Extension Education in Cameron County
Making a Difference

2009

Educational programs of the Texas AgriLife Extension Service are open to all people without regard to race, color, sex, disability, religion, age, or national origin. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating.
AgriLife Extension has been dedicated to serving Texans for nearly a century. The agency was established in 1915 under the Smith-Lever Act to deliver university knowledge and agricultural research findings directly to the people. AgriLife Extension programs have continued ever since to address the emerging issues of the day, serving diverse rural and urban populations across the state.

Through a well-organized network of program specialists, professional educators, and some 98,000 trained volunteers, the Texas AgriLife Extension Service delivers practical research-based knowledge to Texans in all 254 counties. Our expertise and educational outreach pertain to the food and fiber industry, natural resources, family and consumer sciences, nutrition and health, and community economic development. Among those served are the hundreds of thousands of young people who benefit annually from AgriLife Extension’s 4-H and youth development programs.

Texans turn to AgriLife Extension for solutions. Its agents and specialists respond not only with answers, but also with resources and services that result in a significant return on investment to boost the Texas economy. The agency custom-designs its programs to each region of the state, relying on residents for input and for help with program delivery.

These are just a few highlights of AgriLife Extension’s impacts on Cameron County and its people:

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Agriculture and Natural Resources

This past year the Agricultural and Natural Resource Extension Program Area Committees collaborated with other entities and individuals, and implemented a strong Diversity of educational activities targeting local concerns and critical issues were implemented this past year. The Cameron County Extension agriculture program conducted a series of Extension educational programs addressing current concerns and issues. This past year's total agriculture total cash receipts were approximately more than $228,000,000 in the county. In 2006 the annual cash receipts for the top agriculture commodities were as follows: Cotton $23 million, Grain Sorghum $16.5 million, Corn $5.5 million, Vegetables $4.6 million, Livestock $1.9 million, Aquaculture $6.1 million, Commercial Fisheries $52 million and Nurseries $60 million.

Crop Nutrient management in Cameron County has always been an important economic and environmental issue which affects soil and water quality. The Cameron County Agriculture Production Committee sponsored various educational programs to address this issue of concern. In response a survey was mailed out to Cameron agriculture producers on soil testing. A grant was obtained to conduct a county wide Soil Testing Campaign. Free Soil Testing was made available to agriculture growers in Cameron County. The Soil Testing Campaign has generated 2,394 samples representing 96,840 acres since it's inception in 2003. The primary crops: cotton, grain sorghum, corn. Agriculture producers in Cameron County have benefitted from this Soil Testing Campaign by reducing the nutrient applications in crop fields.

Results: Cumulative projected fertilizer savings 1,742,321 lbs of nitrogen, 2,345,310 lbs of phosphorus. These reductions in nutrient loading represented a reduced threat to our surface and ground water resources. Agriculture producers saved $9.47 to $27.07/acre by utilizing soil testing practices.
Cameron County Commissioner County
Celebrate Dedication Ceremony for MG Arboretum

Master Gardener Arboretum 2009

Master Gardener Arboretum 2008

Master Gardener Program

The Cameron County Master Gardener Program began in 2001 as an official group or Master Gardener Association. Master Gardener Classes are held annually starting in January and ending in July. Classes are held only once per year in which MG projects assigned to serve as community service hours.

This past year the Cameron County Master Gardener Volunteer program reached approximately 2000 youth and adults through their educational efforts in teaching horticulture education. All Master Gardener educational programs implemented this year focused on environmental stewardship. The Master Gardener Association in 2007 acquired $36,000 grant from the Rio Grande Valley Development Council.

The Cameron County Commissioner Court dedicated a piece of land to the Master Gardener Association in 2008. The Master Gardener Association with Cameron County participating in the RGV Development Council Grant as cost share partner constructed an Arboretum, located next to the Cameron County Extension Office and San Benito County Annex Building, which serves as the hub for the county for various county departments.

Cameron County Master Gardener membership is currently at 67 members. This past fiscal year, 2500 volunteer hours per year (Sept 08 to Sept 09) were reported with an added value contribution of $48,775.00. The Master Gardener Association was granted a $36,000 grant, $3,500 of contributions and donations toward the Master Gardener Arboretum.

2.
Master Gardener Class 2009

Master Gardener Interns participate in a series of horticulture classes for approximately 21 class meeting. Each class is approximately 8 hours. **Results: 95% Retention**
SAFE Program: Sport Athletic Field Education

The SAFE program has been implemented at La Feria ISD sport athletic field.

Results: La Feria ISD administration this year has worked with County Extension Agent evaluating and determining sport field management practice. Several best management practices have been discussed to improve sport athletic field conditions. A complete audit of the sport field provided La Feria ISD management sport field personnel knowledge on irrigation, fertilization, mowing, aerification and water conservation. A Cameron County SAFE Program will be held in March 2010. This program will be expanding to other athletic sport fields in Cameron County.
Agricultural Research Result Demonstrations
Cameron County members of the Extension Agriculture Production Committee initiate various agriculture field result demonstration research activities in the county. Cotton and grain sorghum the largest acreage of production in the county. There is a demand from the agriculture industry for effective methods of agriculture practices to maximize profits. With advanced technology of today’s agriculture research, farmers and ranchers utilize the valuable information produced through research and result demonstration. The Agriculture Production Committee extend their acknowledgement to the contribution of agri-business, agri-industry, and Cameron County Commissioners Court, Texas AgriLIFE Extension in presenting and supporting the research based information as a source of education to the agriculture community. Also, extend acknowledgement in cooperation of Cameron County farmers and ranchers for their support and contribution.

Farmers participate in Cotton/Grain Research Result Demonstrations 2009

Farmers in learn about wheat and corn production varieties 2009

Rancher participated at Bull/Heifer Development Program-Result Demonstration 2009
"Understanding Memory" in Cameron County

The FCS Agent collaborated with Proyecto Juan Diego in Brownsville (Cameron Park) to provide the Master of Memory program which consists of six-lessons which includes presentations on memory and learning, memory strategies, nutrition, medications, medical conditions, and exercise for the body and mind.

Agent conducted two lessons per month starting December, 2008 and ending the series in February, 2009. Over 80 participants attended the classes and a total of 35 completed the series and were evaluated with a pre and post evaluation.

Summary

Studies show that 80 percent of older adults complain about memory problems, but only 15 percent report them to their health professional. People of all ages complain about forgetting, but older people tend to worry more about forgetting and memory loss.

As a result of attending the educational series in Cameron County, participants demonstrated higher confidence levels in their ability to take steps to improve their memory functioning. Similarly, respondents indicated a reduction in negative attitudes related to memory and aging (Item Numbers: 1, 2 and 3). Data also indicated that respondents had a significant increase in their understanding of risk factors that may be controlled to help memory function, including diabetes, depression, hearing loss, and vision loss (Item Numbers: 4, 6, 8, 13 and 14). Lastly, respondents indicated an improved understanding of proactive steps they could take to improve their memory (Item Numbers: 5 and 12).

100% of evaluations were completed in Spanish. Average age for respondents was 63 years old, with a range from 39-83. 66% of respondents were female and 68% of respondents indicated that they had lessThan a high school education.
EVALUATION OF GET THE FACTS: EDUCATION SERIES ON LABEL READING

INTRODUCTION

The Dietary Guidelines, My Pyramid and the Nutrition Facts label form the basic nutrition education constructs for the American population. SNAP-ED recipients need sound nutrition education so that they can make healthful food choices.

Get the Facts, a three-lesson series on the Nutrition Facts label, was developed to align with the Dietary Guidelines for Americans. The series focused on label reading, serving size, sodium and fat. Serving size and fat were selected as key topic areas because over 60% of adults are overweight or obese and heart disease is the leading cause of death. Sodium was selected because hypertension affects approximately 50 million people in the United States. Submitted surveys: 105 pre/post and 105 follow-up matched survey.

RESULTS:

a. Behavior improved during the lesson series

b. Behavior improvement was sustained during the follow up period.

c. At the end of this program, clients reported that they always or almost always use food label information when shopping for food

DISCUSSION: Both self reported behavior for all three concepts and knowledge improved during the time that this lesson series was taught.

Self reported behavior regarding all three concepts: serving size, sodium and fat improved during this lesson series. Behavior change was sustained during follow up.

Most clients (81%) rated this program as excellent.

7.
Parenting Program

What has been done: To improve parenting practices a six week Strengthening Families parenting program was taught to parents in Cameron County. Participants were taught key parenting concepts about developmental expectations, stress management, goals, objectives, rewards, high-risk children, communication, problem-solving, giving directions, limit setting, and implementing a behavior plan. Program participants’ utilized a parent handbook, in class activities and homework to implement improved parenting practices with their children.

Impact Statement: The evaluation of the Strengthening Families Program was conducted by utilizing a pretest and a post test both administered to participants in a paper format. The survey was composed of 11 demographic indicators and an index composed of 76 Likert scale items.

As a result of the pilot program, participants demonstrated positive changes in their parenting practices and child behaviors. These positive changes can be noted in the differences between the means of the pre and post tests. Individuals noted an increase in positive parenting (13.86 to 14.00), strengthening families parenting skills (17.00 to 17.30), and communication (18.83 to 19.91). In addition, the program revealed a decrease in negative child behaviors. For example, mean scores from the pre and post tests indicate, as rated by parents, that children’s overt aggression decreased (15.77 to 14.11) as did impulsive behavior (4.35 to 4.00), and depression (5.64 to 5.50) following participation in this program.

Money Smart Program

Following the class series, in order to assess any changes in financial management behaviors, participants completed the survey. Participants were asked a series of questions to assess their current financial management behaviors. Evaluations completed following each class in the series were used to assess what the participants knew about the class concepts before the class and after the class. Results indicated that participants felt they knew more about the class concepts after the class than before the conceptos basicos sobre prestamos pagueso usted primero cuestiones de dinero

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Energy Conservation

Parenting Connections Program
Income Generation Projects and Master Clothing Volunteers

- **Participant Satisfaction Results** 94% of respondents were mostly or completely satisfied with the activity. 94% of respondents were mostly or completely satisfied with the information being what they expected. 94% of respondents were mostly or completely satisfied with the helpfulness of the information in decisions about your own situation. 94% of respondents said that the information and programs provided by Extension were quite or extremely valuable to them.

Energy Conservation

- 97% of respondents were mostly or completely satisfied with the completeness of information given on each topic. 93% of respondents plan to take actions or make changes based on the information from this activity. 96% of respondents anticipate benefiting economically as a direct result of what they learned from this Extension activity. 100% of respondents said that the information and programs provided by Extension were quite or extremely valuable to them.

Physical Activity

- 100% of respondents were mostly or completely satisfied with the information being what they expected. 100% of respondents were mostly or completely satisfied with the helpfulness of the information in decisions about your own situation. 89% of respondents plan to take actions or make changes based on the information from this activity. 82% of respondents anticipate benefiting economically as a direct result of what they learned from this Extension activity.

- 100% of respondents said that the information and programs provided by Extension were quite or extremely valuable to them.
4-H & YOUTH DEVELOPMENT PROGRAM

- 4-H Fund raiser profits $9,000. 50 4-H members and leaders planned and implemented the Cameron County 4-H Council Bay Fishing Tournament. Proceeds from this event went to 4-H programs, activities, leadership camps, and a newly formed scholarship fund.

- 77 local businesses and individuals sponsored $6,000 towards the Cameron County 4-H Bay Fishing Tournament. Local T.V., radio, and newspaper media outlets also donated thousands of dollars worth of advertisement towards the Fishing Tournament and to promote 4-H.

- We currently have 90 registered 4-H volunteer leaders that contribute an average of 150 hours a year valued at $315,000 dollars to the county.

- A total of 18 organized clubs currently exist within Cameron County. Our on going goal is to continue to expand with new 4-H clubs throughout the county. We currently have 400 youth who are members of traditional 4-H clubs within the county.

- This year 2009 5,194 youth through 4-H special interest/short term day camps such as Junior Master Gardener programs and the Master Naturalist program. An additional 2,388 youth were reached by 4-H school curriculum enrichment programs such as Character Counts, Butterfly Gardens, and other environmental stewardship programs. Overall, a total of 8,000 youth have been reached in the county by various 4-H programs and activities.

- Cameron County 4-H Council partnered with the Cameron County Farm Bureau donated 10 turkeys and 10 full boxes of canned food items to ten needy families from the Harlingen Parental Center. 4-H Council conducted the canned food drive, while the Farm Bureau donated $200.00 for the purchase of the turkeys.

- 75 4-H members and leaders participated in Christmas Holiday Help in which 4-H members cooked Christmas dinner, wrapped donated toys and clothes, and they constructed ornaments for 3 needy families. 4-H members and parents then personally delivered the food and items to the various families.

- Cameron County 4-H had 15 members who advanced to State 4-H Roundup in College Station. In order to accomplish this, they had to have place 1st at the county and district contests. Cameron County had the most members represented at State Roundup out of our 20 County area. Georgia Loop, 4-Her placed 2nd with her horse method demonstration. Kaysey Aguilar 4-Her placed 2nd with her illustrated talk.

- Cameron County 4-H members submitted 38 record books this year of which 28 of them advanced to the District Record Book competition. We had the most books competing at the District contest, and we had six of them that advanced to the State Record Book Contest. We had two first place winners at State and a 2nd place winner.

- Cameron County 4-H had over 500 total entries at the Rio Grande Valley Livestock Show, 23 of our members made the Sale of Champions.

- Two Cameron County 4-H members received 4-H Opportunity scholarships from the State. Joshua Aguilar received 16,000 and Georgia Loop received 1,500.
4-H & Youth Development Program

4-H Council Officers handing out Awards at County 4-H Roundup

Mobile Dairy Unit Representative conducts a session during our 4-H Teacher Curriculum Training

4-H Leaders being recognized at our Annual Volunteer Recognition Dinner

4-H Vegetable demonstration garden at Castañeda Elementary in Brownsville

4-H Vegetable demonstration garden at Castañeda Elementary in Brownsville
Poor health disproportionately affects low-income and minority populations. Recent research documented that people who are most food insecure are at a greater risk for poor health and obesity than those who are food secure. In fact, research indicates that people who run out of food or miss meals because they cannot afford them are the most obese. The U.S. Census Bureau estimates that 16% of Texans live in poverty, a figure above the national average of 12%. Census statistics for Cameron County suggest that in 2006, 36% of people were in poverty. 48% of related children under 18 were below the poverty level, compared with 24% of people 65 years old and over. 32% of all families and 53% of families with a female householder and no husband present had incomes below the poverty level. The Expanded Food and Nutrition Education Program of Cameron County provides education to limited resource adults with children on topics related to dietary quality, food resource management, food safety, and physical activity through a series of a least seven nutrition education lessons.

The purpose and mission of the EFNEP-Adult program is to reach out to limited-resource families with young children and provide food and nutrition education. Using "hands-on" experiences, clients participate in a seven-lesson series on stretching food dollars, improving eating habits, and practicing food safety principles.

- 929 families with 2,007 children enrolled in EFNEP.
- 129 EFNEP participants were pregnant and/or nursing.
- 93% of families at or below 185% of federal poverty level.
- 87% of families enrolled in one or more food assistance programs.
- 99% of EFNEP adult participants were Hispanic/Latino.
- 1% of EFNEP adult participants were White, Non-Hispanic/Latino.
The following results show how adult clients' food behaviors improved after attending EFNEP classes:

- **99%** of participants with a positive change in any food group at exit. Specifically, EFNEP participants consumed 1.4 more cups of fruits and vegetables and 1.4 additional cups milk at completion, compared to entry.
- **86%** improved in one or more food resource management practices such as planning meals in advance.
- **94%** improved in one or more nutrition practices such as using the “Nutrition Facts” on food labels to make food choices.
- **67%** improved in one or more food safety practices such as thawing foods safely.
- **40%** of program participants with positive change in physical activity. In fact, participants reported walking 8,561 miles during the 2008-09 reporting year. As a result of this physical activity, an estimated **22%** of program participants could prevent the onset of diabetes over their lifetime through increased physical activity. Including the cost of lost wages and annual health care costs, the total potential economic impact for these participants is approximately $2.2 million.

The following results show how youth clients' food behaviors improved after attending EFNEP classes:

- **74%** now eat a variety of foods.
- **73%** increased knowledge of the essentials of human nutrition.
- **83%** increased their ability to select low-cost, nutritious foods.
- **78%** improved practices in food preparation and safety.
- **90%** improved physical activity behavior or attitude.

**Expanded Food and Nutrition Education Program (EFNEP)** will continue to look into new areas and assist limited resource audiences in acquiring the knowledge, skills, attitudes, and changed-behaviors necessary for nutritionally sound diets, and to contribute to their personal development and the improvement of the total family diet and nutritional well-being. Studies have shown that for every $1 spent on EFNEP, $10 were estimated to be saved in health care costs and $2 saved in food costs by participants. For Cameron County, this equals $4.2 million in estimated health care cost savings and almost $849,000 in food costs. During the 2008 – 2009 year, a total of 947 volunteers from both EFNEP Adult and Youth combined a total donation of 2,376 hours that equals a cost savings of $48,114.00 for EFNEP.

Wanda Garcia, Nutrition Education Assistant-Adult teaching group of ladies and graduating them from the EFNEP in Laguna Seco area home. Amanda Scott, State Coordinator for EFNEP Visiting participant during her classes in her home.
Coastal and Marine Resources

• The marine extension program for 2009 focused on commercial fishing, aquaculture, recreational fishing, youth education, and the Bahia Grande and red tide monitoring efforts.

• Emphasis on bycatch reduction for sea turtles and red snapper was taught through a series of port visits to Brownsville and Port Isabel. Over one hundred bycatch reduction devices, BRDs, were distributed to our one hundred and seventy five vessel fleet this year.

• Demonstrations with cambered doors, devices used to spread a shrimp net open as it is towed along the bottom, reaped huge savings for our shrimp fleet in 2008. The introduction of super fibers for net construction, first funded by Cameron County, showed the potential for increased efficiency by the fleet by using a new type of polyethylene netting for shrimp trawls. A 5% savings in fuel consumption has been demonstrated using this new net material and another 25% savings can be attributed to the new door design we introduced to the fleet. **It is conservatively estimated that our Cameron County fleet saved 2,716,032 gallons of diesel fuel at a value of $8,617,969 million in 2008 by adopting this new fishing gear.**

![Cambered Shrimp Trawl Doors](image)

Cambered Shrimp Trawl Doors have saved the Cameron County Fleet Millions of Dollars.

Our Cameron County shrimp fleet has received attention from national environmental groups due to efforts in reducing bycatch and becoming energy efficient with minimal environmental impact. The reduced carbon footprint has contributed to our fleet becoming a model for other fisheries worldwide.

• Aquaculture efforts were focused on shrimp hatchery monitoring for disease and virus. **Farm raised shrimp production for 2009 was 0.55 million pounds valued at $1.2 million. Economic impact of aquaculture on Cameron County is estimated at $ 3.7 million.**
• The value of our commercial fisheries in Cameron County for 2008 is estimated at $49.3 million for 20.4 million pounds with an economic impact of $147.9 million. Shrimp dominated the catch.

• Recreational fishing activities consisted of tournament support through weight, length and species determinations.

• Over 300 youth were educated on marine ecology though marine field days, slide shows, talks and demonstrations. We began a new Junior Master Naturalist Program in Cameron Park with about twenty kids between six and fourteen years of age. The program is being duplicated in the Los Fresnos school system.

• Our Rio Grande Valley Texas Master Naturalist Program has 125 members this year and each member must complete 40 hours of volunteer work annually. Last year our master naturalists completed 9744 hours of volunteer time in Cameron County valued at $197,316.

• Bahia Grande salinities remain close to oceanic making it an extremely productive estuarine environment for redfish, trout, shrimp, blue crabs, and numerous other species. We are concerned that a return to drought conditions could again result in higher salinities detrimental to sea life. The planned widening of the main channel will eliminate these concerns.

• Red tide killed over one thousand striped mullet in the bahia this fall, however major game species were not impacted. Red Tide dominated our emergency response efforts during a two month bloom beginning in October, that impacted residents of South Padre Island with a noxious aerosol and numerous fish kills on Cameron County beaches. We estimate the losses of fish to be well in excess of five million total fish, primarily forage species with a minimal impact on game fish populations locally. Economic losses to tourism are considered significant and yet untallied. Red tide is a naturally occurring event here in south Texas.

The latest finding is fish killed by red tide on county beaches may have enough red tide toxin, brevetoxin, to kill dogs and coyotes, which necessitates a warning for pet owners with animals on the beach.
Red Tide Bloom off South Padre Island 10/27/08. TPWD Photo

Red Tide Cells Magnified over 1000 Times
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The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating