesses and from a banker perspective how to increase the chances of their business being funded. CED staff has also worked one on one with inmates on concept day, which is a day to iron out every concept of their business.

Results

- 100 Number of Inmates trained
- 100%(Percent) of inmates planning start their business

-97- Number of business plans developed by inmates

Every inmate in the program has a goal of starting their own business, with every year over 2000 men across the state of Texas applying to be a part of this program and the interviewers must see that drive in them to succeed in order to be accepted. Some inmates do, however become overwhelmed in the process and don't finish, but they are given a chance to re-enroll once a new class starts.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation

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 in 2010 and 2011, resulted in a reduction in FTEs available to carry out educational activities in 2012 and 2013. While remaining faculty picked up additional responsibilities, some educational opportunities were missed due to reduced faculty numbers. The record-breaking drought of 2011 continued to cause problems in 2012 and 2013 resulting in realignment of educational priorities. While traditional Community Resource Economic Development programs were still popular, an increased amount of faculty time and effort was redirected toward immediate clientele needs associated with the impacts of drought, water problems, which included emergency and disaster preparedness programs.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

AgriLife Extension

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.

Cooperative Extension Program

Participants in programs and one-on-one consultations reported an increase in knowledge, skills, savings, and small business improvement through sustainability, increased capacity, job retention or expansion, and profitable business practices.

- * Staff has received positive feedback from participants
- * Number of Businesses trained
- * Number of State Historically Underutilized Business Certifications
- * Number of businesses assisted with 1 or more bid opportunities
- * Value of bids submitted in 2013
- * Value of bids funded in 2013
- * Percentage of inmates planning start their business
- * Number of business plans developed by inmates

Key Items of Evaluation

Nothing additional to report.

V(A). Planned Program (Summary)

Program # 6

1. Name of the Planned Program

Water Management

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
111	Conservation and Efficient Use of Water	50%	0%	50%	0%
112	Watershed Protection and Management	50%	0%	50%	0%
	Total	100%	0%	100%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	20.0	0.0	10.0	0.0
Actual Paid Professional	24.3	0.0	15.3	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
332736	0	594375	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
332736	0	1271300	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
2730246	0	3618280	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension and AgriLife Research

Research findings were published regarding best management practices to efficiently manage available water resources, to limit off-site contaminant transport from production, processing, and landscaping systems, to utilize alternative water sources and to remove contaminants from impaired/alternative water sources. Water conservation research focused on the needs of both urban and agricultural users.

Research and educational programs were developed utilizing direct and indirect educational methods to support efficient utilization and conservation of water resources, to develop alternative water supplies, to implement best management practices on agricultural production and landscapes to protect water resources from contaminants, to promote proper management of surface and ground water resources, to enhance rainwater harvesting and to remove contaminants from impaired water supplies.

The work of AgriLife Research and AgriLife Extension is conducted jointly where research-based information is generated and then transferred to clientele.

Development of educational resources continued, such as articles, fact sheets, bulletins, curriculum materials, short course manuals and other teaching materials.

2. Brief description of the target audience

AgriLife Extension and AgriLife Research

Programs focusing on the issue of water address target audiences including but not limited to producers, homeowners, landscape managers, industry practitioners, water resource managers, 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

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	153450	750043	70172	0

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	0	216	216

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2013	1498

Output #2

Output Measure

- # research-related projects.

Year	Actual
2013	64

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
2013	91

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Irrigated agriculture is extremely important to the economy of Texas, accounting for over 90% of groundwater withdrawals in some regions. Severe drought conditions throughout the 2011 to 2013 crop seasons (and ongoing); limited and declining well capacities; regulatory limitations on pumping; and high demand for corn and other irrigated crops have contributed to a very high level of need for more efficient irrigation technologies and adoption of best management practices.

What has been done

Forty-one educational programs targeting agricultural irrigation water management were delivered to 1449 participants resulting in 2994 contact hours. An additional 2959 individual contacts were made through telephone, e-mail, site contacts and office visits. News releases and popular press articles were widely distributed to major media outlets which reach tens of thousands; and were further disseminated through county agent newsletters and crop consultant communications. In addition, YouTube, and other video and audio recordings of radio broadcasts were posted on commercial and other websites.

Results

Based on program surveys, participants indicated increased knowledge in: crop water requirements (100%), soil moisture characteristics/management (100%); irrigation technologies (75%), BMPs and/or water use efficiency (75%); application of irrigation technologies and BMPs on farm operations (100%); and information resources available (100%). In addition, 86% of respondents indicated they plan to implement at least one technology or practice, including irrigation scheduling (71%), center pivot irrigation (43%), micro-irrigation (57%), BMPs to improve efficiency (71%), and BMPs to prevent contamination of water resources (57%).

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
2013	87

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Urban and domestic water management issues are major issues impacting both water quality and quantity in Texas: 1) Urbanization contributes to water pollution due to increased stream erosion and contaminant loading from stormwater runoff; 2) Landscape irrigation increases urban water use by 35-70% and also can contribute to contaminant losses; 3) On-site wastewater treatment systems support about 25% of Texas' population, and are identified as a major potential source of nonpoint nutrient and bacteria pollution.

What has been done

Eighteen educational events targeting stormwater management reached 1054 individuals including engineers, city officials, Master Naturalists, Master Gardeners, and the general public with 1891 total contact hours. A total of 17 School of Irrigation short courses were delivered in 7 cities to a total of 455 irrigators, technicians, inspectors, and municipal staff. A total of 147 water conservation programs reached over 4352 individuals, and over 10,080,000 media contacts were achieved through various outlets. Eight intensive septic system management training events reached over 203 individuals providing 406 contact hours.

Results

Survey results for these events indicated that 100% of urban stormwater management workshop attendees plan to take action with regard to practice implementation as a result of training.

Irrigation and conservation training program survey results showed that 100% of attendees plan to implement BMPs including: 89% will use collected rainwater for landscape irrigation, 76% will

modify management to conserve water resources, 72% will adopt landscape practices that conserve water, and 41% will adopt drip irrigation methods for watering landscapes. In addition, 61% of septic system management training attendees specifically indicated the intention to adopt septic system pumping as a necessary BMP.

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 continued to experience the effects of severe drought during 2013 which impacted program content, but did not limit achievement of overall project goals and outcomes. Economic stresses also continued to impact 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

Texas A&M AgriLife Extension and Research had significant impacts on citizen knowledge, understanding, and intentions to implement recommended management practices related to water quality and water conservation. Changes in knowledge and understanding as measured by post and pre/post surveys ranged from 78 to 100% at various events, depending on pre-existing competency levels of the audience, and averaged almost 92% for all non-technical participants. Most importantly, participant intentions to adopt practices were highly significant, ranging from 61 to 100% across all programs and audiences. These results clearly demonstrate the continued high degree of program effectiveness across a wide range of water resource management and protection subject matter areas.

Key Items of Evaluation

Nothing additional to report.

V(A). Planned Program (Summary)

Program # 7

1. Name of the Planned Program

Parenting and Dependent Care

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being	100%	100%	0%	0%
	Total	100%	100%	0%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	10.0	4.0	0.0	0.0
Actual Paid Professional	6.8	4.0	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
93111	241035	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
93111	136442	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
764020	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension

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, child care, 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, distance education workshops, self-study child care training guides, internet resources (e.g., online child care courses, fact sheets, research briefs, trend data, links to websites), and newsletters.

Cooperative Extension Program

Cooperative Extension Program provides a series of educational programs designed to equip parents with better parenting and communication skills. Education programs are provided through one-on-one consultation, a series of 3 educational programs and classes, educational displays at various sites, social media Facebook, fact sheets, newsletters, and conferences.

2. Brief description of the target audience

AgriLife Extension

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."

Cooperative Extension Program

The Cooperative Extension Program is mandated through federal legislation to serve limited resource audiences in Texas. Our primary focus is to target audience which includes limited resource Texas citizens including minority families and individuals, senior adults, single parents, college students, individuals who have experienced job loss and teen parents. Another targeted group is grandparents who are raising their grandchildren due to various societal issues.

3. How was eXtension used?

The eXtension website was used with parenting and dependent care audiences to assist them with a variety of needs, including health, nutrition, housing, employment, child care, parenting, and finances.

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	13055	83712	2580	0

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

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	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
2013	596

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
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	99

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Sixty-seven percent of children under age 5 receive some form of child care on a regular basis from persons other than their parents (Child Care Aware, 2012). 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 (Vandell et al., 2010). Having a well-trained child care workforce helps children reach their developmental potential. Evidence indicates that professional preparation is linked to higher quality care environments for children (Zaslow, Tout, Maxwell, & Clifford, 2004).

What has been done

In 2013, AgriLife Extension, and Cooperative Extension Program in certain counties along with their community partners, conducted 31 child care provider training conferences throughout the state of Texas for 3,225 child care providers and directors who provide care for more than 47,500 children enrolled in 863 child care centers or family day homes. Over 19,800 clock hours of training were provided to child care professionals. In addition to the face-to-face conferences, early childhood educators in the U.S. completed 144,088 online courses in 2013 (237,094 clock hours).

Results

Results from a 2013 evaluation study with over 3,000 face-to-face participants indicate that child care providers found the trainings to be very beneficial. Over 90% of participants acquired new information (99%), plan to utilize the information to improve their programs (99%), consider themselves better equipped to work with children (99%), and consider the trainings to be very cost effective (98%). Moreover, 70% 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 14,300 online participants indicate that they are

very satisfied with the quality of the online courses. Over 99% rated the online courses as Good, 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.

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
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	96

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. Falling continues to be one of the leading causes of accidental death in the U.S. among older adults. 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 2013, AgriLife Extension eldercare programs (i.e., eldercare conferences, health literacy workshops, grandparents raising grandkids workshops, and fall prevention in the home trainings) reached more than 560 educational contacts, providing more than 1,000 contact hours. Specifically, AgriLife Extension provided primary leadership and/or speaker support for conferences on aging that targeted professionals.

Cooperative Extension Program

Cooperative Extension Program conducted a grandparents raising grandchildren conference in collaboration with AgriLife and community partners in Harris and Nueces counties.

Results

In an evaluation study conducted with 51 eldercare conference attendees, 72% reported that the conference was Better or Much Better than conferences previously attended. Ninety-eight percent of respondents indicated that they will use the information they learned now and 100% in the future. Additionally, 96% indicated that the information received would help them improve the quality of their work.

Cooperative Extension Program

More than 300 grandparents attended this conference and the local legislator spoke on the importance of grandparenting.

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
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	98

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

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, and greater access to financial resources. In addition, children who are raised in environments in which parents are fully involved are less likely to engage in behaviors that put them at risk for a variety of physical and mental health problems. Research suggests that quality educational programs can assist parents in developing the skills they need to effectively

raise their children (CDC, 2009).

Cooperative Extension Program

Texas ranked as one of the six states having the highest rates of children living with low income working parents. Within Texas, there are over 2 million children living within households with incomes less than 200 percent of the federal poverty level, as defined by the U.S. Office of Management and Budget. Child abuse and neglect occurs across all social, economic and ethnic groups. However, a much larger percentage of children identified as neglected or abused come from lower socioeconomic families (Ammerman & Hersen, 1990). This may be due to the larger number of low-income families in the social service system, which may put them at higher risk of being scrutinized. The basic purpose of parenting has not changed throughout history. We can state it like this: The purpose of parenting is to protect and prepare our children to survive and thrive in the kind of society in which they live.

What has been done

AgriLife Extension provides Texas 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, grandparents, and other caregivers the opportunity to participate in county agent and volunteer led parenting programs designed to increase participants' knowledge of key parenting concepts and to improve parenting practices. Over 100 parents completed the 4-week Parenting Connections series in 2013.

Cooperative Extension Program

The Active Parenting series are parenting curriculum that use interactive methodologies to reach parents via videos and discussions. Partnerships and collaborations were established with the counties, Area Agency on Aging, Legislator El Franco Lee Harris County Precinct One, Neighborhood Centers, Sheldon and Alief Independent School Districts, Salvation Army, Bethany Baptist Church and Riverside General Hospital received interactive presentations and materials including handouts to help facilitate successful parenting programs that proved to be effective for parenting.

Results

Results from a recent evaluation study with over 380 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), and use of positive disciplinary practices. In addition, parents reported a significant improvement in their children's behavior after participating in the program.

Cooperative Extension Program

This year over 2,700 parents participated in a minimum of one and up to six classes of the Active Parenting education series. 91% of the parents stated that they are now using the skills learned in the parenting workshops to more effectively communicate with their children, properly discipline their children, and promote power, courage and self-esteem within their family. These parents indicated that they try to promote a warm and affectionate household, monitor their children's activities and provide consistent discipline practices that offer their child guidance without harsh punishment. Parents also expressed how beneficial the classes have been with their overall communication skills and they are learning new parenting methods that they did not possess. Other parents indicated that they are now trying to set different parenting examples for their children because they were parenting like their parents parented them which may not have been the most effective methods.

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
2013	84

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, including vocabulary growth, print awareness, enjoyment of reading, and writing abilities. However, a recent study found that 39% of fathers never read to their children. 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 A&M 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 and internationally, including more than 10,000 from Texas.

Results

Results from a recent evaluation study involving more than 700 FRED participants show statistically significant differences from pre to post 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.

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

Technological advances in recent years seem to have had an impact on the manner in which target audiences desire information to be delivered. While face-to-face training remains highly valued, the utilization of web-based technologies continues to grow. Face-to-face participation in several family life programs appears to have leveled out or is declining, while participation in online courses is on the rise. For example, over 144,000 online courses were completed by child care providers in 2013, which amounts to more than 237,000 contact hours.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Evaluation results from programs in parenting and dependent care demonstrate that participants are increasing their knowledge of various caregiving behaviors. For example, over 95% of child care providers, dependent care providers, and parents report learning new information from the educational workshops and trainings conducted by AgriLife Extension. Moreover, several programs have demonstrated that they are effective at improving participant behavior, including improving parenting practices, and the amount of time parents spend reading to their children.

Key Items of Evaluation

Over 90% of participants attending AgriLife Extension child care trainings acquired new information (99%), plan to utilize the information to improve their programs (99%), consider themselves better equipped to work with children (99%), and consider the trainings to be very cost effective (98%). Moreover, 70% 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 14,300 online participants indicate that they are very satisfied with the quality of the online courses. Over 99% rated the online courses as "Good," "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.

V(A). Planned Program (Summary)

Program # 8

1. Name of the Planned Program

Adult Leadership and Volunteer Development

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	40%	40%	0%	0%
806	Youth Development	60%	60%	0%	0%
	Total	100%	100%	0%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	35.0	7.5	0.0	0.0
Actual Paid Professional	17.0	8.0	0.0	0.0
Actual Volunteer	0.0	80.0	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
232778	482071	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
232778	272883	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1910049	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension

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.

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

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

Cooperative Extension Program

Extension agents are evaluated on the ability to recruit and train volunteers to support local 4-H programs. Therefore, they received one-on-one and group instruction during program planning and performance review. Exhibits were displayed in various locations as outreach to recruit volunteers. Training was offered to both extension agents and volunteers through conferences, group classes, individual consultation, and online sessions.

2. Brief description of the target audience

AgriLife Extension

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.

Cooperative Extension Program

The target audience includes partnering with underserved youth, families, and community organizations to recruit and train volunteers. One recent challenge posed by NIFA's Director of Youth & 4-H has been to combine professional and volunteer development. Consequently, Extension faculty, young professionals, and high school/college students were targeted.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	100006	1341789	23677	0

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

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # group educational sessions conducted.

Year	Actual
2013	4416

Output #2

Output Measure

- # of volunteers and staff that participate in professional /volunteer leadership development and service-learning.
 Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of community service and service-learning hours provided by volunteers and participants.
 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 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 a Master Volunteer program.
4	% increase of readiness by participants for the world of work.
5	% increase in value for service for participants.
6	% of participants who apply citizenship, leadership, and job skills.

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
2013	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 2013, there were more than 4,000 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.

Evaluation of youth involved in leadership programs, such as Leaders 4 Life, indicated 100% gained knowledge of leadership development, while 98% are more confident serving in a leadership role, 75% know their leadership styles and how to use them effectively in leadership roles, and 74% can define leadership and leadership qualities.

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 Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	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. 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 and Extension volunteers 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, 98% of participants indicated they believed what they learned gives them the ability to lead more effectively and 89% are more confident serving in a leadership role. Additionally, 100% of volunteers that participated in training specific to their volunteer role indicated that what they learned provides them with the knowledge and ability to be a better volunteer leader.

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 a Master Volunteer program.

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

% increase of readiness by participants for the world of work.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	17

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The 4-H program empowers youth to reach their full potential, working and learning in partnership with caring adults. Traditionally, parent involvement has been a critical component for program success. Reaching new and undeserved audiences will require that additional volunteer bases be engaged to address the needs of local youth.

What has been done

The Cooperative Extension Program developed a student advisory committee. The unit also worked with two student organizations, the Rodeo Club and Panthers United, to develop volunteers. Two grants were secured to support developing teens as volunteers.

Results

The Cooperative Extension Program trained 30 college students to assist with large scale equine events and 15 college students to be healthy living ambassadors. There were 132 teens

trained as healthy living ambassadors, who have reached 3,690 youth and families. The outcomes related to healthy living in these communities are still being tabulated.

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

% increase in value for service for participants.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The opportunity to value and practice service has been identified as one of the eight essential elements of positive youth development. It is also a critical component for successful volunteer recruitment and retention. Giving back to others in meaningful ways helps youth and adult leaders learn about themselves as well as gain exposure to the larger community.

What has been done

Teen volunteers and adult leaders have been able to serve others as project leaders, contest judges/coaches/mentors, club managers, ambassadors, and committee members. Additional service opportunities have included cleaning cemeteries, donating shoes to school children, providing care boxes to soldiers, cleaning cages at animal shelters, serving the homeless dinner, providing science lessons at a museum, rebuilding playgrounds, etc.

Results

There were 1163 community service/service learning hours provided in 2013. There were also 19,002 contacts were made by volunteers.

4. Associated Knowledge Areas

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

Outcome #6

1. Outcome Measures

% of participants who apply citizenship, leadership, and job skills.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

No external factors affected this program for 2013.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Various evaluations are conducted for individual volunteer and leadership development programs facilitated by the Texas A&M 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

Nothing extra to report.

V(A). Planned Program (Summary)

Program # 9

1. Name of the Planned Program

Food Safety

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
501	New and Improved Food Processing Technologies	0%	0%	0%	10%
502	New and Improved Food Products	0%	0%	0%	10%
503	Quality Maintenance in Storing and Marketing Food Products	0%	0%	0%	10%
701	Nutrient Composition of Food	0%	0%	0%	10%
702	Requirements and Function of Nutrients and Other Food Components	0%	0%	0%	20%
703	Nutrition Education and Behavior	0%	0%	0%	10%
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	0%	0%	0%	20%
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	100%	100%	100%	10%
	Total	100%	100%	100%	100%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	7.0	3.0	17.0
Actual Paid Professional	4.3	2.0	4.1	7.0
Actual Volunteer	0.0	219.0	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
58879	120519	233117	981777
1862 Matching	1890 Matching	1862 Matching	1890 Matching
58879	68221	250973	806786
1862 All Other	1890 All Other	1862 All Other	1890 All Other
483130	0	1081672	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension and AgriLife Research

County Extension Agents were trained to become instructors for the Food Protection Management Program. Additional training was provided/identified so that instructors can maintain their instructor qualification status per Agency guidelines. The program was implemented in counties across the state that have a County Extension Agent who is able to teach the program. Program materials were available in both English and Spanish.

The Certified Food Manager (CFM) course was evaluated by assessing the pass rate on the CFM exam. The food handler's course was also offered by qualified instructors (CEA-FCS) in both English and Spanish and via the use of distance education (on-line). Pre and post knowledge surveys were used to evaluate the course (change in knowledge).

Work at the National Center for Electron Beam Research was focused on development and application of safe technologies to reduce pathogens on fruits and vegetables. E-beam was also studied as a means of reducing the threat of accidental introduction of insect pests and plant diseases in imported agricultural commodities.

Cooperative Extension Program and Cooperative Agricultural Research Center

The Cooperative Extension Program county agents target limited resource adults and youth and provided presentations on food safety. Limited resource clientele learned proper food handling procedures, personal hygiene while preparing produce and meat products to prevent cross contamination, how to prepare and store food properly.

Agents and specialist within the Cooperative Extension Program were ServSafe trained and received certification. Three CEP agents took the Certified Food Manager Course and were certified. Educational trainings were conducted with restaurants, schools, and churches teaching staff members how to properly handle food.

Educational methods used to conduct trainings included one-on-one consultations, on-site food demonstrations, train-the-trainer, educational programs and classes, taught a series of food safety classes to special interest groups, and educational displays at various sites.

The Cooperative Agricultural Research Center (CARC) provided information to the Cooperative Extension Program regarding conducting research based food quality and food products. CARC examined ways to

supplement caprine products with polyunsaturated fatty acids (PUFA). Ongoing development of value added caprine products (both meat and dairy).

Evaluated strategies for minimizing transfer of microbial pathogens during food handling. Food selection was improved by optimal evaluation of transfer of nutrition knowledge. CARC worked with CEP-FCS Specialist to develop, FACT Sheets, social media, and other resources pertaining to food safety.

2. Brief description of the target audience

AgriLife Extension and AgriLife Research

AgriLife Extension targets individuals who are employed in the retail 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. The work of AgriLife Research is focused on growers, importers, food processors, purveyors, and retailers.

Cooperative Extension Program

The Cooperative Extension Program Family and Consumer Sciences unit works directly in communities with minority families, single adults, single parents, Title I schools, restaurants, and churches who are underserved and under-represented.

Cooperative Agricultural Research Center

The primarily targeted audience is the underserved population living in the surrounding counties and the Northwest Houston Corridor. This population is dominated by Hispanics and African - Americans. Also, this area has been designated by the State of Texas as Prairie View A&M University's service area.

3. How was eXtension used?

eXtension was used to market our online food handler course. FACT Sheets were used by CEP from eXtension to provide limited resource clientele additional food safety information.

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	7192	53531	283	0

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

Patent Applications Submitted

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	3	35	38

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2013	335

Output #2

Output Measure

- # of research-related projects.

Year	Actual
2013	17

Output #3

Output Measure

- # of on site demonstrations for adults and youth.

Year	Actual
2013	68

Output #4

Output Measure

- # of research workshops/presentations.

Year	Actual
2013	2

Output #5

Output Measure

- # of graduate/undergraduate students involved in research projects.
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	FPM Pass/Fail Rate - percentage of participants who pass the DSHS Certified Food Manager exam on the first attempt.
2	Percentage increase in knowledge as a result of completing the food handler's course.
3	# of participants who will be able to practice food safety best practices to include identify sanitation and food safety, practice personal cleanliness when handling food, identify causes of foodborne illness, identify symptoms of foodborne illness, and use food safety procedures when preparing and serving meals
4	# of commercialization of methods/technologies for improving the quality, safety and use of food and food products that will ensure the reduction of food borne illnesses and other nutritionally related diseases.

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
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	79

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension

Nearly 1 in 6 Americans become ill from a foodborne illness (FBI) each year. While hundreds of pathogens have been linked to FBI, the Economic Research Service (ERS) of the USDA estimates that five pathogens alone (Campylobacter, Salmonella, Listeria monocytogenes, E. coli O157:H7, and E. coli non-O157:H7 STEC) cost nearly \$7 billion dollars annually (medical expenses, lost productivity, and death). Foodborne illness can originate in the home but it is most often associated with foods produced outside the home. In Texas, restaurants in counties that are under the jurisdiction of the State Health Department are required to have a Certified Food Manager on site.

Cooperative Extension Program

Food quality and safety involves purchasing, preparing, and storing food using procedures that prevent the spread of bacteria and reduce the risk of foodborne illness. Every year more than 76 million people get sick from food poisoning. County Health Department provides food handler training for food service employees. Extension provides all clients with proper food handling procedures, teaching the effectiveness of personal hygiene, preparing food properly, and storing food properly allows clients to handle food safely and can prevent contamination which causes foodborne illness.

What has been done

AgriLife Extension

In response to the need for trained foodservice workers and the need for restaurants to have a CFM on site, Extension Agents offered the Certified Food Manager Program to individuals who needed this certification for employment.

Cooperative Extension Program

The Health Coordinator and Extension agents became ServSafe certified and enrolled in Food Protection Management courses to educate limited resource clientele and business on proper food safety. Education programs were conducted throughout 17 Texas counties with youth and adults. Education programs were conducted in churches, schools, restaurants, day cares, and with community outreach organizations.

Results

AgriLife Extension

During 2013 1,245 individuals across the state completed the Certified Food Manager program. The Certified Food Manager program uses classroom lectures, discussion, and hands-on activities to teach targeted concepts which include time and temperature control, preventing cross contamination, personal hygiene, pest control, receiving and storing foods, safe food preparation, and working with local health inspectors. The program was offered over a one-day or two-day period immediately followed by the administration of the Certified Food Manager exam.

Cooperative Extension Program

100% of the 1,320 of the respondents indicated that because of the information they will use food thermometers to check their food temperature. Participants stated that they would practice thawing meat properly, 93% of 650 participants stated that they would watch dates of keeping food. Other participants stated that they would make changes of handling food by making sure foods are stored properly, store food in the refrigerator sooner, reheat leftovers to 165 degrees, keep cold foods cold and hot foods hot, put up leftovers earlier, and not leave all day on food left out at social gatherings. Positive results from handling food properly could result in preventing food borne illness and the public health care costs that may occur.

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

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

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
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3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension

Nearly 1 in 6 Americans become ill from a foodborne illness (FBI) each year. While hundreds of pathogens have been linked to FBI, the Economic Research Service (ERS) of the USDA estimates that five pathogens alone (Campylobacter, Salmonella, Listeria monocytogenes, E. coli O157:H7, and E. coli non-O157:H7 STEC) cost nearly \$7 billion dollars annually (medical expenses, lost productivity, and death). Foodborne illness can originate in the home but it is most often associated with foods produced outside the home. Therefore, having a trained workforce that handles food safely is critical to preventing FBI.

Cooperative Extension Program

Each year, an estimated 1 in 6 people become ill from the food they eat. Common symptoms of foodborne disease include nausea, vomiting, diarrhea, abdominal cramping, fever, and headache. While some people may view this as a mere case of "food poisoning," foodborne illness has serious health and economic consequences. In fact, foodborne illnesses from five pathogens alone (Campylobacter, Salmonella, Listeria monocytogenes, E. coli O157:H7, and E. coli non-O157:H7 STEC) cost more than \$6.9 billion in medical expenses, lost productivity, and even death. All of us are at risk for foodborne illness, but older adults, pregnant women, young children, individuals with chronic disease, and those with a compromised immune system are at an increased risk. Because nearly half of our food dollars are spent on foods eaten away from home, it is imperative that employees who work in retail food service handle food safely.

What has been done

AgriLife Extension

Texas A&M AgriLife Extension developed a food handler program which is currently accredited by the Texas Department of State Health Services. The program is targeted towards front line food service employees and focuses on time and temperature control, preventing cross contamination, and personal hygiene. The program is offered face-to-face at the County level and online in English, Spanish, and Chinese Mandarin.

Cooperative Extension Program

To meet the need for quality food safety education in Texas retail food establishments, the Food Protection Management (FPM) program was developed. A two-day certified food manager program prepares food service workers to sit for the state Certified Food Manager exam. The 2-hour food handler program, which is accredited by the Department of State Health Services, trains front-line food service workers on the basic principles of food safety. Both programs are conducted at the county level by Extension agents.

Results

AgriLife Extension

During 2013 3,417 individuals completed the food handler course (either face-to-face or online). Mean knowledge score when the course began was 70 (out of a possible 100) and significantly rose to 88 immediately after the course ended.

Cooperative Extension Program

During 2013, 33 people in Maverick County participated in the FPM program and completed the

food handler program. Change in knowledge (pre vs post) was used to evaluate the food handler program. In addition, client (customer) satisfaction surveys were collected from participants.

Upon completion of the pre and post survey, twenty four participants reported working in food service and 13 - 39% of the total participants reported receiving training in food safety. There was a significant increase in test scores comparing pre vs post which suggest an increase in knowledge regarding food safety. The mean score pre was 62 and post was 87.

4. Associated Knowledge Areas

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

Outcome #3

1. Outcome Measures

of participants who will be able to practice food safety best practices to include identify sanitation and food safety, practice personal cleanliness when handling food, identify causes of foodborne illness, identify symptoms of foodborne illness, and use food safety procedures when preparing and serving meals

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of commercialization of methods/technologies for improving the quality, safety and use of food and food products that will ensure the reduction of food borne illnesses and other nutritionally related diseases.

2. Associated Institution Types

- 1890 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

This issue is of great importance to our stake-holders primarily the underserved community, including students from low socio-economic backgrounds. The process of adding value to primary food products accomplishes the dual purpose of introducing new products and also extending the shelf-life for storage of foods (both intermediate to long-term storage). Historically, Americans have not consumed caprine products in any significant quantities, possibly due to a lack of education (i.e. either disinformation or misinformation), or exposure to the good attributes of these products. Also, there has been a lack of visibility and availability of saleable forms of consistent quality and quantity of these products.

What has been done

We have developed some value-added caprine products.

1. Pregnant does diets were supplemented with heated vegetable oils containing mono-unsaturated fatty acids and poly-unsaturated fatty acids. The offspring's natural antioxidant compounds were thus enhanced from birth to adulthood. This knowledge is important in controlling the health and disease fighting potential of the general population.
2. Food fortification and supplementation have been practical approaches for increasing the intake of essential fatty acids such as docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA), which are naturally present in algae and fish oils. The difficulties encountered when fortifying foods with DHA/EPA are primarily due to the lack of oxidative stability of these essential fatty acids. To improve the oxidative stability of algae and fish oils, antioxidants are usually added. The most effective antioxidants are synthetic antioxidants, but they are restricted by the FDA because of food safety concerns, hence the need for natural antioxidants. Research conducted in the PVAMU/CARC laboratories has shown that bovine and caprine caseins isolated from cow and goat milks used in combination with the carotenoids can contribute to the oxidative stability of algae oil-in-water emulsions.
3. For too long, goat milk consumption has been low due to the perception that goat milk is different and off-flavor from cow milk. However, with more education, the consumption of goat milk is now on the rise. PVAMU scientists are working on focusing attention on physical and chemical characteristics of goat milk products.

Results

Goat milk cheeses were manufactured at PV using different levels of proteolytic peptidases. The aroma compounds that are potentially important in contributing the typical flavor of goat milk were identified and quantified. This resulted in significant increase in the concentration of free short-chain fatty acids during the aging process. These short-chain fatty acids contribute to a more desirable end product. The impact of this research is more diversity in our food supply.

4. Associated Knowledge Areas

KA Code	Knowledge Area
501	New and Improved Food Processing Technologies
502	New and Improved Food Products
503	Quality Maintenance in Storing and Marketing Food Products
701	Nutrient Composition of Food
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and

Naturally Occurring Toxins

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

Brief Explanation

Other agencies are certified to conduct Food Safety in Texas Counties.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

For the food handler program, participants are asked to complete and pre and post knowledge survey to assess change in knowledge. For the certified manager program, we use the pass rate on the exam as the method of program evaluation. In addition, customer satisfaction survey is assessed for both programs.

Key Items of Evaluation

No additional information to report.

V(A). Planned Program (Summary)

Program # 10

1. Name of the Planned Program

Food and Nutrition Education for Limited Resource Audiences

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
703	Nutrition Education and Behavior	40%	0%	0%	0%
704	Nutrition and Hunger in the Population	20%	0%	0%	0%
801	Individual and Family Resource Management	40%	0%	0%	0%
	Total	100%	0%	0%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	20.0	0.0	0.0	0.0
Actual Paid Professional	20.7	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
283442	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
283442	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
2325765	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 were single education events that focus on a very specific concept/behavior (e.g. washing fresh produce to reduce the risk of a foodborne illness) as well as a series of lessons that focused on broader concepts such as label reading or food resource management. Networking with agencies and organizations audiences also occurred to expand outreach, identify new audiences, and leverage resources.

2. Brief description of the target audience

AgriLife Extension

The target audience for the Better Living for Texans program continues to be SNAP recipients, applicants, and other groups who qualify for program benefits. These groups includes 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 not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	115037	391102	118780	0

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

Patent Applications Submitted

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	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
2013	11012

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 "always" or "sometimes" 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
2013	18

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Regular physical activity has been shown to improve health and reduce the risk for many chronic diseases, which represent 75% of all health care costs. Unfortunately only 1 in 4 Americans are engaged in regular physical activity and nearly 1 in 3 receive no physical activity at all.

What has been done

During 2013, County Extension Agents promoted the Walk Across Texas (WAT) program within their counties. This includes participants who were enrolled in the Better Living for Texans program. This program uses a team approach to help individuals adopt the habit of regular physical activity. Over an 8-week period, individuals walk or perform another method of regular physical activity to log 830 miles (which is the distance one would travel to walk across the state of Texas).

Results

During 2013, 1386 BLT clients participated in WAT and reported their weekly mileage walked (or mileage equivalent based on the physical activity performed). Participants were from diverse ethnic and racial backgrounds and had an average age of 42 years. Over the 8 week period, mileage walked increased from 24.06 miles (Week 1) to 28.4 miles (Week 8). On average, participants increased their miles walked by 4.28; start to finish of 8 week program.

If these BLT participants walking at the same level as during WAT they have the potential to save a collective \$14,356,324 in future health care costs by avoiding type 2 diabetes and by reducing work absences.

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
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

For low-income audiences, the cost of food can use a larger percentage of a household's resources when compared to those categorized as middle and upper class. Helping families stretch food resources (including cash and SNAP benefits) can help reduce the need for emergency food assistance and can help families utilize their cash for other non-food expenses.

What has been done

Agents implemented the Better Living for Texans program and offered the Back to Basics series which focused on meal planning, tips for saving money and stretching food resources, and food safety. Low-cost recipes are featured at the programs and participants learn how to plan and prepare foods that are low in cost and high in nutrition.

Results

Of the 1158 participants who estimated their out-of-pocket food expenses, 42% (n=483) reported lower out-of-pocket food expenses 30 days (average reduction was \$75) after the program compared to when the program began. Nineteen percent (n=215) saw no significant change in out-of-pocket food expenses while 40% (n=460) saw out-of-pocket food expenses increase.

Overall, out of pocket food expenses were not statistically significantly different after the program ended compared to when the program began. (pre: \$270.69; post: \$274.23).

4. Associated Knowledge Areas

KA Code **Knowledge Area**

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
2013	98

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Nearly two-thirds of the adult population is overweight or obese. Excessive weight (overweight and obesity) is strongly linked to chronic disease, poor health outcomes, and increased health care costs. Reaching a healthy weight is not easy but is best achieved by engaging in regular physical activity and monitoring calorie intake.

What has been done

During 2013, participants enrolled in the Better Living for Texans program completed the Get the Facts series which teaches individuals how to the Nutrition Facts panel on food labels so healthy choices can be made. The program focuses on serving size (for calorie control), sodium, and fat. In addition to learning how to read food labels, participants learn how to make healthy food choices to help control calorie, fat, and sodium intake.

Results

In a sample of 1453 participants who completed Get the Facts and completed pre and 30-day follow-up surveys, there was a noticeable improvement in the percentage who used the food label to determine how much to eat. At the beginning of the program, 67% reporting using the food label always, most always, or sometimes but that increased to 98% 30 days after the program ended. Interestingly, the percentage using the food label always or almost always rose from 24% (pre) to 50% (30-days after the program ended). The percentage who never used food labels to determine how much to eat dropped from 16% (pre) to less than 1% (30 days after the program ended).

4. Associated Knowledge Areas

KA Code	Knowledge Area
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Outcome #4

1. Outcome Measures

The percentage of participants who shop with a list "always" or "sometimes" will increase.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	97

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

For low-income audiences, the cost of food can use a larger percentage of a household's resources when compared to those categorized as middle and upper class. Helping families stretch food resources (including cash and SNAP benefits) can help reduce the need for emergency food assistance and can help families utilize their cash for other non-food expenses. Using a shopping list when buying food can help families avoid impulse buys and unnecessary purchases that lower the amount of money available to buy healthy foods.

What has been done

Agents implemented the Better Living for Texans program and offered the Back to Basics series which focused on meal planning, tips for saving money and stretching food resources, and food safety. Low-cost recipes are featured at the programs and participants learn how to plan and prepare foods that are low in cost and high in nutrition.

Results

In a sample of 1538 participants, 81% (n=1255) reporting using a shopping list always or sometimes. Immediately after the program ended, 98% (n=1502) reported an intent to do so. Approximately 30 days later, 1499 (98%) were continuing to follow this practice.

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

Although 42% of participants were able to reduce their out-of-pocket expenses, there was no significant change for the group as a whole. In addition, 40% saw an increase in their out-of-pocket food expenses. Reasons why some participants saw an increase in food expenses are not fully understood but may include a rise in food costs, the occurrence of an economic hardship such as unemployment, change in SNAP or WIC benefits, or some other unexpected/emergency expense. Upon further evaluation of the data, participants who reported an increase in food expenses also reported an increase in the participation of SNAP and free/reduced school meals programs. It is also possible that when participants were surveyed 30-days later, they were better able to estimate their out-of-pocket food expenses compared to when they entered the program.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Individuals who enrolled in a program series were invited to complete a survey which assessed the extent that targeted behaviors were implemented. Immediately after the program series ended, we invited participants to complete a post survey which allowed us to assess intent to adopt the targeted behaviors. Approximately one month later, those participants who could be contacted were asked to complete a follow-up survey to assess the extent that the targeted behaviors were being followed. This allowed us to estimate the extent that those behaviors were actually adopted.

Key Items of Evaluation

No additional information to report.

V(A). Planned Program (Summary)

Program # 11

1. Name of the Planned Program

Livestock and Meat Quality, Safety, and Productivity

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
301	Reproductive Performance of Animals	10%	20%	10%	20%
302	Nutrient Utilization in Animals	25%	20%	15%	0%
303	Genetic Improvement of Animals	5%	0%	5%	0%
304	Animal Genome	0%	0%	10%	20%
305	Animal Physiological Processes	0%	0%	0%	30%
306	Environmental Stress in Animals	5%	0%	5%	0%
307	Animal Management Systems	20%	20%	20%	20%
308	Improved Animal Products (Before Harvest)	20%	0%	20%	0%
311	Animal Diseases	0%	20%	0%	0%
312	External Parasites and Pests of Animals	0%	10%	0%	0%
313	Internal Parasites in Animals	5%	10%	5%	10%
315	Animal Welfare/Well-Being and Protection	10%	0%	10%	0%
	Total	100%	100%	100%	100%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	45.0	7.0	20.0	27.0
Actual Paid Professional	28.8	12.0	28.4	7.5
Actual Volunteer	0.0	72.0	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
394354	723106	1617227	1051904
1862 Matching	1890 Matching	1862 Matching	1890 Matching
394354	409325	2528690	864414
1862 All Other	1890 All Other	1862 All Other	1890 All Other
3235848	0	3735483	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension and AgriLife Research

Research as well as group and individual education were ongoing across the 7 key subject matter/commodity areas. Methods of education include 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. Much of the research was based on animal genomics as a tool to predict performance and to optimize breeding and production strategies.

Cooperative Extension Program

Conducted educational programs
 Conducted subject matter workshops/field days/ tours
 Provided one-on-one technical assistance/consultations
 Conducted training programs
 Assisted clients with development of farm plans
 Held on-farm demonstrations

Cooperative Agricultural Research Center

Trials were conducted to investigate various forage based production systems and management practices. The effect of forage type (Clover, Winter Peas and native rye grass) and breed (Boer x Boer, Boer x Spanish, Spanish x Spanish, and Spanish x Boer) of kids, and breed of dam, on growth to weaning and from weaning to market size of kids were evaluated. Efficiency of growth and level of kid survival was significantly affected by breed of dam, litter size and forage type. Results will help producers decide on breed combinations and forage qualities in order to most profitable.

Our goal is to increase the efficiency of artificial insemination and embryo transfer by developing genomic based testing and analysis. Artificial insemination and embryo collection and transfer are the most effective techniques utilized in the commercial livestock industry to increase the offspring of genetically superior animals, increase animal production value and disseminate genetics globally.

Two interdependent objectives were initiated. The first characterizes small non-coding RNA (small ncRNA) in spermatozoa and in seminal plasma during the pathogenesis of poor semen quality in bucks. Distinct signatures of small ncRNAs occur in mature haploid spermatozoa and in seminal plasma during the pathogenesis of poor semen quality in dairy goats and are likely important during fertilization and for

the paternal contribution to successful zygotic and early embryonic development.

The second objective is to identifying, quantifying and characterizing RNAs during normal and premature regression of the CL and from endometrium (EN) during the critical stages of pregnancy recognition and initiation of placentation using RNA-Seq analysis. Tissues are being collected to complete the goals of each objective.

These projects are designed to combine generational, genotypic and phenotypic information from the seminal plasma, sperm, and testes to eventually develop diagnostic biomarkers for the fertility status of individual animals during juvenile development. Bioinformatic analysis of RNA-seq data from the goat CL and EN will provide an understanding of endometrial responsiveness to P4 and conceptus secretions and luteolytic mechanisms that is available only in select ruminant species. A long-range goal is to determine whether the process of early regression of the goat CL is controlled by similar mechanism as normal luteolysis or is a consequence of improper follicular development prior to ovulation. These data will provide the foundation for developing techniques to overcome the problem of early regression of the CL in the goat and ultimately increase fertility when assisted reproductive technologies are utilized.

2. Brief description of the target audience

AgriLife Extension and AgriLife Research

The target audience was 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.

Cooperative Extension Program

Small farmers; limited resource farmers; family farmers and socially disadvantaged farmers.

Cooperative Agricultural Research Center

While the University's service area extends throughout Texas and the world, the University's target service area includes the Texas Gulf Coast Region. This includes the surrounding counties and includes the rapidly growing residential and commercial area known as the Northwest Houston Corridor as noted in the original Texas Plan. Therefore, problems associated with agricultural production systems, including those that exist at urban-agricultural interfaces and impact stakeholders will be addressed.

3. How was eXtension used?

AgriLife Extension and AgriLife Research

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

Cooperative Extension Program

Agents and Specialist were able to download publications customized with PVAMU-CEP logo to share with Producers. Agents also direct producers to the eXtension website to search for information.

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	51556	410778	10188	0

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

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	0	722	722

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2013	2843

Output #2

Output Measure

- # of research-related projects.

Year	Actual
2013	123

Output #3

Output Measure

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

Year	Actual
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2013

115

Output #4

Output Measure

- # of graduate/undergraduate students involved in research projects.
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 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
2013	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, Grassfed Beef Conference, Pasture Management Workshops, Bull Selection, Low-Stress Livestock Handling, Stockmanship schools, Southwest Dairy Conference, livestock restocking programs. Youth programs included the 39th 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 261 county programs.

Results

From measures including beef/dairy cattle, sheep/goats, horses and meats, 62% to 100% reported intent to adopt of at least one best management practice. 60% to 94% expected to increase income or profitability by adoption of best management practices. 66% to 83% of respondents indicated they would implement changes to their livestock and resource management practices as they rebuild their livestock inventories. 60% to 92% reported elimination of non-productive practices. 67% implemented financial plans, 74% hay analysis, 82% reported use of cost/lb of nutrient strategies for alternative feedstuffs and 91% 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
- 1890 Extension
- 1862 Research
- 1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	87

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension and Research

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.

Cooperative Extension Program and CARC

Livestock production, more specially cattle production is the number one enterprise on more agricultural operation in Texas. Small Scale landownership is growing in popularity as more and more leisure farms are added to the landscape. Many producers we work with are part time

and/or absentee owners and cattle fit well into their production model because they require minimal daily care. One of the key challenges facing livestock producers is parasite control. Goat producers are challenged by the fact that goats appear to have less natural immunity to internal parasite which can result in high mortality. We often see very poor parasite management in horses raised by Small scale Livestock producers as well.

What has been done

AgriLife Extension and Research

Programs conducted include TAMU Beef Cattle Short Course, Texas Beef Quality Producer, Beef and Pork 101, Beef 706, Grassfed Beef Conference, Retail Beef Boot Camps, Rebuilding Texas Herds, Retail Beef Boot Camps, Pasture Management Workshops, Bull Selection, Low-Stress Livestock Handling, Stockmanship schools, Southwest Dairy Conference, Livestock management during drought. Youth programs included the 39th 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 261 county programs.

Cooperative Extension Program and CARC

The Cooperative Extension Program conducted a one day workshop on parasite control in small ruminants for agents and producers. The focus was on identifying what parasites were present and developing a program which included management to control them. One-On-One interaction between extension staff and producers to conduct parasite screening in cattle, goats, and horses were conducted through the year. Agents teamed with specialist to conduct horse health clinic with trail ride groups in the state including one conducted on campus. Extension teamed with the IGRC to conduct programs at two field days on campus and another in South Texas.

Results

AgriLife Extension and Research

74% to 100% reported improved decision making ability. 70% to 100% reported increased confidence in management ability. 93% indicated knowledge gains of 52% to 87% for livestock management following extreme drought and loss of forage production potential, cattle handling, food safety control, environmental management, financial management during drought, livestock evaluation and general livestock and ranch management.

Cooperative Extension Program and CARC

More than 30 producers and Agents attended the one day small ruminant workshop, 140 producers attended Ag Field Day, held on campus and South Texas. Agents and specialist contacted over 100 cattle, goat, and horses producers on matters relating to heard health focusing on parasite control.

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

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
2013	64

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. A continued push was made through programming to encourage producers to look at enterprise diversification and adding stocking rate flexibility into their production systems.

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, Rebuilding Texas Herds, Southwest Beef Symposium, Beef 706, Reproductive Management Shortcourse, Cattle Handling and Dairy Programs.

Results

51% 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 \$12.60 per head. Participants in Quality Assurance programs indicated increased income from \$20 to \$80 per head. Of the Beef 706 participants 81% indicated they would benefit economically by an estimated \$26.00. Reproductive management practices on beef and dairy operations indicated returns of \$30 to \$85 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

AgriLife Extension and Research

Livestock ownership, production and use in Texas continues to be influenced by natural disasters. 2013 followed two tough production years for livestock production. 2011 was the driest year on record and the second hottest year on record. 2012 saw only regional and periodic relief to the devastation of the 2011 production year. Recovery in 2013 was limited to non-existent across most of Texas with only the eastern third of the state seeing measureable improvement. Weather related challenges 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. Input prices, agriculture valuation, 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.

Cooperative Extension Program

Small Farmers are often hesitant to seek assistance form federal or state agencies, and rely on inherited knowledge, neighbors, or trial and error. Extension programs can be beneficial to landowners who are willing to take advantage of our services.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

AgriLife Extension and Research

Outcome measures include pre-post knowledge assessment, adoption of best management practices and elimination of non-beneficial practices, and change in confidence/competence. Changes in time and money spent/saved/invested for livestock production were measured in selected areas.

Cooperative Extension Program

Agents conducted an initial participant survey to gauge producer's level of understanding and the likelihood of adoption of the information being presented. Each Participant was contacted using the enrollment list to follow up on their interest and adopting the information. Agents worked with one-on-one with those producers who were interested in adopting new practices. One-on-one evaluations were conducted to monitor progress of each producer and to determent economic impact.

Key Items of Evaluation

AgriLife Extension and Research

No additional information to report.

Cooperative Extension Program

Number of producers adopting new practices and technology.
Number of producers reporting increased income or cost savings
Number of producers reporting increased understanding of subject matter

V(A). Planned Program (Summary)

Program # 12

1. Name of the Planned Program

Life Skills for Youth (includes Character Education and Leadership)

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being	0%	40%	0%	0%
806	Youth Development	100%	60%	0%	0%
	Total	100%	100%	0%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	65.0	7.0	0.0	0.0
Actual Paid Professional	197.3	9.0	0.0	0.0
Actual Volunteer	0.0	114.0	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
2701597	542330	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
2701597	306994	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
22167803	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension

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 is 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.

Cooperative Extension Program

4-H Youth development takes place in 29 Texas counties facilitated by extension agents with the Cooperative Extension Program in partnership with community volunteers and agencies. There were outreach activities such as speeches, presentations, experiments on wind energy and water conservation as well as literature dissemination at local health fairs and other community events. Demonstrations and educational enrichment were provided to youth in schools and afterschool programs in life skills, healthy living, workforce development, and science exploration and discovery. Community clubs developed and promoted life leadership skills and service to others in a context with caring adults. There were special interest project clubs in areas such as gardening and robotics. Youth maintained record books and practiced in order to participate in contests such as food shows, soil judging, archery, public speaking, and livestock shows on the county, district, state, and national levels. Special events like camps, conferences, and project-oriented days were also sponsored. The university and county extension websites, blogs, local newspapers, radio, Twitter, Facebook, newsletter, and reports were used to promote and highlight program successes.

2. Brief description of the target audience

AgriLife Extension

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

Cooperative Extension Program

Limited-resource youth, ages 9-19, and caring adults in urban and rural communities of 29 Texas counties throughout the State were targeted for this program. Special recruitment efforts were marketed to parents, adults and other agencies for support and collaboration to meet expected goals.

3. How was eXtension used?

eXtension was not used per say. We do offer some volunteer development trainings on this topic and some introduction 4-H Youth Development Program overviews on the site. Specifically, the South Region 4-H Leaders have placed some information on this site for new employees and volunteers on the following topics:

- * Overview of 4-H Youth Development
- * Ages and Stages of Youth Development

- * Volunteer Management
- * Youth Protection Standards

eXtension was used by CEP agents to answer questions from constituents in subject areas where they lack knowledge, particularly when specialists lack expertise to support them or they were responsible for covering a program area that was not their primary responsibility due to a position vacancy in the county office.

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	176169	2664999	516712	0

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

Patent Applications Submitted

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	20	0	20

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2013	21953

Output #2

Output Measure

- # of youth that participate in educational activities and programs.
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 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 of leadership skills.
8	% of 4-H club participants applying leadership skills.
9	# of new 4-H clubs established.
10	# of outcome plans conducted by agents in leadership.
11	% increase in competencies in job skills among limited resource youth.
12	% increase knowledge of and inspiration to pursue entrepreneurship, green jobs, and/or STEM careers among limited resource youth.
13	% improvement in STEM skills and climate change mitigation practices among limited resource youth.
14	% increase in knowledge and skills necessary to practice health eating activity and healthy levels of physical activity.
15	% increase in application of life skills, life leadership skills, and livelihood skills in and outside of 4-H context.

Outcome #1

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The country's future rests with the youth of today. Our role is develop these youth into responsible citizens. The background of the 4-H youth Development Program is developing youth leaders of tomorrow through life skill development. This continues to happen through 4-H community clubs and 4-H project clubs.

What has been done

Texas 4-H Youth Development includes over 55,000 youth in over 2000 clubs in Texas. Through this experience, youth learn leadership, citizenship, and life skills through club meetings and project experiences. Moreover, camps and additional leadership opportunities are provided to youth develop life skills throughout the year.

Results

- * 81% said they know how to work on their attitude.
- * 72% said their knowledge increased on understanding the differences in others
- * 72% said their knowledge increased on how to respect others
- * 65% said their knowledge increased on goal setting
- * 64% said they understand how to better accept criticism

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
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	80

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension

The country's future rests with the youth of today. Our role is develop these youth into responsible citizens. The background of the 4-H youth Development Program is developing youth leaders of tomorrow through life skill development. This continues to happen through 4-H community clubs and 4-H project clubs.

Cooperative Extension Program

Life skills are central to CEP 4-H programming as they have been identified as a key resource for positive, productive development of youth because it addresses what they must have to function well in society as they find it. In The Jacobs Foundation Guideline on Monitoring and Evaluating Life Skills for Youth Development (2011), life skills is presented as a set of core adaptive and positive attitudes, knowledge, and behaviors that enable young people to navigate the societal challenges encountered in everyday living and deal adequately with developmental tasks. More and more youth have to deal with bullying. The 2009 National Youth Risk Behavior and Indicators of School Crime and Safety found that 20-33% of teens and nearly 50% of middle school students had been bullied at school in the last year. The issue is so critical in Texas that through two bills state legislatures mandated school districts to train students and school personnel in bullying prevention as well as implement a dating violence and discipline management policies.

What has been done

AgriLife Extension

Texas 4-H Youth Development includes over 55,000 youth in over 2000 clubs in Texas. Through this experience, youth learn leadership, citizenship, and life skills through club meetings and project experiences. Moreover, camps and additional leadership opportunities are provided to

youth develop life skills throughout the year.

Cooperative Extension Program

CEP provided education to Youth and adults in nine counties on the subject of bullying centered on five lessons from the the Take A Stand curriculum. Youth were taught how to positively resolve conflict and stand up against bullying. Parents were taught how to recognize signs of bullying in their children. Teachers and after school providers were trained in how to implement the curriculum.

Results

AgriLife Extension

An evaluation study of 4-Hers was conducted and yielded the following: 4-Hers was conducted to determine their career development and interest based on their 4-H experience.

- * 96.0% agreed or strongly agreed that through 4-H, they have learned how to set goals.
- * 95.0% agreed or strongly agreed they have developed new skills and abilities through 4-H and can apply them.
- * 96.0% agreed or strongly agreed that they can make better decisions with greater confidence.

Cooperative Extension Program

CEP observed results as following:

Of the 1218 survey respondent across 8 counties , many of the respondents changed their behavior or took action. After the program, 75% could control anger, 73% could accept the consequences of violence, 65% can explain their point of view to others, 76% can listen to other points of view, 60% can compromise to solve a conflict, 83% can respect others, 73% can practice good manners, 80% are good team members, 71% can work with others to make decisions, and 80% can respect the customs and traditions of others.

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
- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	90

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Career development and workforce development have been a significant priority for the Texas 4-H Youth Development Program. Over the last year, several research studies have been conducted to determine where 4-H is regarding career development. This is a very important topic for the Program to ascertain and further develop for better retention and preparing youth for the future.

What has been done

A research study conducted with almost 700 high school aged 4-Hers was conducted to determine their career development and interest based on their 4-H experience.

Results

- * 97.3% agreed or strongly agreed that the 4-H learning experiences provided have made them successful.
- * 96.0% agreed or strongly agreed the importance of making a career choice.
- * 96.0% agreed or strongly agreed that it is important to explore careers are an early age.
- * 94% agreed or strongly agreed that 4-H experiences have benefited them in future career decisions.

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
2013	70

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

How others are treated, character education, ethical decisions, and anti-bullying are all significant programs in Texas 4-H Youth Development. Currently, this topic is one of the three most important educational content areas the Texas 4-H Program addresses.

What has been done

Character education is significant part of our youth livestock program. A statewide assessment is conducted on every 4-Her and FFAer that participates in the program. In addition, Take a Stand, an anti-bullying program targeting 3rd graders is conducted in schools statewide.

Results

In two years, the quality counts test (measuring knowledge eand skills of ethics and character) has been passed by 129,000 youth (4-Hers and FFAers).

* Quality Counts - 4-H Juniors - 85% testing score on questions regarding knowledge of six pillars of character, decision making, and helping others.

* Quality Counts 4-H Seniors - 74% testing score on questions regarding knowledge of six pillars of character, decision making, and helping others.

Take a Stand - Qualitative Assessments with elementary youth have revealed strength in understanding differences in others.

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
2013	70

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

How others are treated, character education, ethical decisions, and anti-bullying are all significant programs in Texas 4-H Youth Development. Currently, this topic is one of the three most important educational content areas the Texas 4-H Program addresses.

What has been done

Character education is significant part of our youth livestock program. A statewide assessment is conducted on every 4-Her and FFAer that participates in the program. In addition, Take a Stand, an anti-bullying program targeting 3rd graders is conducted in schools statewide.

Results

In two years, the quality counts test (measuring knowledge eand skills of ethics and character) has been passed by 129,000 youth (4-Hers and FFAers).

* Quality Counts - 4-H Juniors - 85% testing score on questions regarding skills regarding teamwork, applying the six pillars of character, and completing a decision making tree.

* Quality Counts 4-H Seniors - 74% testing score on questions regarding skills regarding teamwork, applying the six pillars of character, and completing a decision making tree.

Take a Stand - Qualitative Assessments with elementary youth have revealed changes in teamwork and group orientation.

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
2013	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

How others are treated, character education, ethical decisions, and anti-bullying are all significant programs in Texas 4-H Youth Development. Currently, this topic is one of the three most important educational content areas the Texas 4-H Program addresses.

What has been done

Character education is significant part of our youth livestock program. A statewide assessment is conducted on every 4-Her and FFAer that participates in the program. In addition, Take a Stand, an anti-bullying program targeting 3rd graders is conducted in schools statewide

Results

Quality Counts behavior changes noted:

- * 99% said they will respect others in the show ring.
- * 98% will look for health problems in their projects
- * 98% will set personal goals for themselves
- * 97% will help others in the show ring
- * 97% will follow the directions on medication labels.

Take a Stand Pilot

- * Almost all indicated Take A Stand K-2 positively changed youth who participated.
- * Almost all educators indicated students learned the difference between telling and tattling.
- * More than half indicated students began to use proper manners & show respect more often towards their fellow classmates and teachers.
- * More than half indicated Take A Stand K-2 students applied the teamwork, good sportsmanship, and sharing concepts more with their peers.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #7

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	25

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension

Leadership is critically important to the future. In addition to life skill development, leadership development is the next step in developing our youth.

Cooperative Extension Program

Since its inception, 4-H has placed emphasis on the importance of young people being engaged, well-informed citizens. The core areas of citizenship are civic engagement, service, civic education, and leadership. Youth voice and self-determination are essential elements of positive youth development. Civic engagement provides a foundation that helps youth understand the "big picture" of life and find purpose and meaning. By connecting to their communities and community leaders, youth understand their role in civic affairs and expand their role in decision making processes.

What has been done

AgriLife Extension

Texas 4-H Youth Development aims to teach leadership concepts through club and project work. Clubs have elected officers that all have responsibility and roles regarding parliamentary procedure, teamwork, relationship building, and communicating (to name a few). This is also done by programs like Leaders 4 Life.

Cooperative Extension Program

In Dallas County, 206 youth participated in a teen leadership development program to develop the social skills, leadership abilities, and service to the community.

Results

AgriLife Extension

- * 29% increase in understanding of my strengths and things I need to work on to be a better leader.
- * 23% increase in understanding responsibilities of being a leader.
- * 22.7% increase in understanding of public speaking
- * 22.3% increase in understanding of teamwork.
- * 18.7% increase in understanding of how to cooperate with others while working on a team.

Cooperative Extension Program

There were 80 of the 206 (39%) youth that completed the pre and post test. The results were as follows: 96% agreed they were able to promote their own self-determination through the various activities and field trips offered (an increase from 38% pretest) and 88% agreed or strongly agreed they were able to set goals and develop a plan (increase from 59% pretest). Some comments from youth were, "I enjoyed being able to leave outside my zip code. If not for the program I probably never would have" and "The best part of the program was going to see the farm animals down south. Who would have thought straight urban kids would play with farm animals and like it."

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #8

1. Outcome Measures

% of 4-H club participants applying leadership skills.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension

Leadership is critically important to the future. In addition to life skill development, leadership development is the next step in developing our youth.

Cooperative Extension Program

Since its inception, 4-H has placed emphasis on the importance of young people being engaged, well-informed citizens. The core areas of citizenship are civic engagement, service, civic education, and leadership. Youth voice and self-determination are essential elements of positive youth development. Civic engagement provides a foundation that helps youth understand the big picture of life and find purpose and meaning. By connecting to their communities and community leaders, youth understand their role in civic affairs and expand their role in decision making processes.

What has been done

AgriLife Extension

Clubs have elected officers that all have responsibility and roles regarding parliamentary procedure, teamwork, relationship building, and communicating (to name a few). This is also done by programs like Leaders 4 Life.

Cooperative Extension Program

Students worked the Soup Mobile to perform community service for the homeless, volunteered at the Food Bank of North Texas, and planned a community festival in Dallas County. Community service in other counties included clearing a cemetery in Brazos County, rebuilding and painting a playground in Bexar County, donating over 60 pairs of shoes to Edgewood ISD in Bexar County, cleaning an animal shelter in Cass County.

Results

- * 89.2% said, I am more comfortable working in a team because of what I have learned.
- * 88.2% said, I am more confident in my abilities as a leader because of what I have learned.
- * 88.0% said, I am more confident in making decisions because of what I have learned.
- * 87.3% said, I have learned information that will help me make better leadership decisions.
- * 86.1% said, I plan to implement any of the activities or ideas I learned at Leadership Lab in my county.
- * 84.8% said, I am more comfortable speaking with others because of what I have learned.
- * 73.0% said, I am more confident with public speaking because of what I have learned.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #9

1. Outcome Measures

of new 4-H clubs established.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	53

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Youth today have many opportunities to participate in activities in their community. Our traditional 4-H club experience can take almost all the time of youth that make the decision to be in the program. So, the Texas 4-H Youth Development Program implemented a new effort to promote a shorter-term experience to get more kids involved.

What has been done

Texas 4-H Youth Development implemented a new initiative to try and promote and develop new shorter-term clubs that would allow youth to participate in the 4-H experience and then move on to other activities. The concept was called SPIN (Special Interest Clubs)

Results

53 new clubs have been started with SPIN in their club name for this 4-H year.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #10

1. Outcome Measures

of outcome plans conducted by agents in leadership.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	30

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Leadership development happens best locally. Youth leadership programs that are conducted and evaluated locally provide the most meaningful outcomes because this development is happening on-going throughout the year vs one shot camps and statewide programs.

What has been done

Leaders 4 Life, a new program that has been implemented statewide focused on teaching leadership principles to youth through local 4-H county councils. This program is now four years old and has reached the highest totals regarding educational reach.

Results

- * 97.5% believe that what they learned has given them the ability to make better leadership decisions.
- * 97.5% are more confident in serving in a leadership role.
- * 92.5% have developed or improved their teamwork skills.
- * 90.0% know how to be an effective communicator and good listener.
- * 87.5% can effectively participate in a business meeting using correct parliamentary procedure.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #11

1. Outcome Measures

% increase in competencies in job skills among limited resource youth.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	81

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Employment trends in the 21st century are in Science, Technology, Engineering, and Math (STEM) careers and green jobs as indicated by the Workforce Investment Act. Findings from the first report of the STEM Workforce Data Project confirm there have persistently not been enough people to fill these positions in the United States, called the skill gap or broken worker pipeline. So even though unemployment is extremely high, these positions remain vacant. Their third report finds, during the last decade, there has been limited improvement of minorities in STEM occupations.

Engagement of minorities and limited-resource individuals in these careers is critical to the nation's success and sustainability. Failure to do so is creating a national crisis that will eventually have a crippling effect on the Texas economy- which leads the nation cattle and goat production, aeronautics, defense, healthcare, energy or oil, and computer technology. Youth, particularly those who are minority and/or in limited-resourced communities, have not been adequately exposed and equipped to fill that gap and that is reflected in the extremely low employment rates. Therefore, it is important to provide youth with opportunities for early exposure, skill development, and practical application or mastery in science and related fields.

What has been done

The Cooperative Extension Program in Harris County (Houston, TX) conducted workforce preparation and youth development training offer strategies for employability that includes six lessons. They cover the use of The Workforce solutions One ?Stop Web site that provides employment, business, education, legislative, and financial information for all Texas residents. All youth are provided an employment hunting kit to aid them in learning how to properly prepare an application (paper and electronic) as well as write a cover letter and resume. Last participants participate in mock interviews and dress for success workshops.

Results

All 210 participants were evaluated at the conclusion of each session. The following questions were placed on a five point Likert scale which consists of before and after knowledge based questions. The ten questions were rated from 1-5 knowledge bases before and after retro respective survey questions. Participants experienced the most growth in learning to have good working relationships with supervisors and coworkers and how to greet people/customers at work. Of the 210 participants, 170 (81%) students were placed and currently hold employment in the fields of dental technicians and medical assistances according to the placement director.

4. Associated Knowledge Areas

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

Outcome #12

1. Outcome Measures

% increase knowledge of and inspiration to pursue entrepreneurship, green jobs, and/or STEM careers among limited resource youth.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	60

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The nation is facing declining proficiencies in science, engineering, and technology (SET) as well as significant workforce shortages in these critical fields. The Nation's Report Card revealed that only 18% of US high school seniors were deemed proficient in science in 2005, representing a 0% proficiency growth since 2000. Statistics for minority students show an even more dramatic disparity. Too many of our nation's young people do not have the science, engineering and technology skills needed for careers in the 21st century. Informal community based education programs can be utilized to address the emerging issues of youth science literacy crisis.

What has been done

The Cooperative Extension Program facilitated demonstrations, experiments, field trips and other hands-on learning in science in Dallas and Harris Counties. More than 360 youth participated in

robotics and food science. In the robotics program, teams of youth applied math, technology, and problem solving skills to address the issue of food deserts in competition. The other science program focused on developing the science literacy of participants through experiments.

Results

Of the 150 participants in Dallas county, 78% agreed or strong agreed that a career in a STEM field was plausible or possible for them. After the program, 100% agreed or strongly agreed (a 22% increase). In the Harris county program, 123 of the 210 (60%) of the respondents indicated they were interested in a career in science during a post-test.

4. Associated Knowledge Areas

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

Outcome #13

1. Outcome Measures

% improvement in STEM skills and climate change mitigation practices among limited resource youth.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	83

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The nation is facing declining proficiencies in science, engineering, and technology (SET) as well as significant workforce shortages in these critical fields. The Nation's Report Card revealed that only 18% of US high school seniors were deemed proficient in science in 2005, representing a 0% proficiency growth since 2000. Statistics for minority students show an even more dramatic disparity. Too many of our nation's young people do not have the science, engineering and technology skills needed for careers in the 21st century. Informal community based education programs can be utilized to address the emerging issues of youth science literacy crisis.

According to the Environmental Protection Agency website, climate change may negatively affect coastal states like Texas in many ways as they sensitive to rising sea levels and atmospheric

concentrations of carbon dioxide changes in the frequency and intensity of storms, increases in precipitation, and warmer ocean temperatures. Water conservation has been identified as an issue for Tarrant County (Dallas/Fort Worth) since 1999 through the Texas Community Futures Forum issue identification process. The continuing drought trends across the state of Texas have increased the need for citizens to be educated about water, where it comes from, its uses and how it can be conserved and protected.

What has been done

The Cooperative Extension Program facilitated demonstrations, experiments, field trips and other hands-on learning in science through robotics, food science, water education, and animal science programs in Harris, Dallas, Tarrant, and El Paso Counties. The Youth Water program used the stream trailer and Enviro Scape Watershed model to educate youth about water quality and conservation at school or community events. In the robotics program, teams of youth and applied math, technology, and problem solving skills to address the issue of food deserts in competition. Other science programs focused on developing the agricultural literacy of participants through animal and food science experiments.

Results

In Tarrant County's Youth Water education program, there was a 17.8% for 14 of the 32 respondents in belief among participants that water conservation should be practiced by everyone. Other changes were in knowledge of erosion and the earth's surface water and ways to prevent or protect it. In Dallas County's science program, of the 57 respondents there was a 29% in the youth's ability to understand how science affects their life. Behavior changes included increases in their ability to use observation skills, record data, and analyze results from a science experiment (46%) and ability to apply the scientific method to solve problems in and out of the classroom (77%). Findings from the 210 youth survey in the Harris County Agribotics programs indicate that there were 76.1% and 82.6% increases respectively in their ability to question things using the scientific method and to develop a hypothesis to test a theory or idea.

4. Associated Knowledge Areas

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

Outcome #14

1. Outcome Measures

% increase in knowledge and skills necessary to practice health eating activity and healthy levels of physical activity.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	90

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

According to Feeding America, data from 2011 indicate that Texas (at 18.5%) is among the top three food insecure states in the nation. Twenty-two percent of Texas children under age eighteen are food insecure?the highest rate of any state in the country. Texas is also ranked seventh in the nation with a child obesity rate of 20.4 percent. According to the 2011 Youth Risk Behavior Survey, conducted by the Centers for Disease Control and Prevention, Texas youth continue to engage in behaviors that do not contribute to a healthy lifestyle.

What has been done

The Eat 4-Health program mobilized underserved youth and their adult leaders provide leadership and take action around nutritional deficiencies, healthy food choices, and physical activity in eight counties. A statewide training was provided for 132 youth participants and 32 adult leaders where participants were engaged in hands on learning experiences in leadership, curriculum facilitation, presentation skills, and program planning. Participants returned to their county to recruit and train additional youth and adult healthy living ambassadors, conduct events to kick off healthy living campaigns in their communities, and complete community service and educational sessions. Funding was provided by WalMart through the National 4-H Council.

Results

Healthy Living Common Measure surveys were administered as part of the Eat 4-Health grant. Those results have not yet been tabulated, but will be entered into a national database. There were 553 additional surveys collected. Based on 109 responses from youth ages 13 to 19 at the statewide healthy living ambassadors training, participants reported increased knowledge gains in all five areas measured. The greatest level of knowledge gains were made in the participants understanding of nutrition values (44.8%) and effects of sugary drinks (39.1%). The lowest area of knowledge gain occurred in understanding of physical activity importance (17.7%). In Cameron County, 319 respondents in grades 3 through 5 over 90% increased their knowledge of the foods they should eat daily, why it's important to eat a healthy diet, and how to make healthy food choices. Participants also changed behaviors to drink more water (90%), eat more fruits/vegetables and whole grains (78% and 80.2% respectively), and consume less junk food (60%). Nearly 70% of them encouraged their family and friends to eat meals together. Similarly in Fort Bend County, 85% of 125 youth participants ages 10 to 12 indicated they would do things differently because of what they learned. The greatest knowledge gains were in understanding My Pyramid (56%), how to create a menu (52%), the functions of fat (51%), and how to recognize fad diets.

4. Associated Knowledge Areas

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

Outcome #15

1. Outcome Measures

% increase in application of life skills, life leadership skills, and livelihood skills in and outside of 4-H context.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	77

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Life skills are central to CEP 4-H programming as they have been identified as a key resource for positive, productive development of youth because it addresses what they must have to function well in society as they find it. In The Jacobs Foundation Guideline on Monitoring and Evaluating Life Skills for Youth Development (2011), life skills is presented as a set of core adaptive and positive attitudes, knowledge, and behaviors that enable young people to navigate the societal challenges encountered in everyday living and deal adequately with developmental tasks.

According to UNICEF (2002), they can be applied to actions directed at the self, other people, or the local environment. So they are important for helping youth shape the world and not just cope with it. They empower youth to take steps that promote health, positive social relationships, and contribute to society. The core areas of life skills are social and interpersonal skills, cognitive skills, emotional coping skills, life leadership skills, technical skills, livelihood skills, civic engagement, and service.

What has been done

Educational outcome programs were conducted in at least eight counties throughout the state to promote the development of life, leadership, and livelihood skills in the areas of science, healthy living, and citizenship for youth participants.

Results

There was an average increase of 77% in healthy eating and physical activity among the 444 participants surveyed in Cameron and Fort Bend Counties. There was an average increase of 73% among the 1468 participants surveyed in pro social behaviors such as listening, controlling anger, and resolving conflict positively in Bexar, Brazos, Cameron, Dallas, Fort Bend, Harris, Tarrant, and Travis Counties. In science there was an average increase of 77% among

the 267 respondents in their ability to apply the scientific method to inquire and solve problems in and outside the classroom in Cass, Dallas, Harris, and Tarrant Counties.

4. Associated Knowledge Areas

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

All intended objectives and goals were met. We are working to build the SPIN 4-H Club concept and expect this to grow.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

The results offered in this document are pulled from county, district, and statewide evaluations and aggregated as best possible to answer these questions. The focus agency wide is outcome measures (knowledge, skills, behaviors) as indicated in this document.

Key Items of Evaluation

Youth Leadership, life skill development, career workforce development

V(A). Planned Program (Summary)

Program # 13

1. Name of the Planned Program

Crop and Forage Production Systems

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	10%	0%	10%	0%
204	Plant Product Quality and Utility (Preharvest)	10%	10%	10%	0%
205	Plant Management Systems	20%	10%	20%	0%
211	Insects, Mites, and Other Arthropods Affecting Plants	0%	20%	0%	0%
212	Pathogens and Nematodes Affecting Plants	10%	20%	10%	0%
213	Weeds Affecting Plants	10%	20%	10%	0%
215	Biological Control of Pests Affecting Plants	10%	20%	10%	0%
216	Integrated Pest Management Systems	30%	0%	30%	0%
	Total	100%	100%	100%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	75.0	5.0	85.0	0.0
Actual Paid Professional	49.5	4.0	110.7	0.0
Actual Volunteer	0.0	75.0	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
677796	241035	3167174	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
677796	136442	10102342	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
5561613	0	16908958	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension and AgriLife Research

Provide training and program materials to County Extension Agents to conduct educational programs at the county level. Technical assistance is provided to agents by specialists in the area of result demonstrations 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. Marker-assisted selection was utilized in plant breeding research to mitigate drought stress and to select for resistance to disease and pests. Multi-disciplinary research focused on sustainable cropping systems.

Cooperative Extension Program

Conducted educational programs
 Conducted subject matter workshops/field days/ tours
 Provided one-on-one technical assistance/consultations
 Conducted training programs
 Assisted clients with development of farm plans

2. Brief description of the target audience

AgriLife Extension and AgriLife Research

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.

Cooperative Extension Program

Small farmers; limited resource farmers; family farmers and socially disadvantaged farmers.

3. How was eXtension used?

Agents and Specialist were able to download publications customized with PVAMU-CEP logo to share with Producers. Agents also direct producers to the eXtension website to search for information.

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	34904	1503280	2609	0

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

Patent Applications Submitted

Year: 2013
 Actual: 6

Patents listed

- * Tamnut OL06 Peanut
- * Cotton Alpha-Globulin Promoter for Seed-Specific Expression of Transgenes
- * Regulatory Element from a Sugarcane Proline Rich Protein and Uses Thereof
- * Discovery and Utilization of Sorghum Genes (MA5/MA6)
- * Intergeneric Hybrid Plants and Methods for Production Thereof
- * Axcella 2 Annual Ryegrass

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	0	1824	1824

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted.

Year	Actual
2013	1972

Output #2

Output Measure

- # of research-related projects.

Year	Actual
2013	219

Output #3

Output Measure

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

Year	Actual
2013	159

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.
3	Cumulative economic benefit (in millions) of improved technology in crop industry.
4	# of new jobs supported by value-added impacts

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
2013	93

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Hay production is a necessity for the beef cow-calf operator, as it is an important ration that helps ranchers maintain their cow herd during the winter, and in times of forage shortage, such as drought.

What has been done

The Hay Production and Purchasing program is a one-day program focused on providing information on hay production and purchasing as well as feeding hay to livestock. Topics covered included: forage species and variety selection; forage quality (factors and testing); fertility management; weed management; establishment of warm season annual forages; hay storage and feeding.

Results

Participants in the Hay Production Program were surveyed on their intentions to adopt best management practices:

- * 81% of participants intend to test they hay for crude protein and energy
- * 86.7% intend to use a soil analysis to improve nutrient management
- * 93.3% intend to use recommended practices/technology to control weeds
- * 78.9% of participants intend to use recommended practices to reduce storage and feeding losses.

Participants anticipate a total economic benefit of \$22.44 per acre due to the knowledge gained at this program. The total anticipated economic impact for their individual operation (based on an average of 397 acres per respondent) was \$9,245 total. For Hay Production and Purchasing, survey results indicate a net promoter score of 88.9 %.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
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
- 1890 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension and Research

Hay production is a necessity for the beef cow-calf operator, as it is an important ration that helps ranchers maintain their cow herd during the winter, and in times of forage shortage, such as drought.

Cooperative Extension Program

A major portion on the land resources held by Limited Resource producers is not in production and in many cases has been out of production for 10-30 years. This program will enable small-scale agricultural operators and commercial producers in rural and suburban areas to become more knowledgeable in effectively identifying and evaluating horticultural diversification strategies for risk mitigation and Improved economic sustainability based on total management goals and optimal resource base use.

What has been done

AgriLife Extension and Research

The Hay Production and Purchasing program is a one-day program focused on providing information on hay production and purchasing as well as feeding hay to livestock. Topics covered included: forage species and variety selection; forage quality (factors and testing); fertility management; weed management; establishment of warm season annual forages; hay storage and feeding.

Cooperative Extension Program

The Cooperative Extension Program teamed with Researchers from CARC to conduct both on and off campus demonstrations on the use of grafted cucumbers. Extension conducted training on vegetables production to new farmer via a grant from WalMart emphasis was placed on High Tunnel production. Three workshops were conducted on High Tunnel Production of horticulture crops. Collaborate with Texas A&M University to conduct project on Strawberry Production.

Results

AgriLife Extension and Research

Attendees (27 out of 33 that responded to the survey) on average own 397 acres in Texas (located anywhere from Houston to East Texas). Overall participants increased their knowledge of hay production and purchasing on average by 100%.

Participants anticipate a total economic benefit of \$22.44 per acre due to the knowledge gained at this program. The total anticipated economic impact for their individual operation (based on an average of 397 acres per respondent) was \$9,245 total. For Hay Production and Purchasing, survey results indicate a net promoter score of 88.9 %.

Cooperative Extension Program

Field Demos were conducted in Waller, Ft Bend, Washington, Smith, and Bowie counties as well as on campus demo. Spring and Summer production were very high, in some cases as many as fifty marketable cucumbers per plant. Field demo had limited results due to poor site preparation and no irrigation. We found that plants must have water in order to maintain high product levels.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
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 #3

1. Outcome Measures

Cumulative economic benefit (in millions) of improved technology in crop industry.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	544

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Upland cotton is economically the most important crop in the state of Texas, with annual sales of lint and seed exceeding \$2 billion. Due to the climate and its inherent environmental stress, cotton is planted on approximately 6 million acres annually. As the choice of variety is most important single decision that a producer can make relative to yield and quality of the crop, AgriLife Extension, collaborating with the cotton industry, farmers and seed companies, has established approximately 30 large scale replicated, on farm cotton variety trials across the cotton producing areas of the state to demonstrate new technology being released by cotton seed companies. These large scale RACE plots demonstrate the best varieties from the cotton breeding programs of all of the seed companies. The adoption of the superior varieties in Extension field trials was tracked by comparison to cotton classing data from the USDA cotton classing offices.

What has been done

Improved seed technology and variety testing efforts have led to significant improvements in both cotton lint quality and yields in the state. Since 2000, average yields per harvested acre have increased from 475 pounds to 669 pounds. Since 2011, more than 9,900 cotton producers across the state have participated in 183 educational meetings conducted by AgriLife Extension. More than 1,500 test plot trial reports have been distributed to producers, cotton gins and consultants via educational meetings, Web site downloads, CDs and DVDs since 2011.

Results

From 2000 to 2011, the cumulative benefit of improved technology and increased adoption by growers is estimated at \$544 million, which has helped growers to partially offset the sharp increases in production costs in recent years.

4. Associated Knowledge Areas

KA Code	Knowledge Area
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems

Outcome #4

1. Outcome Measures

of new jobs supported by value-added impacts

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1470

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Upland cotton is economically the most important crop in the state of Texas, with annual sales of lint and seed exceeding \$2 billion. Due to the climate and its inherent environmental stress, cotton is planted on approximately 6 million acres annually. As the choice of variety is most important single decision that a producer can make relative to yield and quality of the crop, AgriLife Extension, collaborating with the cotton industry, farmers and seed companies, has established approximately 30 large scale replicated, on farm cotton variety trials across the cotton producing areas of the state to demonstrate new technology being released by cotton seed companies. These large scale RACE plots demonstrate the best varieties from the cotton breeding programs of all of the seed companies. The adoption of the superior varieties in Extension field trials was tracked by comparison to cotton classing data from the USDA cotton classing offices.

What has been done

Improved seed technology and variety testing efforts have led to significant improvements in both cotton lint quality and yields in the state. Since 2000, average yields per harvested acre have increased from 475 pounds to 669 pounds. Since 2011, more than 9,900 cotton producers across the state have participated in 183 educational meetings conducted by AgriLife Extension. More than 1,500 test plot trial reports have been distributed to producers, cotton gins and consultants via educational meetings, Web site downloads, CDs and DVDs since 2011.

Results

For the ginning sector, the annual gain associated with varietal improvements, testing, and education supports approximately 2,100 jobs annually at cotton gins in the state. The value-added impacts associated with ginning the additional production were estimated at \$156 million in 2011, which supports an additional 1,470 jobs in ginning support industries.

4. Associated Knowledge Areas

KA Code	Knowledge Area
204	Plant Product Quality and Utility (Preharvest)
205	Plant 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

AgriLife Extension and Research

No external factors to report.

Cooperative Extension Program

Small Scale Horticulture crop production is subject to natural disasters such as drought, insects, and diseases. CEP Extension will assist producers in migrating risk by providing risk management education to producers. Producers lack knowledge to be profitable in the high risk area of agriculture production.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

AgriLife Extension and Research

From 2000 to 2011, the cumulative benefit of improved technology and increased adoption by growers is estimated at \$544 million, which has helped growers to partially offset the sharp increases in production costs in recent years. For the ginning sector, the annual gain associated with varietal improvements, testing, and education supports approximately 2,100 jobs annually at cotton gins in the state. The value-added impacts associated with ginning the additional production were estimated at \$156 million in 2011, which supports an additional 1,470 jobs in ginning support industries.

Cooperative Extension Program

Agents conducted an initial participant survey to gauge producer's level of understanding and the likelihood of adoption of the information being presented. Each Participant was contacted using the enrollment list to follow up on their interest and adopting the information. Agents worked with one-on-one with those producers who were interested in adopting new practices. One-on-one evaluations were conducted to monitor progress of each producer and to determine economic impact. Agents will assist in marketing of produce and record net profit to the producer.

Key Items of Evaluation

AgriLife Extension and Research

The collaboration of Extension with private seed companies and cotton commodity groups in developing highly visible, large scale, replicated field trials, coupled with a variety of educational methods has been highly successful in getting growers to adopt the best cotton varieties with respect to yield and lint quality. This partnership coupled with traditional extension educational programming has resulted in over \$150 million/year in increased income to the farm community and an additional 3570 jobs associated with cotton ginning and industries associated with ginning.

Cooperative Extension Program

- Number of producers adopting new practices and technology.
- Number of producers reporting increased income or cost savings
- Number of producers reporting increased understanding of subject matter

V(A). Planned Program (Summary)

Program # 14

1. Name of the Planned Program

Child Passenger Safety

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
723	Hazards to Human Health and Safety	100%	100%	0%	0%
	Total	100%	100%	0%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	0.0	0.0	0.0
Actual Paid Professional	3.5	1.0	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
47925	60259	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
47925	34110	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
393245	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension and Cooperative Extension Program

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

AgriLife Extension and Cooperative Extension Program

Under-served residents of urban and rural areas in Texas.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	10903	45442	8584	0

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	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
2013	472

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
- 1890 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	2344

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The proper use of child safety seats reduces the risk of injury and death, leading to reduced medical costs, avoidance of lost future earnings, and improved quality of life. These economic benefits are an estimated \$1,988 per child age 0 to 4 and \$2,347 per child age 4 to 7 for new seats distributed, and \$558 per child for seat misuse with an assumed 75% continued use. For the 2,344 safety seats inspected in 2013, the economic benefit is estimated at nearly \$2.9 million.

What has been done

Working with Extension agents across the state at child safety seat checkup events and fitting stations, project-trained technicians educate parents one-on-one about the correct installation and usage of their child safety seat as well as deliver educational programs on child passenger safety.

Results

2,344 child safety seats were inspected and 1,657 child safety seats were distributed in 2013. In 2013, the project trained 33 participants as certified child passenger safety technicians including 3 Extension Agents and 13 law enforcement officers.

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

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

Brief Explanation

No external factors affected this program.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

2,344 child safety seats were inspected and 1,657 child safety seats were distributed in 2013. In 2013, the project trained 33 participants as certified child passenger safety technicians including 3 Extension Agents and 13 law enforcement officers.

Key Items of Evaluation

2,344 child safety seats were inspected and 1,657 child safety seats were distributed in 2013. In 2013, the project trained 33 participants as certified child passenger safety technicians including 3 Extension Agents and 13 law enforcement officers.

V(A). Planned Program (Summary)

Program # 15

1. Name of the Planned Program

Cancer Risk Reduction and Early Detection

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
723	Hazards to Human Health and Safety	35%	0%	35%	0%
724	Healthy Lifestyle	65%	0%	65%	0%
	Total	100%	0%	100%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	3.0	0.0	2.4	0.0
Actual Paid Professional	3.3	0.0	8.3	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
45186	0	289078	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
45186	0	318654	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
370774	0	2452757	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension and AgriLife Research

County agents will work with local volunteers, regional cancer prevention program specialists, and patient navigators 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 will be provided in 49 selected counties. Each event will include 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 will be provided by the Cancer Prevention and Research Institute of Texas for transportation and clinical services to women needing assistance.

2. Brief description of the target audience

AgriLife Extension and AgriLife Research

Under-served rural residents of Texans who are at risk for breast and cervical cancer.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	2957	48713	1153	0

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	0	22	22

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of education sessions conducted.

Year	Actual
2013	276

Output #2

Output Measure

- # research-related projects.

Year	Actual
2013	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.

Not Reporting on this Outcome Measure

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
2013	883

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, uninsured 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 costly and impairing their future quality of life.

What has been done

A total of 48 Friend to Friend events were held with 2,201 women attending. 883 women attending the events completed Help Request forms, asking for support from the project specialist and patient navigators to ensure screenings were completed. 53 clinical contracts were established to support payment of services for women qualifying for assistance by the Texas Cancer Prevention and Research Institute (CPRIT) funds. The funding supports 8 FTEs. Over 4,500 volunteers assisted statewide to plan, implement and evaluate the Friend to Friend events.

Results

A total of 48 Friend to Friend events were held with 2,201 women attending. 883 women attending the events completed Help Request forms, asking for support from the project specialist and patient navigators to ensure screenings were completed. 53 clinical contracts were established to support payment of services for women qualifying for assistance by the Texas Cancer Prevention and Research Institute (CPRIT) funds. These funds paid for 638 breast screenings and 532 cervical screenings. Women who were identified as needing further diagnostic testing were also assisted. CPRIT funds paid for 155 breast diagnostics and 48 cervical diagnostics.

CPRIT funds paid for 638 breast screenings and 532 cervical screenings. Women who were identified as needing further diagnostic testing were also assisted. CPRIT funds paid for 155 breast diagnostics and 48 cervical diagnostics.

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

No external factors affected this program.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

A total of 48 Friend to Friend events were held with 2,201 women attending. 883 women attending the events completed Help Request forms, asking for support from the project specialist and patient navigators to ensure screenings were completed. 53 clinical contracts were established to support payment of services for women qualifying for assistance by the Texas Cancer Prevention and Research Institute (CPRIT) funds. These funds paid for 638 breast screenings and 532 cervical screenings. Women who were identified as needing further diagnostic testing were also assisted. CPRIT funds paid for 155 breast diagnostics and 48 cervical diagnostics.

Key Items of Evaluation

Friend to Friend events are an effective way to recruit underserved, uninsured rural women to get screened for breast and cervical cancer. During 2013, CPRIT funds paid for 638 breast screenings and 532 cervical screenings. Women who were identified as needing further diagnostic testing were also assisted. CPRIT funds paid for 155 breast diagnostics and 48 cervical diagnostics.

V(A). Planned Program (Summary)

Program # 16

1. Name of the Planned Program

Family Financial Security

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
801	Individual and Family Resource Management	100%	100%	0%	0%
	Total	100%	100%	0%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	4.5	0.0	0.0
Actual Paid Professional	3.4	4.0	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
46556	241035	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
46556	136442	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
382010	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension

Implement the Money Smart Financial Education Curriculum.
 Implement the Wi\$e Financial Planning for Generation X and Y Curriculum

Cooperative Extension Program

Cooperative Extension Program provides a series of educational programs designed to equip parents with better financial management skills. Education programs are provided through one-on-one consultation, , teach one time and a series of money management classes to special interest groups educational displays at various sites, social media Facebook, fact sheets, and newsletters.

2. Brief description of the target audience

AgriLife Extension

Money Smart: unbanked, less financially-sophisticated consumers.
 Wi\$eUp:Generations X and Y, with emphasis on women ages 22-35.

Cooperative Extension Program

The Cooperative Extension Program is mandated through federal legislation to serve limited resource audiences in Texas. Our primary focus is to target audience which includes limited resource Texas citizens including minority families and individuals, senior adults, single and teen parents, college students, individuals who have experienced job loss.

3. How was eXtension used?

Relevant resources from eXtension have been used to prepare news releases and contribute to the eXtension database of FAQs in family financial security.

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	1461	2765	236	0

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

Patent Applications Submitted

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	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
2013	140

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of participants who increase knowledge on financial management.
2	# of participants who reduced debt and increased savings.

Outcome #1

1. Outcome Measures

of participants who increase knowledge on financial management.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	77

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension

Many families face the constant challenge of managing limited resources to meet everyday expenses. The increasing complexity of the financial system and the lack of formal financial literacy education further burdens families who are trying to make ends meet, particularly low-income families. The recent recession and slow recovery have heightened consumer awareness of the need for financial literacy education. Growing unemployment, foreclosures, and credit delinquencies have contributed to increased interest among consumers in budgeting, saving, and cutting back on spending.

Cooperative Extension Program

All individuals, whether living in rural or urban communities are confronted with multifaceted issues that include declining workforce preparedness, job loss, lack of resources, and increased poverty. Some counties in Texas has 8% unemployment and 23% children living in poverty. The ability to manage one's money is a valuable life skill. Learning through trial and error can be very stressful and expensive. Losing your job, being laid off, or having your family income decrease is traumatic. It is not just a loss of income, but also of the security and way of life.

What has been done

AgriLife Extension

Money Smart is a financial management program developed by the Federal Deposit Insurance Corporation (FDIC). While targeted at adults outside the financial mainstream, this curriculum can be used with adults who have low financial knowledge and skills. The curriculum helps individuals build financial knowledge, develop financial confidence, and use banking services effectively.

Through a partnership and contract with the U.S. Department of Labor Women's Bureau, Texas

A&M AgriLife Extension Service developed Wi\$eUp, an eight-module financial education curriculum offered online and in workshop or classroom settings. Wi\$eUp targets Generation X and Y women, with an emphasis on 22-35 year-olds. Program topics include savings, investing, financial planning, insurance and risk management, credit and debt management, retirement planning, and other relevant topics.

Cooperative Extension Program

The Money Management program is designed to respond to today's economic situation. There is a serious lack of financial preparedness and an inability to navigate everyday financial situations. Therefore, through educational sessions, i.e., 1) Peace of Mind (creating a budget); 2) Identity Theft; 3) Saving to Build Wealth; 4) Rebuilding Credit 5) Living (Well) on Less Part I and Part II, participants develop their knowledge and skills to navigate a complex marketplace and achieve lifetime financial security. This program seeks to be both proactive and empowering to individuals with a limited income. Other money management programs included identity theft and goal setting. Some of the audiences included Texas Council on Alcohol and Drug Abuse, Families in Crisis, Texas Housing Consortium, Workforce Centers, and Helping Hands Ministry.

Results

AgriLife Extension

Since 2004, more than 1,100 Money Smart classes have resulted in more than 15,000 educational contacts. In 2013, 8 Texas counties made 3,127 educational contacts by conducting 91 educational sessions utilizing the Money Smart curriculum. Classes were 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.

Since 2004, nearly 23,000 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 2013, 3,302 Texans have participated in Wi\$eUp, including 353 who participated in programs conducted by Extension educators in 10 Texas counties.

A three-month post-assessment of the Wi\$eUp program showed that 77% of participants in programs conducted by Extension educators reported reducing their debt since taking the Wi\$eUp course, compared to 61% of the participants who were not in a program conducted by an Extension educator.

The three-month post-assessment showed that 57% of Extension participants reported increasing their savings or investments for retirement or other purposes, compared to 51% for non-Extension participants. Overall, 86% of all participants made at least one positive change in savings habits.

Cooperative Extension Program

96 of the 106 participants reported they will spend less money at the grocery store and 73 believed they could stretch their food dollars to last until the end of the month. 100% of respondents anticipate benefiting economically as a direct result of information they learned from this CEP activity.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #2

1. Outcome Measures

of participants who reduced debt and increased savings.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	77

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension

The Financial Capability Survey conducted by FINRA continues to reinforce the need for financial education.

- * 18% of Texans indicated they spent more than they made in the previous year.
- * 61% reported no emergency funds to cover at least three months of expenses in an emergency.
- * 32% reported using one or more non-bank borrowing (e.g., title loans, payday loans, pawn shops, rent-to-own) method in the past five years.
- * Texans only answered 3 of 5 financial literacy questions correctly.

Cooperative Extension Program

Texas has over 8 million limited resource individuals. The Family and Consumer Sciences staff is addressing several issues to stretch the dollar within these limited resource families. The continuous rising cost of fuel, families needing to take medication, increasing food dollars, families are finding it difficult to stretch their income from one month to another. Additionally, many limited resource Texans do not possess the adequate education for today's employment.

What has been done

AgriLife Extension

Money Smart and Wi\$eUp programs have been implemented.

Cooperative Extension Program

The Family and Consumer Sciences staff members in CEP are addressing financial stability by showing families how to stretch their food dollar by purchase foods that cost less in the grocery store. Clientele have been taken on field trips in their local community, began growing vegetable

gardens in their back yard and participating with community gardens. Additionally, clientele are discussing with their physicians the most cost effective medication with the same benefits and they are asking if there are any samples that the doctor's office can provide. Furthermore, some clientele have reached out to pharmaceutical companies to receive free or reduced cost medication. Educational programs are also being taught in secondary education classrooms using math as a means of teaching students the cost of products and everyday living.

Results

AgriLife Extension

A three-month post-assessment of the Wi\$eUp program showed that 77% of participants in programs conducted by Extension educators reported reducing their debt since taking the Wi\$eUp course, compared to 61% of the participants who were not in a program conducted by an Extension educator.

The three-month post-assessment showed that 57% of Extension participants reported increasing their savings or investments for retirement or other purposes, compared to 51% for non-Extension participants. Overall, 86% of all participants made at least one positive change in savings habits.

Cooperative Extension Program

63% anticipate benefiting economically as a direct result of what they learned from this activity. Over 200 youth have participated in the Real World education simulation. 98% of those students now realize the cost of living as well as their career choices may determine their future income. Educators have expressed the positive changes in their students' academic behavior once they have participated in this educational workshop.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

Technical constraints have impacted maintenance of the Wi\$eUp website and online course system. Small numbers of Extension educators implement financial education programs at the local level, thus limiting the overall participation of Texans in such programs.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

For several years, participant evaluations have been analyzed to determine knowledge gained, skills learned, and intent to change financial management behaviors. 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.

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. 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.

Key Items of Evaluation

Nothing additional to report.

V(A). Planned Program (Summary)

Program # 17

1. Name of the Planned Program

Global Food Security and Hunger

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	0%	20%	0%	0%
205	Plant Management Systems	0%	20%	0%	0%
211	Insects, Mites, and Other Arthropods Affecting Plants	0%	20%	0%	0%
301	Reproductive Performance of Animals	0%	20%	0%	0%
703	Nutrition Education and Behavior	40%	20%	0%	0%
704	Nutrition and Hunger in the Population	20%	0%	0%	0%
801	Individual and Family Resource Management	40%	0%	0%	0%
	Total	100%	100%	0%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	10.0	12.0	0.0	0.0
Actual Paid Professional	8.0	4.0	0.0	0.0
Actual Volunteer	0.0	70.0	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
109543	241035	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
109543	136442	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
898847	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 were single education events that focus on a very specific concept/behavior (e.g. washing fresh produce to reduce the risk of a foodborne illness) as well as a series of lessons that focused on broader concepts such as label reading or food resource management. Networking with agencies and organizations audiences also occurred to expand outreach, identify new audiences, and leverage resources.

Cooperative Extension Program

Provided one-on-one consultations
 Conducted on-site food demonstrations
 Provided train-the-trainer opportunities
 Conducted educational programs and classes
 Taught a series of nutrition classes to special interest groups
 Exhibited educational displays at various sites

2. Brief description of the target audience

AgriLife Extension

The target audience for the Better Living for Texans program continues to be SNAP recipients, applicants, and other groups who qualify for program benefits. These groups includes 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.

Cooperative Extension Program

Minority families and individuals
 Senior adults
 Single parents
 Persons coping with and at risk for chronic illnesses
 Small farmers
 Limited resource farmers

Family farmers and socially disadvantaged farmers

3. How was eXtension used?

Agents and Specialist were able to download publications customized with PVAMU-CEP logo to share with Producers. Agents also direct producers to the eXtension website to search for information.

Texas A&M AgriLife Extension did not use eXtension.

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	115037	391102	118780	0

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of group educational sessions conducted (1862).

Year	Actual
2013	11012

Output #2

Output Measure

- # of group educational sessions conducted (1890).

Year	Actual
2013	12

Output #3

Output Measure

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

Year	Actual
2013	54

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.
2	# of participants understand and use MyPyramid in meal buying and preparation, become aware of diet related diseases, understand the connection between diet and exercise. Participants increase consumption of fruits and vegetables. Expectant teen mothers adopt healthy eating habits. Participants modify recipes to decrease amount of calories.
3	# of producers adopting best management practices on sustainable agriculture.

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
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

For low-income audiences, the cost of food can use a larger percentage of a household's resources when compared to those categorized as middle and upper class. Helping families stretch food resources (including cash and SNAP benefits) can help reduce the need for emergency food assistance and can help families utilize their cash for other non-food expenses.

What has been done

Agents implemented the Better Living for Texans program and offered the Back to Basics series which focused on meal planning, tips for saving money and stretching food resources, and food safety. Low-cost recipes are featured at the programs and participants learn how to plan and prepare foods that are low in cost and high in nutrition.

Results

Of the 1158 participants who estimated their out-of-pocket food expenses, 42% (n=483) reported lower out-of-pocket food expenses 30 days (average reduction was \$75) after the program compared to when the program began. Nineteen percent (n=215) saw no significant change in out-of-pocket food expenses while 40% (n=460) saw out-of-pocket food expenses increase.

Overall, out of pocket food expenses were not statistically significantly different after the program ended compared to when the program began. (pre: \$270.69; post: \$274.23).

4. Associated Knowledge Areas

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

Outcome #2

1. Outcome Measures

of participants understand and use MyPyramid in meal buying and preparation, become aware of diet related diseases, understand the connection between diet and exercise. Participants increase consumption of fruits and vegetables. Expectant teen mothers adopt healthy eating habits. Participants modify recipes to decrease amount of calories.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of producers adopting best management practices on sustainable agriculture.

2. Associated Institution Types

- 1890 Extension
- 1890 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	90

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Livestock production, more specially cattle production is the number one enterprise on more agricultural operation in Texas. Most Small Scale landowners give very little thought to the management of their livestock. i.e. most small scale landowners do not consider the important role that forages play in producing cattle. They do not soil test, lime, fertilize or properly rotate pastures. Therefore not they are not maximizing their profits.

What has been done

The Cooperative Extension Program in partnership with several community based organization conducted three workshops targeted at cattle producers focusing on forages, and general cattle health management. A one day workshop on Artificial Insemination in small ruminants was conducted by International Goat Center for agents and producers. County Extension agents also conducted programs in their counties to address local issues. One-On-One interaction between extension staff and producers to conduct individual assessments on the ranches were also conducted.

Results

A total of 120 producers attended the three workshops conducted in 2013. Agents conducted nine local programs in their respective counties attracting 108 producers. Agents supported by Specialist made 45 one-on-one visits with Livestock producers to assist cattle producers on farm. Participant Surveys collected indicate that 75% of the producers attending these workshops would adopt practices and technology presented. Individual ranchers that agents worked with reported an average saving of \$15.00 per cow/calf unit in feed cost/ animal health cost after adopting practices and technology learned through interaction with our programs. This represents a conservative estimate of about \$180,000.00.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
205	Plant Management Systems
301	Reproductive Performance of Animals

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

AgriLife Extension

Although 42% of participants were able to reduce their out-of-pocket expenses, there was no significant change for the group as a whole. In addition, 40% saw an increase in their out-of-pocket food expenses. Reasons why some participants saw an increase in food expenses are not fully understood but may include a rise in food costs, the occurrence of an economic hardship such as unemployment, change in SNAP or WIC benefits, or some other unexpected/emergency expense. Upon further evaluation of the data, participants who reported an increase in food expenses also reported an increase in the participation of SNAP and free/reduced school meals programs. It is also possible that when participants were surveyed 30-days later, they were better able to estimate their out-of-pocket food expenses compared to when they entered the program.

Cooperative Extension Program

The clientele we work with are often very slow to adopt new or even different technology. Agents often times must use "Transformational Education" methods to help them realize the need for change; evaluate options, before they will adopt new behaviors. This process is often time consuming and takes a great deal of personal commitment.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

AgriLife Extension

Although 42% of participants were able to reduce their out-of-pocket expenses, there was no significant change for the group as a whole. In addition, 40% saw an increase in their out-of-pocket food expenses. Reasons why some participants saw an increase in food expenses are not fully understood but may include a rise in food costs, the occurrence of an economic hardship such as unemployment, change in SNAP or WIC benefits, or some other unexpected/emergency expense. Upon further evaluation of the data, participants who reported an increase in food expenses also reported an increase in the participation of SNAP and free/reduced school meals programs. It is also possible that when participants were surveyed 30-days later, they were better able to estimate their out-of-pocket food expenses compared to when they entered the program.

Cooperative Extension Program

Agents conducted an initial participant survey to gauge producer's level of understanding and the likelihood of adoption of the information being presented. Each Participant was contacted using the enrollment list to follow up on their interest and adopting the information. Agents worked with one-on-one with those producers who were interested in adopting new practices. One-on-one evaluations were conducted to monitor progress of each producer and to determine economic impact.

Key Items of Evaluation

Cooperative Extension Program

Number of producers adopting new -practices and technology.
Number of producers reporting increased income or cost savings
Number of producers reporting increased understanding of subject matter.

V(A). Planned Program (Summary)

Program # 18

1. Name of the Planned Program

Childhood Obesity

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
703	Nutrition Education and Behavior	50%	100%	0%	0%
724	Healthy Lifestyle	50%	0%	100%	0%
	Total	100%	100%	100%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	3.0	7.0	1.0	0.0
Actual Paid Professional	1.8	7.0	0.3	0.0
Actual Volunteer	0.0	35.0	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
24647	421812	4331	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
24647	238773	105531	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
202240	0	5902	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension

Balancing Food & Play

The curriculum contains three elements: lesson plans, take-home reading assignments, and student journals.

- * Twenty lesson plans address physical activity, MyPyramid, making healthy choices, and goal setting.
- * The lessons incorporate higher-level thinking and learning skills (i.e., opportunities to design games, commercials, menus).
- * Eight take-home reading assignments and parent letters encourage family engagement by providing the opportunity for shared family discussions.
- * The reading assignments follow a fictional family as they learn about nutrition and physical activity, set goals, and learn to make healthy choices.
- * Each student receives a 41-page journal. The journal allows opportunities for reflective learning and goal setting.
- * The program evaluation includes child surveys regarding knowledge and behavior.

WAT Youth Component

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.

Communities Putting Prevention to Work

Each of the eight elementary schools formed community coalitions which worked with Extension agents and project personnel to design and implement changes to increase physical activity options and access to fresh fruits and vegetables.

AgriLife Research

Research is conducted in collaboration with State and Federal Women, Infant and Children Program leaders to provide data and programs to improve dietary habits of children and their parents or care givers. Research also involves native American populations and the school lunch program.

Cooperative Extension Program

Cooperative Extension Program provides a series of educational programs designed to equip parents with better meal preparation skills and persons coping with and at risk for chronic illnesses. Education programs are provided through one-on-one consultation, on-site food demonstrations, teach a series of nutrition classes to special interest groups a series of educational programs and classes, educational displays at various sites, social media FaceBook, fact sheets, and newsletters.

2. Brief description of the target audience

AgriLife Extension

Balancing Food & Play

Third grade students in Texas Schools

WAT Youth Component

Youth in Texas Schools

Communities Putting Prevention to Work

Elementary schools in underserved communities.

AgriLife Research

Parents and others who care for children, school lunch program administrators, and native Americans.

Cooperative Extension Program

The Cooperative Extension Program is mandated through federal legislation to serve limited resource audiences in Texas. Our primary focus is to target audience which includes limited resource Texas citizens including minority families and individuals, senior adults, single parents, college students, individuals who have experienced job loss and teen parents. Another targeted group include hospitals and assisted living facilities.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	123	2529	9265	0

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	5	0	5

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # youth participating in WAT Program.
Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # youth participating in Balancing Food and Play Program.
Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of classes/workshops addressing nutrition and health.
Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # of group educational methods conducted.

Year	Actual
2013	201

Output #5

Output Measure

- # of research-related projects.

Year	Actual
2013	1

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Percentage increase the number of children getting at least 60 minutes of physical activity.
2	Percentage decrease the number of children reporting decreased sweetened beverage intake.
3	Percentage decrease the number of children reporting 2 hours or less of screen time.
4	# of participants who understand and use My Plate in meal buying and preparation, become aware of diet related diseases, understand the connection between diet and exercise, increase consumption of fruits and vegetables.
5	# of participants modify recipes to decrease amount of calorie and adopt healthy eating habits.

Outcome #1

1. Outcome Measures

Percentage increase the number of children getting at least 60 minutes of physical activity.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	43

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, 18 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 are needed that increase awareness of food and physical activity recommendations and change behaviors associated with obesity.

What has been done

A multi-disciplinary team developed an integrated, interactive third-grade enrichment curriculum on nutrition and physical activity. The curriculum is based on the Texas Essential Knowledge and Skills (TEKS) and is titled Balancing Food & Play.

The Balancing Food & Play 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.

The curriculum contains four elements: 20 lesson plans, 8 take-home reading assignments, 4 parent letters, and a 41 page journal for each student. The 2nd edition of the Balancing Food & Play curriculum was released in the summer of 2011 to incorporate the new Food Guidance System called MyPlate. The MyPlate icon serves as a reminder for healthy eating and illustrates the five food groups.

During 2013, Texas A&M AgriLife Extension Service agents in 16 counties recruited local third grade classroom teachers to participate in this program. They received permission to implement

this school-enrichment program, and 819 students completed the curriculum. To date, 1,405 teacher manuals and 1,300 student journal masters have been downloaded from the website (<http://balance.tamu.edu>).

Results

At the completion of Balancing Food & Play, students were more likely to correctly identify food and physical activity recommendations.

Self-reported student behaviors related to physical activity, soda consumption, and screen time all of which are associated with obesity improved during the time that Balancing Food & Play was taught. The percentage of students who reported getting at least 60 minutes of physical activity increased from 53 percent to 76 percent.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #2

1. Outcome Measures

Percentage decrease the number of children reporting decreased sweetened beverage intake.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	31

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, 18 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 are needed that increase awareness of food and physical activity recommendations and change behaviors associated with obesity.

What has been done

A multi-disciplinary team developed an integrated, interactive third-grade enrichment curriculum on nutrition and physical activity. The curriculum is based on the Texas Essential Knowledge and

Skills (TEKS) and is titled Balancing Food & Play.

The Balancing Food & Play 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.

The curriculum contains four elements: 20 lesson plans, 8 take-home reading assignments, 4 parent letters, and a 41 page journal for each student. The 2nd edition of the Balancing Food & Play curriculum was released in the summer of 2011 to incorporate the new Food Guidance System called MyPlate. The MyPlate icon serves as a reminder for healthy eating and illustrates the five food groups.

During 2013, Texas A&M AgriLife Extension Service agents in 16 counties recruited local third grade classroom teachers to participate in this program. They received permission to implement this school-enrichment program, and 819 students completed the curriculum. To date, 1,405 teacher manuals and 1,300 student journal masters have been downloaded from the website (<http://balance.tamu.edu>).

Results

At the completion of Balancing Food & Play, students were more likely to correctly identify food and physical activity recommendations.

Self-reported student behaviors related to physical activity, soda consumption, and screen time all of which are associated with obesity improved during the time that Balancing Food & Play was taught. The percentage of students who reported drinking soda almost never or never increased from 32 percent to 42 percent.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #3

1. Outcome Measures

Percentage decrease the number of children reporting 2 hours or less of screen time.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	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, 18 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 are needed that increase awareness of food and physical activity recommendations and change behaviors associated with obesity.

What has been done

A multi-disciplinary team developed an integrated, interactive third-grade enrichment curriculum on nutrition and physical activity. The curriculum is based on the Texas Essential Knowledge and Skills (TEKS) and is titled Balancing Food & Play.

The Balancing Food & Play 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.

The curriculum contains four elements: 20 lesson plans, 8 take-home reading assignments, 4 parent letters, and a 41 page journal for each student. The 2nd edition of the Balancing Food & Play curriculum was released in the summer of 2011 to incorporate the new Food Guidance System called MyPlate. The MyPlate icon serves as a reminder for healthy eating and illustrates the five food groups.

During 2013, Texas A&M AgriLife Extension Service agents in 16 counties recruited local third grade classroom teachers to participate in this program. They received permission to implement this school-enrichment program, and 819 students completed the curriculum. To date, 1,405 teacher manuals and 1,300 student journal masters have been downloaded from the website (<http://balance.tamu.edu>).

Results

At the completion of Balancing Food & Play, students were more likely to correctly identify food and physical activity recommendations.

Self-reported student behaviors related to physical activity, soda consumption, and screen time all of which are associated with obesity improved during the time that Balancing Food & Play was taught. The percentage of students who reported limiting screen time to 2 hours or less increased from 76 percent to 92 percent.

4. Associated Knowledge Areas

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

724 Healthy Lifestyle

Outcome #4

1. Outcome Measures

of participants who understand and use My Plate in meal buying and preparation, become aware of diet related diseases, understand the connection between diet and exercise, increase consumption of fruits and vegetables.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	423

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Efforts targeting nutrition health and wellness engaged in activities focusing on chronic disease prevention targeting obesity and obesity related diseases. Education programs focused on helping limited resource participants adopt a healthy lifestyle and reduce risk for chronic illness and disease, i.e., diabetes, high blood pressure, high blood cholesterol, and cardiovascular disease. Excess weight can be a factor in these health issues. A large number of Texas citizens, whether living in rural or urban areas, socially disadvantaged or middle income are experiencing problems with diet-related illnesses. The prevalence of obesity in more than 60% of the adult population has tripled in children and adolescents. Among children and adolescents, 15% are overweight and more than 70% have diseases that are associated with obesity. In Texas, obesity related diseases are found in higher rates among African Americans and Hispanics.

What has been done

In addition to an increase in knowledge and change in behavior, there is a goal to increase physical activity. Outreach activities with limited resource participants were conducted at community centers, senior activity centers, state, city, and county agencies, faith based institutions, and a hospital. A series of MyPlate messages are sent out daily from the Program Specialists to agents so that that can relay this message to their local clientele and partners. These messages include adding fruits and vegetables to their daily diet, reducing the intake of sodium, consuming less sugars and fats, and increasing the amount of vegetables and fruits on their plate and lessening the amount of consumed starches. The use of Face Book has allowed for various ideas in infusing water to reduce sweetened beverage consumption and increase fruit and vegetable intake by juicing.

Results

Through proper diet and exercise one participant lost 27 pounds, 96% of the 115 participants stated that they now realize the importance of reading food labels to reduce the amount of sugar and sodium in their diet. Social media has been proven as one way of reaching our Texas citizens. 413 participants have increased the percentage of fruits and vegetables on their lunch and dinner plates from none, 1/4 or 1/3 of a plate to 1/2 to 3/4 of their plate containing fruits and vegetables. Clientele look forward to recipes and information being placed on FaceBook. The infused water on FaceBook continuously received 120 likes and has been forwarded to other FaceBook friends. Participants are enjoying physical activity by engaging in Zumba. One participant stated that she went from having approximately 15 days a month of stress that led to bad mental health to having 0 days of stress out of a month after completing Step Up and Scale Down and participating in the exercise program. Other out of state Extension specialists from University of Maryland, University of Missouri and Oregon State have reached out to CEP specialist for further information.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #5

1. Outcome Measures

of participants modify recipes to decrease amount of calorie and adopt healthy eating habits.

2. Associated Institution Types

- 1890 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	250

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

A large number of Texas citizens, living in rural or urban areas, are socially disadvantaged or low income, are experiencing problems with diet related illnesses such as hypertension and elevated cholesterol levels. In Texas, obesity related diseases including diabetes, hypertension, cancer and heart disease are found in higher rates among various members of racial-ethnic minorities (e.g., African American and Hispanic Americans). Nearly two out of three (64.5%) of U.S. adults are overweight or obese. Adult overweight and obese individuals are at increased risk for the healthcare issues previously mentioned.

What has been done

Research based educational information to limited resource families and individuals to help them understand the importance of nutrition and diet. It heightens awareness of the relationship between high calorie food consumption and lack of exercise to health status and also expands participant knowledge and empowers them to make better choices for overall wellbeing. A series of 12 lesson program lesson including Step Up to Healthy Plate, Step Up Breakfast and Menu Planning, Stepping up to Nutrition Labels, Scale Down with Moves to Lose, Step Up to Successful Socializing, Scale Down with a Colorful Plate, Scale Down by Knowing Your Numbers, and Step Up and Celebrate were taught.

Results

After completing the 12 lesson workshop, participants learned to set calorie goals, read labels, plan a menu, adopt healthy cooking skills, plan a colorful plate, eat a healthy breakfast, choose healthier snack options, incorporating fruits & vegetables, healthier baking options, incorporation of green shakes and fruit smoothies, hydration and staying motivated and active thru Zumba. Participants lost a combined total of 100 pounds which is a substantial amount of weight and desired to develop healthier eating habits and cooking skills to continue their weight loss success. All participants were recognized at the last session for their successful completion. 250 participants have increased the percentage of fruits and vegetables on their lunch and dinner plates from none, 1/4 or 1/3 of a plate to 1/2 to 3/4 of their plate containing fruits and vegetables.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

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

No external factors affected this program.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

At the completion of Balancing Food & Play, students were more likely to correctly identify food and physical activity recommendations.

Self-reported student behaviors related to physical activity, soda consumption, and screen time all of which are associated with obesity improved during the time that Balancing Food & Play was taught. The percentage of students who reported:

- * getting at least 60 minutes of physical activity increased from 53 percent to 76 percent.
- * drinking soda almost never or never increased from 32 percent to 42 percent.
- * limiting screen time to 2 hours or less increased from 76 percent to 92 percent.

Key Items of Evaluation

No other information to present.

V(A). Planned Program (Summary)

Program # 19

1. Name of the Planned Program

Climate Change

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	0%	0%	20%	20%
112	Watershed Protection and Management	0%	0%	20%	0%
132	Weather and Climate	100%	0%	0%	10%
133	Pollution Prevention and Mitigation	0%	0%	20%	0%
201	Plant Genome, Genetics, and Genetic Mechanisms	0%	0%	20%	20%
202	Plant Genetic Resources	0%	0%	0%	15%
206	Basic Plant Biology	0%	0%	20%	35%
	Total	100%	0%	100%	100%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	0.0	1.5	17.0
Actual Paid Professional	8.1	0.0	1.7	8.0
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
110912	0	171366	1122032
1862 Matching	1890 Matching	1862 Matching	1890 Matching
110912	0	74498	922042
1862 All Other	1890 All Other	1862 All Other	1890 All Other
910082	0	288685	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension

Drought has been the most destructive climatic event associated with climate change, and many AgriLife Extension faculty are involved in education on mitigation or remediation activities associated with drought. Another unusual event associated with climate change in 2013 was a series of late spring freezes. When winter wheat is in the vegetative growth stages though which it normally spends the fall and winter, it is quite resistant to damage from hard freezes, but in the spring, from the time the embryonic spike pushes through the soil surface to maturity of the seed, it can be quite vulnerable to freezing weather. The number and severity of these freezes was unmatched in recent history, with most of the wheat producing regions of the state suffering a hard freeze on March 25, and locations in the wheat belt in the Texas Rolling Plains and panhandle regions experiencing up to six hard spring freezes, beginning on March 25 with the last freeze on May 3. This unusual weather caused many millions of dollars in crop losses and left Texas wheat producers with key decisions to make: to save freeze damaged wheat for a grain crop; to harvest damaged wheat by grazing or as a hay or silage cutting, or, given the timing, to destroy the freeze damaged wheat and replant a second crop. Hundreds of wheat farmers, insurance agents and ag industry representatives called up AgriLife Extension and Research to provide answers.

AgriLife Extension Leads Response to Wheat Freeze Injury

The Texas state's wheat crop suffered repeated damaging freezes which had caused significant damage to the crop. This was particularly problematic, as wheat prices were strong and acreage planted was above normal. Dates of the freezes included March 25-26, April 2- 4, April 9-11, 18-19, and 23-24; and May 2-3. The earliest freeze affected Central and North Texas, while the later freezes heavily damaged crops in the Rolling Plains and High Plains. AgriLife Extension Specialists, working closely with County Agents and the Texas Wheat Producers Association. led a massive educational effort to assist producers in understanding how to identify freeze injury and to rapidly assess losses, giving them options on grain production, haying, grazing and/or planting of alternative crops.

Key highlights of the Texas A&M AgriLife Extension response to the multitude of crop freeze inquiries from clientele included:

- A new diagnostic PowerPoint on wheat freeze injury resource was developed and distributed to all county Extension agents in the affected area, as well as to the High Plains Agricultural Crop Consultants Association, 14 seed companies, and directly to over 150 producer requests for information.
- Three County Extension agent trainings were conducted on wheat freeze injury assessment.
- A total of 32 wheat freeze injury clinics were held, many in the field, in which producers were taught diagnostics for determining freeze injury to wheat. They also brought field samples to give perspective on

their own wheat. Over 400 field samples brought to clinics were assessed. In addition, many samples were assessed individually by county Extension agents or specialists through office or field visits made by AgriLife faculty.

- AgriLife provided advice on haying options vs. leaving the stands, which included outlining the potential nutrient removal (and replacement cost of nutrients) if wheat hay was baled.
- A letter was developed a for crop insurance agents to help them assess losses of wheat due to freeze
- A website for rapid access of information on the assessment of freeze injury was created, containing information on the physiology of the crop and diagnostic information: <http://wheatfreezeinjury.tamu.edu>
- AgriLife Extension made four news releases, and AgriLife Extension faculty gave 30 radio and print media interviews.

As a result of Extension's response to this climatic disaster, hundreds of Texas wheat producers gained a better understanding of how to assess freeze injury to wheat and thus made solid business decisions on how to manage of their remaining crop, whether it be for grain harvest, haying and ensilage, or replanting. Having an accurate assessment allowed producers to shut down irrigation wells on impacted acres, to generate income from grazing, hay or silage cuttings or to plant a second crop. As a result, thousands of acres were hayed, generating income from what was a near total loss, and a significant acreage of grain sorghum was planted on failed wheat acres. Accurate assessment of impact in a disaster such as this is a challenge at best, but from the hundreds of producers turning out on quickly called clinics and the commentary from participants, it was obvious that the educational effort hit the mark.

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.

Examples of research designed to help producers cope with climate change and extreme weather events include development of integrated cropping systems, strategies to assist with watershed protection and management, advanced modeling, novel technologies to deal with water pollution, marker-assisted breeding of drought and heat tolerant plants, and reduction of methane emissions from confined animal feeding operations.

Cooperative Agricultural Research Center

On-going research projects on plants were end-user clientele-related focused on the establishment of medicinal plants (Lippia and Hoodia) garden and evaluation of the responses of the accumulation of some of the plants' constituents (camphor, zero-caloric sweetener, appetite suppressant) to weather (light and temperature) conditions; analyses of sweetpotato and cucumber genetics that regulate the responses of maturity dates to climatic changes; investigation of the added value of some waste agricultural products (chitosan, lignin) as biomaterials for remediation of petroleum spills and as bone replacement; analyses of the biochemical responses of biomass sorghum lignocellulose yield to sustainable management (crop rotation, residue return, N fertilizer rates, soil tillage) practices; evaluation of the effects of weather on the nutritional and health-related constituents of peanut and black eye peas.

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.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	5948	107343	214	0

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	0	16	16

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of educational programs conducted.

Year	Actual
2013	198

Output #2

Output Measure

- # of research related projects.

Year	Actual
2013	23

Output #3

Output Measure

- # of graduate/undergraduate students involved in research projects.

Year	Actual
2013	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
- 1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	75

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension and Research

Producers who soil sample after drought often save as much as 75% of crop nutrients that would be required had a normal crop been harvested. As drought drastically reduces yield, nutrient uptake is minimal. This can save as much as \$75 per acre in production cost in the following crop.

Cooperative Extension Program

Small producers are eager to adopt improved varieties of crops in order to enhance their profits while cultivating less land area and minimizing fertilizer inputs, irrigation, and labor costs.

What has been done

AgriLife Extension and Research

AgriLife Extension delivered 14 educational programs to 1,017 producers focused on nutrient management during drought. These factors will directly impact the production economics of forage producers in Texas.

Cooperative Extension Program

The early maturing and drought-resistant varieties of cucumber and sweetpotato were cultivated and demonstrated in farmers' plots.

Results

AgriLife Extension and Research

Of 52 producers who responded to a survey following spring and fall Ranch Management University workshops, we found the rate for "definitely will adopt" BMPs for nutrient management

following drought:

Will soil test before buying fertilizer: 75.7%
Will evaluate limestone quality before buying:67.5%

Cooperative Extension Program
Cucumber demonstrations attracted the interest of 12 family farmers who plan to produce the horticultural cucumber and sweetpotato varieties for sale at farmers markets. Demonstrations on farmers plots were not as productive as those on campus because farmers plots were not as thoroughly tilled and irrigated as the on campus plots.

4. Associated Knowledge Areas

KA Code	Knowledge Area
132	Weather and Climate

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
- 1890 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

AgriLife Extension and Research
Producers who soil sample after drought often save as much as 75% of crop nutrients that would be required had a normal crop been harvested. As drought drastically reduces yield, nutrient uptake is minimal. This can save as much as \$75 per acre in production cost in the following crop.

Cooperative Agricultural Research Center
A major portion on the land resources held by limited resource producers has been out of

production for 10-30 years thereby subjecting them to some undesirable effects of weather changes. This program enables small-scale agricultural operators and commercial producers in rural and suburban areas to become more knowledgeable in effectively identifying and evaluating the basic biology of vegetable, fruit, renewable energy crops, leguminous crops etc diversification strategies for climatic risk mitigation and improved economic sustainability based on total management goals and optimal resource base use.

What has been done

AgriLife Extension and Research

AgriLife Extension delivered 14 educational programs to 1,017 producers focused on nutrient management during drought. These factors will directly impact the production economics of forage producers in Texas.

Cooperative Agricultural Research Center

Research Scientists from CARC in collaboration with Natural Resources Cooperative Extension Specialists conducted on campus demonstrations and also in Waller, Ft Bend, Washington, Smith, and Bowie counties on the use of grafted cucumbers. Training was conducted on vegetables production to new farmer via a grant from Wal-Mart that emphasized High Tunnel production mitigation of some adverse effects of climate changes. Three workshops were conducted on High Tunnel Production of horticulture crops.

Results

AgriLife Extension and Research

A total of 52 producers who had taken the AgriLife Extension Ranch Management University responded to a survey. The results showed that pre and post scores rose, on a scale of 1=Poor and 4= Excellent:

Importance of a good composite soil sample: 1.96 pre 3.89 post
Leaching and volatilization of essential nutrients 1.69 pre 3.60 post
Importance of pH balance and limestone applications 1.96 pre 3.66 post

Cooperative Agricultural Research Center

On-campus field demos in spring and summer gave very high yields and in some cases as many as fifty marketable cucumbers per plant were harvested. Field demo on limited farmers plots gave limited results due to poor site preparation and no irrigation. We found that even drought-resistant plants must have water in order to maintain high product levels.

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

Cooperative Agricultural Research Center

Understanding of the responses of plant genomes to the climatic changes (soil, water, nutrients, light, heat etc) is time consuming and labor intensive, research progress being influenced by sudden extremes of weather, economy/appropriations, and government policies/priorities. Repackaging of research results and making them usable by target audience (limited resource producers) are similarly influenced by competing public priorities.

Small Scale Horticulture crop production is also subject to natural disasters such as drought, insects, and diseases. CEP Extension assisted producers in migrating risk by providing risk management education to producers. Producers lack knowledge to be profitable in the high risk area of agriculture production.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

AgriLife Extension

Of 52 producers who responded to a survey following spring and fall Ranch Management University workshops, we found the rate for definitely will adopt BMPs for nutrient management following drought:

Will soil test before buying fertilizer: 75.7%

Will evaluate limestone quality before buying: 67.5%

Importance of a good composite soil sample: 1.96 pre 3.89 post

Leaching and volatilization of essential nutrients 1.69 pre 3.60 post

Importance of pH balance and limestone applications 1.96 pre 3.66 post

Cooperative Agricultural Research Center

Scientists supported by Extension Agents conducted initial participant survey to gauge producer's level of understanding and the likelihood of adoption of the information being presented. Each participant was contacted using the CEP enrollment list to follow up on their interest and adopting the horticultural technologies. Agents worked with one-on-one with those producers who were interested in adopting new practices. One-on-one evaluations were conducted to monitor progress of each producer and to determine economic impact.

Key Items of Evaluation

Cooperative Agricultural Research Center

Number of producers adopting new -practices and technology.

Number of producers reporting increased income or cost savings

Number of producers reporting increased understanding of subject matter.

V(A). Planned Program (Summary)

Program # 20

1. Name of the Planned Program

Sustainable Energy

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	10%	0%	10%	0%
111	Conservation and Efficient Use of Water	10%	0%	10%	0%
201	Plant Genome, Genetics, and Genetic Mechanisms	0%	0%	50%	0%
205	Plant Management Systems	40%	0%	10%	0%
402	Engineering Systems and Equipment	30%	0%	20%	0%
606	International Trade and Development	10%	0%	0%	0%
	Total	100%	0%	100%	0%

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	1.0	0.0	1.0	0.0
Actual Paid Professional	1.4	0.0	4.9	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
6846	0	86996	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
6846	0	444648	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
56178	0	412739	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 potential for a variety of plant based bioenergy options. As crop-based bioenergy other than the traditional ethanol from feed grains is still in its infancy, actual adoption of second generation bioenergy is limited. 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 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, dedicated energy crops, advanced plant breeding systems, micro- and macro-algae, non-traditional oilseeds, logistics and conversion technologies. Our focus is on lignocellulosic and unique plant oil feedstocks for liquid motor fuels 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 systems. 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. Research also involved development of novel technologies to convert municipal solid waste and organic solids from dairy lagoons to electricity.

2. Brief description of the target audience

The target audience includes traditional petroleum and natural gas energy companies, farmers, seed companies, start-up companies in bioenergy, electric generating companies, and the general public.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	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: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	0	62	62

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
2013	7

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 national/international collaborations aimed at providing sustainable energy for the future.

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 national/international collaborations aimed at providing sustainable energy for the future.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Energy independence in Europe is crucial to world peace. Texas A&M AgriLife Extension has been instrumental in providing education and research to key leaders in Poland to embrace the new technology available to develop an energy industry. Poland provides the key to energy independence for the EU and Extension has provided the leadership to help educate the opinion and political leaders in this region.

What has been done

The Texas A&M AgriLife Extension Leadership Unit has been directly involved with Mexico and Poland providing energy education and research to help them secure energy independence. As

a result of Extension's outreach and personal relationships, Extension has been asked to provide leadership and coordination concerning energy.

Extension's leadership unit was contacted by the Under Secretary for Economic Development from the Governor's office in State of Nuevo Leon, Monterrey, Mexico to provide an opportunity to build cooperation and collaboration between Texas A&M University and Monterrey Tech University and Nuevo Leon University. The Mexican government is interested in research, faculty and student exchanges in the Mechanical Engineering, Aerospace Dynamics and Petroleum Engineering with Texas A&M University. As a result of Extension's Leadership Unit hosting the Under Secretary for 3 days in College Station, Dr. Kathy Banks, Vice Chancellor for Engineering and faculty will travel to Monterrey to discuss opportunities to exchange research, faculty and students to support the existing industries and provide assistance to the energy industry. Mexico has just changed the constitution and will now allow private companies to drill in Mexico. Prior to this, only the Mexican government could drill and this will become a game changer for the economy of Mexico. Extension has provided the bridge between Texas and Mexico to connect the key educators and researchers to help Mexico develop the energy industry.

Results

Recently, the Extension leadership unit hosted 28 key agriculture producers from Poland to study agriculture and oil & gas in Texas to see how they both work in tandem. The Extension leadership unit has served as the conduit between Texas and Poland to provide education and research to help Poland understand their environmental concerns about the petroleum industry. Poland has a 500 year supply of natural gas and could be energy independent, but education is needed to educate the populace about the new technology that is safe and environmentally sound. Recently, Poland has changed the corporate tax structure and other limitations suggested by the energy companies to encourage them to come back to Poland and develop the industry to secure Poland and the EU's energy independence from Russia. Currently, the EU is dependent on Russia's energy supplies and the attitude about the environment has changed with the political situation in the Ukraine. Poland could provide the EU with energy independence and especially land locked countries such as the Czech Republic, Slovakia, Austria, Hungary and others. Extension has been asked to organize a team of experts to provide information to the Polish Parliament (Sejm) as a result of the program information learned during the 2 week visit to Texas. The program provided by Marathon Oil was outstanding and this one day session changed the mindset of the entire group including the Vice Chairman of the Sejm Agriculture Committee. Extension has hosted over 75 key agricultural leaders, governors, professors and young farmers in Texas showcasing how oil & gas works in tandem with no environmental or surface problems to the land owners the past 3 years. The average farm size of these farmers was 1500 acres and the average farm size of Poland is 30 acres. These are the key opinion leaders of the country and Extension has played a major role in education and outreach. In addition, the Extension leadership unit has initiated a meeting between the Polish Ambassador and Governor Rick Perry to discuss exporting Shale Gas to Europe. Energy independence is crucial to world peace in this region of the world.

4. Associated Knowledge Areas

KA Code	Knowledge Area
606	International Trade and Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

No external factors affected this program.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Recently, the Extension leadership unit hosted 28 key agriculture producers from Poland to study agriculture and oil & gas in Texas to see how they both work in tandem. The Extension leadership unit has served as the conduit between Texas and Poland to provide education and research to help Poland understand their environmental concerns about the petroleum industry. Poland has a 500 year supply of natural gas and could be energy independent, but education is needed to educate the populace about the new technology that is safe and environmentally sound. Recently, Poland has changed the corporate tax structure and other limitations suggested by the energy companies to encourage them to come back to Poland and develop the industry to secure Poland and the EU's energy independence from Russia. Currently, the EU is dependent on Russia's energy supplies and the attitude about the environment has changed with the political situation in the Ukraine. Poland could provide the EU with energy independence and especially land locked countries such as the Czech Republic, Slovakia, Austria, Hungary and others. Extension has been asked to organize a team of experts to provide information to the Polish Parliament (Sejm) as a result of the program information learned during the 2 week visit to Texas. The program provided by Marathon Oil was outstanding and this one day session changed the mindset of the entire group including the Vice Chairman of the Sejm Agriculture Committee. Extension has hosted over 75 key agricultural leaders, governors, professors and young farmers in Texas showcasing how oil & gas works in tandem with no environmental or surface problems to the land owners the past 3 years. The average farm size of these farmers was 1500 acres and the average farm size of Poland is 30 acres. These are the key opinion leaders of the country and Extension has played a major role in education and outreach. In addition, the Extension leadership unit has initiated a meeting between the Polish Ambassador and Governor Rick Perry to discuss exporting Shale Gas to Europe. Energy independence is crucial to world peace in this region of the world.

Key Items of Evaluation

Recently, the Extension leadership unit hosted 28 key agriculture producers from Poland to study agriculture and oil & gas in Texas to see how they both work in tandem. The Extension leadership unit has served as the conduit between Texas and Poland to provide

education and research to help Poland understand their environmental concerns about the petroleum industry. Poland has a 500 year supply of natural gas and could be energy independent, but education is needed to educate the populace about the new technology that is safe and environmentally sound. Recently, Poland has changed the corporate tax structure and other limitations suggested by the energy companies to encourage them to come back to Poland and develop the industry to secure Poland and the EU's energy independence from Russia. Currently, the EU is dependent on Russia's energy supplies and the attitude about the environment has changed with the political situation in the Ukraine. Poland could provide the EU with energy independence and especially land locked countries such as the Czech Republic, Slovakia, Austria, Hungary and others. Extension has been asked to organize a team of experts to provide information to the Polish Parliament (Sejm) as a result of the program information learned during the 2 week visit to Texas. The program provided by Marathon Oil was outstanding and this one day session changed the mindset of the entire group including the Vice Chairman of the Sejm Agriculture Committee. Extension has hosted over 75 key agricultural leaders, governors, professors and young farmers in Texas showcasing how oil & gas works in tandem with no environmental or surface problems to the land owners the past 3 years. The average farm size of these farmers was 1500 acres and the average farm size of Poland is 30 acres. These are the key opinion leaders of the country and Extension has played a major role in education and outreach. In addition, the Extension leadership unit has initiated a meeting between the Polish Ambassador and Governor Rick Perry to discuss exporting Shale Gas to Europe. Energy independence is crucial to world peace in this region of the world.