

Agriculture and Natural Resources

2021 Commodity Marketing, Technology and Industrial Hemp Education

Developed by:

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Relevance

Cotton, grain Sorghum, soybean, corn, and rice production continue to be a major economic force in Wharton County. USDA reports **235,656** total acres planted in 2021 in these five major crops for Wharton County. **1.22** acres of Industrial Hemp was certified in Wharton County in in the 2021 crop year. The 2015 and 2019 Texas Community Futures Forum identified that crop producers will need to keep abreast of marketing opportunities, precision agriculture practices, variety/seed technology developments, and alternative crops (e.g. Industrial Hemp) to remain competitive in the industry.

Wharton County ranks 22nd in the State in total agricultural receipts and 2nd in the State in total value of crops, including nursery and greenhouse production. The 2017 Census of Agriculture for Wharton County reports \$208,540,000 in total agricultural receipts, which is down 44% from the \$373,637,000 reported in the 2012 Census of Agriculture. As costs of production continue to increase and farm income declines, applied research and marketing education is needed to maintain a crop producers' economic sustainability in the years to come.

Response

The Wharton County Row Crops Committee was instrumental in developing, delivering, and evaluating educational programs in 2021 that addressed new crop system technology, commodity marketing, and informed producers of a new and emerging industrial hemp industry. The following educational conferences and seminars were conducted in 2021:

- Virtual Upper Gulf Coast Feed Grain and Cotton Conference – January 26, 2021. This event is organized as a multi-county program in Wharton, Texas (Wharton County) – Wharton, Matagorda, and Colorado County cooperating. Selection of grain and cotton production topics and presenters is directed by Row Crops Committee members in each of the three counties.
- Wharton County Soybean and Cotton Turn Row Meeting – June 30, 2021. A two-part turn row meeting on one day. The first stop was to the A&M Crop Testing Program's Soybean Variety Trial at the Howard and Dolly Wittig Farm in Lane City, Texas. The next stop was to the Cotton RACE trial in Crescent at the Michael Beard Farm.
- Result Demonstrations were implemented and data was collected on the following:
 - Replicated Agronomic Cotton Evaluation (RACE)
 - Uniform Corn Variety Trial
 - Uniform Grain Sorghum Variety Trial
 - Soybean Variety Trial
 - Evaluation of the Effect of Application Rate of Chicken Pit Manure on Corn Grain Yield

Results

Virtual Upper Gulf Coast Feed Grain and Cotton Conference

To determine the programmatic results of the Feed Grain and Cotton Conference a retrospective-post evaluation instrument was administered the day of the conference. 44 of 128 (34.37%) completed evaluations. When asked if they prefer Virtual or In-Person educational meetings, 63.64% (28 of 44) responded that they prefer to attend in-person educational programs; 76.80% approve of Hybrid meetings in the future – they approve of having a choice of selecting to attend in-person or attend virtually. 95% (42 of 44) of the respondents report that they anticipated an economic benefit from attending the 2021 Virtual Upper Gulf Coast Feed Grain and Cotton Conference.

Client Change Level of Understanding: Upper Gulf Coast Feed Grain and Cotton Conference

TOPICS	Mean Value BEFORE	Mean Value AFTER	Percent Increase
Knowledge of soybean maturity groups and planting dates best suited for the Upper Gulf Coast of Texas	2.42	3.56	47.1%
Knowledge of proper insecticide tank mixed for the Red Banded Stink Bug in soybeans	2.15	3.51	63.2%
Knowledge of ongoing research in nematode control in cotton	1.88	3.44	82.9%

Wharton County Soybean and Cotton Turn Row Meeting

To determine the programmatic results of the Turn Row Meeting, a retrospective-post evaluation instrument was administered at the conclusion of each field visit. 13 of 55 (24%) completed evaluations. Participants reported 40,709 acres managed, and a total anticipated economic benefit to their operations of \$321,601 or \$7.90 per acre.

Client Change Level of Understanding: Cotton and Soybean Turn Row Meeting

TOPICS	Mean Value BEFORE	Mean Value AFTER	Percent Increase
Fungicide selection based on crop growth stage and disease identification	2.71	4	47.6%
Managing cotton during periods of heavy rainfall, such as what was experienced in May/June 2021	2.6	3.8	46.1%

57% of the soybean growers in attendance have already adopted the practice of completing the require Paraquat Dichlorid training every 3 years. Another 14% indicated that they definitely will adopt the practice. 28% were undecided.

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