

Extension Education in Willacy County
Making a Difference

2017

# Willacy County

2017

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The Texas A&M AgriLife Extension Service has long been dedicated to educating Texans. Extension education evolved nationwide under the 1914 federal Smith-Lever Act, which sought to extend university knowledge and agricultural research findings directly to the people. Ever since, Extension programs have addressed the emerging issues of the day, reaching diverse rural and urban populations.

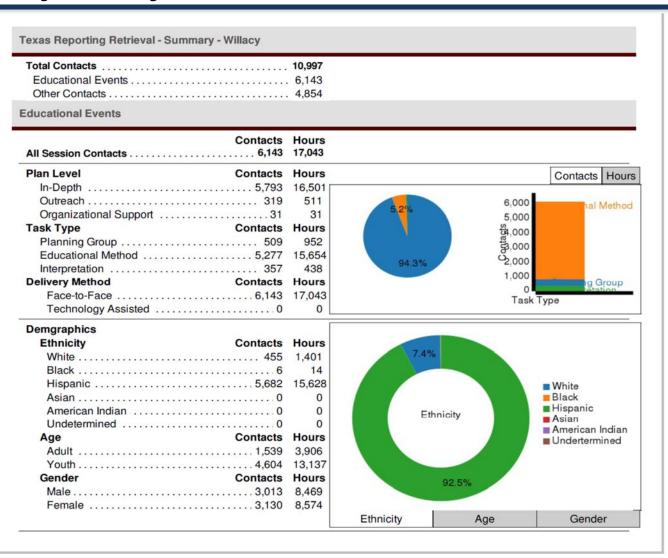
In Texas, all 254 counties are served by a wellorganized network of professional Extension educators and some 100,000 trained volunteers. Extension expertise and educational outreach pertain to the food and fiber industry, natural resources, family and consumer sciences, nutrition and health, and community economic development.

# EXTENDING KNOWLEDGE Providing Solutions

Among those served are hundreds of thousands of young people who benefit annually from Extension's 4-H and youth development programs.

Texans turn to Extension education for solutions. Extension agents and specialists respond not only with answers, but also with resources and services that result in significant returns on the public's investment. Extension programs are custom-designed for each region of the state, with residents providing input and help with program delivery. Here are just a few highlights of Extension impacts on this county and its people.

# Willacy County - Summary of 2017 Educational Contacts





# 2017 Willacy County Wildlife Program Developed by Matthew J. Rodriguez, Willacy County Extension Agent Agriculture & Natural Resource

#### **Relevance:**

Wildlife resources are a crucial part towards the overall economic and environmental viability in Willacy County. Conscience management of the county's wildlife habitat optimizes the maximum potential of its wildlife resources. Wildlife promotes opportunities in tourism, hunting, and other outdoor activities that economically effect landowners and communities in the county. Native and exotic wildlife species coexist with one another, but both have a wide range of necessities that vary greatly. Willacy County's below average rainfall and harsh range conditions can be detrimental to wildlife and catastrophic to natural resources if no action is taken is delivered.

#### **Response:**

Understanding the economic and environmental components that motivate wildlife resources in Willacy County. I gravitated towards doing everything in my power to provide education and programing to landowners and everyone involved in the wildlife community. I gathered a committee of landowners and ranch managers to help specify the direction that our programs would like to gear towards. The key issues that we comprised were focused on providing landowners and the wildlife community with proactive management practices that would magnify tourism, hunting, and other outdoors activity opportunities. The following educational program was constructed and carried out by the effort of collaborators, volunteers and members of the Willacy County Wildlife Committee.

# • 2017 Willacy County Fall Tour

On October 13<sup>th</sup> 2017, Willacy County AgriLife Extension and USDA Natural Resource Conservation Services provided a Wildlife Fall Tour at the Hacienda Yturria Ranch in Raymondville, Texas. There were 42 participants who attended this program along with 3 presenters. The focus of the program was to provide insight to how one land owner has modified his ranch to better suite and cater to the needs of both native and exotic wildlife alike. Water facilities and proper habitat management practices were the topics that were discussed at the program.

Dr. Maureen Frank a Wildlife Specialist for Texas A&M AgriLife Extension Services presented an enjoyable and informative presentation on a modernized adaption of Aldo Leopold's tools for habitat management. She spoke on grazing management, brush management, soil management, prescribed burning, and population management. All of these critical components gave the participants a well-rounded understanding of how these adaptions and implication could benefit their own property.

Mr. Jim Rogers a Wildlife Biologist for USDA Natural Resource Conservation Services provided a great educational presentation on the benefits of water facilities for wildlife. He stressed the importance of providing a clean and reliable water source for native and exotic species alike. Mr. Rogers went into detail on understanding the proper location for water sources, and various avenues to attain monetary assistance and guidance through State and federal agencies.



Mr. Vidal Saenz is the Prairie View Cooperative Extension Agent who specializes in assisting individuals with the proper guidance through the USDA farm loan process. Mr. Saenz gave a presentation on a variety of loans that USDA has available for landowners and limited resource individuals. He emphasized the vast amount of assistance that is available out there to help agriculture producers with improving their land



Dr. Frank Presenting at the 2017 Fall Tour

#### Evaluation Method:

A retrospective posttest was given at the end of the program. The designated survey was utilized to determine the amount of knowledge that was learned at the Fall Tour.

#### **Results:**

The educational program received good reviews from the participants that attended. 80% of the participants stated that they learned something completely new, more than 75% saw growth in their depth of understanding after the program, and 95% of the participants would likely recommend Texas A&M AgriLife Extension Services to their friends and family.

#### Collaborators:

USDA Natural Resource Conservation Services, Prairie View A&M Cooperative Extension Program, Hacienda Yturria Ranch, committee members, and local land owners.

#### **Summary:**

The land owners and other individuals in the wildlife community were taught the benefits of habitat management and water facilities in Willacy County. The importance of strategically tackling issues involving grazing management, brush management, soil management, prescribed burning, and population management of wildlife are critical for the continued maintained and continued growth of the land. Equally important is the practical use of water facilities to promote native and exotic species with the necessities needed to continue to promote healthy wildlife and habitat. This report will be made readily available to Willacy County Commissioners Court, Willacy County Agriculture Committees and other crucial stakeholders who continue to support Willacy County AgriLife Extension.



## 2017 Willacy County Row Crop Production Developed by Matthew J. Rodriguez, Willacy County Extension Agent Agriculture & Natural Resources

#### **Relevance:**

Row crops in Willacy County are made up of an estimated 80 million dollar industry. There are various factors that can be detrimental to row crops in Willacy County. If farmers are not properly educated on how to alleviate and distinguish problems that may arise, the physical and monetary effects could devastate hundreds or even thousands of people.

#### **Response:**

Knowing the importance of row crop production in Willacy County, I gathered a small group of renowned farms from the county to organize a program area committee. This being my first year as a county agent I wanted to surround myself with respected farmers who could help me come up with issues that needed to be addressed at the county level. Integrated pest management, improved farming practices, and farm bill updates and concerns were the topics that the row crop committee wanted to focus on for 2017.

The following educational activities were coordinated through either the Willacy County Program Are Committee or through Multi-County efforts between Cameron, Hidalgo, and Willacy County Extension Agents.

## • Willacy County Cotton Variety Trial:

This cotton trial was conducted with the assistance of a local farm in Willacy County. The purpose of the trial is to determine which cotton varieties perform better in Willacy County. The information that was taken from these results is published and distributed to local producers within the county. It is further discussed by the Willacy County Ag.Committee.

#### • Rio Grande Pre-Plant Conference

The Rio Grande Valley Pre-Plant Conference took place in January 2017; it is a Multi-County event that is put on by Cameron, Hidalgo, and Willacy County. The primary purpose for this program is to provide the cotton and grain community with a lineup of renowned speakers to address the timely topics specific to cotton, grain sorghum, and corn production in the Rio Grande Valley. The Willacy County Agriculture Committee helped market the event by promoting the Pre-Plant Conference to local producers as well has attend the program as well.

# • Farm Bill Data Collection from Texas A&M Agricultural Economics Department:

Professors from the Texas A&M Agricultural Economics Department came to Willacy County in April to collect data on Willacy County farms. This action was in preparation for the upcoming Farm Bill debates that were going to start taking place in the summer time up in Washington D.C. The group of 9 farmers collaborated with one another to create what would be an average looking farm in Willacy County. The farmers gained knowledge on current dilemmas and negotiations that were going to be taking place in Washington D.C. The farmers were also able to identify their own issues that they wanted legislators to keep in mind during the debates. This event was of great help to Willacy and the farmers

#### **Evaluation Method:**

A retrospective posttest was given to ten participants that were heavily involved with the Willacy County Row Crop Plan for 2017. The survey was used to determine the level of understanding that was attained throughout the various educational opportunities that were offered.



#### **Result:**

The participation by the designated clientele at our programs continues to promote row crops knowledge to producers. The results indicate that 80% of the producers gained knowledge in information that was complete new to them. And 100% of the participants are likely to recommend AgriLife Extension Services to a family member or a friend.

#### Collaborators:

The following groups and stakeholders assisted in making the programs possible; Texas A&M Agricultural Economics Department, Texas Soil & Water Conservation Board, USDA Natural Resource Conservation Services, as well as local farms.

#### **Summary:**

The Willacy County producers, who attended the various educational events throughout the year, were taught farming methods and practices to better enhance their row crops. With the support of the Willacy County Agriculture committee, I was able to increase the number of producers that participated and attended the educational events. The farmers were able to take the knowledge that they learned and implement it to their own specific operation. The desire to continue to bring educational content to Willacy County is only going to get strong and the year go on. I will continue to do everything in my power to direct this program in a positive and beneficial direction to the county. This report will be made readily available to Willacy County Commissioners Court, Willacy County Agriculture Committees and other crucial stakeholders who continue to support Willacy County AgriLife Extension.



# 2017 RGV Sustainable Livestock & Forage Production Developed by Rolando R. Zamora, Extension Agent CEP-Agriculture & Natural Resources

**Relevance.** Agriculture is a risky business and has become difficult for limited resource and socially disadvantage producers to keep on top of current trends and production practices to manage a successful business. This may be because of years of language barriers in communication which has kept these producers from increasing their knowledge. In general, these alternatives and sustainable production practices could enhance profitability of farming and ranching operations and maximize fluctuation in farm income to improve the economic well-being which may improve the quality of life of limited-resource farmers and ranchers.

**Response.** I worked in Starr, Cameron and Willacy Counties with representation of 1890 Cooperative Extension Program committee members and Texas A&M Agrilife Extension Service to identify issues addressing livestock and forage production needs. Workshops, field days, demonstrations, and one-on-one sessions were designed to increasing knowledge and attitude of agriculture producers by making them aware of programs that can help them compete in today's economical industry. We identified producer's interests that will benefit from our services and offer programs that will address their specific production concerns that they will understand.

The following educational activities were organized by the effort of volunteers and members of the Rio Grande Valley area committee to achieve the objective.

- Women in Agriculture Workshop: I collaborated with Texas Mexico Border Coalition Organization to host this workshop to keep producers engaged in current agriculture issues and agencies they will need to work with in looking for USDA support. I lined up three extension specialist to provide topics in; Managing Rangeland for Cattle, Heifer Replacements, and Women in Agriculture. This workshop was held on July 11, 2017 in Linn San Manuel, TX.
- Willacy County Annual Fall Tour: The Cooperative Extension Program co-hosted an educational field day event in October with the Willacy County Soil & Water Conservation District to introduce innovating practices important for livestock production. Teaching tools for watering pond areas, mechanical brush control, livestock rotational systems and management were discussed.
- Starr County Ranchers Round-Up: A half day educational program was developed and organized by extension committee to address limited resource producers about brush management practices, improving forage quantity and quality production for beef cattle, and wild life management. These are issues that producers face and need addressed to be competitive in their ranching operations as new practices are introduced.
- Cameron County Forage Hay Production Workshop: A field day program was planned and organized by the extension planning committee to address the importance of forage and hay production. Agent co-hosted this program in collaboration of Texas A&M Agrilife Extension and the Cooperative Extension Program. Topics in the program included; sampling hay bales, pastures for forage analysis, invasive insects, insecticide used and common herbicides on pastures and rangeland grass.



- RGVLS Commercial Heifer & Purebred Pen Show: The Cooperative Extension Program has been the lead agency in directing the RGVLS Commercial Heifer & Purebred Pen Show for the past ten years. This competition event was developed by my livestock extension committee to provide beef cattle producers from South Texas with an opportunity to showcase their cattle and to have an opportunity to sell their pen at a higher price than at the local sale barn. This year's entries went up about 82% from last year due to aggressive marketing from committee. Junior entries were up as well and because of this reason, we will be introducing a junior division on its own with scholarships in 2018.
- Fly Control Result Demonstration: Fly control has always been a problem for beef cattle producers in the Rio Grande Valley due to our subtropical warm climate. Horn flies are one of the most serious cattle pests throughout the United States and has been estimated to have a \$1 billion loss annually on cattle. I identified five beef cattle producers from the Rio Grande Valley area that took part in a four month evaluation process of collecting data to provide local producers information on the performance of using the Vet Gun applicator process and determining the effect of two insecticide treatments.

Evaluation Method. A retrospective test evaluation form was administered to fifteen (15) participants. The survey was used to determine the level of clientele knowledge change acquired by the educational programming and the attitude change.

**Result:** Participation of clientele at our educational programs continues to be well represented. Results indicate that 76% of producers will adopt practices learned in livestock production. 86% will adopted forage and hay production practices. 81% have learned new information that they hadn't heard before. 84% have indicated that by changes in their practices, they have seen a slight increase financially in their operation. 98% of participants will continue to follow and attend extension programs.

Collaborators. The following are groups and stake holders that assisted in making this program possible; Soil & Water Conservation Districts, Texas/Mexico Border Coalition, USDA Farm Service Agency, USDA Natural Resource Conservation Service, Texas Soil & Water Conservation Board, and local ranches & agribusinesses.

Summary. Producers attending our programs are learning basic techniques and practices in growing healthy pastures, improving livestock production and learning new technology. With support of extension committees, we have increased participation of clientele and have had producers participate in activities to help promote their agriculture business to meet the diverse needs of the limited resource producers. We will continue to provide the necessary educational programs that limited resource producers will need to sustain best management practices for their operation. This report will be made available to County Commissioners Court, County Agriculture Committees and other stakeholders.



# 2017 Willacy Community Horticulture Garden Developed by Rolando R. Zamora, Extension Agent CEP-Agriculture & Natural Resources

**Relevance.** Gardens provide access to basic produce or nutritionally rich foods that may otherwise be unavailable to low-income families and children. Community gardens allow families and individuals, without land of their own the opportunity to grow food on their own to supply their family. I have been working with committee volunteer of the Healthy People of Willacy County Coalition to teach middle school children how to plant a garden in small raised beds to feed a family. This year, we are working with the Myra Green Middle School 4<sup>th</sup> grade after school program to establish this garden.

**Response.** I established the Health People of Willacy County Coalition garden task group which is made of seven volunteers to gain support in providing educational classes in nutrition towards healthy eating and living. With this training, children can introduce what they learned to their families at home. I provided programing trainings in; building raised bed gardens, seed preparation by transplanting, importance of fertilization, methods of cultivation, and marketing of products.

The key steps that had to be secured to make this project develop were as followed;

- Establishing support groups and resources with-in the county to direct program. Working with stake
  holders such as the Raymondville Independent School District, The City of Raymondville, and local
  community based groups, and other individuals to improve nutritional, health and economic outcomes
  for limited resource communities, families, and individuals.
- I along with health agent who is with Texas A&M Agrilife Extension worked on meeting with school counselor to identify school teacher who would be participating in our gardening program. We developed a lesson plan to follow through the semester on having classroom instruction and handson training in the garden.
- To support financial cost, I raised funds throughout the year by receiving donations from local business to secure materials that would need to be purchased for a fall garden. With funds we purchased garden tools, gloves, garden hose, vegetable seeds and plants. Eighteen 4'X8' wooden raised bed boxes were available from past years gardening project that I had established from adult gardening program.
- A series of classroom educational programs were developed by agents to teach youth the process and
  procedures of gardening. Health agent and I used the Learn Grow Eat & Go curriculum, where we
  developed lessons to instruct kids in the classroom to help in preparing them to go out into the garden.
  One of the activities that the children enjoyed was using the paper towels to pre plant the seeds for
  sowing.
- After a few weeks in the classroom, we then brought out children to the garden where they began to cultivate the soil by removing unwanted weeds and other from the raised bed boxes. This was not a very favorable process for the children but it got done. Following this we then tilled the soil and added more compost and top soil to boxes that needed to be refilled to improve organic matter and soil ph.



- In late October, Children began the planting process by laying out paper towel sheets into the boxes. We continued to provide classroom instruction on what makes plant grow such as sun, water, soil and things on composting and fertility. Seeds began sprouting through about two weeks after pre panting. Some of the vegetables we planted were radish, squash, zucchini, green beans, red cabbage, sun flower, green onion etc.
- As of mid-November the plans are doing well. We have also planted tomatoes. We are looking at harvesting some of the first vegetables in mid-December if we do not have a freeze. Students are going out to the garden twice a week and are weeding and watering the garden.

*Evaluation.* A retrospective evaluation was used to evaluate the students on the level of performance that they were able to grow and understand the process of growing a garden. Teachers were used to check for understanding.

**Results.** A total of 26 youth participated in a retrospective survey. 97% of participants said they obtained a knowledge gain in understanding the practices of raised beds. 90% said they know the importance of soil preparation. 82% said they know the importance of spacing the seeds. 75% of youth will encourage family to grow a garden at home. 97% of the parents said they will encourage other parents to support this program.

*Collaborators.* This program was a collaborative effort between the Healthy People of Willacy County Coalition, Raymondville Independent School District and the City of Raymondville and local volunteers.

Summary. Through the support of the community, we continue to build on the growth of this project. With the support of the Healthy South Texas Initiative program, we will be able to develop many other opportunities for school children to have a place where they can grow healthy produce and know its values. We are seeing that as of today. We have now had a high school science class take ownership of a few boxes and are using the older students help the younger students in growing vegetables.



# 2017 Willacy Agriculture Youth Literacy Program Developed by Rolando R. Zamora, Extension Agent CEP-Agriculture & Natural Resources

Relevance. Today's youth are very far removed from production agriculture, many do not understand the importance of the food and fiber industry and how it impacts our daily lives. Many youth think that milk is made at a local food chain grocery store and not from farm raised cows. Therefore, through the support of the Willacy County Future Summit Study report and special county wide task groups, the Cooperative Extension Program and partnering agencies such as the Willacy County Farm Bureau, Raymondville Chamber of Commerce and Texas A&M AgriLife Extension Service came together to address this need and bring back those important values and how we grow our food. More specifically, this program was established to educate the teachers, and youth about the value of agriculture in our community.

**Response.** As a result of this concern a task group committee developed a youth agriculture literacy program that targeted 4<sup>th</sup> grade students from all four school districts in Willacy County. This agriculture literacy educational event called "Wild in Willacy Youth Agriculture Day" provided the following educational components: Educational material to teachers (Farm Bureau Ag in the Classroom Curriculum), Ag Field Day for students to acquire hands knowledge about the food & fiber industry, and a teacher evaluation.

The following educational activities were organized to achieve the program objectives.

- Established a youth Ag literacy task force combined of extension, members of the Raymondville Chamber of Commerce, county directors of the United States Department of Agriculture and local leaders to meet several times and plan youth field day event. Group identified local grown commodities and agriculture industries important with-in the county. We discussed speakers for the event, secured logistics and sponsorships.
- Worked with school counselors and administrators to market the event to gain support and commitment in attending the program. Counselors were responsible by organizing event with 4<sup>th</sup> grade teachers and identifying number of children attending. Counselors also developed permission letter requests, made bus transportation arrangements and meal preparations for the students.
- I hosted the annual field day event called "Wild in Willacy Youth Agriculture Day" on October 19, 2017 at the Raymondville County Museum with over 360 kids in attendance and over 30 volunteers. I worked on gathering \$750 in sponsorship and \$500 of in-kind donations.
- Presentations by the guest speakers include; Rio Grande Valley citrus, farm equipment and commodities, vegetables and there nutrition, natural resources and water conservation, local reptiles, livestock, and a little of the history of agriculture in Willacy County.
- Agent provided a recognition event to acknowledge all volunteers who assisted with the program and the supporters who contributed to the event.

*Evaluation Method.* A two page knowledge base evaluation was administered to the participating teachers after the event. This evaluation was developed with input from task force group and several school counselors. The strategy was used to determine the level of knowledge youth acquired through this educational event. A total of 26 teacher evaluations were used to determine the effectiveness of this program.



**Results.** A total of 360 4<sup>th</sup> grade students from five Willacy County elementary schools participated in this one day event. Based on this evaluation, 97% of all respondents strongly agreed that the students acquired an increased knowledge and appreciation for agriculture. 98% increased their knowledge of where their food comes from. 99% of kids did not know where some of the by-products from beef cattle came from. 90% of all respondents (teachers) agreed that they too gained knowledge about the different commodities that were represented at this educational program. Furthermore, 70% of teachers showed interest to use a provided curriculum called "Agriculture in The Twenty-first Century" and incorporate it in their school educational activities provided by the Texas Farm Bureau Organization.

#### Collaborators.

- Raymondville Chamber of Commerce
- Willacy County Farm Bureau
- Hygeia Company McAllen, Texas
- North Alamo Water Supply
- Texas Citrus Exchange
- H.E.B.

Summary. This program did appear to build knowledge and change perceptions concerning agriculture and the environment. Teacher responses indicate that their students have a better appreciation for agriculture, food commodities, agriculture farm safety and the value of water. This program will continue next year with the support of all this year's collaborators. The results of the agriculture literacy program will be interpreted with residents of the community and with county commissioners and county judge during commissioner court.





#### Willacy County 2017 Dinner Tonight Healthy Cooking School Perla M. Flores, Family and Community Health Agent

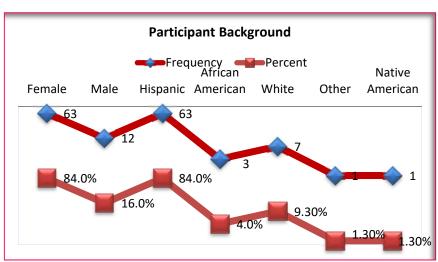
Relevance. According to the National Center for Health Statistics, 62 percent of adult Americans were overweight in 2000, up from 46 percent in 1980. In addition, physical inactivity is associated with an increased risk of a number of chronic health conditions including cardiovascular disease, diabetes, some cancers, high blood pressure, as well as overweight and obesity. According to the Texas Department of State Health Services, diabetes prevalence among adults in Health Service Region 8 and 11 (encompassing much of South Texas) is 13.6%. Additionally, the Texas BRFSS 2010 found that 67% (Region 8) and 70% (Region 11) of adults are at risk for being overweight and obese (BMI 25 or greater). More than 2/3 of adults and nearly 1/3 of children and teens are obese or overweight and Texas ranks 12th as the most obese state in the nation. If changes are not made in this trend, it is projected that by 2030, Texas adult obesity rates will be at 57.2% compared to current rate of 30.4%. Sixty-one and a half percent of children aged 9 to 13 years do not participate in any organized physical activity during their non-school hours and 22.6% do not engage in any free time physical activity. Additionally, research indicates that only 43% of adults and 25% of high school students get regular, moderate exercise. Adding more frequent and more vigorous physical activities during school has been shown to improve student fitness and weight. The home environment is also an important influence on a children's eating and activity behaviors. The greater the frequency of vegetable consumption and physical activity by parents, the greater the consumption of these foods and exercise by their children. With child obesity rates among lowincome children in Texas ranging from 10% to over 20%, engaging schools and families in prevention efforts is critical. Fortunately, county AgriLife Extension agents have the knowledge and expertise to provide resources that will help encourage a healthier lifestyle and behavior change.

**Response.** Healthy eating begins at home and with Texas A&M AgriLife Extension Services Dinner Tonight Healthy Cooking School, we make it easier for people to plan and cook healthy meals. Recognizing the challenges of busy families, this program uses face-to-face cooking schools and an all-access website to teach cooking tips and techniques, provide reliable nutrition information, address food safety concerns, and give guidance on food preparation. Willacy County had its first Dinner Tonight Healthy Cooking School with 125 participants on February 28, 2017

#### **Collaborations/Partnerships:**

Healthy South Texas in Willacy County partnered together with Raymondville ISD, Healthy People of Willacy County Coalition, State Farm Insurance, Raymondville Chamber of Commerce, Molina Health Care, Driscoll Hospital, HEB, Healthy South Texas Youth Ambassadors, and Willacy County 4H to host a Dinner Tonight Healthy Cooking to implement nutrition information such as planning and cooking healthier meals.

**Results.** A total of 125 participants participated in the first Willacy County



**Figure 1:** Illustrates the participant's gender and background attending Dinner Tonight Healthy Cooking School.



Dinner Tonight Healthy Cooking School and, a survey was given to the attendees, but only 75 completed surveys.

Overall Satisfaction with Dinner Tonight Healthy Cooking School for those attending event 58 (77.3%) were completely satisfied, while 7 (9.3%) were mostly satisfied. A total of 58 (77.3%) were completely satisfied and 6 (8.0%) were mostly satisfied with accuracy of the information at Dinner Tonight.

A total of 67 (89.3%) were completely satisfied and 1 (1.3%) were mostly satisfied with the information being easy to understand. More people were satisfied with understand the information they received at Dinner Tonight Healthy Cooking School. Examples on the food that was showcase at Dinner Tonight Healthy Cooking School 64 (85.3%) responded that they were completely satisfied with examples

Figure 1: Illustrates the participant's gender and background attending Dinner Tonight Healthy Cooking School.

used, and there were 6 (8.0%) that were mostly satisfied.

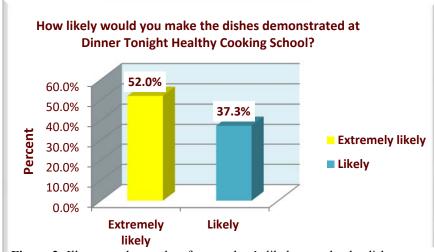


Figure 2: Illustrates the results of respondent's likely to make the dishes demonstrated at Dinner Tonight Healthy Cooking School

**Future Plan:** The future plans for this program is to interpret the results to our key stakeholders and county leaders. We also have plans to continue Dinner Tonight Healthy Cooking School and partnered with the school districts, as well as other stakeholders in Willacy County.

**Summary:** The Dinner Tonight Healthy Cooking School had a positive impact in the Willacy County communities as many attending the event learned simpler ways to make healthier choices when preparing meals for the family as this will improve health and wellness in the community.

The majority of the attendees found that they would try the dishes demonstrated in the Dinner Tonight Healthy Cooking School, with 39 extremely likely and 28 likely to try them.

Overall the respondents were pleased with every aspect of the Dinner Tonight Healthy Cooking School in Willacy County. With this positive feedback from the attendees it was demonstrated that they learned and adapted new behavior on preparing healthier meals for their family.







#### Willacy County 2017 Learn, Grow, Eat & Go Perla M. Flores, Family and Community Health Agent

Relevance. The high prevalence of childhood obesity in Texas is cause for concern because it is linked to negative health consequences for children and their families. Schools are uniquely positioned to have a positive impact on children's knowledge and behaviors associated with obesity. For example, vegetable exposure plus school gardening has been shown to improve consumption of fruits and vegetables. Adding more frequent and more vigorous physical activities during school has been shown to improve student fitness and weight. According to Texas Health and Human Services (HHS), a total of 2.8% children participated in nutrition education in Willacy County afterschool program. The Lyford ISD Middle School Afterschool Program and the Student Health Advisory Committee (SHAC) Committee served as planning group for program.

**Response.** The Learn, Grow, Eat & GO curriculum emphasizes on Science, Math, Language Arts/Reading, Writing, Social Studies, Physical Education, and Health that promotes effective learning activities within the curriculum. This Learn, Grow, Eat, & Go is aimed to have children and their families in engaged in school gardens, vegetable recipe tastings, classroom activities, as well as exercise that improve school performance and the overall health and wellness of students. There were 10 weeks of garden lessons and activities that are solid correlation to the Texas Essential Knowledge and Skills (TEKS) standards.

Collaborations/Partnerships: Family and Community Health Agent, Perla M. Flores partnered with Lyford ISD Student Health Advisory Committee (SHAC), Healthy South Texas Youth Ambassadors, Driscoll Hospital, Molina Healthcare, and KRGV-TV Newschannel 5 to implement the Learn, Grow, Eat, & Go program. Volunteers were recruited and utilized to assist in implementing the program as they provided incentives, educational programs, assisting with food demonstrations, food tastings, as well as programming and implementation.

**Results.** Texas A&M AgriLife Extension Service in Willacy County partnered with Lyford Independent school District to implement the Learn, Grow, Eat, & Go curriculum in the Lyford Middle School Afterschool program reaching 20 students attending, but only 14 completed the pre and post-test.

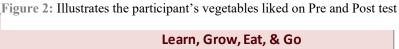
Female	Male	Hispanic	African American	White	Other	Native American
12	2	9	1	1	1	1
85.7%	14.3%	64.3%	7.1%	7.1%	7.1%	7.1%

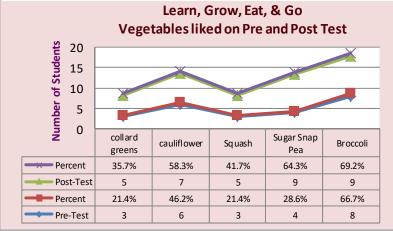
Figure 1: Illustrates the participant's gender and background

**Nutrition:** Tasting was led by teachers and extension personnel with 5 different vegetables implemented from the Learn, Grow, Eat, & Go recipes which included collard greens, cauliflower, snap peas, and broccoli; and this was done to increase child preference and behavioral change towards the consumption of vegetables. If children prefer vegetable this will show a high indicator for vegetable consumption at every meal they had.



- On the pre-test evaluation, the average number of vegetables students had tried was 15.50%, and average number of vegetables the students liked was 9.79%
- There was an increased on post-test evaluation on vegetables tried by students 16.21%. Liked vegetables by students was 10.17%
- Of the vegetables surveyed there was increased in the consumption of grains throughout the vegetables featured in Learn, Grow, Eat & Go.

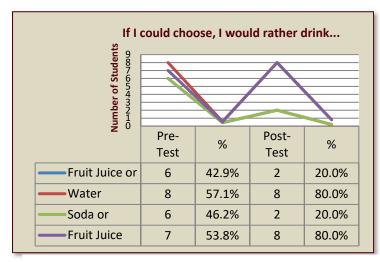




**Physical Activity:** Students were involved in physical activity programs implemented by Extension personal and school staff to increase exercise and decrease sedentary behavior.

• Before the Learn, Grow, Eat, & Go program, a total of 4 students (28.6%) were spending less time being sedentary, such as watching TV, playing computers or video games away from school. After the program, there was an increase of 5 students (41.7%) spending less time in front of a screen away from

school.



**Knowledge Gained:** Questions related to nutrition reveals self-efficacy to choose the healthiest drink choices. Below are students responses to, "If I could choose, I would rather drink"

**Family Engagement:** Questions were asked to evaluate the increase of family mealtime, gardening and physical activity outside of school. Below are the responses from the students.

- Planted Garden with Family on Pre-test 5 (35.7%) and Post-test 9 (75.0%)
- Planted on a vegetables garden or container with members of your family on Pre-test 8 (64.3%) and Post-test 9 (75.0%)

**Future Plan:** The future plans for this program is to interpret the results to our key stakeholders and county leaders. We also have plans to continue this Learn, Grow, Eat, & Go program to other school districts in the County to bring awareness of the importance of growing healthy gardens for healthy schools and communities.

**Summary:** The Learn, Grow, Eat, & Go program had a positive impact at the Lyford Middle School Afterschool Program through nutrition, physical activity, and family engagement for a healthier lifestyle.





# Willacy County 2017 Walk Across Texas! Perla M. Flores, Family and Community Health Agent

Walk Across Texas! is an eight week program to help people of all ages support one another to establish the habit of regular physical activity. Walk Across Texas! is recognized as a Best Practice Physical Activity Program by the Texas Department of State Health Services.

Relevance. According to the National Center for Health Statistics, 62 percent of adult Americans were overweight in 2000, up from 46 percent in 1980. In addition, physical inactivity is associated with an increased risk of a number of chronic health conditions including cardiovascular disease, diabetes, some cancers, high blood pressure, as well as overweight and obesity. According to the Texas Department of State Health Services, diabetes prevalence among adults in Health Service Region 8 and 11 (encompassing much of South Texas) is 13.6%. Additionally, the Texas BRFSS 2010 found that 67% (Region 8) and 70% (Region 11) of adults are at risk for being overweight and obese (BMI 25 or greater). More than 2/3 of adults and nearly 1/3 of children and teens are obese or overweight and Texas ranks 12th as the most obese state in the nation. If changes are not made in this trend, it is projected that by 2030, Texas adult obesity rates will be at 57.2% compared to current rate of 30.4%. Sixty-one and a half percent of children aged 9 to 13 years do not participate in any organized physical activity during their non-school hours and 22.6% do not engage in any free time physical activity. Additionally, research indicates that only 43% of adults and 25% of high school students get regular, moderate exercise. Adding more frequent and more vigorous physical activities during school has been shown to improve student fitness and weight. The home environment is also an important influence on a children's eating and activity behaviors. The greater the frequency of vegetable consumption and physical activity by parents, the greater the consumption of these foods and exercise by their children. With child obesity rates among lowincome children in Texas ranging from 10% to over 20%, engaging schools and families in prevention efforts is critical. Fortunately, county AgriLife Extension agents have the knowledge and expertise to provide resources that will help encourage a healthier lifestyle and behavior change. According to Texas Health and Human Services (HHS) stated, Willacy County had 29.5% obesity rate and 27.4% lack of physical activity.

**Response.** The Healthy People of Willacy County recruited, trained, and mobilized a community Healthy South Texas coalition, identifying the most critical health needs in our community and helping assess the best way to address those needs. Regular physical activity and controlling weight can significantly reduce the risk and impact of chronic diseases like heart disease, stroke, type 2 diabetes, cancer, high blood pressure, and depression (Office of Disease Prevention and Health Promotion, 2016).

- Regular physical activity is also associated with fewer physician visits, hospitalizations, and medications.
- Chronic diseases account for 70% of deaths and 86% of U.S. health-care costs.
- Community-wide programs like Walk Across Texas! have been associated with significant increases in physical activity.

**Results.** A total of 612 students participated in the WAT, with 298 female students, and 315 male students, and walking a total of 19,431 miles in eight weeks. A total of 26 participated in WAT with 16 females and 10 males participating. The impact of WAT increased participant's weekly mileage increased to 4.3 miles from week one to week eight, with a total of 3,432 miles walked.



Total Net Present Value for health care

Total Net Present Value for Wages Lost

cost savings for Females

# **Family and Consumer Sciences**

Total Net Present Value for health care

Total Net Present Value for Wages Lost

cost savings for Males

\$107,040

The economic impact to Willacy County: if the 26 completing the eight-week program continue walking at the same pace when participating in the WAT, they could save \$268,503 in future health care costs by avoiding type 2 diabetes and by reducing work absences.

Potential Economic Impact of Walk Across Texas in Willacy County for teams starting in All Counties, 2017							
Total Female Participants	16	Total Male Participants	10				
Average Age Female Participants	56	Average Age Male Participants	66				
Number of Females that could avoid or delay developing diabetes	4	Number of Males that could avoid or delay developing diabetes	2				
Net Present Value per Female	\$127,173	Net Present Value per Male	\$187,553				

Total NPV for Females \$7,200 For India Net Fleschi Value for Wages Lost for Males \$12,274

\$141,989

Total Impact \$268,503

**Collaborations/Partnerships**: Healthy South Texas in Willacy County partnered together with Raymondville ISD, Healthy People of Willacy County Coalition, Lyford ISD, Lasara ISD SHAC, and the American Girls Scouts came together to help families to engage, to enhance through education, to promote behavior change, and improve quality of medical care and health outcomes.

**Future Plan:** The future plans for this program is to interpret the results to our key stakeholders and county leaders. We also have plans to continue Walk Across Texas! and partnered with the school districts, as well as other stakeholders in Willacy County.

**Summary:** The Walk Across Texas! had a positive impact in the Willacy County School district as students made more changes in behavior as it relates to exercise by implementing more physical activity in their everyday life to improve the quality of life.

Source: Office of Disease Prevention and Health Promotion (2016). Chapter 2: Physical Activity Has Many Health Benefits. https://health.gov/paguidelines/guidelines/chapter2.aspx (accessed October, 2016).



## 4-H and Youth Development

#### 2017 Willacy County 4-H

Developed by Matthew J. Rodriguez, Willacy County Extension Agent Agriculture & Natural Resources **Relevance:** 

4-H Agriculture and Natural Resources projects are an important component of the Willacy County 4-H program. These projects provide youth with subject matter education, as well as valuable learning experiences, character education and leadership skills. Adult volunteer engagement is critical to administer the program and expand the outreach. The development of youth volunteers as ambassadors for agriculture and natural resources will educate and recruit other youth to the project.

#### **Response:**

Understanding the importance of 4-H Agriculture and Natural Resource projects in Willacy County, I wanted to expand the 4-Hers depth of knowledge by introducing multiple components within the realm of livestock that would benefit not only 4-H but Willacy County as a whole. There were many avenues that our club, council, and adult leaders wanted to gear towards. But after reaching a consensus we decided that we were to focus on a couple of key issues that we found critical to Willacy County. Like many 4-H clubs out there, our club wanted to help promote livestock awareness to our younger 4-Hers are are sometimes pushed to side because of their age. Through our adult leaders, 4-H club and council we were able to create opportunities for our junior 4-Hers in livestock judging, educate them on other aspects rather than just showing, and provide them with a livestock judging clinic. All of these components of agriculture would not have been possible without the support and guidance from Willacy County and Texas A&M AgriLife Extension Services.

The following educational activities were organized through the efforts of Willacy County 4-H, Willacy County Council, and 4-H Adult leaders in order to achieve our objective.

• 4-H Livestock Judging: A 4-H adult leader brought to my attention that prior to me being the County Agent in Willacy, all the focus was for the senior division of 4-H. The junior division did not get many opportunities to be as involved with 4-H event as the seniors. I gathered all the junior members and their parents and asked what event did they want to participate in, and I how could help them. It was a unanimous decision that they all wanted to compete as a team in livestock judging. The junior were able to compete at the Willacy County Fair, San Antonio Livestock Show and Rodeo, Rio Grande Valley Livestock Show, and the District 12 4-H Livestock judging Event. Through these events I was able to tract their progress from their first event to their last.



#### Willacy County Junior Division Livestock Judging Team

• 4-H Livestock Judging Clinic: Being that livestock judging was one of my main focuses this year in 4-H. I wanted to give the youth an opportunity to gain further knowledge through a livestock judging clinic. The clinic was coordinated through TAMUK in unison with the District 10 FFA livestock judging event. An adult leader and I were the ones who worked with the scheduling and hauling the 4-Hers to Robstown for the even. I along with a Ag. Science teacher took the 4-H hers through the classes and let them evaluate them. We later came back around and gave reasons and cleared up any questions that



## 4-H and Youth Development

were asked. This livestock judging clinic was all for the preparation of the District 12 4-H Livestock Judging Event.

#### Evaluation Method:

This event was evaluated through growth of knowledge in livestock judging. I used the Willacy County Livestock Judging Event in January as my start and the District 12 4-H Livestock Judging Event in April as my finish. My goal was to see how much the 4-Hers progressed through 4 livestock judging events and 1 Livestock Judging Clinic.

#### **Results:**

At the District 12 4-H Livestock Judging Event, the Junior Willacy County Team A finished 2<sup>nd</sup> overall and the Junior Willacy County Team B finished 4<sup>TH</sup> overall. Both teams finished in the top 50% of teams that participated.

#### **Collaborators:**

The collaborators who made this possible consist of Willacy County Show Board, Texas A&M University Kingsville, Area X FFA, Willacy County 4-H Adult Leaders, and Lyford FFA.

#### **Summary:**

Throughout this year's livestock judging season. I provided the 4-H livestock judging teams with a variety of educational opportunities to help them become well rounded in the area of livestock in general. I primarily dealt with the junior division of 4-Hers, because some of the adult leader brought to my attention the lack of awareness given to the junior division prior to me being the County Extension Agent. I found this as an educational opportunity to help thing with livestock judging, but more importantly assist them with depth of knowledge of livestock, critical and analytical skills, and having a deeper understanding of 4-H and team work. This report will be made readily available to Willacy County Commissioners Court, Willacy County Agriculture Committees and other crucial stakeholders who continue to support Willacy County AgriLife Extension.

Willacy County Special Show & Showmanship Clinic: Willacy County 4-H saw a dire need to involve individuals with special needs at the Willacy County Fair. This issue came about because the 4-Hers saw minimal or no promotion of agriculture to individuals with special needs. As a group we came up with the idea to create a Willacy County Special Show & Showmanship Clinic. This event truly encompassed what 4-H represents, the community helping the community. I assisted with the showmanship clinic, and we had the Willacy County Sherriff be the judge for the Special Show. This show taught many lessons to everyone who was involved and was so successful that it will be back in 2018 by popular demand



**Willacy County Special** 

# **Texas A&M AgriLife Extension Service Willacy County**

## **Personnel**

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