



Extension Education in Cameron County

Making a Difference

2012

Improving Lives. Improving Texas.

The Texas A&M AgriLife Extension Service has been dedicated to educating Texans for nearly a century. In 1915, the agency was established under the federal Smith-Lever Act to deliver university knowledge and agricultural research findings directly to the people. Ever since, AgriLife Extension programs have addressed the emerging issues of the day, serving diverse populations across the state.

Through a well-organized network of professional educators and some 100,000 trained volunteers, Extension 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 Extension's 4-H and youth development programs.

Texans turn to Extension for solutions. Its agents and specialists respond not only with answers, but also with resources and services that result in significant returns 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. Here are just a few highlights of Extension's impacts on this county and its people:

Cameron County – Summary of 2012 Educational Contacts

County	# of Sessions	*Goal 1	**Goal 2	***Goal 3	Total
Contacts By Faculty					
Faculty	2,462	51,392.30	3,772.35	4,364.35	59,529.00
Faculty & Volunteer	640	24,357.76	6,987.62	2,903.62	34,249.00
Total Group Methods	3,102	75,750.06	10,759.97	7,267.97	93,778.00
Individual Methods		13,890.72	30,311.39	9,757.89	53,960.00
Material Distributed		78,701.00	1,981.75	130.25	80,813.00
Total Contacts	3,102	168,341.78	43,053.11	17,156.11	228,551.00
Contact by Volunteers					
Group Method	71		883.00	3,644.00	4,527.00
Individual Methods		275.90	11,640.55	8,422.55	20,339.00
Materials Distributed			7.00	7.00	14.00
Total Contacts	71	275.90	12,530.55	12,073.55	24,880.00
Newsletters/Announcements Contacts					
Marketing/Promotion		154.08	3.96	3,378.96	3,537.00
Educational Methods		0	8.00	0	8.00
Total Contacts		154.08	11.96	3,378.96	3,545.00
Total All Contacts	3,173	168,771.76	55,595.62	32,608.62	256,976.00

- * Agriculture
- ** Family & Consumer Science
- *** Youth Development

2012 Cameron/Hidalgo/Willacy County Agriculture Crop Production Program

Developed by Dr. Enrique Perez, County Extension Agent-Agriculture, Cameron County, Hidalgo County and Willacy County.

Relevance: Nutrient management is an important economic and environmental issue that affects water quality, soil quality and crop productivity. Sugarcane, cotton, grain sorghum and corn are important agronomic crops for the Rio Grande Valley. An estimated 70 percent of sugarcane producers could improve their yields which could enhance the profitability of this crop for all producers. New/underutilized crops need to continue to be investigated such as soybeans and sesame.

Response: AgriLife Extension provides educational resources for crop producers to gain knowledge which gives them the information necessary to become more efficient, economically sustainable and environmentally friendly. The Rio Grande Valley Nutrient Management Education Program is a multi-county soil testing program conducted by specialists and agents with Texas AgriLife Extension Service. The primary objective of the program is to educate producers about the economic and environmental benefits of soil testing and proper nutrient management. Over the past eleven years, this project has collected over 5,200 soil samples representing a total of more than 202,000 acres of crop land in Cameron, Hidalgo, Starr and Willacy counties. In addition, through educational workshops and field days, growers have received training enabling them to implement effective nutrient management strategies.

Results: A total of 21 group methods resulted in 75 contact hours of education and 2,583 total contacts. The economic impact of the RGV Nutrient Management Education Program was measured in terms of potential fertilizer savings that have resulted from increased adoption of soil testing. Using soil test recommendations and producer-planned fertilizer rates, the potential savings in nitrogen and phosphate are estimated to be 5.1 and 6.1 million pounds, respectively. Reduction in fertilizer application rates translates into an average cost savings of \$25.77 per acre, depending on crop and management history. Total potential economic benefit to producers since the program began in 2001 are estimated at \$5.2 million. This analysis does not include the value of environmental benefits.

Ag producers were educated on a wide variety of topics using a number of different methods. This years topics included cotton, soybean, grain sorghum, corn, sesame , sunflower and guar production; conservation tillage; risk management; fertility management; marketing and many others. Methods included field days, educational meetings and publications. These included: Cotton Pre-Plant Conference, Grain Sorghum, Corn and Sunflower Field Day, Cotton Defoliation Field Day, Cotton and Sesame Field Day, Sugarcane Field Day and a Fall Corn Field Day. Research demonstrations conducted on producer farms are used to collect an unbiased source of performance data that is use by growers to help determine the most profitable varieties to select for this area. New efforts to increase producer profit included conducting an irrigated sunflower hybrid result demonstration and conducting a Guar Production Meeting.

Agriculture and Natural Resources

Important collaborators included: Dr. Dan Fromme, Dr. Gaylon Morgan, Dr. Mark McFarland, Dr. Calvin Trostle, Dr. Tom Isakeit, Dr. John Robinson, Dr. Mark Welch, Dr. Paul Baumann, Dr. Luis Ribera, Dr. Roy Parker, Dr. James Grichar, Allan Berthold, Donnie Valdez, Rio Farms, Inc., Lower Rio Grande Valley Cotton and Grain Producers Association, Texas Farm Bureau, Texas Grain Sorghum Association, National Cotton Council, Texas Water Resources Institute, numerous local agriculture industry company representatives and the Texas Boll Weevil Eradication Foundation

Future Plans: Continue soil testing campaign, contingent upon funding and continue important hybrid trials for the major crops. Conduct guar variety trials in cooperation with Rio Farms, Inc., local producers and private industry.



Cotton Result Demonstration



Harvesting Grain Sorghum RD



Cotton/Grain Sorghum Field Day



Planting of Cotton and Grain Sorghum RD

2012 Rio Grande Valley Beef Development Program

Developed by Dr. Enrique Perez, County Extension Agent-Agriculture, Cameron County, Hidalgo, Willacy, and Starr Counties

Relevance: Beef producers can improve their herd or the herds of their customers through more rigid sire selection. Replacement heifers will perform to higher levels when in optimum body condition. Beef producers want to increase the value of bulls by collecting feedlot performance data and carcass characteristics.

Response: Texas A&M AgriLife Extension conducted an official 112 day bull gain test and a 126 day heifer development program. Numerous data are collected on all animals including: initial and final weights, average daily gain, body condition score, scrotal circumference, sheath score, reproductive tract score, pelvic area measurements, hip height and ultra-sound measurement of back fat thickness and rib eye area. All data is provided to consignors.

Results: A total of 4 group methods resulted in a total of 471 contact hours of education. A bull gain test and heifer development program has been conducted each year from 1998 through 2012. Participants indicate a positive economic benefit to their beef cattle operations as a result of their participation.

A total of 1099 bulls, 899 heifers and 142 steers have been entered in the 15 years the program has been conducted. Currently, 62 bulls, 93 heifers and 33 steers are entered in the program by cattlemen participating from throughout south and central Texas.

Recognition events are conducted during the Rio Grande Valley Livestock Show in order to recognize the award winners in front of their beef cattle producer peers. The Santa Gertrudis breed awards were presented prior to the breed sale held at the Livestock Show and the Simbrah breed awards were presented during the Open Simbrah judging at the Livestock Show. A feeder pen of steers is in it's third year and adds a new dimension to the program.

Important collaborators are: Dr. Joe Paschal, Extension Livestock Specialist, Rio Beef Feed Yard management and personnel, Rio Grande Valley Livestock Show officials & volunteers and the members of the Rio Grande Valley Beef Improvement Association.

Future Plans: In cooperation with the Rio Grande Valley Beef Improvement Association, plans are to continue the program and perhaps consider marketing alternatives for participants. Another future possibility will be to offer an artificial insemination program for heifers.

2012 Cameron/Hidalgo County Pesticide Safety Program

Developed by Dr. Enrique Perez, County Extension Agent-Agriculture, Cameron County, and Hidalgo County

Relevance: Ag producers have a statutory requirement to obtain and maintain a pesticide license issued by Texas Department of Agriculture in order to use crop protection chemicals, important tools for agricultural producers. Extension is relied upon to provide the education needed in this process. Training is provided for those needing to obtain a license and continuing education is provided to local producers in order to renew their license.

Response: Educational training events were conducted to meet statutory requirements for producers to be able to obtain a license. Continuing education units were also provided to all participants at educational events conducted which contained applicable subject matter.

Results: A total of 4 group methods resulted in a total of 144 contact hours of education. Five Pesticide Safety Trainings were conducted in 2012. Ninety-two percent of the 38 students received a passing grade on the exam administered by the Texas Department of Agriculture. The average grade for all students was 86.

Numerous continuing education credits were provided to ag producers during the course of the year at almost every agriculture-related educational meeting conducted.

We also provided Certified Crop Consultants (CCA) continuing education through the CCA certification program. New requirements for continuing education for aerial applicators continued to be a problem for local aerial applicators and educational training was provided to meet their specific needs.

Important collaborators were: Dr. Don Renchie and Dr. Mark Matocha, Agricultural & Environmental Safety Specialists; local personnel with Texas Department of Agriculture and Donnie & Kay Dippel with the Texas Certified Crop Advisor Program.

Future Plans: This effort will continue in the future to meet the needs of local agricultural producers and others needing a pesticide license.

2012 Sustainable Agriculture Program

Developed by Enrique Perez, County Extension Agent-Agriculture

Relevance: Sustainable Agriculture in the Rio Grande Valley is a major interest among small acreage agriculture. The dramatic population increase and the continuation of the South Texas drought in the Rio Grande Valley has created an interest on sustainable agriculture. Today, with limited resource small acreage landowners are interested in ways for making land usage optimal. Land owners interested in agriculture continue to lack knowledge of agriculture programs and management for production. The need to implement a variety of educational agriculture programs is important in order to sustain the future of agriculture.

Response: Cameron county small agriculture scale acreage agriculture producers under the support of the Texas A&M AgriLife Extension Service, USDA-Natural Resource Conservation, USDA-Farm Service Agency and the Texas-Mexico Border Collision partnered to conduct various educational programs; EQIP, Organic Farming, USDA Program/Loans, Small Acreage Farming/Ranching and TDA registration as Texas Producer.

Results: Due to the efforts, the group of 35 individuals organized to meeting once per month at the county Extension meeting room. The results were that the group was interested small acreage production. This year the small acreage land owners were interested in organizing into an agriculture group that represented their interests. They formed the TIP of Texas Agriculture Producers Association, which meets every month at the San Benito Annex Building. There focus is to produce agriculture commodities and serve local restaurants and participate at local Farmers Market. The group met 12 times organized which resulted completing more than 1,272 contact volunteer hours in education. The Texas AgriLIFE Extension provides leadership to the group with subject matter expertise and Extension Specialist. Other partners include Texas Mexico Boarder Coalition, University of Texas-Pan Am, USDA, Natural Resource Conservation and Cameron County.

Future Plans: The Sustainable Agriculture Producers continue to meet once a month at the Extension meeting room. Plans continue to develop as the newly formed association increases knowledge and skill in agriculture production by participation in seminars, workshops and tours.

2012 Master Gardener Class

Developed by Enrique Perez, County Extension Agent-Agriculture

Relevance: Horticulture education continues to be a major interest among county homeowners. The Cameron County Master Gardener Program began in 2001 as an official group or Master Gardener Association.

Response: Due to the interest by Cameron County residents in horticulture education. Texas A&M AgriLife Extension Service began implementing horticulture education through Master Gardener classes, programs, tours and special events. Master Gardener classes are held annually, starting in January and ending in July. Classes are held only once per year in which MG projects are assigned to participants in which they in turn serve as community service hours and extend horticulture education out in the communities.

Results: This past year the Cameron County Master Gardener Volunteer program reached over 500 youth and adults. Major educational events conducted; Master Gardener Class-January-April, Annual Plant and Educational Activities in October, Master Gardener Class Instruction: Composting for the Landscape/Vegetable Garden, Establishing a vegetable garden and landscape under drip irrigation, Plant propagation, Soils and Soil Fertility, Establishing a Raised Bed Garden, Landscaping with Native Plant, Establishing a Butterfly Garden, Establishing an Herb Garden, Tree Management, Home Fruit Tree Care for Lawn, Turf Management and Soil Food Web Micro Organisms.

These educational events provided throughout the years of the Master Gardener Program/Classes have contributed to an array of horticulture education to homeowners, school teachers and others with interest to urban horticulture. It also has enabled the Master Gardener Association to acquire a \$36,000 grant from the Rio Grande Valley Development Council. Also, one major contribution or success has been that Cameron County Commissioner Court dedicated 1/4 acre of land to the Master Gardener Association in 2008. Since then, the Master Gardener Association constructed and County Master Gardener Arboretum, located next to the Cameron County Extension Office and San Benito County Annex Building. Other accomplishments due to the Master Gardener Association in 2008. Since then, the Master Gardener Association constructed and County Master Gardener Arboretum, located next to the Cameron County Extension Office and San Benito County Annex Building. Other accomplishments due to the Master Gardener Arboretum has been the establishment of gardening projects that serve as educational tools to residents both youth and adults. More than 11 group educational methods resulted in 2,300 volunteer contact hours of education. The arboretum continues to serve as an educational training site for all Master Gardener Classes. Cameron County Master Gardener Association membership is currently at 67 members. This past fiscal year approximately 2300 volunteer hours were reported from January to April 2012 were reported with an added value contribution of \$50,600.00.



Sport Athletic Field Education (S.A.F.E)

Developed by: Enrique Perez, County Extension Agent-AG

Relevance:

Water Quality and conservation were identified as a TCFF issue in Cameron County. Water management is one of the critical components of the best management practices of sports fields. The Sport Athletic Field Education (SAFE) program, developed by Texas A&M AgriLife Extension, of the Texas A&M University System, offers turfgrass management assistance for athletic directors, coaches, sport field managers and fields personnel. Primary goals for the SAFE program include educating managers to maintain the highest quality field possible, conserve resources (water, fertilizer, pesticide, etc.) through proper application principles and provide for a safer playing condition for users. The SAFE maintenance approach involves the following activities: Develop the most effective and economical fertilizer program based on soil test results, turfgrass species, environmental conditions and field use. Determine the best mowing height and frequency for each field based on type of sport field, turfgrass species and available mowing equipment. Develop a customized irrigation program tailored to particular field based on water needs and irrigation system performance. Develop an aerification program for the field to promote proper turfgrass growth and development, using equipment that measures hardness of soil. Encourage proper water usage/conservation measures to assure continued high quality water and availability. Program emphasis is to improve turfgrass quality, enhances player safety, and aesthetic of sport fields.



Response:

The Cameron County SAFE committee implemented series of educational activities. Target audience included local and area athletic directors, coaches, sport field managers, and field personnel in Cameron County. The target audience also includes local school ISD administration personnel and other interested turf managers. In Cameron County all school districts with sport fields under natural turf were the target population. In Cameron County, only seven of the nine sports athletic fields managed by the school district were of natural turf. Two sport athletic fields were of artificial turf. Of the seven natural turf sport athletic fields, five participated; La Feria ISD, Los Fresnos ISD, Rio Hondo ISD, Harlingen ISD, and Santa Rosa ISD in educational programs in Cameron County. Other participants from adjacent county include Donna ISD, Pharr ISD, and San Juan ISD all from Hidalgo County.

Agriculture and Natural Resources



In Cameron County, a series of educational events were planned and delivered by Texas A&M AgriLife Extension Service.

- Sport Athletic Field Education- 4 School District Site Visits
 - Sports Athletic Field Education Meeting-Introduction
 - Sports Athletic Field Education Conferences-5 School Districts
 - Sports Athletic Field Education Soil Testing Program
 - Sports Athletic Field Education Water Testing Program
 - Sports Athletic Field Education Irrigation Auditing-4 School Districts
 - Sports Athletic Field Education Conferences-4 School Districts
 - Sports Athletic Field Education Workshop and Tour
 - Sports Athletic Field Education Site Evaluations/Conferences-Four School Districts
- Partnerships and Collaborators: In Cameron County, all school districts that participated in the program were sponsors and contributors to the Sport Athletic Field Education program by donating labor, equipment, and resources.

Results:

100% of school administrators, athletic field managers, athletic directors, sport turf field managers) that participated in the workshop/tour and educational activities agreed that information provided was very informative and would adopt practices introduced to conserve water, improve turf conditions and reduce cost of operation of athletic field.

Water Cannon Layout:

- Two lines of catch cans (20-feet apart) installed perpendicularly to the traveling gun
- 10-feet can spacing within each line, up to 70 feet from the gun
- Volume of water collected (ml) converted to irrigation depth (in.) at the end of the study

1st Proposal 50-feet tow path spacing



Results: Irrigation Uniformity of 66.14% with a mean depth of 1.13 inch

Comments: Over-irrigation in the center of the field (almost 2 inches) while poor watering on the edges of the field (0.25 to 1 inch)

2nd Proposal: 90-feet tow path spacing



Results: Irrigation Uniformity of 84.88% with a mean depth of 0.96 inch

Comments: Ideal I.U. (1.45 inch in the center of the field and almost 1 inch on the edges) but water may be spread outside the grass zone (waste and potential inconvenience).

3rd Proposal: 70-feet tow path spacing



Results: Irrigation Uniformity of 74.04% with mean depth of 1.05 inch

Comments: Good compromise between I.U. and watering inconvenience outside the field. However, uneven irrigation depths are likely to appear, especially on windy days (1.7 inch in the middle of the field to 0.6 on the edges)

Future Plan: Continuation of educational programing with interested school districts under Sport Athletic Field Management.

2012 Earth-Kind Education in Cameron County

Developed by Jennifer Herrera, County Extension Agent-Horticulture, Cameron County

Relevance: Texas A&M AgriLife Extension and the Cameron County Master Gardeners hosted the third Annual Earth-Kind and Landscaping seminar. The Earth-Kind Environmental Landscape Management System was created by horticultural experts with the Texas A&M AgriLife Extension Service, which is part of the Texas A&M University System. Earth-Kind Landscaping uses research-proven techniques to provide maximum garden and landscape enjoyment while preserving and protecting the environment. The objective of Earth-Kind Landscaping is to combine the best of organic and traditional gardening and landscaping principles to create a horticultural system based on real world effectiveness and environmental responsibility. Earth-Kind landscaping encourages: Landscape Water conservation, Reduction of fertilizer and pesticide use, Landscaping for energy conservation, Reduction of landscape wastes entering landfills. Individuals using Earth-Kind landscaping principles and practices can create beautiful, easy-care landscapes, while conserving and protecting natural resources and the environment. The goal of this research-based program is for all residents to enjoy beautiful, productive landscapes which require only minimal maintenance while providing maximum protection for the environment. The Earth-Kind Program was implemented to address the issues of environmental stewardship in Cameron County.

Response: The Cameron County Master Gardener committee this year implemented a series of educational activities on environmental stewardship and Earth-Kind practices. The Cameron County Master Gardeners hosted a Landscaping and Gardening seminar addressing environmental stewardship. Earth-Kind publications and Earth-kind tours were available at the Cameron County Master Gardener Home and Gardening Extravaganza. The Target audience included local home owners, owners and employees within the landscaping and nursery industry.

Texas A&M AgriLife Extension and the Cameron County Master Gardeners are actively participating in a National Earth-Kind Rose randomized, replicated rose research. In 2011 the Cameron County Master Gardeners installed a 120 feet of Earth-Kind Rose Research site located in San Benito at the Cameron County Master Gardener Arboretum. The Cameron County Master Gardeners in cooperation with Texas A&M AgriLife Extension Service also assisted St. Albans Episcopal day school in Harlingen by installing an Earth-Kind rose trial. The Cameron County Master Gardeners continue working with 3rd, 4th and 5th grade students.

In 2011, Texas A&M AgriLife Extension Service and the Cameron County Master Gardeners recruited a team of dedicated homeowners from across Cameron and Hidalgo County to conduct advanced field testing of experimental rose selections across the Rio Grande Valley. For the previous two years, data has been collected and reported to Jennifer Herrera who is coordinating the Earth-Kind Rose research for Texas A&M AgriLife.

Economic Impact:

- 67% of respondents estimate that their annual water use will decrease 5%-24% as a result of their participation in this AgriLife Extension Program
- 25% of respondents estimate that their annual water use will decrease 25% - 49% as a result of their participation in this AgriLife Extension Program
- 33% of respondents anticipate \$50-\$249 potential economic benefit from their participation in this AgriLife Extension Service
- 50% of respondents anticipate \$250-\$499 potential economic benefit from their participation in this AgriLife Extension Service
- 58% of respondents believe that an economic benefit can be attributed to reduce water use/cost.
- 33% of respondents believe that an economic benefit can be attributed to reduced maintenance/labor.
- 66% of respondents believe that an economic benefit can be attributed to improved landscape and/or property value.
- 49% of respondents believe that an economic benefit can be attributed to reduced cost of fertilizer and pesticides.
- 33% of respondents are homeowners and are not an owner or employee within the landscape and nursery industry.

Future Plans: In 2013, the Extension Horticulture Committee with support from the Cameron County Master Gardener Association will implement, plan and evaluate a variety of educational programs addressing Earth-Kind educational programs. The use of Earth-Kind practices provides the opportunity to enjoy wonderful flowering plants while limiting the use of fertilizers, pesticides, and water. These sustainable practices are excellent examples of how Earth-Kind landscaping is working to preserve and protect our natural resources and the environment.



2012 Horticulture Education in Cameron County

Developed by Jennifer Herrera, County Extension Agent-Horticulture, Cameron County

Relevance: Nursery production in the county is a million dollar industry next to agriculture production. Cameron County homeowners, landscapers, and home gardeners lack the knowledge and skills to effectively maintain horticulture management decisions. The Master Gardener Association provides leadership to horticulture programming in Cameron County. Master Gardeners offer a variety of teaching methods; workshops, training's, seminars, and tours. The Master Gardener Arboretum serves as a demonstration learning garden. In Cameron County, the Master Gardeners volunteered more than 3711 service hours equating to \$80862.69 savings to the county in volunteer service in horticulture programming. The county horticulture program major programmatic goal is to increase knowledge and skills of homeowners, landscapers, home gardeners a series of educational activities supported through demonstrations and evaluation of research based programs that measure economic and knowledge gain of environmental stewardship. Our goal was to reach over 600 people with horticulture programming. In Cameron County, the Master Gardeners reached over 1103 adults and over 600 youth. The Master Gardeners is a volunteer service program that is supported by utilizing trained volunteers to provide sustainability, economic viability, and sound horticultural principles to residents of Cameron County.

Response: The Cameron County Master Gardener committee this year implemented a series of educational activities. Target audience included local homeowners, landscapers, home gardeners, owners and employees within the landscaping and nursery industry. The Cameron County Master Gardeners program provides leadership and guidance to offer programs to assist homeowners, landscapers, home gardeners, owners and employees within the landscaping and nursery industry in making sound, economical decisions. The Master Gardener program goal is address needs and concerns in horticulture and update on new management tools. The Extension Horticulture Committee meets quarterly to plan, implement and evaluate programs.

- Master Gardener Course, 75 hours of training and education (January through April 2012, 21 Interns)
- Series of Horticulture Educational Programs
 - Butterfly Gardening in the Rio Grande Valley (May 2012, 38 participants)
 - Seeds: Gathering and Storage (March 2012, 29 participants)
 - Aquaponic Gardening (March 2012, 35 participants)
- Emerging Issue
 - Citrus Greening (February 2012, 45 participants)
 - Citrus Greening Television broadcast(March 2012, 10,000 reached)
 - Citrus Greening Education Display February-May 2012, 200 reached)
- Emerging Issue
 - Arborist Workshop (February 2012, 194 participants)
- Youth Basic Gardening and Nutrition Workshop (August 2012, 21)
- Youth Nutrition in the Garden (June & July 2012, 116 participants)
- Landscaping and Gardening Seminar (November 2012, 24 participants)
- Rainwater Harvesting (April 2012, 42 participants)
- Horticulture Radio Broadcast(October 2012 & November 2012 10,000 reached for every broadcast)
- Master Gardener Annual Plant Sale/ Home Garden Extravaganza & Plant Clinic (October 2012, over 229 participants)

Agriculture and Natural Resources

- Educational Exhibit at Because I am a Woman Health Fair (October 2012)
- Educational Exhibit at Rio Grande Valley Birding Festival (November 2012)
- Master Gardener Arbor Day Tree Planting Castaneda Elementary (April 2012, 300 participants)
- Arbor Day Tree Planting Rio Hondo Elementary (April 2012, 600 participants)
- Junior Master Gardeners School Gardens (11 total)
- Master Gardener Horticulture News Articles, over 15 Articles in local newspapers (10,000 county residents reached for every article)
- Master Gardener Webpage (3,477 unique visits)
- Master Gardener Social Media Efforts (106 Followers)
- State Master Gardener Conference Social Media Efforts (95 Followers)
- Self-Guided Garden Tours (monthly)
- Civic and Garden Club Programs (monthly)
- Arboretum Demonstration Garden (monthly)
- Compost Demonstration Garden (monthly)

Evaluation Strategy: A retrospective post survey was administered face to face to all program participants at the end of various horticulture educational programs; Butterfly Gardening in the Rio Grande Valley, Seeds: Gathering and Storage, Aquaponic Gardening, Citrus Greening, Youth Nutrition in the Garden, Rainwater Harvesting and Landscaping and Gardening Seminar.

Results:

- 77% of Earth-Kind Landscaping seminar respondents increased knowledge in managing irrigation system, appropriate plant selection to better conserve water, and how to safely handle pesticides.
- 83% of Earth-Kind Landscaping seminar respondents acquired the skill on plant selection in the landscape based on water conservation.
- 83% of Earth-Kind Landscaping seminar respondent's attitude changed on decrease of pesticides
- 83% of Earth-Kind Landscaping seminar respondent's behavior changed on design or redesign landscape the Earth-Kind way.
- 50% of lunch and learn respondents increased knowledge on seed gathering and seed storage.
- 85% of lunch and learn respondents will adopt the practice of seed gathering and storage.
- 83% of lunch and learn respondents increased knowledge on aquaponic gardening.
- 65% respondents of Citrus Greening program increase knowledge on Citrus Greening Disease.
- 91% of respondents of the Citrus Greening program have not treated for Asian citrus psyllid.
- 84% of respondents of the Citrus Greening program will definitely treat their trees for Asian citrus psyllids.

Future Plans: In 2013, the Extension Horticulture Committee with support from the Cameron County Master Gardener Association will implement, plan and evaluate a variety of educational programs addressing horticulture environmental stewardship. Target audience; homeowners, landscapers, home gardeners, owners and employees within the landscaping and nursery industry.

Agriculture and Natural Resources



Do it yourself Rain Water Harvesting Program



Plant and Insect Clinic



Citrus Greening Team



Master Gardener Class



Arborist Workshop



La Posada Citrus Program

2012 Junior Master Gardener Education in Cameron County

Developed by Jennifer Herrera, County Extension Agent-Horticulture, Cameron County

Summary of Issue and Extension Efforts

The Junior Master Gardener program is an international youth gardening program of the University Cooperative Extension network. JMG engages children in novel, "hands-on" group and individual learning experiences that provide a love of gardening develop an appreciation for the environment, nutrition in the garden and cultivate the mind. Due to the high obesity rate amongst Hispanic youth the Nutrition in the Garden Program has been adopted in all youth programs. This year a Junior Master Gardener Teacher training was provided for all teachers interested in starting a Junior Master Gardener program in Cameron County. This year 54 adults from both Cameron and Hidalgo County became certified Junior Master Gardener leaders. Cameron County now has 30 certified Junior Master Gardener Teachers. This year in Cameron County the Cameron County Master Gardeners, Junior Master Gardener Teachers and the Horticulture agent reached over 2963 youth.

Results of Efforts

In 2011 St. Mary's Catholic school adopted the Junior Master Gardener program with four small vegetable beds. Since then the Junior Master Gardener program has expanded and involves over 600 students. St. Mary's Catholic school now utilizes an individual vegetable bed for each of its classes. This year four science teachers from St. Mary's Catholic school became certified Junior Master Gardener leaders. St. Mary's Catholic school in Brownsville has adopted the Junior Master Gardener curriculum in all science classes. The garden is now a used as an outdoor classroom and science lab for the students. The students are learning soil science, plant science, and nutrition in the garden. St. Mary's Catholic school has also started a student driven Farmer's Market in which the students learn about financial management for their math class. After providing five day training to 116 youth throughout Cameron County there was an 87% knowledge gain in the Nutrition in the Garden program.

Future Plans

This is a pilot program that will be used as a model for all elementary schools in Cameron County that may be interested in adopting the Junior Master Gardener curriculum in the future.

Agriculture and Natural Resources



St. Mary's Garden 2011



St. Mary's Garden 2012



2012 St. Mary's Farmer's Market



Los Fresnos "Nutrition in the Garden"



H.O.P.E. House "Nutrition In The Garden"



Rio Grande Valley Chapter Texas Master Naturalist

Developed by Tony Reisinger, County Extension Agent – Coastal & Marine Resources

Relevance: Growth and urbanization will be the preeminent issues facing the Texas coast for the next several decades. Past and present urbanization has led to habitat degradation and loss, which affects water quality, critical habitat and harmful algal blooms.

Response: To keep pace with coastal population growth on the Texas coast, the Rio Grande Valley Chapter Texas Master Naturalists (RGVCTMN) volunteer program has become an integral part of Texas Sea Grant's efforts. A RGVCTMN is a formally trained volunteer who must complete a minimum of 48 hours of instruction and 40 hours of volunteer service designed to provide them with the knowledge, "how to" skills and tools needed to provide service dedicated to the beneficial management of natural resources and natural areas within their communities.

The chapter also generously supports the Texas Coastal Naturalist program, a volunteer outcome program group of first responders, saving stranded marine mammals, monitoring red tide, responding to sea turtle cold stun strandings, and becoming educated on beach ecology. This program serves as a hook to attract RGVCTMN members.

Coastal Naturalists include the exclusive Red Tide Rangers, who respond primarily to red tide blooms. Activities include collecting, counting and reporting red tide cell concentrations and providing location information on the blooms to the Texas Parks and Wildlife Hazardous Algal Bloom Work Group and National Oceanographic and Atmospheric Administration (NOAA). They further assist these groups with their battle against red tide blooms by ground-truthing the bloom location, assessing the potential human impacts and predicting bloom movements. The Red Tide Rangers were recognized as being essential to red tide monitoring in Texas by NOAA in 2012.

Results: During 2012, we trained 38 new intern naturalists with a curriculum requiring 10 three hour courses, 4 field trips and 8 hours of advanced training on the natural history and ecosystems of the Rio Grande Valley. Classes were held in Mission and San Benito. Pre and post-test results indicated a 32% increase in knowledge for the interns. The Rio Grande Valley Chapter Texas Master Naturalists provided information on the concentration, location and impacts of the 2012 red tide bloom, which had started in 2011 lasting into 2012. During the red tide bloom they provided 12,675 service hours for our community at a value of \$264,274. Total volunteer time contributions from the chapter amounted to 17,060 hours valued at \$371,737 in 2012.

Recap: Trained 38 new naturalists, helped monitor red tide, care for stranded marine mammals, monitor sea turtle populations and educate the public on our natural environment. Our Valley Chapter of naturalists worked 17,060 volunteer service hours in the community at value of \$371.8 K.

Agriculture and Natural Resources



Dr. Tom DeMaar, senior veterinarian at the Gladys Porter Zoo in Brownsville and Master Naturalist Don Hockaday examine a rescued dolphin which had been attacked by sharks.



Cameron County Shrimp Fleet has Increased in Size and Saved Millions in Fuel during 2012
Developed by Tony Reisinger, County Extension Agent – Coastal & Marine Resources

Relevance: For Gulf shrimp trawlers, fuel costs are a major operating expense. Gulf shrimp trawlers can use up to 80,000 gallons of diesel fuel per year. Reducing operating expenses through reduced fuel consumption will improve vessel profitability, thus buoying an industry struggling to compete with imports, low production for 2012 and high fuel prices.

Response: Since 2008, Texas Sea Grant Extension has been working with cooperating shrimp fishermen in Cameron County to transfer fuel-saving trawl gear technology. Personal visits at the dock and a series of educational seminars for the Shrimp Committee were given on issues pertaining to the industry. In 2012 we conducted 37 individual visits in response to increased sea turtle strandings in the northern Gulf to assure fishermen were correctly using Turtle Excluder Devices (TEDs).

Results: Reported vessel fuel savings range from 20 to 39 percent. To date, more than 80% of vessels in the Cameron County fleet, which has grown from 132 to 172 vessels, have switched to the new fuel-efficient gear. In 2012 our Cameron county fleet saved 3.1 million gallons of fuel valued at \$9.8 million by adopting this new gear. During the past five years, countywide fuel savings were estimated to be 12.8 million gallons valued at \$35.5 million. Additional savings are accrued through reductions in both the frequency of oil and filter changes and major engine overhauls. An estimated 200 jobs were saved because without these fuel savings, many of the boats would have remained idle during the 2008 through 2012 shrimp seasons.

Recap: 2012 fuel savings for 172 vessels = 3.1 mil gal, value: \$9.8 mil, 200 jobs saved

Emerging Issue: Black Tiger Shrimp have invaded the Gulf of Mexico and over 2000 individuals have been taken in the Gulf after a reappearance in 2006. Seven have now been taken in waters offshore and in Texas, both deep and shallow. Shrimp fishermen are concerned these voracious predators which grow over a foot in length, will at some time out compete our native species and are expressing concern these exotics may have

Agriculture and Natural Resources

already impacted 2012 production which is much lower than forecast. We are addressing the issue by educating fishermen to bring them in for genetic testing if they catch one and now have a reward program for them in Cameron County. We then turn the specimens over to Texas Parks & Wildlife for testing to hopefully determine the source and find if anything can be done to control this species.



Large invasive tiger shrimp caught off South Texas in November, 2012. So far seven individuals have been landed from Texas waters.



Trade Adjustment Assistance Program for the Gulf and South Atlantic Shrimp Industry Developed by Tony Reisinger, County Extension Agent – Coastal & Marine Resources

Relevance: The Southeastern U.S. shrimp fishery, which ranges from North Carolina to Texas, is a major contributor to domestic seafood production. In fact domestic shrimp landings are exceeded only by salmon harvested from the Northwest, and crabs landed from all three coasts. The South Atlantic States account for about 5 percent of annual shrimp landings, while the Gulf States produce roughly 95 percent of the annual harvest. Louisiana generally produces the largest annual volume of shrimp, but the Texas shrimp harvest is perennially first in landed value. Shrimp accounts for the “lion’s share” of Texas’ seafood production, and ports like Brownsville/Port Isabel, Palacios, and Port Arthur are among the nation’s most valuable fish ports. Owing to their high ability for reproduction and short life span, wild shrimp resources are healthy. This makes the Southeastern shrimp fishery unique among North American fisheries by being one of the few, if not the only commercial resource, that is not overfished. While the shrimp resource is healthy, adverse operational circumstances over the last eight-plus years have taken their toll on producers. The reason: record volumes of low-priced imports. The Brownsville – Port Isabel Shrimp fleet has however increased in the number of actively fishing vessels from 132 in 2011, to 172 in 2012. With an annual harvest of roughly 200 million pounds but the domestic market several times larger, imports have been part of U.S. shrimp supplies for decades. Thus, it is no surprise that shrimp leads the nation’s seafood trade deficit. However, since 2001 average annual growth in shrimp imports have more than doubled from 29.3 million lb. per year to 72 million lb. per year. Today the U.S. imports some 1.2 billion pounds a year, much of it value-added, worth \$3.7 to \$4.3 billion. The low dockside prices generated by the sharp increases in imports have had a crushing effect on shrimp.

Response: In 2010, USDA again offered the Trade Adjustment Assistance Program (TAA) for those industries, including commercial fisheries, able to demonstrate reduced prices, revenues, or production levels as a result of growing imports. Obtaining TAA program benefits require two levels of approval. First, a producer group has to be granted standing so individual producers can apply for program benefits. At the request of the Southern Shrimp Alliance, faculty jointly appointed by the Texas A&M AgriLife Extension Service and the Texas Sea Grant at Texas A&M University prepared an assessment of shrimp industry conditions that resulted in the eight coastal Gulf and South Atlantic states being approved for TAA. Of the eleven petitions submitted for the 2010 funding cycle, the regional shrimp petition was one of just three approved. This approval set in motion a host of commitments for every Texas Coastal and Marine Resources Extension Agent and three Extension specialists that included (a) troubleshooting activities for applicants about eligibility concerns, (b) planning, scheduling, organizing, and conducting numerous informational and training meetings for TAA applicants across 600 miles of coast line, and (c) creating ten hours of teaching materials used in both hosted and on-line training sessions. With industry standing granted, individuals could apply for program benefits that included cash payments and training. Across the Gulf and South Atlantic region, 4,711 fishermen were approved. In Texas some 1,003 shrimp fishermen applied, and ultimately 857 applications (85 percent) were approved. In this re-engineered version of TAA, applicants had to complete 12 hours of training to become eligible for cash payments. Training

Agriculture and Natural Resources

across the shrimp industry is more complex because of the three first-languages: English, Spanish, and Vietnamese. In Texas, Vietnamese-American fishermen comprised 62 percent of the applicant base with Hispanic, Anglo, and corporate applicants respectively accounting for 17, 12, and 9 percent of approved

applicants. With the assistance of translators/interpreters, AgriLife Extension / Sea Grant faculty from Port Arthur to Port Isabel offered multiple meetings so fishermen could receive the necessary 12 hours of training. By summer's end, all but 36 approved applicants had received the training. In Cameron County only 5 approved applicants remained in need of training.

Results: Numerous trainings and numerous inspections of individual shrimp vessels addressed proper installation of turtle excluder devices (TED)—required environmental gear in all shrimp trawls. In 2012, strandings of small Kemp's ridley sea turtles increased dramatically in the northern Gulf and in spite of no shrimping effort in that area, the industry came under intense scrutiny from environmental groups and federal regulators, to the point of a Gulf-wide closure for shrimp trawling being considered to protect the sea turtles. Intense training sessions on TEDs were conducted in Cameron County as producers were concerned their fleets' TEDs meet strict compliance with Federal regulations. On behalf of fishermen, the Cameron County fleet's TEDs were inspected by a fisheries specialist and the county extension agent for coastal & marine resources, who checked their TEDs for compliance before the shrimp season opening in 2012. Post -season contact with State and Federal law enforcement agents confirmed our fleet's TEDs were 100 percent compliant. Cash payments to Gulf and South Atlantic shrimp fishermen/applicants are estimated at \$45.8 million (\$9 million for Texas applicants); an obvious, direct effect of establishing TAA for Gulf and South Atlantic shrimp producers. However, the training sessions identified and developed into educational resources by Texas A&M AgriLife Extension / Sea Grant faculty push the economic benefits far beyond the estimated, direct effect. One training session reviewed recent Texas A&M AgriLife Extension / Sea Grant-sponsored research with elite shrimp fishermen who documented fuel-saving with new trawl gear that ranged from 20 to 28 percent with no shrimp loss. This new trawl gear has saved 172 Rio Grande Valley vessel owners a collective 12.8 million gallons valued at \$35.5 million from January 2007 through December 2012! Another session focused on the stepwise procedures fishermen need to adopt at sea to maximize the volume of defect-free shrimp they offload. With catch rates at their zenith, operators who adopt research-based, at-sea handling and freezing protocols could easily eclipse the \$12,000 cash benefit offered by TAA in a single trip because by minimizing defects, the drag on revenue from lower dockside prices is also minimized. These two training programs developed by AgriLife Extension / Sea Grant faculty were provided to other states also responsible for fishermen training under TAA. The TAA Coordinator at the University of Arkansas noted that once the trawl gear presentation was offered via the intensive training sessions, satisfaction scores among applicants increased.

Future Plans: Twelve hours of training satisfied the educational requirements for TAA applicants. However, making a difference in reducing fuel bills as well as offloading premium-quality, defect-free shrimp require reference materials. Work is underway to translate both presentations into Spanish and Vietnamese DVDs and distribute them to each applicant in their preferred first-language so fishermen can have the technical resources to help them (a) convert to fuel-saving trawl gear and (b) adopt the practices, procedures, and policies that ensure full market prices for their shrimp. The five remaining participants in Cameron County completed their training at the beginning of 2013.

Agriculture and Natural Resources



Brownsville shrimp vessel crew measures TED opening under guidance of gear specialists to insure regulation compliance

There were 142 approved TAA applicants from Cameron County. Cumulatively, Cameron County TAA applicants received \$1.209 million in program benefits. Cities included were: Brownsville, Harlingen, Laguna Heights, Laguna Vista, Los Fresnos, Mission, Olmito, Port Isabel, Rio Hondo, and San Benito. To compare relative benefits of the 5-year accumulated fuel saving trawl gear vs. TAA payments, the numbers are \$35.5 million saved in fuel expenditures and \$1.2 million received from the TAA program. Just considering 2012 by itself, the fleet-wide savings in fuel expense were \$9.8 million vs. a one-time TAA payment of \$1.2 million or \$8.20 in saved fuel expense for every dollar paid out by TAA. The educational effectiveness of Cameron County Sea Grant Extension work and the magnitude of the cost savings are a multiple of TAA program payments, with fuel savings the gift that keeps on giving! To quote one fleet owner: “We would not be in business if it wasn’t for these gear changes”.

Recap: Trade adjustment assistance provided \$1.3 million in benefits to offset the negative impacts of cheap imported shrimp for 142 fishermen and their families in Cameron County.

Friend to Friend in Cameron County, 2012

Developed by Lilian Mezquida, County Extension Agent-Family & Consumer Science

The *Friend to Friend* program's purpose is to encourage women to get regular mammograms and Pap tests for the early detection of breast and cervical cancer, when the disease is most curable.

Relevance

- Regular screening significantly increases the likelihood of finding cancer early, when treatment is more often successful.
- Women living in rural areas of Texas are less likely than their urban counterparts to have had a mammogram or Pap test within the past two years.
- Mortality is higher for rural women because of later diagnosis.

Response

- This project's goal is to decrease breast and cervical cancer morbidity and mortality for women living in rural Texas counties by improving screening rates and early detection of cancer.
- Funding was applied for and awarded by the Cancer Prevention and Research Institute of Texas (CPRIT) to fund screenings and transportation to uninsured and underserved women in need of screening services.
- The county Extension agent, regional cancer prevention specialist, and patient navigators plan and implement a *Friend to Friend* event. Women attending are given the opportunity to sign a commitment card to obtain a mammogram and/or Pap test within the next year and the option to complete a help request form for assistance in obtaining screening services.

Impact of the Program

- *Friend to Friend* was implemented in 46 Texas counties in 2012.
- 41 women attended the *Friend to Friend* events on 10/26/12 at the Senior Center in the city of Harlingen.
- Demographics of women who attended the events:
 - Ethnic breakdown:

▪ White, Non-Hispanic: 6.66%	White, Hispanic: 86.66%
▪ African American: 0%	Asian: 0%
▪ Native American: 3.33%	Other: 10%
- 4 people were on the planning committees or task forces and 8 total volunteers assisted at party/events.
- A Doctor, Cancer Survivor, and American Cancer Society Specialist urged women to obtain a mammogram/Pap screening at the events.
- 20 women signed a commitment card to obtain a mammogram/Pap test within the next year.

Family and Consumer Sciences

Success Stories

Participant A- I did like the program because they provided information that I did not know and was easy to understand.

Participant B- I did enjoy the program and the discussion groups because we were able to ask specific questions. We had a Doctor, Cancer Survivor, and American Society Specialist and because their information 20 women signed a commitment card to obtain a mammogram/Pap test within the next year

Also this is the first time implemented this program and as you can see the outcome was very positive. Because it was well accepted I will be doing this program on 2013 in Brownsville.



Parenting Connections Outcome Summary – Cameron County Report, 2012

Developed by Lilian Mezquida, County Extension Agent-Family & Consumer Science

Relevance: Although children are influenced by many different elements in their environment, parents are the primary influence in the lives of their children. Parents' contributions to their children's development are unparalleled, especially during their early childhood years. Research indicates that children who grow up with actively involved and nurturing parents (as opposed to uninvolved parents) reap numerous benefits, including better school performance, increased self-esteem, healthier relationships with peers, healthier sex-role development, and greater access to financial resources. 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. The qualities/skills that are common to effective parents (e.g., unwavering love, sensitivity to a child's needs and feelings, clear and consistent limits geared toward a child's stage of development, firm but not harsh discipline, encouragement of child's emerging independence, parental involvement in child's education, being a positive role model) can be taught through a series of parenting education classes that allow parents the opportunity to discuss and practice the desired skills.

Response: From January to September 2012, the Texas A&M AgriLife Extension Service conducted multiple parent education workshop series' in Cameron County utilizing the *Parenting Connections* curriculum. Topics covered included guidance/discipline, parent-child communication, promoting a healthy self-esteem in children, and child development. Approximately **140** single session parenting classes were attended by participants. Ninety (**33**) parents and/or other relatives completed the 4-week program (see Table 1 for outcomes).

Results: Participant Characteristics

The average age of participants was 28.3 years. Parents who attended the classes had an average of 2.7 children. Sixty-four percent of attendees were female and 27% were male. Approximately 49% possessed a high school diploma, 6% some college, and 6% a college degree. Nearly 33% did not possess a high school diploma. Seventy-nine percent of the participants identified themselves as Hispanic/Latino, 6% Caucasian, 3% African American and 9% "Other." Seventy-nine percent reported household incomes under \$20K, 9% between \$20-29K, and 9% over \$30K. Twenty-seven percent of participants were married (1st time), 15% divorced/separated, 12% remarried, and 36% single. Seventy-three percent identified themselves as the child's custodial parent, 18% as the non-custodial parent, and 6% as a relative or "other" caregiver.

Parent/Child Behaviors

Participants were evaluated after completing the parent education series using a retrospective evaluation tool. Results indicate that the program had a very positive effect on specific parenting practices. Significant behavioral changes from pre to post occurred in the following areas: parent-child communication, and parental self-confidence. In addition, parents reported a significant improvement in their children's behavior after participating in the program. The following tables demonstrate the positive changes that occurred:

Family and Consumer Sciences

Table 1. Percent reporting “frequently” or “almost always” from pre to post (N = 33)

Parenting Behavior	Pre	Post
Compliment child	45.5%	72.7%
Encourage child	57.6%	81.8%
Listen carefully to child	66.7%	87.9%
Communicate clearly & directly	51.6%	67.8%
Confident in parenting skills	51.1%	78.8%
Set limits (rules) for child	36.3%	60.6%
Consistently enforce limits	45.5%	72.7%

Table 2. Child’s behavior pre vs. post (N = 33)

Child’s Behavior	Pre	Post
Excellent or Very Good	36.4%	60.6%
Adequate, Fair, or Poor	42.4%	21.2%

Promoting Physical Activity and Nutrition

Developed by Lilian Mezquida, County Extension Agent-Family & Consumer Science

Promoting Physical Activity and Nutrition (PPAN) is an educational program targeting primarily Hispanic/Latinos. However, this program is open to all ethnic groups. *PPAN* aims at equipping participants with knowledge and lifestyle skills needed to make healthy food choices consistent with the most recent dietary advice as reflected in the Dietary Guidelines for Americans. The program was held at the Brownsville Literacy Center. A group of 14 young mothers and their children (ages 3-4) were taught about promoting daily physical activity. An arts & crafts session which contained information on the healthy plate theme was used where the mother and child/children got to work together on making a different project each week. A weekly healthy recipe was also used.

Relevance

- In 2010, the estimated economic cost of overweight and obesity in Texas was \$15.6 billion. This estimate is projected rise to \$39 billion by the year 2040.¹
- About 55.9% of Texas adults are overweight (BMI \geq 25) AND 27.7% are Obese (BMI \geq 30).²
- Among the top 10 states with Hispanic/Latino population, Texas has the highest rate (32%) of obesity among Hispanic/Latino adults.³
- In 2008, the overweight prevalence among low-income pre-school children 2-4 years of age in Texas was 16.2%³
- From 2002-2005, about 30% of adults living in South Texas were obese. This estimate was higher than the obesity prevalence in Texas and nationwide.⁴
- In South Texas, Hispanic/Latino adults have a higher prevalence compared to their non-Hispanic whites counterparts: 34% Hispanic/Latinos versus 22% non-Hispanic whites.⁵
- Among persons with diabetes, a higher proportion of Texas Hispanic/Latinos (32.5 percent) could not see a doctor in the last 12 month due to cost compared to Whites (16.5 percent).²

Impact of PPAN

In 2012, 14 individuals registered to for the *PPAN* class offered in Cameron County, TX. The findings below summarize the impact of the program delivered in Cameron County. Outcome indicators include Overall health, nutrition and weight, physical activity, and stress.

Overall Health:

- At both pre- and post-test, majority of the participants wanted to improve their nutritional and weight management behavior in order to improve their health.
- Improvements were made in their views on how an individual's lifestyle or way of living positively affects their health: 42.8% (N=6) strongly agreed at pre-test versus 78.5% (N=11) at post-test.

- Improvement in overall health was also observed. At pre-test, about 21.4% (N=3) rated their health as “Good” whereas at post-test, about 35.7% (N=5) rated their health as “Good”.

Nutrition and Weight:

- Almost all the participants (92.8%, N=13) wanted to lose some weight at pre and post-test.
- Improvements were also made in the participants’ ability to make healthy food choices:
 - *Foods high in calcium*: about 35.7% (N=5) reported having about 3-4 servings each day at pre-test compared to 42.86% (N=6) at post-test.
 - *Foods high in fiber*: 21.4% (N=3) reported having about 3-4 servings each day at pre-test compared to 42.8% (N=3) at post-test
 - *Foods high in fat*: At both pre- and post-tests, about 7.1% (N=1) reported having 3-4 servings each day.
 - *Foods low in fat or cholesterol*: At pre-test, 38.4% (N=5) reported “Often” eating foods low in fat or cholesterol compared to 42.8% (N=6) at post-test

Physical Activity:

- Improvements were made in the number of times a week that the participants exercised: 92.3% (N=12) exercised 3 or times a week at pre-test; 100% (N=14) exercised 3 or more times a week at post-test.
- At pre-test, most (53.8%, N=7) stretched their muscles about 1-2 times a week in order to improve flexibility whereas at post-test, the majority of the participants (71.4%, N=10) stretched their muscles 3 or more times a week.
- At pre-test, about 66.6% (N=8) of the participants “disagreed” that they did not have enough time to be active compared to 64.2% (N=9) who “strongly disagreed” at post-test.
- At pre-test, about 53.8% (N=7) of the participants “Strongly Disagreed” that it cost too much to exercise compared to 71.4% (N=10) at post-test.
- Perceptions about not being able to exercise or workout without a partner remained the same at pre- and post-test.
- At pre-test, about 41.6% (N=5) disagreed that they were unable to engage in any type of physical activity compared to 78.5% (N=11) who strongly disagreed.

Stress

- At pre-test, about 53.8% (N=7) of the participants felt that they were somewhat effective at dealing with stress in their life compared to 71.4% (N=10) at post-test.
- Improvements were seen in the ability of the participants being able to engage in sleep patterns that promotes good health. At pre-test, about 23% (N=3) of the participants engaged in sleep patterns that did not promote good health compared to 7.1% (N=1) at post-test.
- Improvements were also observed in the social support systems that the participants have in helping them deal with stress: At pre-test, about 76.9% (N=10) of the participants believed that they do get emotional support from others to help deal with stress compared to 85.7% (N=12) at post-test.

Success Stories

- *Excelente clase me encanto y. Todo los pasos e instrucciones fueron de mi agrado*
- *I truly enjoyed the classes. I get disappointed at myself when I'm unable to attend the class. I need health books and in all of them stress the importance of exercising at least 3 times a week. I want to continue exercising and hopefully I get to reach my weight goal of 130lbs. Thank you for your time and patience with me*
- *Bueno yo aprendi como combinar los alimentos para mejorar el peso y la salud. Y como llevar una buena dieta con estos ejercicios perdi algo de peso baje medidas de todo y en lo personal su clase me gusto mucho y aprendi muchas cosas que yo no sabia. Gracias.*
- *Me encanto mucho y me gustaria que hubiera mas clases como esta muchas gracias "Teacher"*
- *Estoy muy contenta con los programas que hay en este centro comunitario es una gran ayuda de aprender machas cosas nuevas porque nunca es tarde para aprender y te ayuda a no estar estresada.*
- *Estoy contenta y agradecida con esta clase de baile y ha sido de mucho beneficio para mi salud y mi estado de animo. Me gustaria que continuara de ser posible para aprender mas ritmos de baile. Gracias.*

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Brownsville Community Center

Family and Consumer Sciences

Child Care Provider Conference Outcome Report, 2012

Developed by Lilian Mezquida, County Extension Agent-Family & Consumer Science

Over 60 percent of children from birth through age 6 (not yet in kindergarten) receive some form of child care on a regular basis from persons other than their parents. The Texas Workforce Commission estimates that there are over 100,000 child care providers caring for more than 760,000 children under the age of 13 in licensed or regulated child care facilities in the state of Texas. Additionally, child care is the 16th largest industry in the state, generating over 145,000 jobs and \$2.3 billion in wages for Texans.

Findings from longitudinal research have clearly established the fact that quality does matter when it comes to child care. Children who receive high-quality care (e.g., warm sensitive caregiving, well educated child care staff, low child-to-adult ratios, small group size) develop better language, math, and social skills; exhibit fewer behavior problems; and tend to be better prepared for entrance into school. Having a well-trained child care workforce is essential to providing the high quality child care that children need to develop physically, socially, emotionally, and cognitively.

Child Care Provider Conference

On March 17, 2012, the Texas A&M AgriLife Extension Service conducted a child care provider training conference in Weslaco, Texas for **261** child care providers and directors who provide care for **2,254** children enrolled in **103** child care centers or family day homes. Two hundred and sixty-one participants completed a written evaluation of the conference (see Table 1 for participant characteristics). A total of **2,088** clock hours of training were provided to child care professionals seeking to meet state mandated training requirements established by the state of Texas.

Table 1. Participant Characteristics (N = 261) *

Variable	Percentage	Mean
Age (in years)		40.3
Number of Years in Child Care Profession		8.9
Gender		
Female	90.4	
Male	3.8	
Ethnicity		
African American	0.8	
Caucasian	5.0	
Hispanic/Latino	92.0	
Other	1.5	
Education		
Less than High School Diploma	4.2	
Child Care Center (other than Head Start)	70.1	
Associates Degree	14.2	
College Graduate	9.2	
Program Type		
Home Day Care	11.9	

Family and Consumer Sciences

Participants were asked to indicate their agreement or disagreement with a series of items related to the training. Two hundred and sixty-one participants completed written surveys (See Table 2 for participant responses).

Table 2. Child Care Provider Conference Outcomes (N = 261)*

Item	Percent in Agreement *	Percent not in
Acquisition of New Information		
Learned new information	98.5%	1.1%
Will utilize new information to strengthen program	96.2%	2.7%
Intent to Use Information		
Will use now	96.2%	1.5%
Will use in future	98.9%	0.0%
Training's Influence on Provider/Program Quality		
Will be more effective provider	96.9%	1.5%
Will lead to improvements in quality of care offered	96.6%	0.8%
Relevancy of Training		
Helped provider obtain required clock hours	94.6%	2.3%
Topics relevant to daily work	95.8%	1.1%
Other		
Training cost-effective	86.6%	6.5%
Plan to attend another Extension conference	94.3%	3.4%
Percentages do not equal 100% due to missing cases		

Family and Consumer Sciences

In addition, participants were asked to rate the quality of the conference compared to other child care trainings they have attended in the past by non-Extension organizations/agencies. Table 3 below contains the results.

Table 3. Perceptions of Quality Compared to Other Non-Extension Trainings (N = 261)*

Item*	Much Worse	Worse	Same	Better	Much Better
Compared to other child care trainings you have attended (not provided by Extension), how would you rate the quality of today's training?	0.8%	0.0%	22.6%	31.8%	44.4%
Percentages do not equal 100% due to missing cases					

As can be seen in the tables above, child care providers found the training to be very beneficial. Over 90 percent of participants acquired new information from the conference, considered the training to be very relevant to the work they do, plan to utilize the information gained at the conference to improve their programs, and consider themselves better equipped to work with the children in their care. Moreover, **76.2%** of providers rated the training “Better” or “Much Better” compared to other trainings they have attended that were not conducted by Extension.



¡Si, Yo Puedo Controlar, i Diabetes! 2012 Cameron County Report

Developed by Lilian Mezquida, County Extension Agent-Family & Consumer Science

¡Si, Yo Puedo Controlar Mi Diabetes! (Si, Yo Puedo) is an evidence-informed, culturally competent educational program targeting low-literate Hispanic/Latinos with diabetes. The curriculum is predicated on the American Diabetes Association's national standards of care and employs the Social Cognitive and Self-regulation theories as its foundational support. Empowerment is an overarching theme of the program, and, to this end, *Si, Yo Puedo* aims to equip participants with knowledge and lifestyle skills to better control their diabetes.

Relevance

- Diabetes cost Texas more than 12 billion dollars.¹
- Texas Hispanic/Latinos 45 to 64 years of age are disproportionately affected by diabetes prevalence (11.0 percent) than their White, non-Hispanic counterparts (16.8 percent).
- In 2007, mortality rates were more than double among Texas.¹ Hispanic/Latinos (40 per 100,000) than Whites, non-Hispanics (19 per 100,000).¹
- Among persons with diabetes, a higher proportion of Texas Hispanic/Latinos (32.5 percent) could not see a doctor in the last 12 month due to cost compared to Whites (16.5 percent).²

Response

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

Impact of Yo Puedo

In 2012, 18 individuals registered to for the *Si, Yo Puedo* class offered in Cameron County, TX. Among those enrolled in the program, 38.9% (N=7) completed the classes. Half of the participants (50%) reported never having received any diabetes classes.

The findings below summarize the impact of the *Si, Yo Puedo* program delivered in Cameron County. Outcome indicators include diabetes knowledge, self-efficacy, acculturation, and diabetes self-care behaviors.

- Demographic characteristics: All the participants were female, average age was 41 years, 95% were Hispanic, 89% had yearly income of \$20,000 or less, 90% had less than a high school education, and 91% did not have private insurance.
- Program participants were minimally acculturated: all participants (100%) had a score of 10 or less out of 25, where a total score of 25 indicated highly acculturated.
- Diabetes knowledge increased from 7.8 (out of 10) at pre-test to 8.4 at post-test (out of 10).

Family and Consumer Sciences

- Diabetes self-care scores reveal that participants improved in performing routine health behaviors to better manage their diabetes
- Self-efficacy scores improved with participants reporting increases in their confidence to engage in diabetes self-care behaviors): Pre-test 3.2 M (out of 4); Post-test 3.4 M (out of 4). (Scale: 1 = I don't feel sure; 4 = I feel very sure.)

Success Stories

- *Aprendi a cuidar mi diabetes (Learn to take care of my diabetes)*
- *Como vivir una vida activa saludable con diabetes. (To live an active life, healthy with diabetes).*
- *A cuidar mi alimentacion, promoyer mas el ejcracio, a involucrar a mi familia (Take care of my diet, promote exercising more, and involving my family).*

Reflections

Overall, 2012 evidence demonstrates that the *!Sí, Yo Puedo Controlar Mi Diabetes!* significantly enhances participants' engagement in diabetes self-care behaviors, improvements in self-confidence about diabetes self-care, and increases diabetes knowledge. This program lends support to the benefits of a culturally competent diabetes self-management education targeting lower literate, Spanish-speaking Hispanic/Latinos with diabetes. Given the high rates of diabetes among Hispanic/Latinos, *Si, Yo Puedo* is a program to address this concern in Cameron County, Texas. Over the past year Cameron County Extension partnered with community stakeholder to extend our reach to disadvantaged populations. We envision this effort to continue that will help ensure the sustainability of *Si, Yo Puedo*.

References

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2. Texas Diabetes Council, Texas Department of State Health Services. *Diabetes: A comprehensive approach*. Austin, TX: TDSHS Publication No. 45-10524.es: Pre-test mean score: 27.0 out of total score of 44; Post-test: 30.8 out of 44.



Better Living for Texans – Back to Basics

Developed by Lilian Mezquida, County Extension Agent-Family & Consumer Science

Relevance: In Cameron County, an estimated 118,600 individuals receive benefits from the Supplemental Nutrition Assistance Program (SNAP), historically known as food stamps. Studies have shown individuals who live in poverty (including SNAP recipients) have dietary intakes that are not in agreement with current recommendations (i.e. Dietary Guidelines or MyPlate). This audience, like many, may not recognize their risk for foodborne illness. Having enough food to eat is also a challenge; an estimated 1 in 6 households in Texas experience food insecurity.

Response: Better Living for Texans (BLT) The BLT Program is a cooperative endeavor among Texas AgriLife Extension Service, Texas Health and Human Services Commission (HHSC), and the Food and Nutrition Services (FNS) of USDA. A component of the Supplemental Nutrition Assistance Program (SNAP), BLT offers food and nutrition education to SNAP recipients, applicants, and other low-income audiences to help improve their ability to plan and prepare nutritious meals, stretch food dollars, and prepare and store food safely. BLT also incorporates the *Walk Across Texas* program to promote physical activity.

During 2012, 100 Cameron County adults completed the BLT *Back to Basics* series. This program focuses on meal planning, stretching food dollars, and adopting selected behaviors that can reduce the risk of foodborne illness. This report reflects results of the pre, post, and 30-day follow-up surveys completed by the participants.

Results: Participants were primarily female (79%) and Hispanic (90%). More than 75% (n=76) had a high school education or less and 18% (n=18) had completed some college or technical school. Average household size of the participants was 3.9. Eighty-three percent (n=83) of the 100 participants received SNAP (food stamps). More than 60% (n=62) had children who received free or reduced-price school meals and 30% (n=30) of the participants received WIC benefits. Two of the 100 participants reported they had received food from a food bank or food pantry within the previous 30 days.

Meal Planning and Food Resource Management – adoption of behaviors

Behavior	Current behavior (pre) Number (%*)	Intent to change Number (%*)	Behavior 30 days later Number (%*)
Plan meals in advance			
Always	23 (23)	72 (72)	69 (69)
Sometimes	57 (57)	24 (24)	22 (22)
Never	17 (17)	4 (4)	0
Not Sure	2 (2)	0	0
No response	1 (1)	0	9 (9)
Shop for food with a list			
Always	34 (34)	74 (74)	69 (69)
Sometimes	48 (48)	24 (24)	22 (22)
Never	16 (16)	2 (2)	0

Family and Consumer Sciences

Not Sure	2 (2)	0	0
No response	0	0	9 (9)
Compare prices when shopping			
Always	43 (43)	79 (79)	73 (73)
Sometimes	46 (46)	19 (19)	14 (14)
Never	9 (9)	2 (2)	3 (3)
Not Sure	2 (2)	0	0
No response	0	0	10 (10)
Use unit pricing when shopping			
Always	25 (14)	38 (38)	38 (38)
Sometimes	39 (39)	42 (42)	41 (41)
Never	22 (22)	20 (20)	10 (10)
Not sure	21 (21)	0	2 (2)
No response	4 (4)	0	9 (9)
Run out of food before the end of the month?			
Always	32 (32)		17 (17)
Sometimes	46 (46)		56 (56)
Never	20 (20)		18 (18)
Not Sure	2 (2)		0
No response	0		9 (9)

* percentage is rounded up to the nearest whole number

With the exception of unit pricing, most participants were using the targeted food resource management practices either “always” or “sometimes” when they entered the BLT program. Immediately after the program ended there was a noted increase in the percentage of participants who intended to practice the behaviors “always” with the exception of unit pricing. Thirty days later, the percentage of participants practicing all four behaviors “always” was considerably higher than when the program began. The most notable change in behavior was that of planning meals in advance.

Immediately after the program ended, 85 (85%) of the participants reported that they felt they could use what they had learned to spend less money at the grocery store. In addition, 83% reported being able to stretch their food resources to last the entire month either “always” or “sometimes” immediately after the program. Thirty days later, the number of participants who ran out of food before the end of the month “always” experienced a downward trend (from 32% pre to 17% at follow-up).

Food Safety- adoption of behaviors

Behavior	Frequency (pre) Number (%*)	Frequency (post) Number (%*) (intent to change)	Adoption of Behavior (30-days later) Number (%*)
How often do you sanitize cutting boards after cutting up raw meat or poultry?			
Always	71 (71)	91 (91)	85 (85)
Sometimes	19 (19)	8 (8)	4 (4)
Never	7 (7)	1 (1)	1 (1)
Not sure	3 (3)	0	0
No response	0	0	10 (10)
How often do you thaw frozen food at room temperature?			
Always	41 (41)	19 (19)	27 (27)
Sometimes	36 (36)	26 (26)	15 (15)
Never	17 (17)	55 (55)	47 (47)
Not sure	4 (4)	0	0
No response	2 (2)	0	11 (11)
How long did you leave your last meal out after it was prepared?			
Eaten/stored immediately	23 (23)	60 (60)	47 (47)
< 1 hour	40 (40)	31 (31)	34 (34)
1 – 2 hours	20 (20)	4 (4)	7 (7)
> 2 hours	5 (5)	2 (2)	1 (1)
Not Sure	9 (9)	1 (1)	11 (11)
No response	3 (3)	3 (3)	0

* percentage is rounded up to the nearest whole number

More than 70% (n=71) of participants reported sanitizing cutting boards after cutting up raw meat or poultry when the program first began. That number rose to 91 but dropped slightly to 85 30-days later. Also, at the 30-day follow-up survey we found that the percentage of clients who “always” let food thaw at room temperature was lower (27%; n=27) compared to when the program began (41%; n=41). In addition, more participants were eating or storing their prepared foods soon after cooking compared to when the program began.

Other findings:

61% (n=61) of the 100 participants identified BLT as their first exposure to AgriLife Extension. This suggests that the program is reaching new audiences who otherwise might not have the opportunity to benefit from Extension programs.

Average monthly out-of-pocket food expenses reported by participants:**

Before BLT: \$ 125.30

After BLT: \$ 122.50

** Based on 86 participants who reported monthly out-of-pocket food expenses at the beginning of BLT and 30-days after the program ended. Changes in out-of-pocket food expenses **were not** significantly different.

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For these 100 participants, the percentage who rated their perceived ability to prepare nutritious meals as either “good” or “very good” was 55% (n=55) before BLT (pre-survey) and 83% (n=83) after BLT (post survey).

61 of the 100 (61%) participants rated the BLT program as “excellent” while another 23 rated the program as “good.”

BLT SUCCESS STORIES

Carmen Arambula-BLT Assistant

1. After I finished my three session series, my participants surprised me, with a Food Show. But the most important was, that they included the Five food groups, using whole wheat bread instead white bread, they cooked the Healthy version of the Traditional and Typical Mexican Food : “Mexican Mole”, and of course, a variety of healthy desserts!!!! It was a good experience!!!!
2. During another graduation ceremony, I gave the certificates, and one of the participants start doing physical activity, and she mentioned to the group that using the back to basics curriculum, she start feeling very energetic!!!!!! And invited to exercise the graduates after the luncheon. Also the participants were very thankful because now on they will start to use less fats and salts in their daily diets!!!!!!
3. When I completed the “ Get the Facts “ Series, the graduates started joking about the five pound visual, that I show them in my Fat Session, and They mentioned that This sessions were very useful because now they are better food label readers and learned how to prepare healthier meals!!!!!!

Esmeralda Avila-BLT Assistant

Brownsville Literacy Center has given me the opportunity to work with many limited resource Adults thought out the year. I was also given the opportunity to work with a group of limited resource female parents & their kids together I presented BLT sessions on the Back 2 Basics curriculum along with a healthy recipe in which the parents & the child were able to make together.



Brownsville Literacy Center



Benavides Elementary School

Expanded Food and Nutrition Education Program Cameron County Outcome Summary Report – Youth EFNEP Program

Developed by: D. Beatriz Rodriguez-Loya

Relevance: 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 18.4% of Texans live in poverty, a figure above the national average of 17.6%. Census statistics for Cameron County suggest families living under the poverty rate at approximately 34.0%.

Childhood overweight has been recognized as a national public health issue. The obesity epidemic in children is an enormous societal problem with far reaching consequences. Currently, 32% of children are obese and overweight, at or above the 85th percentile of the Center for Disease Control (CDC) growth charts. Even more troubling, is that elevated body mass index (BMI) – a commonly used measure of adiposity – is associated with metabolic syndrome, reaching a 50% association in the most severely obese children. Overweight and obese children also have higher rates of high blood pressure, abnormal insulin levels, and dyslipidemia (the condition of having too high or too low lipid (fat) levels in the bloodstream. A preventive nutrition, health, and wellness approach is necessary to reduce obesity and the onset of diabetes, more specifically, Type 2 diabetes among Texans and Cameron County residents. 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 18.4% of Texans live in poverty, a figure above the national average of 17.6%. Census statistics for Cameron County suggest families living under the poverty rate at approximately 34.0%.

Response: The Cameron County Expanded Food & Nutrition Education Program promotes a nutrition education series to limited-resource parents and children to help them identify, purchase, and prepare healthy foods. The Expanded Food & 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 at least six nutrition education sessions.

Results: The main goal for the Expanded Food & Nutrition Education Program Youth program is to reach as many limited resource children and offer them an opportunity to make a difference in their lives and maximize the outreach in Cameron County. Since my appointment and working with incredible partners, the Youth graduates of the Expanded Food & Nutrition Education Program have increased significantly as seen in Figure 1.1:

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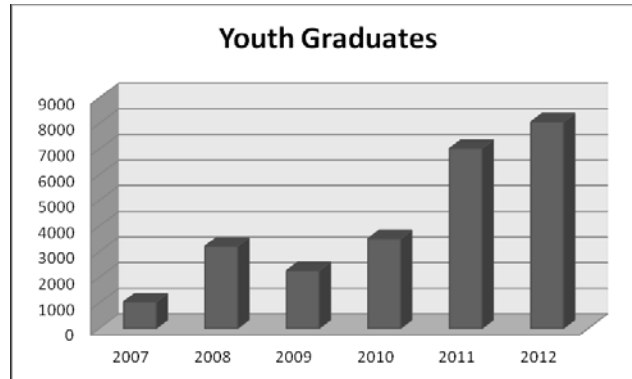


Figure 1.1 – Increase in Youth Graduates from FY2007 – FY 2012

8,629 youth contacts were made through the EFNEP youth program. The following results show how youth clients' food behaviors improved after attending EFNEP classes:

- 81% now eat a variety of foods.
 - 81% increased their knowledge of the essentials of human nutrition.
 - 86% increased their ability to select low-cost, nutritious foods.
 - 91% improved practices in food preparation and safety.
 - 89% improved physical activity behavior or attitude.
- "What I learned from this nutrition program is how much of everything to eat from each food group. But what I liked the most was making those snacks after every lesson. When I learned how to make ice cream thanks to Ms. Gallegos, now I do it at home every time I want to eat ice cream. I told my mom what I was learning. I showed her the charts and since she is on a diet, she said that she might follow them. From now on I'm going to do all these things that I learned in this class to have a better healthy life."
-Cristina Rodriguez - 6th Grader Idea Public Schools in Brownsville, Texas
- Dear reader, EFNEP has seriously changed my diet, my plate. Most students will write "oh she taught us recipes and they were delicious." Yet I'm one of the few who actually observed the servings and research how this helps. I used to eat fried potato with butte and, I used to drink whole milk. Yet I wouldn't drink milk that much and always there wasn't that much veggies or fruits on my plate mostly fat. I've learned that protein helps build our tissues and organs. B vitamin helps our brain cells with our daily actions. Iron helps our blood flow fast which lowers our chance of a heart attack and vein clogs. I've known our "Pyramid" and serving sizes which are Fruits: 1 1/2 cups, Grain: 6oz, Veggies: 2 1/2 cu, Protein 5 1/2 oz, Dairy: 3 cups. I'm already good with the physical activities. I'm in football and every day ride my bike for an hour then run in athletics. I don't like using my phone or facebook. I'd rather read a book. Then there's the media trying to see "delicious snacks." then when I go to a market (I used to before EFNEP I wouldn't read the labels). It's all high in carbs and sodium, and now thanks to EFNEP I can read the label. Yet, the media does nothing to me, thanks to EFNEP. EFNEP has also taught me about the diseases of poor diet.
-

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- Osteoporosis due to lack of calcium, diabetes due to too much sugar, heart disease due to too much fat. So I can now avoid these complications thanks again to EFNEP. THANK YOU EFNEP!!"
- Christian Estrada, 7th Grader at Perkins Middle School in Brownsville, Texas

Future Plans: In 2013, the Expanded Food & Nutrition Education Program Advisory Committee and volunteers will continue to support efforts of the Nutrition Education Assistants for the youth program by coordinating events to address nutritional impacts. Target audience; limited resource children.



Expanded Food and Nutrition Education Program Cameron County Outcome Summary Report – Adult EFNEP Program

Developed by: D. Beatriz Rodriguez-Loya

Relevance: 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 18.4% of Texans live in poverty, a figure above the national average of 17.6%. Census statistics for Cameron County suggest families living under the poverty rate at approximately 34.0%.

Response: The Expanded Food and Nutrition Education Program (EFNEP) helps young families and youth with limited resources – those most at risk to suffer from hunger, food insecurity and the inability to connect with available support systems. EFNEP offers practical lessons in basic nutrition, food preparation, food budget management and food safety in settings convenient for the participants. Program graduates reflect significant, lasting improvement in eating behaviors and healthy food habits. Texas has a need for EFNEP – 2010 data show that 20.6% of Texas families with children under the age of 18 were living below poverty level, compared to 17.9% of U.S. families.

Results:

- 2,267 families with 4,435 children enrolled in EFNEP.
- 112 EFNEP participants were pregnant and/or nursing.
- 89% of families were at or below 100% of federal poverty level.
- 67% of families enrolled in one or more food assistance programs at entry.
- 94% of EFNEP adult participants were Hispanic/Latino.
- 1% of EFNEP adult participants were Not Hispanic/Latino, White.
- 99% with positive change in any food group at exit. Specifically, EFNEP participants consumed 0.9 more cups of fruits and vegetables and 0.8 additional cups of milk at completion, compared to entry.
- 87% improved in one or more food resource management practices such as using a list for grocery shopping.
- 93% improved in one or more nutrition practices such as using the “Nutrition Facts” on food labels to make food choices.
- 72% improved in one or more food safety practices such as thawing foods safely.
- 35% of program participants reported a positive change in physical activity.

In 2012, 259 adult volunteers donated 3,328 hours of work to EFNEP in Cameron County. At the Texas rate of \$21.91/hour, this volunteerism has a minimum dollar value of \$86,588. Volunteers make a difference in their own communities, and contribute to EFNEP’s continued success.

Studies have shown that for every \$1 spent of EFNEP, \$10 re estimated to be saved in health care costs and \$2 saved in food costs by participants. For Cameron County, this is \$4 million in estimated health care cost savings and almost \$811,346 in food costs.

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At the end of each 7th week session, graduating program participants throughout Cameron County are invited to write personal testimony that expresses the effect of the Expanded Food & Nutrition Education Program adult curriculum “Healthy Food, Healthy Families” on their lives and that of their families. A few examples are given below:

"Congratulations to the ladies of AgriLife for your enthusiasm and dedication to the classes. They always showed up with a smile and very well prepared with their materials to show us the importance of healthy living. I believe that this is a good program that will help in these times that those of us who are overweight and need assistance learning about nutrition. We learned about how to organize and plan our meals, thinking of each one of our family members and their needs, their age, and their weight, etc. I also learned how to select, buy, store, and prepare food and to serve the right portions which has been very useful to me because I always thought that we were getting the right portions. Thank-you teacher for this great course!" - Brenda Velazquez, Brownsville, Texas

*"The Nutrition program helped me because I learned to eat healthy and measure the food. I am active with my body by exercising **30 minutes** every day for **5 days** of the week. My children exercise all week because it is best for their health. I use 100% whole wheat bread for sandwiches. Now I eat vegetables and 100% vegetable juice. I learned to read the nutrition facts before I buy. I use canola oil and olive oil for cooking. I make my grocery list and plan my meal with healthy plates. I use less money. I learn to eat less sodium, less fat, and less sugar. I like making better choices for my family. I use the measuring cup to measure the serving of food what we must eat. I have healthy food in my refrigerator. I am using the refrigerator thermometer and always wash my hands and clean the kitchen before and after I cook. I want to see my family healthy."*
- Guadalupe Velasquez, Brownsville, Texas

Future Plans: In 2013, the Expanded Food & Nutrition Education Program Advisory Committee will continue to support efforts of the Nutrition Education Assistants for the Adult program implementing, planning and evaluating a variety of educational programs addressing nutritional impacts. They will continue targeting limited resource audiences, rural home owners, pregnant teenagers, and families with children and help the Expanded Food & Nutrition Education Program strive to reach those persons who are in most need of receiving health education information and create a longer and happier life for themselves and for their families. Working together with partnerships is the best way to help those persons who live in rural areas and are limited to find educational information that can help them save money, live healthier, live longer, and raise children who will not feel the strain of hunger or obesity. The Expanded Food & Nutrition Education Program prides itself on the diversity of the people and cultural differences as well as similarities in the partnerships and participants that all have the same goal, to help the future of the children in Cameron County to live a healthier life.



Expanded Food and Nutrition Education Program

Cameron County Output Summary Report–The Road to Success Youth EFNEP Program

Developed by: D. Beatriz Rodriguez-Loya

Relevance: Cameron County continues to have two digit unemployment figures. Poverty, lack of job skills, substandard housing, parental pressures, and difficulty in accessing the public assistance system (social service agencies) are factors which contribute to the quality of life for families. Various researchers have contributed to the body of knowledge concerning which quality of life issues should be studied in any given community. Such factors as emotional (well-being, safety, spirituality, happiness) Interpersonal relations (intimacy affection, family unity) Physical well-being (health, nutrition,) Self-determination (autonomy, choice, personal control) Social inclusion (acceptance, status roles) and Rights (privacy, due process, voting) are considered quality of life dimensions important to the successful performance in the life cycle. The major concerns expressed in the Texas Community Futures Forums centered on such issues as solutions to decrease illegal drugs and gang problems, promoting independence (personal responsibility, values, morals, respect and promoting family unity. Since for most, any social service agency, these quality of life factors and issues are of mutual concern. Participants in the Future Forum process agreed that the formation of groups focusing on these issues would be beneficial to families.

Response: In response to the community health issue to provide nutrition education to limited resource youth in Cameron County, a fun program named the Road to Success was created that would be accessible to limited resource Expanded Food & Nutrition Education Program youth to the Food Challenge. Conducting a summer program would enhance their knowledge of nutrition, become more aware of healthy food choices, and allow them to make new friends.

Results: The EFNEP Youth that have been trained in the Food Challenge will be the leaders for other EFNEP Youth who will attend the EFNEP Nutrition Camp and expose them to the Food Challenge as well as increase their own culinary skills to enter into the County Food Challenge themselves. 5 Adult Food Challenge Advisory Committee volunteers worked with a group of 15 children from the Brownsville Housing Authority to conduct a Food Challenge - Road To Success program on July 28, 2012. An in-person survey was be given at the end of the 2012 Road To Success Food Challenge Camp. All 15 children and 5 adults stated that they loved the Food Challenge. 6 children were eager to participate in the 4-H Food Challenge.

Future Plans: Based on the overwhelming majority of participants wanting to participate again the upcoming year, the Expanded Food & Nutrition Education Program Agent planned on conducting a second Road to Success Camp. Providing this camp will continue to enhance the EFNEP children's 4-H experience and prepare them for competing in the 4-H Food Challenge.

Youth Higher Education Awareness Outcome Summary, Cameron County - 2012

Developed by Marco Ponce, County Extension Agent – 4-H & Youth Development

Relevance: There are many at-risk and underprivileged youth in Cameron County who are unaware of the many higher education opportunities available to them here in South Texas. They are also unaware of the finances needed and the funding that is available to them in order to acquire a higher education degree. These groups of students are often overlooked by school counselors and are not given the individual attention they need by instructors. Thus many fail to graduate high school and in most cases fail to attend an institution of higher education. They are then often relegated to mostly low paying jobs that have little or no opportunity for career advancement.

Response: Educational lessons were conducted at the Rio Hondo Alternative Education Center utilizing the College for Texans curriculum. Lessons were delivered using power point technology as well as handouts that were given to the audience in order to take notes and follow along. Some individual instruction was also conducted with students who needed special attention in order to fully understand the topic. Educational lessons included local higher education institutions, financial aid 101, financial impact of college degrees, careers in demand, and possible degree programs and related careers. Students were informed about the expected salaries that they should expect to earn related to their level of education obtained. They were also informed about the many expenses that can be expected to be incurred once they are living on their own and having to pay for all of their own expenses. This made them realize that trying to live comfortably on a salary of a high school drop-out would be extremely challenging if not impossible.

Results: Students gained a greater understanding of the many opportunities available to them that would support them in their path to obtaining a higher education degree. Students specifically gained a greater knowledge in financial aid, careers, and salary differences as related to their responses in a pre and post program questionnaire. Students missed an average of -7.3 or 61% of the questions on the pre - program questionnaire. On the post – program questionnaire, students missed an average of -2 or 16% of the questions. Two students answered every one of the questions correctly. Two of the students had said they had not planned on attending college in the pre-test while all of the students said they planned on attending college in the post-test.

Future Plans: The future plans for this program in to interpret the results to our key stakeholders and county leaders. We also have plans to continue this program at both the alternative education center and with possible after school programs in the Rio Hondo School District.



Junior Master Gardeners Outcome Summary - Cameron County, 2012

Developed by Marco Ponce, County Extension Agent – 4-H & Youth Development

Relevance: Youths who are elementary school age are increasingly unaware of how fruits, vegetables, and ornamentals are produced. Many are unfamiliar with the processes involved in producing fruits and vegetables. They are unaware of basic of gardening techniques such as site selection, planting, watering, and fertilization. It is important that youth be aware of how important the preservation of the environment is in relation to producing these products. Youth must also be made aware that fruits and vegetables grown at home are tastier and healthier as they are free of chemicals and preservatives that can be harmful to one's health. Students need to understand the nutritional requirements needed for them to maintain a healthy lifestyle.

Response: Agents planned and implemented a Gardening and Nutrition program in which the 4-H Agent, Horticulture Agent, and BLT Program Assistant all collaborated to conduct this program. Topics of discussion were planting seeds, basic gardening and management, nutrition, and arts and crafts. Students also did some hands on activities such as planting seeds in small cups that they were able to take home. Students also made decorative hats with a gardening theme which enabled them to use their creativity skills.

Results: Students learned about the importance being good stewards of the land while also learning about establishing a vegetable garden. Students were administered a pre-program questionnaire in which they had an average of -5.1 or 53% of the questions wrong. Students were then given an identical post program questionnaire at the conclusion of programming. In the post-program questionnaire, students averaged -2.1 or 15% of the questions wrong. In addition, in the pre-program questionnaire, no one answered all the questions correctly and three students got all the questions wrong. In the post-program questionnaire, six students answered all the questions correctly and 100% of the students answered at least some of the questions correctly. Parents and administrators asked questions about starting a 4-H club after programming was concluded. We informed the clientele at Hope Farms that we would definitely continue to conduct educational programs at this location and would support the start of a 4-H club at this location.



Cameron County 4-H member demonstrating proper planting techniques

Texas A&M AgriLife Extension Service Cameron County

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