

Extension Education — Making a Difference in Fort Bend County 2017 Executive Summary



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Agriculture and Natural Resources

- **Beef & Forage Production** - Fort Bend is a diversified agricultural county with beef cattle as one of the leading Ag commodities. To meet the needs of Fort Bend County Beef and Forage Producers, the following activities were held: 1) Fort Bend County forage producers submitted 26 soil samples in the spring and 20 in the fall for analysis. The results from these analyses will provide producers with a detailed report and recommendation on fertilizer applications to maximize forage yields and minimize costs, excess nutrient application, and negative environmental impacts. 2) Producers submitted a total of 20 hay samples that were analyzed by the Soil Testing Lab in College Station for nutrient content. 3) Forage & livestock specific articles covering timely topics for our areas were written by specialists and published in the ANR quarterly newsletter and social media to 450 & 650, respectively.
- **Water Quality** - After Hurricane Harvey, and during the beginning of our Statewide efforts of Rebuild Texas, there was an unmet need of collecting and transporting well water samples from the heavily impacted areas of Simonton and Fulshear to the environmental lab in Houston for testing. Further, Texas A&M AgriLife Extension publications on well water sanitation practices were distributed to all participating residents. A total of 221 private water well samples were collected and tested. Resident feedback supports that this was due to samples returning clean after proper sanitation practices being conducted. We contribute this to residents following the recommended procedures listed within given publications.
- **Multi-County Pesticide Education** - Fort Bend, Brazoria, Chambers, Galveston, and Harris Counties have a combined total of 2,769 pesticide applicators licensed (FBC=550+) with the Texas Department of Agriculture. Private Pesticide Applicators are required to acquire 15 CEUs every five years. Commercial and Non-Commercial Applicators are required to acquire 5 CEUs every year in order to renew their licenses. A total of 41 hours were offered at 14 different events throughout 2017. Programs offered included:
 - ◇ One 5-CEU program designed for Mosquito Control Professionals
 - ◇ One 7-hour program for Agriculture applicators
 - ◇ One 5-hour CEU session for Ag/Structural Pest Control applicators
 - ◇ Four quarterly private applicator trainings
 - ◇ One 5-hour CEU event at the Fort Bend Regional Vegetable Conf.
 - ◇ Feral Hog Training Workshop for 5 CEUs
 - ◇ Quarterly newsletters to 460 clients via email, plus 340 U.S. mail recipients.
- **Feral Hog Control in FBC** - Fort Bend County has approximately 567,000 acres of land, and of this amount there is a considerable amount of undeveloped acreage which allows feral hogs to reproduce at an uncontrollable rate. Fort Bend County feral swine damage is an ongoing and increasing issue among our producers and landowners. To educate FBC citizens the following events took place.
 - ◇ Feral Hog Trapping Symposium with 56 present to learn trapping & baiting techniques.
 - ◇ Feral Hog Field Dressing Workshop with 15 present to learn safe cleaning & dressing.
 - ◇ Feral Hog Swine Awareness to learn management techniques, hosted by Sienna Plantation with 17 present.
 - ◇ Result demonstration conducted using different trapping methods. The Boar Buster Trap has doubled and tripled capture numbers at some locations. Over 770 hogs were trapped and sold to local TDA certified facilities at 13-50 cents/pound. Profits are held in the Feral Hog Task Force account to benefit additional educational programs.

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- **Crop Production** - Row crops & rice production continue to play a vital role in Fort Bend County with 7,602 acres of corn; 37,213 acres of grain sorghum; 24,518 acres of upland cotton; 2,243 acres of soybeans; and 5,141 acres of rice. AgriLife Extension developed and implemented the following programs to address the relevant issues in crop production: 1) January Row Crops Meeting had 62 producers in attendance; 2) A total of 28 producers attended the Summer Row Corps Tour on June 15; 3) In 2017, we conducted result demonstrations and applied research plots addressing hybrid selection in sorghum and corn, variety selection in cotton, evaluation of sorghum hybrids for sugarcane aphid tolerance, insecticide efficacy for sugarcane aphid in sorghum, and headworm and midge control in grain sorghum; 4) The Cotton Defoliation Meeting was held on Aug. 21 - 81 received information; and 5) Educational and interpretative information was shared on Facebook, FBC Webpage and Ag Newsletter via mail & email.

Family and Consumer Sciences

- **Dinner Tonight! (DT)** - The goal of DT is to help families learn to how to cook quick, nutritious meals and cut down on diet-related illnesses. Weekly video demonstrations are sent via e-mail blasts to approximately 3,500 people. In addition, two DT Healthy Cooking Schools were conducted - one during the 2017 Commercial Vegetable Conf. that reached 178 individuals and a second at the Mamie George Community Center for 32 contacts.

Weight Management - Preventable illnesses make up 80% of the burden of illness and 90% of all U.S. healthcare costs. Over the past three decades, childhood obesity rates in America have tripled with nearly 33% children being overweight or obese. The numbers are even higher among African Americans and Hispanics where nearly 40% of the children are overweight/obese which may lead to diabetes, heart disease, high blood pressure, cancer, and asthma. Educational programs conducted in conjunction with CEP's Expanded Food and Nutrition Program, Community Health Choice, and Attack Poverty Organization included:

- ◊ **Walk Across Texas** - 136 participants (17 teams) took part in this 8-week exercise event by walking (a total of 36,549 miles) to create a healthy habit of walking everyday. The ultimate result was not only weight loss, but also a delay of the onset of type 2 diabetes.
 - ◊ **The Texercise program** - an 8-12 week fitness and educational program that provided education & opportunity for regular physical activity to reduce the risk and minimize the impact of disease. The 26 seniors gained knowledge of portion size, label reading, food groups, and application of physical activity for healthier lifestyles.
- **Childcare Provider Conferences** - Over 60 percent of children from birth through age 6 (not yet in kindergarten) receive some form of childcare on a regular basis from persons other than their parents. There are over 100,000 childcare providers caring for more than 760,000 children under the age of 13 in licensed or regulated childcare facilities in the state of Texas. In 2017 (by AgriLife agents), a total of 159 providers representing 37 centers caring for 3,158 youth gained valuable knowledge, skills and tips while earning a total of 636 clock hours. In addition (by Cooperative Extension Program agents), over 60 childcare providers come out to engage in childcare provider education to receive up to 5 hours of continuing education credits amounting to over 250 clock hours towards the child care providers' requirement.
- **Food Protection Management** - Each year, an estimated 1 in 6 people become ill from the food they eat. Common symptoms of foodborne disease include nausea, vomiting, diarrhea, abdominal cramping, fever, and headache. Five pathogens alone (Campylobacter, Salmonella, Listeria monocytogenes, E. coli O157:H7, and E. coli non-O157:H7 STEC) cost more than \$7 billion in medical expenses, lost productivity, and even death. To meet the need for quality food safety education, a Food Handlers Program, Certified Food Managers' Program and several Food Preservation classes were held in 2017:
 - ◊ Two-hour **Food Handlers Program** with 44 participants learned the basics of food safety.
 - ◊ Two-day **Certified Food Managers Prgm.** was held with 80% of 21 students passing the exam.
 - ◊ Four quarterly **Home Food Preservation** classes were held with 39 in attendance learning home-food preservation techniques.



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- **Better Living for Texans (BLT) - A Fresh Start to a Healthier You!** - An estimated 1 in 14 households in Fort Bend lives in poverty resulting in diets low in fiber, vitamins A and E, folic acid, zinc, calcium, and iron; and higher in total fat, saturated fat, and sodium – ultimately leading to heart disease, cancer, stroke, and diabetes. In 2017, 101 adults completed the BLT “A Fresh Start to a Healthier You” series that offered food & nutrition education to help improve planning and preparing nutritious meals, increasing physical activity, and safe food storage. Participant characteristics - Average household size was 2.6; the average age of the participants was 61 years. Participation in the selected assistance programs was as follows: SNAP 53%, food pantries or other emergency food assistance 59%, free/reduced school meals 20%, Head Start 4%, TANF 4%, and WIC 6%.

4-H and Youth Development—Club Statistics

4-H Clubs in Fort Bend County - 31
4-H Adult Leaders - 96
Curr. Enrichment Participants - 3,762

4-H Club Members - 623
Youth Leaders - 94
4-H Special Interest/Short Term - 15,331

- **2017 Agricultural Literacy** - It is essential that AgriLife Extension takes an active role in educating youth about the importance of agriculture in their daily lives. Fort Bend is unique in its demographic makeup with the north & east portions of the county being urban, while the south & west half remain rural. AgriLife Extension developed and implemented educational programming for youth (as well as adults) to address the relevant issue of Ag Literacy. *AG'tivity Barn* was conducted during the FB County Fair and involved nine sponsors/ collaborators to reach over 1,095 elementary school students and 56 teachers & parents/ chaperones; and, 181 youth entered the coloring contest. A total of 19 exhibits were utilized to promote the agricultural industry in Fort Bend with 115 volunteers & 17 agencies and organizations assisting. In addition, it was estimated that 60,125 fair visitors (60% of total) attended *AG'tivity Barn* during the 10-day run.
- **Hatching in the Classroom** – This project is designed to provide background information and experiential activities in life science for use in the school classroom. Students have the opportunity to develop skills related to science such as qualitative and quantitative measurement of data, scientific method, and critical thinking. Major partners were:
⇒ Quail Valley Elementary with 270 pre-K through 5th grade students . They met in science lab 2/wk and observed and recorded incubation progress and studied the life cycle of chicks.
⇒ Seven Lakes Jr. High with 678 7th graders participating. Teachers used the project as a resource for bio-systems, animal adaptations, and natural selection.
⇒ W.I.D.E. School had 70 K-5th graders participating. Incubators were setup in the school's science lab. Once hatched, the chicks were kept and raised by the students.
- **Fort Bend County attending National Livestock Judging Contest** – The Fort Bend Co. Livestock Judging team successfully competed at the Texas 4-H Roundup State Livestock Judging Contest where they took home the title of 3rd place and were awarded an invitation to compete in the American Royal Livestock Judging contest. The team placed 4th overall among seventeen of the nation's top 4-H livestock judging teams. Other team awards include: 2nd Swine, 5th Beef, 4th Reasons, and 8th Sheep/Goat.
- **ROBOTICS** - The nation is facing declining proficiencies in science, engineering, & technology, as well as workforce shortages in these critical fields. In an attempt to address these deficits, Fort Bend is increasing efforts involving hands-on activities using robotics as understanding the basics of computer programming to enhance their critical thinking skills and problem solving. The following activities supported robotics:
 - ◇ **Robotics Curriculum Enrichment**
 - George Jr High School– Twenty 8th grade students were introduced to coding using the Discovery Drone curriculum during a week-long Robotics lesson. Ultimately, students were able to build and program using the NXT LEGO Mindstorm kits.
 - W.I.D.E. School– Seventy K-5th graders were introduced to coding using of our Spheros robots along with SPARK app. Mr. Ramos, the TECH teacher, lead the students through different coding series to complete number of routes/pathways created by him.



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◇ **4-H Robotics Project Club** - A total of 41 youth and 19 adults were enrolled in our Robotics program this year. All youth completed the Robotics 1: EV3 curriculum and we were able to provide EV3 LEGO Mindstorm kits to all clubs due to the grants received. Our Fort Bend IRobot 4-H Club even placed 4th at the Houston Livestock Show & Rodeo AgRobot contest. Our Robotics project leaders had a total of 182 contact hours with our 4-H youth.

- **4-H Veterinary Science Project/Certification Program** - This project deals with techniques and procedures involved in caring for animals and consists of 100 lessons and 50 activities with 500 clinical hours of on-the-job training in which participants have five years to complete. Since the establishment of the Veterinary Science Certificate Program in Fort Bend in 2012 we've created nine 4-H clubs. Highlights for 2017 include:
 - ◇ Six youth who completed the 5-year curriculum and received a Texas 4-H Veterinary Project Completion Certificate and a recognition plaque at the FBC Annual Awards Banquet.
 - ◇ Five Vet Science 4-H members took part in the Vet Science Skillathon at State 4-H Round-up - a competitive event designed to test knowledge and skills.
 - ◇ FBC hosted three hands-on workshops (Nutrition, Skillathon training, and Production Practices with 41 youth and 28 adults in attendance.
 - ◇ FBC has 10 Vet Science Clubs, 53 dedicated youth and 18 adult volunteers.
 - ◇ The Vet Science Info meeting was held with 55 in attendance resulting in two new clubs.

Community Economic Development

- **Rebuild Texas Commission**- Major flooding occurred twice in 2016; however, nothing can compare to the devastation caused by Hurricane Harvey in August 2017 with an average of 48" of rainfall within the coastal bend counties. The National Hurricane Center now reports that Hurricane Harvey was "the most significant tropical cyclone rainfall event in U.S. history, both in scope and peak rainfall amounts, since reliable rainfall records began around the 1880s." As a result, Texas Gov. Greg Abbott appointed TAMUS Chancellor John Sharp Commissioner of the RT Commission with AgriLife serving as his lead liaison in each of the 40 affected counties. Fort Bend County AgriLife Extension's response included:
 - ◇ Clientele Inquiries - Responded to incoming calls regarding crop loss, cattle loss, mold/mildew issues, invasive weed contamination, carcass disposal and debris removal.
 - ◇ Rebuild Texas Commission -Relayed valuable information from Gov. Abbott, Chancellor Sharp and Rebuild Texas AgriLife team to over 70 key leaders in Fort Bend County on a daily basis and responded to the needs of our 19 jurisdictions.
 - ◇ Livestock Supply Point - We utilized volunteers as well as two AgriLife Extension CEA Strike teams to distribute the following materials over a nine day period: 300 Round Bales; 1100 Small Square Bales; 14 tons of cattle feed, 9 tons of horse feed, 10 tons of all-stock feed, 1 ton of hog feed, 7 tons of pet food (80% sent to animal control), 200 bags of shavings, 80 yards of bulk shavings, 200+ tubs/buckets for feed/water, and 40 halters & lead ropes.

Total Educational Contacts

Educational Sessions Conducted - 2,235
Contact Hours via Ed. Programs - 84,450
Extension Education Club Members - 44
Total Volunteer Hours - 67,698
Direct Contacts (office/site/phone) - 6,628
Newsletter/Email/Mail Contacts - 183,352
Social Media Followers - 172,148

Ed. Contacts - 44,732 adults & 25,737 youth
Master Volunteers - 266
Total of Volunteers - 1,151
Volunteer Value - \$1,594,972
Indirect Contacts (mass media) - 64,480
Social Media Posts - 4,320
eXtension - Ask the Experts - 815

Contact Information

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