

## RELEVANCE

The majority of produce grown in Polk County is by part time produce growers. But, the county also has 3 small scale produce operations and several blueberry orchards. Most of the produce grown in Polk County is sold at local farmers market with around 10% being marketed in Houston and Beaumont. Many of these growers have little to no access to knowledge and skills provided by industry and produce experts. Polk County elderly population lacks access to fresh produce. This is due to pricing and availability, thus fresh produce is lacking from many seniors' diet. The Polk County senior citizen community garden was started in the fall of 2021 to provide fresh produce for seniors at the senior center and for garden volunteers. The garden has continued to grow and provide produce to seniors attending Polk County Senior Citizen Center.

- **Blueberries account for 49% of produce production by value**
- **Vegetables such as tomatoes, squash, green beans, and onions account for 40% of produce production by value**
- **Other produce grown includes: cow peas, blackberries, grapes, peaches, and watermelons**
- **19% of population is over 65 years of age**
- **16.7% of population lives below the poverty line**
- **Portions of Polk County are considered a food desert by the USDA suggesting access to fresh produce is limited especially for elderly citizens**

## RESPONSE

Texas A&M AgriLife Extension response was to develop programming to support the produce industry in Polk County by providing high quality education. Programming was relative for all type of produce growers from home gardeners to commercial operations Support and manage Senior Citizen Community Garden and provide fresh produce to Polk County Senior Center.

Polk County Farm Bureau, produce growers, Livingston farmers market, and volunteers were consulted and identified specific topics needing to be addressed.

### TARGET AUDIENCE

- Commercial produce operations
- Small scale part time produce growers
- Home gardeners
- Polk County senior citizens

### PARTNERSHIPS & COLLABORATORS

- Polk County Farm Bureau
- Growers breakfast volunteers
- Livingston farmers market
- Texas Department of Agriculture
- Rudy's Honey
- Snook Farms, grower collaborator
- River V Growers, grower collaborator

## VALUE STATEMENT

Texas A&M AgriLife Extension programs targeted to producers of crops and forages are increasing profitability and productivity of farmers, thereby helping to build and sustain rural economies and support jobs.

Polk County  
 Produce Value  
**\$649,600**



## RESPONSE

Polk County Produce Growers Breakfast Meeting was the cornerstone of programming for produce growers in the county. The meeting made available specialists, industry experts, and knowledge of local producers to enhance the production and economic sustainability of growers that attended. The growers meeting fostered a co-op style of learning amongst participants to learn from each other's successes and failures. The highlight of the year was a county farm tour in May. During the tour, participants observed a tomato variety result demonstration conducted by a grower collaborator. Continued to support and coordinate volunteers for the Senior Citizen Community Garden. Produce is provided to the senior citizen center to enhance the diet and provide nutritional food to local seniors. Partnered with Polk County Health agent to host Senior Citizen Center Lunch and Learn Series to share healthy recipes and increase knowledge of produce production.

### Produce Growers Breakfast Meeting

- Beekeeping, 8 participants, Sept. 30<sup>th</sup>
- Marketing, 4 participants, Nov. 17<sup>th</sup>
- Fruit Tree Selection, 42 participants, Feb. 3<sup>rd</sup>
- Preserving the harvest, 32 participants, March 31<sup>st</sup>
- County Farm Tour, 23 participants, May 26<sup>th</sup>
- Insect Control, 19 participants, July 28<sup>th</sup>

### Tomato Variety Result Demonstration

#### Senior Citizen Center Lunch and Learn

- Avocado, 15 participants, Sept. 22<sup>nd</sup>
- Nuts & seeds, 17 participants, Oct. 27<sup>th</sup>
- Bok choy, 14 participants, Nov. 22<sup>nd</sup>
- Kohlrabi, 27 participants, Jan. 26<sup>th</sup>
- Turnips, 18 participants, Feb. 23<sup>rd</sup>
- Kale, 11 participants, March 23<sup>rd</sup>
- Olives, 29 participants, May 4<sup>th</sup>
- Cucumbers, 31 participants, June 7<sup>th</sup>
- Sunflowers, 26 participants, Aug. 2<sup>nd</sup>

## Evaluation Strategy

Retrospective post surveys were utilized after programs to measure knowledge gained, intentions to adopt recommended practices, and economic impact. Also, participant comments were used to determine effectiveness of programs.

## RESULTS

Produce Growers Breakfast End of Year Survey, 14 of 14 (100%) participants completed survey

- 14 of 14 (100%) of respondents attend growers breakfast meetings to increase their knowledge
- 13 of 14 (93%) of respondents anticipate an economic benefit
- 10 of 14 (71%) of respondents economic benefit can be attributed to improved product or product quality

County Farm Tour, 15 of 23 (65%) participants completed survey

- 15 of 15 (100%) of respondents increased their knowledge on how to grow produce in East Texas
- 15 of 15 (100%) of respondents plan to adopt at least one production technique observed on the county farm tour in their own garden
- 14 of 15 (93%) of respondents anticipate an economic benefit in their own produce operation or garden

Senior Citizen Center Lunch and Learn End of Year Survey, 24 of 24 (100%) participants completed survey

- 23 of 24 (96%) of respondents have added more fresh produce (fruits, vegetables, herbs, nuts, and/or seeds) to their diet
- 22 of 24 (92%) of respondents have increased their knowledge about nutritional value of fresh produce and cooking with fresh produce
- 21 of 24 (88%) of respondents increased their knowledge about how produce is grown
- 21 of 24 (88%) of respondents have added at least one new fruit, vegetable, herb, nut and/or seed to their diet

Senior Citizen Community Garden

- 5 volunteers contributing 100 hours
- 2,173 individual pieces of produce was provided to senior citizens
- 380 lbs. of produce were harvested
- 1,216 servings (average vegetable serving size is 5 ounces) Source: Mayo Clinic
- 109,440 calories (1oz. of vegetables equals 18 calories) Source: USDA

## Summary

The anticipated economic impact from participants attending Produce Growers Breakfast Meeting is **\$5,150**. Provided **380 lbs. or 1,216 servings** of fresh produce to the Polk County Senior Citizen Center.

### Clientele Comment

**"I enjoyed the presentation and the nutritional value of learning the different vegetables and fruits that are good for me. I am type 2 diabetic, so nutrition and good eating is essential for me"**

## Future Programming

Will continue to conduct tomato variety result demonstrations along with other crops to demonstrate which varieties grow best in Polk County.



For More Information:  
**Matthew March**

CEA AG/NR  
Polk County

936-327-6828  
matthew.march@ag.tamu.edu

## RELEVANCE

Beef and forage production is the number one agriculture commodity outside of forestry in Polk County in both number of producers and net sales. Approximately 95-98% of all livestock value in the county comes from cow calf or breeder operations. Production of forage species, mostly bahia grass and Bermuda, is harvested for hay to support the beef industry in Polk County. Polk County Ag committee has also recognized the importance of beef and forage production for Polk County economy and wish for the extension office to focus programming on beef and forage production. Topics will be geared towards current issues or problems facing producers in the county. Polk County AG Committee has recognized a growing number of small tract or hobby beef producers and programming and topics should be expanded to include these producers. Severe to exponential drought conditions persisted throughout much of the growing season of 2022 and 2023 effecting hay production, hay and feed prices, and forage availability. Many producers have faced decisions on how to remain profitable during the drought and what steps to take to ensure their operations remain viable in coming years. Additionally, high input cost over the last few years including fertilizer, herbicides, and feed stuffs has caused additional financial strain to producers. Producers are seeking to remain profitable through drought conditions and high input cost.

- **14,658 acres harvested for hay**
- **\$1.8 million: estimated value of hay produced in 2023**
- **\$22.00 Per/Acre: average cash rent for hay land**
- **\$8.2 million: estimated value of beef cattle in 2023**
- **\$9.00 Per/Acre: average cash rent for pasture land**

## RESPONSE

Texas A&M AgriLife Extension response was to develop programming to not only educate beef and forage producers, but to provide producers the opportunity to improve the sustainability of their operations even during fluctuating cattle markets, adverse weather events, climate change, and high input costs.

The Polk AG Committee, local producers, community members, industry support businesses, and Polk County Farm Bureau were consulted and identified specific topics needing to be addressed.

### TARGET AUDIENCE

- Cow calf producers
- Hay producers
- New landowners with small herds (25 or less head)

### PARTNERSHIPS & COLLABORATORS

- Polk County Farm Bureau, sponsor
- Corteva, sponsor
- Bayer Crops Sciences, sponsor
- First Baptist Church, in kind donation
- Mr. & Mrs. W.R. Baker, landowner collaborators

## VALUE STATEMENT

Texas A&M AgriLife Extension programs targeted to large and small-scale livestock producers help generate safer food and fiber products with maximum efficiency. The result is quality, consistent, affordable products and industries that support the state's rural economics.

**Polk County  
 Beef & Forage  
 Annual Value**

**10 Million**

**9,100**

**Beef Cattle**

**9,771**

**Tons of Hay**



## RESPONSE

A Beef and Forage Workshop allowed producers the opportunity to hear from specialists on topics related to common management concerns in Polk County. This included managing pond weeds, stand decline in warm season pasture, cool season forages, and beef cattle nutrition. By focusing on emergent and relevant management concerns producers can implement learned techniques on their operations and improve their operations sustainability. A pesticide applicators certification and CEU course benefited all livestock and forage producers in Polk County that wish to utilize restricted use products in their operations. This program is essential for local producers as restricted use products are necessary to manage certain pest in Polk County. Polk County participated in the multi-county Cow Country Congress program in Madisonville. Other approaches included newsletters, office visits, and site visits. Newsletters were important in reaching producers who were unable to attend in person programming. Also, a focus was to work one on one with producers on management issues related to exponential drought conditions.

- Cow County Congress, 73 participants, October 21<sup>st</sup>
- Pesticide Certification, 2 participants and Recertification Course, 32 participants, November 18<sup>th</sup>
- Beef and Forage Workshop, 10 participants, August 25<sup>th</sup>
- Quarterly newsletter with management recommendations, 450 recipients



## Evaluation Strategy

Retrospective post surveys were utilized after programs to measure knowledge gained, intentions to adopt recommended practices, and economic impact.

## RESULTS

Cow Country Congress, 24 of 73 (33%) participants completed survey

- 21 of 24 (88%) of respondents plan to adopt a management/stocking plan that allows for greater flexibility as forage conditions change
- 21 of 24 (88%) of respondents plan to adopt the use of recommended supplemental feeding practices to meet nutritional needs

Pesticide Recertification Course, 30 of 32 (94%) participants completed survey

- 25 of 30 (83%) of respondents plan to adopt the practice of conducting a soil test to ensure proper soil fertility
- 24 of 30 (80%) of respondents increased their understanding of the difference between horn fly, face fly, house fly, and stable fly
- 24 of 30 (80%) of respondents increased their understanding of life cycle of mosquitoes
- 22 of 30 (73%) of respondents increased their understanding of how soil management and fertility effects weed growth.
- 20 of 30 (67%) of respondents plan to adopt the practice of utilizing a buffer when fertilizing around ponds to reduce nutrient runoff

Beef and Forage Workshop, 9 of 10 (90%) participants completed survey

- 9 of 9 (100%) of respondents increased their understanding of integrated management of ponds.
- 9 of 9 (100%) of respondents plan to adopt selection of supplements based of the nutrient needs of their cattle
- 8 of 9 (89%) of respondents plan to adopt the use of pesticides to control armyworms

## Summary

The anticipated economic impact to operations (beef and forage) from participants attending Beef and Forage Workshop, Cow Country Congress, and Pesticide Recertification Course is **\$166,902**.

### Clientele Comments

**"The most important thing I leaned was fly and mosquito control around my barns and in my cattle herd"**

**"Will now apply potassium in the fall to help improve soil fertility and forage production"**

## Future Programming

During fall of 2023, will be working with producers to conduct a beef cattle dewormer efficacy result demonstration. Beef and Forage Workshop and the Pesticide Certification and Recertification Course will continue to be the backbone of the Polk County Beef and Forage Plan. Will continue to support the multi-county Cow Country Congress with the next Congress tentatively set for December.



For More Information:

**Matthew  
March**

CEA AG/NR  
Polk County

936-327-6828

matthew.march@ag.tamu.edu

## RELEVANCE

Polk County is characterized by diverse natural resources that are an important economic driver in Polk County. Forestry, hunting, and outdoor recreation is estimated to have an annual economic value of \$34.8 million in Polk County. These industries are directly tied to having properly managed and sustainable natural resources. Many landowners in Polk County lease hunting rights to their property for additional income. There is also a trend in Polk County of large tracts of timberland to be sold and divided into smaller tracts. These tracts are typically brought by individuals as recreational properties for both consumptive (e.g. hunting) and non-consumptive uses (e.g. wildlife viewing). These landowners typically have little to no experience in managing wildlife habitat. These landowners would benefit from wildlife and habitat improvement education. Programs including topics on management of natural resources, specifically focusing on habitat improvement, sustainable forestry, and wildlife habitat management would support the continued health of the natural resources in Polk County.

- Timberland makes up over 75% of county
- Timberland produces 31 to 35 tons biomass per acre
- Fishing valued at \$4.1 million
- Hunting valued at \$8.3 million
- Non-consumptive outdoor recreation (camping, birding, etc.) valued at \$7.6 million

## RESPONSE

Texas A&M AgriLife Extension response was to develop programming to support the commercial timber and outdoor recreation industry and educate landowners on management of timberland for wildlife, water, and timber. By promoting sustainability of natural resources ensures healthy ecosystems will continue to support the economy of Polk County.

The Polk AG Committee, landowners, game managers, hunters, foresters, Texas Parks and Wildlife Department, and Texas A&M Forest Service were consulted and identified specific topics needing to be addressed.

### TARGET AUDIENCE

- Licensed foresters and loggers
- Timber landowners
- Hunting lease managers and hunters
- Master Naturalists

### PARTNERSHIPS & COLLABORATORS

- Piney Woods Lakes Master Naturalist Chapter
- Texas A&M Forest Service
- Texas Parks and Wildlife Department
- Tall Timbers
- East Texas Plant Materials Center
- Winston 8 Ranches, landowner collaborator
- Thomas Hunting Club, landowner collaborator



## VALUE STATEMENT

Texas A&M AgriLife Extension Service programs about fish and wildlife teach participants how to effectively manage these valuable resources. Hunting, fishing, and wildlife watching contribute approximately \$8 billion to the state's economy annually, supporting 139,000 jobs in Texas and enhancing the quality of life of all residents.

Polk County

Natural

Resources Value

**\$34.8 Million**

\$14.8 Million

Timber Harvested

\$20 Million

Outdoor Recreation

## RESPONSE

The multi-county Forest Pest Seminar hosted in Angelina County supported continuing education for Polk County foresters, loggers, and timber landowners. Piney Woods Lakes Master Naturalist Chapter promoted the importance of Polk County natural resources and helped to educate the public on land management. The extension office supported master naturalist member education and chapter programs. In collaboration with Polk County, Master Naturalists are managing a 30-acre nature preserve as an outdoor education classroom for Polk County citizens. East Texas Natural Resources Field Tours allowed landowners to receive guided tours of professionally managed timberland and wildlife preserves.

- East Texas Natural Resources Field Tours:
  - Native Plants and Habitat Restoration, 15 participants, March 3<sup>rd</sup>
  - Bobwhite Quail Restoration in Polk County and Whitetail Deer Management, 15 participants, May 5<sup>th</sup>
  - Public Fisheries Management, 20 participants, July 7<sup>th</sup>
- Tree giveaway, 165 recipients, February 3<sup>rd</sup>
- Forest Pest Seminar, 191 participants, February 10<sup>th</sup>
- Bobwhite Quail Management for East Texas, 10 participants, September 14<sup>th</sup>
- Land Stewardship Master Naturalist presentation, 20 participants, March 1<sup>st</sup>
- Ecological regions of Texas Master Naturalist presentation, 15 participants, April 4<sup>th</sup>
- Quarterly newsletter with management recommendations, 450 recipients
- Native Plant Landscaping Result Demonstration
- Wildflower of the Week (March-May) You Tube Series, 12 videos

## Evaluation Strategy

Retrospective post surveys were utilized after programs to measure knowledge gained, intentions to adopt recommended practices, and economic impact. Additionally, participant comments and social media outreach was used to determine effectiveness of programs.

## RESULTS

### East Texas Natural Resources Field Tours

March 3<sup>rd</sup>, 13 of 15 (87%) participants completed survey

- 13 of 13 (100%) of respondents plan to adopt the practice of utilizing more native plants
- 13 of 13 (100%) of respondents stated they expect an economic impact by attending the field tour

May 5<sup>th</sup>, 9 of 15 (60%) participants completed survey

- 9 of 9 (100%) of respondents increased their knowledge of deer management in East Texas

July 7<sup>th</sup>, 16 of 20 (80%) participants completed survey

- 16 of 16 (100%) of respondents increased their knowledge of public fisheries management in East Texas
- 16 of 16 (100%) of respondents stated they believe by attending field tour they are now better stewards of natural resources
- 13 of 16 (81%) of respondents plan to adopt game management techniques demonstrated

Forest Pest Seminar, 128 of 191 (67%) participants completed survey

- 120 of 128 (94%) of respondents increased their knowledge of deodar weevils as a vector for fungal pathogens that cause pitch canker
- 113 of 128 (88%) of respondents plan to adopt the practice of changing their management strategies in accordance with current stressors
- 108 of 128 (84%) of respondents plan to adopt the practice of using lower rates to lessen costs and severity of treatment to sensitive areas

Wildflower of the Week You Tube Series

- 1,705 views and 34.79 hours of total watch time

## Summary

The anticipated economic impact from participants attending the East Texas Natural Resources Field Tours is **\$12,100**. The anticipated economic impact from participants attending Forest Pest Seminar is **\$15,465,086**.

### Clientele Comments

**"pros and cons of different pine species for timber value"**

**"Use NRCS released gymnosperm seeds for your area"**

**"move towards removing invasive plants and planting natives to support migratory birds"**

## Future Programming

On October 6<sup>th</sup> will be supporting the inaugural East Texas Wildlife Expo. The Expo will be a mix of classroom education and in the field trainings. East Texas Field Tours were very successful, and participants have encouraged another series in 2024. Will continue to support Forest Pest Seminar to provide education to individuals in the timber industry.



For More Information:

**Matthew March**

CEA AG/NR  
Polk County

936-327-6828

matthew.march@ag.tamu.edu

## RELEVANCE

Youth programming is an important part of the county base 4-H program and become a way to introduce youth to project in Polk County. Positive youth development, project skill development, and enhancing the 4-H program are all important components of a well-rounded Extension Program. The 4-H agent work with coworkers, county staff and volunteers to hold multiple day camps for youth, both 4-H members and non 4-H members. Youth learn about 4-H projects, new and old, to gain in-depth skills related to 4-H projects, or just to enhance the 4-H program in the County. Youth involved in these programs are engaged in real-life learning experiences where they have an opportunity to safely take risks, make decisions and set goals. Part of the learning experience of developing a youth-project is a set of goals and working toward accomplishing them. Setting goals builds short-term motivation and long-term vision. It develops a life skill that is transferable to any situation where an objective need to be met.

Polk County Youth interest-related percentages according to towncharts.com.

- **35.2% Science and Engineering**
- **10.2% Science and Engineering related fields**
- **17.9% Arts, Humanities and Other**
- **19.3% Business**
- **17.5% Education**

Our programs are grounded in the belief that our youth learn best by doing. Hands on projects in areas such as science, health, agriculture, and civic engagement lead to a positive environment where guidance from adult mentors encourage them to take on leadership roles. Regardless of any interest in a 4-H project, our program focuses on career readiness, life skills, and innovation.

## RESPONSE

Comprehensive presentation, classroom instructions and hands-on training in life skills is utilized for young people in grades 3-12. The **Polk 4-H Program Area Committee (PAC)** has identified **Youth Summer Activities** as an educational approach to address the **lack of job readiness and skills with youth** in the county. Committee met quarterly to discuss topics and events for the summer months and plan for agents maternity leave during the July and August months.

### TARGET AUDIENCE

- This program was open to all youth in Polk County from grades 3<sup>rd</sup> through 12<sup>th</sup>. With focus on those interested in food nutrition and arts.

### PARTNERSHIPS & COLLABORATORS

Path to Plate program website, District Extension Agents, Local news media, Sheryl's Flowers, Trinity Neches Livestock Show, Polk County Commissioners,

## VALUE STATEMENT

### Youth Job Skills and Training

According to the new U.S Census for Polk County only 13% of persons have a bachelor's degree, leading us to 81% with high school education only. With majority of youth lacking college readiness, job skills and training is a must to make ends meet.

**9,331**

**School Youth in  
Polk County**

**37.4 %**

**High School or GED**



# RESPONSE

In response to the issue of no summer activities the Polk County 4-H PAC supported the following:

-November 2022: **Holiday Baking Food Show Workshop**; Project hosted by the Extension Agent. 15 youth learning how to bake holiday treats using everyday kitchen items. No survey was taken.

-December 2022: **Homemade Arts and Crafts Workshop**: 4 youth attended this workshop as they learned about expressing their creativity. And applying skills in paints, woodworking, and Christmas décor. No survey was taken.

-July 11, 2023: **Backyard Grilling and Outdoor Cooking** hosted by County Agent where youth explored the beef industry and cuts of meat along with learning to use outdoor charcoal grills. 58 youth participated with 50 survey responses.

-July, 14 2023: **Floral Design Workshop**: hosted by the County agent along with support staff to engage youth in the art of floral design. The workshop focused on creating your own business by arranging flowers and crafts. 6 attended with 6 survey responses.



# Evaluation Strategy

To determine the programmatic results of the 2022-2023 Youth 4-H Day Camp Plan a retrospective post evaluation was administered after each lesson or workshop. A total 56 of 64 (87.5%) participants turned in surveys.

## RESULTS

### Backyard Grilling and Outdoor Cooking Results

- **32 of 50 (64%)** increased knowledge that grilling can be a healthy cooking technique
- **30 of 50 (60%)** increased knowledge of the sodium contents in the food they prepare.
- **28 of 50 (56%)** showed knowledge gained in the fact content of foods.
- **21 of 50 (42%)** increased knowledge the food you eat impact your health
- **25 of 50 (50%)** safely know how to operate a charcoal grill
- **21 of 50 (42%)** can identify different cuts of meats for grilling

### Floral Design Workshop Results

- **4 of 6 (66%)** have a better understanding of the basics of floral design.
- **4 of 6 (66%)** showed knowledge gained on the 8 design principles.
- **3 of 6 (50%)** increased knowledge in the use of design principles.
- **4 of 6 (66%)** now know how to create seasonal designs.
- **3 of 6 (50%)** increased knowledge in selecting color choice in their design.
- **2 of 6 (33%)** Showed knowledge gain in using texture and spacing in their design.
- **3 of 6 (50%)** increased knowledge in selecting the size of their design.
- **2 of 6 (33%)** had better understanding of patterns in their design.

## Summary

Overall, the youth of Polk County that participated in any of the camps or workshops enjoyed their lessons. 4-H has the unique opportunity to gauge our local youth in activities they may not get at home or school. We will continue to foster their imaginations and hopefully direct them to better life skills, job skills, and to become a well-rounded productive citizen for Polk County.

## Future Programming

The Polk County 4-H will continue to provide youth the opportunities with programming related to Science and Engineering, Art, and Humanities, and in Business. These opportunities play a part in all aspects of the 4-H program. Livestock, robotics, food nutrition, and outdoor skills are all available for the 2023-2024 year.

For More Information:

**Alyssa Kimbrough**

CEA 4-H Youth Development  
Polk County

936-327-6828

alpuckett@ag.tamu.edu



Extension programs of Texas AgriLife Extension Service are open to all people without regard to race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, gender identity or any other classification protected by federal, state or local law The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas

**AGRILIFEEXTENSION.TAMU.EDU**



## RELEVANCE

The Texas 4-H program provides tremendous opportunities to youth and adults related to Agriculture and Natural Resources. The development of life skills in youth is the primary objective and can be achieved through projects and activities. The development of learning through project educational experiences such as project meetings, leadership development, citizenship/community service, teamwork exercises, etc. are examples of life learning available to youth in 4H. Preparing youth through experiences is critical to the AgriLife youth program.

Livestock Exhibition is one of the largest project areas that 4-H and FFA youth participate in on an annual basis. Youth exhibit livestock at one or more shows across Texas each year. Many youth raise livestock for exhibition only at their local county livestock show. Often times, the day of the show at their county fair will be the first experience in the show ring for those youth that are new to the project. Polk County Livestock Clinic and showmanship is intended to provide an educational opportunity for 4-H and FFA members participating in the livestock project areas. The main purpose is to teach the basic principles of livestock management as they relate to facility maintenance, selection, nutrition, animal health, handling, showmanship, and transportation.

## RESPONSE

### TARGET AUDIENCE

The target audience for this workshop is both the beginning exhibitor and the experienced exhibitor. Of the 50 (adults and youth) that attended, 25 youth attended with 25 (100%) of them responding with useful information. This will be helpful as we plan future workshops of this nature.

In order to meet the goals of this event the following workshops were conducted:

- Beef Cattle- Steers and Heifers- 10 youth
- Market Lambs- 3 youth
- Market Goats- 10 youth
- Market Swine- 2 youth

The **Polk County Youth Livestock Coalition** has identified **Polk 4-H Livestock Clinic** as an educational effort to lead youth development in Livestock Projects.

### PARTNERSHIPS & COLLABORATORS

- Polk County Livestock Task Force, Polk County 4-H Adult Leaders, Tractor Supply Company, County Extension Agents, Polk County Youth Rodeo, Polk County Commissioners Court, 4-H Livestock Specialist

## VALUE STATEMENT

Youth Livestock Production

Raising and showing livestock results in the acquisition of numerous life skills by youth. Some of these skills include responsibility, time management, and animal husbandry skills like feeding, breeding, vaccinating, treating animals for sickness, treating animals for lameness, and training animals for the show ring.

**191,351**

Texas 4-H members  
showing livestock or  
involved in Ag Production

**91.3%**

**Polk 4-H youth  
Raise Livestock Projects**

**137 of 150**

**Polk 4-H youth show  
Livestock**



# RESPONSE

In response to educate youth in the livestock project area the Polk County 4-H Livestock Task Force held the following in March 2023.

- **Beef Clinic:** Amanda Reaves, Former 4-Hers and now Big Sandy FFA Advisor presented information for our Steer and Heifer exhibitors. She focused on care and nutrition, grooming, preparation of shows, and showmanship. **10 youth were present.**
- **Goat/Lamb Clinic:** Cheyenne Redden, former 4-Her assisted with teaching youth the proper way to care and maintain quality show lambs and goats. With over 35 showmanship buckles she was able to guide our youth on showmanship skills that will last. **13 youth attended this clinic.**
- **Swine Clinic:** Natalee Lambert, 4-H Swine Volunteer, discussed the importance in swine selection and feeding programs. She also addressed what exhibitors should have during show time. **2 youth attended this clinic.**



# Evaluation Strategy

A retrospective post was utilized to measure knowledge gained and adoptions of best practices. A total of 25 of 25 (100%) participants completed the retrospective post survey instrument.

## RESULTS

Because of this Workshop/ Clinic:

- **13 of 25 (52%)** will practice proper daily care in the project
- **12 of 25 (48%)** already practice daily care in their project
- **16 of 25 (64%)** will work with their project and practice showmanship skills
- **9 of 25 (36%)** already practice showmanship skills
- **14 of 25 (56%)** will check their project daily for illness
- **11 of 25 (44%)** already check their projects for illness
- **17 of 25 (68%)** will practice good sportsmanship in and out of the show ring
- **8 of 25 (32%)** already practice good sportsmanship

About this Training:

- **25 of 25 (100%)** of participants brought their own animal to the clinic
- **25 of 25 (100%)** indicated that this training allowed them a good opportunity to practice showing with their project
- **25 of 25 (100%)** of participants are better equip of how a show will work
- **25 of 25 (100%)** indicated that this training taught them how to prepare for show day
- **21 of 25 (84%)** of participants felt that they learned from experts that they may have not been exposed to otherwise.

## Summary

Overall, the youth of Polk County that participated in any of the clinics enjoyed their Practices. 4-H has the unique opportunity to engage our local youth in activities they may not get at home or school. We will continue to foster their showmanship skills and direct them to better life skills, job skills, and to become a well-rounded productive citizen for Polk County.

## Future Programming

- The Polk County 4-H will continue to provide youth the opportunities with programming related to Agriculture; Natural Resources and Youth Livestock. These opportunities play a part in all aspects of the 4-H program. Livestock, and outdoor skills are all available for the 2023-2024 program year. The Livestock Clinic will focus on small animal projects for the next year.

For More Information:

**Alyssa Kimbrough**

County Extension Agent  
Polk

936-327-6828

[alpuckett@ag.tamu.edu](mailto:alpuckett@ag.tamu.edu)

## RELEVANCE

Nearly 70% of US adults are overweight or obese, and the consequences can include increased risk for chronic disease. Compared to their urban counterparts, rural residents tend to have higher rates of obesity, physical inactivity, and poor diet. Polk County, a rural county in East Texas, ranks among the least healthy counties in Texas.

### NUMBERS:

- 38% of Polk County residents are considered obese with a BMI over 30
- 32% of Polk County residents report that they engage in no physical activity
- Cardiovascular disease deaths are particularly high in Polk County with 72.6 deaths per 10,000 as compared to Texas (43.3)
- Life expectancy in Polk County is 6 years less (72.5) than the average life expectancy in Texas (78.4)
- Premature death (years of potential life lost before age 75 per 10,000) is more than 1½ times higher in Polk County (1,090) as compared to Texas (700)

## RESPONSE

As a response, AgriLife has developed healthy lifestyle programs that can address these issues with evidence-based educational programs such as the Health Talk Express Healthy Heart Series and Walk Across Texas! (WAT) Adult program. The Healthy Heart Series educates participants about how to control blood pressure and cholesterol as well as how to identify and respond quickly to symptoms of a stroke. Regular physical activity and controlling weight can significantly reduce the risk and impact of chronic diseases like heart disease, stroke, diabetes, cancer, hypertension, and osteoporosis. Community-based programs that develop a strong network, like WAT! Adult, help motivate and maintain an individual's physical activity.

- Program planning meetings - 10/26/22, 11/10/22, 1/19/23, 1/26/23, and 2/23/23.
- Health Talk Express Healthy Heart Series with faculty, staff, and parents at Goodrich Elementary School - 4/17/23 (three 30-minute sessions)
- WAT programs with faculty, staff, and parents at Goodrich ISD (2/27/23 - 4/23/23)

Additionally, a series of Lunch and Learns are presented to older adults in Polk County once a month. Senior Lunch & Learns are co-presented with Polk County Agriculture and Natural Resource Agent, Matthew March. Presentations include cooking demonstrations, activities, and discussions. Each month, a different type of fresh produce is featured. Agents present information about how to grow the vegetable or fruit and demonstrate a healthy recipe which participants taste.

- Lunch and Learns have taken place on the following dates: 9/22/22, 10/27/22, 11/22/22, 12/21/22, 1/26/23, 2/23/23, 3/23/23, 5/4/23, 6/7/23, 8/2/23
- 380 pounds or 1,1216 servings of fresh produce was provided to seniors at the Polk County Senior Citizen Center.

**Partnerships & Collaborators** are essential to successful Extension programs. Thank you to Goodrich ISD, Goodrich Elementary, Goodrich School Health Advisory Council (SHAC), Polk County Judge and Commissioners, the Healthy Polk County Committee, and the Polk County Senior Citizen Center.

## VALUE STATEMENT

### Healthy Habits, Healthy Living

Increased physical activity and improved eating habits have been associated with a greater ability to manage the complications of certain chronic diseases and delay the onset of the disease in individuals at risk.

**WE ARE WHERE  
 THE PEOPLE ARE.**

**250**

COUNTY OFFICES  
 THROUGHOUT  
 THE STATE OF TEXAS

**5,000**

AgriLife Employees  
 helping improve  
 the lives of Texans.



## RESPONSE EXAMPLE

**Walk Across Texas! (WAT)** is an eight-week best practice physical activity program designed to help Texans establish the habit of regular physical activity. Each adult team may include up to eight team members, all working together to reach the 832-mile goal to make their way across the state of Texas. Through a team-based approach, participants are engaged in friendly competition with other teams to see whose team can walk the most miles.

- Spring 2023 WAT! Adult Program at Goodrich Elementary—50

**The Health Talk Express Love Your Heart** series consists of heart health presentations that use a persuasive public speaking approach to empower participants to take action.

- Spring 2023 Love Your Heart Series at Goodrich Elementary School - 30

**Senior Lunch & Learns** are presented at the Polk County Senior Center once a month. Featured foods have included kale, kohlrabi, sunflower seeds, turnips, cauliflower, olives (and olive oil), avocados, fresh and dried herbs, cucumbers, etc. Total attendance - 214

## EVALUATION STRATEGY

The Walk Across Texas! Adult program challenges teams to walk, track, and log mileage in an online portal. WAT! participants complete a pre-survey prior to beginning the program and are also urged to complete a post-survey at the end. After each presentation of the Health Talk Express Healthy Heart series, participants were asked to complete a 12-question self-assessment focused on how much they learned and if they would use the information in the future. For the Senior Lunch & Learns, participants completed a sign-in sheet at each meeting and an 11-question self-assessment focused on knowledge gain and behavior change.

## RESULTS

**The programmatic results of the Healthy Living Adult plan implemented in Polk County during the 2022-2023 Fiscal Year are as follows:**

- 100% (27 out of 27) Health Talk Express participants reported that they will use the new information that they learned to maintain a healthy cholesterol.
- 100% (27 out of 27) participants reported that they will be able to identify stroke symptoms
- 96% (26 out of 27) participants reported that they will use the information that they learned to practice measuring, monitoring, and maintaining a healthy blood pressure
- 96% (26 out of 27) participants reported that they will reduce the amount of saturated fat that they eat in their diets within the next three months
- 96% (23 out of 24) seniors reported that they added more fresh produce to their diet after participating in the Senior Lunch & Learn program
- 92% (22 out of 24) seniors reported that they gained knowledge about the nutritional value of fresh produce and cooking with fresh produce
- 50 WAT! Adult participants walked a total of 7,350 miles or an average of 147 miles per person.

**“Walk Across Texas kick started my health and weight loss. I usually quit after a few days, but because of the team/school, I stuck with it.”**

**“I felt accountable, ate healthier, and exercised more.”**

**“We benefited by wanting to be active more instead of watching TV or playing video games.”**



## FUTURE PROGRAMMING

Adult Healthy Living programs such as WAT! will continue to be implemented at Goodrich ISD in 2023-2024.

Additionally, in 2024, the Matter of Balance program will be offered to older adults at the Polk County Senior Center. This program focuses on gaining strength and building confidence to prevent falls in older adults.

**“It has been a pleasure to learn more about fruit, vegetables, and nutrition. I gained knowledge, and enjoyed the fresh produce as well.”**

**“I enjoy the presentations and the nutritional value of learning the different vegetables and fruits that are good for me. I am a type 2 diabetic, so nutrition and good eating are essential for me.”**



For more information:

Deborah Alvarenga

Health Agent

Polk County

936.327.6828

deborah.alvarenga@ag.tamu.edu

## RELEVANCE

Obesity and physical inactivity are linked to numerous chronic health problems for children, including cardiovascular disease, diabetes, and some types of cancer. Overall, child obesity in Texas is reported as 17%, but childhood obesity is even higher in East Texas, particularly among children living in poverty.

### NUMBERS:

- 15.9% of Texas children participating in WIC (0-5 years) are obese
- 20.3% of Texas children ages 10-17 are obese
- 20% of East Texas school age children are obese
- 80.4% of Texas youth are physically active less than 60 minutes a day
- 25% of children in Polk County are living in poverty

Texas ranks as the 10th highest in childhood obesity across all U.S. states. With obesity even higher in East Texas and more than 1 in 4 children living in poverty in Polk County, engaging schools and families in prevention efforts in Polk County is critical. As a response, Texas A&M AgriLife has developed healthy lifestyle programs for youth such as Learn, Grow, Eat, Go and Walk Across Texas! that can address these issues with an evidence-based approach through education.

## RESPONSE

In an effort to enhance the health and well-being of Polk County youth, the AgriLife Extension office implemented the following educational programs in 2023: 1) Learn, Grow, Eat, Go (LGEG) and Walk Across Texas! Youth (WAT Youth).

### Program Descriptions

The LGEG curriculum integrates the interdisciplinary elements of nutrition, gardening, physical activity, food preparation, and fresh vegetable tastings to improve the health and wellness of children and families. WAT Youth is a program designed to help children establish the habit of regular physical activity. Each team includes an unlimited number of youth participants, all working together towards the goal of 832 miles.

### Target Audience

LGEG was targeted to 3rd, 4th, and 5th grade classes at Goodrich Elementary in Goodrich ISD. The WAT Youth program was implemented in all grade levels of Goodrich ISD, including grades pre-K through 12th.

- Program planning meetings - 10/26/22, 11/10/22, 1/19/23, 1/26/23, and 2/23/23.
- LGEG at Goodrich Elementary School - twice per week for 10 weeks from 1/31/23 to 5/5/23
- Youth WAT program at Goodrich Elementary School from 2/26/23 to 4/23/23

**Partnerships & Collaborators** are essential to successful Extension programs. Thank you to Goodrich ISD, Goodrich School Health Advisory Council (SHAC), Polk County Judge and Commissioners, and Mulch 2 Go in Livingston for their generous support of AgriLife youth programming in Polk County.



## VALUE STATEMENT

### Obesity Prevention and Reduction

Texas A&M AgriLife Extension Service engages children in programs such as Learn, Grow, Eat, Go and Walk Across Texas that teach them how to eat nutritious foods and engage in regular physical activity to promote health and reduce their lifetime risk of obesity and diabetes. The Texas public benefits through a healthier population and reduced healthcare costs.

**53,255**

Population of Polk County

**38%**

Adults with BMI > 30

**32%**

Physically Inactive Adults

**12%**

Diabetes Prevalence

**6,391**

Diabetes Cases

**\$61 MILLION**

Estimated Health Care  
Costs Per Year



## RESPONSE EXAMPLE

Students in the the LGEG program established and maintained a thriving garden. They learned about required plant nutrient requirements, as well as nutrients for the human body to function properly. They planted, maintained, and harvested vegetables from their own garden, plus took part in cooking activities in which they helped prepare dishes using the vegetables they harvested. Lessons took place in the classroom and in the garden.

- The LGEG program includes 20 lessons. A total of 56 (19 third graders, 19 fourth graders, and 18 fifth graders) students completed the LGEG program at Goodrich Elementary.

Using a fun and motivating team approach, teams of youth worked together for eight weeks to walk 832 miles.

- Spring 2023 WAT Youth Program at Goodrich ISD — 277

## EVALUATION STRATEGY

For the LGEG program, students completed pre- and post-surveys. A total of 45 of 56 (80%) students completed both the pre- and post-survey instruments. For the WAT Youth program, teachers entered student mileage for each of their 277 students (277 out of 277 or 100%) into an online portal.

## RESULTS

The programmatic results of the Youth Health Education plan implemented in Polk County in 2023 are as follows:

- 82% (37 out of 45) of LGEG students reported that they enjoyed gardening after completing the LGEG program indicating an 18% increase from the pre-survey responses
- 82% (37 out of 45) of LGEG students reported that they had engaged in intense physical activity for 30 minutes or more the previous day indicating a 14% increase from the pre-survey responses.
- The number of times per day that LGEG students reported drinking sweetened beverages decreased by 32% (from an average of 2.5 times per day to 1.9)
- LGEG students reported a decrease of 13% (108 minutes to 96 minutes) in average screen time (video games, TV, smartphone, tablet, etc.) per day after completing the program
- 277 students in the WAT Youth program walked a total of 9,551 miles or an average of 34 miles per student

*In LGEG, the most important thing that I learned was...*

**“to cook. Everybody got to participate and got to try it and it was so good and delicious.”**

**“do not put too much water on the plants. You have to pick them at the right time. You wash vegetables before you eat them.”**

**“eat healthy and exercise every day for the rest of your life.”**

**“how to make vegetables taste better without making them unhealthy.”**

**“how to garden and I tried different foods.”**

**“that you can make so many dishes with just common fruits and vegetables.”**

**“that healthy things can taste good.”**



## FUTURE PROGRAMMING

Polk Youth Education programs such as LGEG and WAT Youth will continue to be implemented at Goodrich Elementary in 2023-2024.

Additionally, in 2024, Polk County schools will be invited to participate in the Healthy School Recognized Campus program and/or the Strong Teens program.



For more information:

Deborah Alvarenga

Health Agent

Polk County

936.327-6828

deborah.alvarenga@ag.tamu.edu