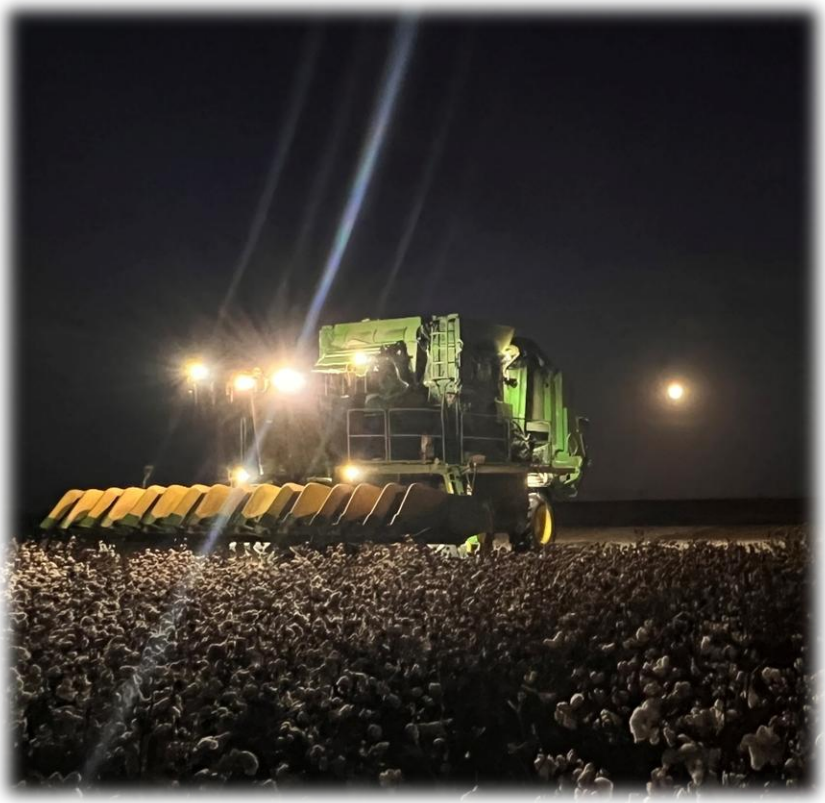
# 2025 TEXAS HIGH PLAINS REPLICATED AGRONOMIC COTTON EVALUATION (RACE) TRIAL REPORT

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**SCSC-2026-04**

## Acknowledgements

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## Season Highlights

To better assist Texas cotton producers in the Texas High Plains, the Texas A&M AgriLife Extension Service-Cotton Agronomy program coordinated 29 RACE trials to be planted across the Texas High Plains. To better address grower interest, cropping system RACE trials were included in 2025. Systems included evaluations of different row spacings, ELS, and Roller Gin Upland cultivars. Similar to the previous year, varieties were submitted by seed companies based on site description prior to planting, such that each location entry list was not the same across locations. Collaborating growers selected varieties for the Cropping System RACE trials.

Trials were planted from May through June. Prior to planting the High Plains received little to no precipitation leading to decreased herbicidal activity for preplant management. Rainfall began in early May, resulting in planters running till mid-June. Widespread storms plagued the region with much needed precipitation, leading to copious losses of cotton stands. Failed acres in the Northern High Plains (Swisher County, North) were replanted to corn or sorghum. Many failed acres in the Southern High Plains were replanted with cotton; limited acres were replanted with late-sorghum or corn if possible. Timely widespread rainfall continued throughout the season with mild temperatures. Late summer, short lived mild heat events occurred sporadically throughout the region. Overall, regional conditions were milder than in recent years. The long fall allowed late planted crops to mature. Yields were generally very good to excellent with loan values ranging up to $0.58 per pound.

***Glossary***

**Plant Population –** Number of plants per acre.

**Stand Establishment (%) –** Ratio of emerged plants relative to seeding rate.

**Warm Germ (%) -** Ratio of germinated seed after a multi-day test of alternative temperatures of 86 °F, and 68 °F. State and federal laws require a minimum of 80% warm germination.

**Cool Germ (%) -** Ratio of germinated seeds after the "Texas Cool Test." Conducted for 7 days at 64.4 °F, this study is not required by state or federal law. Cool germ % can be requested from your company representatives.

**DD60 –** Growing degree days (GDD) are calculated daily using a base temperature of 60°F and a maximum temperature of 95°F. DD60 = ((Max. Temp. + Min. Temp.)/2)-Base Temp.

**Lint Yield –** Pounds of lint harvested per acre.

**Seed Yield –** Pounds of fuzzy seed harvested per acre.

**Turnout (%) –** Ratio of cotton lint to seed cotton within a sample. Approximately 6-8 lb. samples submitted to the Fiber and Biopolymer Research Institute.

**Seed Turnout (%) -** Ratio of seed-to-seed cotton within a sample, approximately 6-8 lb. Samples submitted to the Fiber and Biopolymer Research Institute.

**Seed Value ($/A) –** Seed yield x $248/metric ton. Cottonseed price acquired from US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts ).

**Planting Seed Cost –** Planting seed cost acquired from Plains Cotton Growers 2025 Seed Cost Calculator.

**Loan Value –** Base loan rate $0.52 per pound, rate is calculated dependent off fiber quality parameters. Loan value acquired from Cotton Incorporated 2025 Upland Loan Calculator. Please see Loan Premium & Discount Schedule: Upland Cotton for parameters.

**Lint Value ($/A) –** Lint Yield x Loan Value.

**Total Crop Value ($/A) –** Lint Value + Seed Value.

**Net Return ($/A) –** Total crop value – Planting seed cost.

**Plant Height (in) –** Plant height in cm from cotyledons to terminal.

**High Volume Instrument (HVI) -** HVI is the most commonly used cotton fiber quality testing instrument and is used for classification of every commercially grown bale of cotton produced in the United States.

**Length (ln) -** HVI length is reported as upper half mean length which is the average length of the longer one half of the fibers in a sample.

***Glossary Cont'd***

**Staple (1/32 in) -** Refers to the average length of a bundle of fibers, equivalent to HVI upper half mean length.

**Micronaire (MIC) -** A measurement of airflow moving through a cotton plug and is proportional to the surface area of the fibers. Differences in MIC can be indicative of a difference in either fiber fineness, fiber maturity, or both, but MIC does not directly measure either.

**Strength (g/Tex) -** Strength is a measurement of the force required to break a bundle of fibers.

**Uniformity (%) -** Uniformity index is a ratio of the average length of fibers to the upper half mean length. It is used as an indication of the distribution of fiber lengths in a sample.

**Color Grade -** A measurement of how much the color of the lint deviates from white. The HVI reports in two parameters: yellowness and reflectance.

**Leaf Grade -** HVI uses a black and white camera to assess trash. Any black seen by the camera is trash and is expressed as a ratio of trash to lint.

**R-square –** The higher the R-square values indicate higher data quality.

**Least Significant Difference (LSD) –** The smallest significant difference between two means supported by statistics.

**Coefficient of variation (CV%) –** Lower values indicate higher data quality.

**Prob > F –** A p-value below 0.05 indicates significant differences.

**Root-Knot Nematode (RKN) Eggs –** These are the starting point of the nematode's life cycle. Root-knot nematode females lay eggs in a gelatinous mass attached to the root surface or embedded in root tissue. Each egg contains a developing juvenile, which will hatch and begin searching for a plant root to infect. The number of eggs in roots indicates the extent of nematode reproduction and root infestation. High egg counts suggest significant nematode activity, which can lead to stunted plant growth and yield losses.

**Root-Knot Nematode (RKN) Juveniles –** The second-stage juveniles (J2) are the infective stage of root-knot nematodes. After hatching from the eggs, these tiny, worm-like juveniles move through the soil in search of plant roots. Once they enter a root, they establish a feeding site, causing characteristic root galls and stunting plant growth. Juvenile counts in soil samples provide insight into nematode population levels and potential risk for further crop damage.

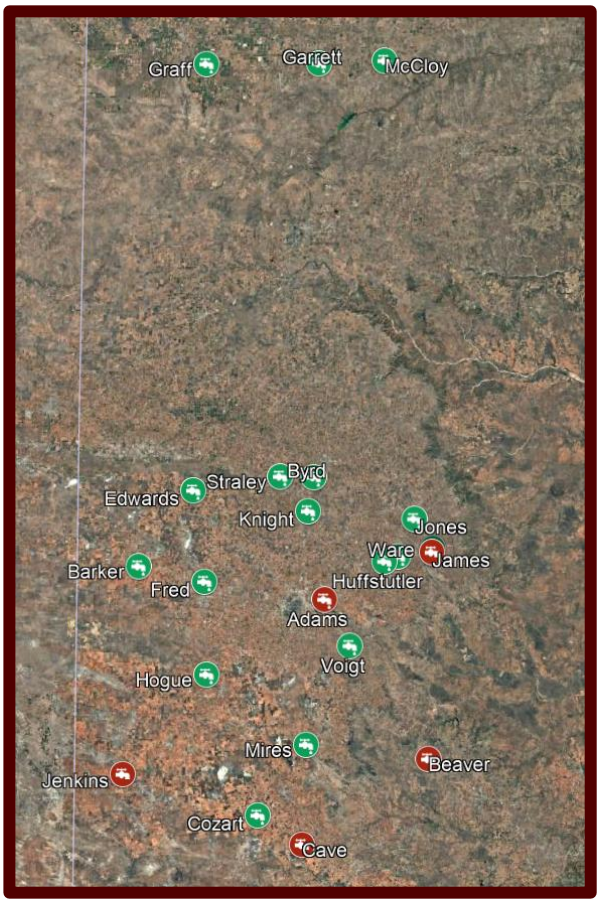
***Glossary Cont'd***

**Extra long staple (ELS) -** Any of the following varieties of cotton which is produced in the United States and is ginned on a roller gin:

- American-Pima;
- All other varieties of the Barbadense species of cotton, and any hybrid thereof; and
- Any other variety of cotton in which one or more of these varieties predominate.

**Hybrid –** As it relates to this publication the first generation offspring (F1) from crossing a *G. Barbadense* (Pima) line with an Upland (*G. hirsutum*) line.

## ***List of Tables***




Dryland

Irrigated

*Table 1. 2025 Variety RACE Trial Location Summary*

| County | Cooperator | Herbicide Technology | Irrigation? | # of Varieties Planted? | Harvested? | Comments |
|---|---|---|---|---|---|---|
| Borden | Beaver | Mixed | N | 4 | Y | Y | |
| Cochran | Barker Farm | Mixed | Y | 7 | Y | Y | |
| Crosby | Huffstutler | Mixed | Y | 8 | Y | N | Lost early due to hail |
| Crosby | James | Mixed | N | 6 | Y | Y | |
| Crosby | James | Mixed | Y | 4 | Y | N | Lost early due to hail |
| Crosby | Ware | Mixed | Y | 6 | Y | Y | |
| Dawson | Cozart | Mixed | Y | 6 | Y | N | Abandoned due to poor stand |
| Floyd | Jones | Mixed | Y | 8 | Y | Y | |
| Gaines | Jenkins | Enlist | Y/N | 4 | Y | Y | Irrigated for stand establishment; no in-season irrigation |
| Hale | Byrd | Mixed | Y | 6 | Y | Y | |
| Hale | Knight | Mixed | Y | 8 | Y | Y | |
| Hale | Straley | Conv | Y | 2 | Y | N | Abandoned by growers |
| Hartley | Graff | Enlist | Y | 4 | Y | Y | |
| Hockley | Fred | Mixed | Y | 8 | Y | Y | |
| Hutchinson | McCloy | LL only | Y | 7 | Y | Y | |
| Lamb | Edwards | Mixed | Y | 10 | Y | Y | |
| Lubbock | Adams | Mixed | Y/N | 8 | Y | Y | Replanted late and then established as dryland |
| Lynn | Mires | Mixed | N | 4 | Y | Y | |
| Lynn | Voigt | Mixed | Y | 3 | Y | N | Lost early due to hail |
| Martin | Cave | Mixed | N | 4 | Y | Y | |
| Moore | Garrett | Mixed | Y | 7 | Y | Y | |
| Terry | Hogue | Mixed | Y | 8 | Y | Y | |

*Table 2. Agronomic Characteristics of Varieties included in the 2025 Replicated Agronomic Cotton Evaluation (RACE) Trials in the Texas High Plains*

| Variety | Maturity | Trait Packages | Leaf Type | Plant Height | MIC | Verticillium | Bacterial Blight | Storm Tolerance*** |
|---|---|---|---|---|---|---|---|---|
| PHY205W3FE | Very Early | WideStrike 3, Roundup Re | Semi-Smooth | Short | 4.4 | Resistant | Resistant | |
| NG3434B3XF | Early | Bollgard 3, XtendFlex | Smooth | Medium | 4.3-4.4 | Fair | Susceptible | 7.8 |
| NG3457B3XF | Early | Bollgard 3, XtendFlex | Smooth | Medium | 4.3-4.5 | Good | Resistant | 6.8 |
| May558 | Early-Medium | Non-GMO Conventional | Semi-Smooth | Medium | 4.5-4.9 | 8** | Not Determined | 8 |
| NG3576XF | Early-Medium | XtendFlex | Semi-Smooth | Medium | 4.5-4.8 | Fair | Resistant | 5.8 |
| DP1822XF | Early-Mid | XtendFlex | Semi-Smooth | Med-Tall | 4.27 | Modearate | Resistant | 3 |
| DP2123B3XF | Early-Mid | Bollgard 3, XtendFlex | Semi-Smooth | Medium | 4.35 | Mod. Tolerance | Mod. Susceptibility | 4 |
| FM765AX | Early-Mid | Axant Flex | Semi-Smooth | Short/Compact | 4.33 | Good | Resistant | 6.5 |
| PHY332W3FE | Early-Mid | WideStrike 3, Roundup Re | Semi-Smooth | Medium | 4.1 | Tolerant | Resistant | |
| PHY400W3FE | Early-Mid | WideStrike 3, Roundup Re | Semi-Smooth | Medium | 3.9 | Susceptible | Resistant | |
| DP2525B3XF | Early-Mid | Bollgard 3, XtendFlex | Smooth | Medium | 4.42 | Mod. Tolerance | Resistant | 5.54 |
| FM814AXTP | Early-Mid | Axant Flex, TwinLink Plus | Semi-Smooth | Short/Compact | 4.2 | Excellent | Resistant | 6.9 |
| PHY136W3E1 | Early-Mid | WideStrike 3, Enlist | Semi-Smooth | Medium-Tall | 4.4 | Susceptible | Resistant | |
| PHY137W3E1 | Early-Mid | WideStrike 3, Enlist | Semi-Smooth | Medium-Tall | 4.3 | Susceptible | Resistant | |
| Armor9371B3XF | Medium | Bollgard 3, XtendFlex | Semi-Smooth | Medium | 4.5-4.6 | Mod. Tolerance | Tolerant | 3 |
| Armor9413XF | Medium | XtendFlex | Smooth | Medium | 4.2-4.5 | Mod. Tolerance | Resistant | 3 |
| NG4522XF | Medium | XtendFlex | Semi-Smooth | Medium-Tall | 4.5-4.8 | Good | Resistant | 5.8 |
| DP2239B3XF | Mid | Bollgard 3, XtendFlex | Smooth | Medium | 4.4 | Mod. Susceptibility | Susceptibility | 4.5 |
| DP2335B3XF | Mid | Bollgard 3, XtendFlex | Smooth | Medium | 3.8 | Tolerant | Resistant | 5.1 |
| DP2436NRB3XF | Mid | Bollgard 3, ThryvOn, Xtenc | Semi-Smooth | Medium | 4.25 | Mod. Tolerance | Resistant | 4 |
| FM823AXTP | Mid | Axant Flex, TwinLink Plus | Semi-Smooth | Short/Compact | 4.28 | Good | Resistant | 6.5 |
| FM868AXTP | Mid | Axant Flex, TwinLink Plus | Semi-Smooth | Medium/Moderate | 4.25 | Low | Susceptible | 6 |
| PHY411W3FE | Mid | WideStrike 3, Roundup Re | Semi-Smooth | Medium Tall | 4.4 | Susceptible | Resistant | |
| PHY807RF *(Pima)* | Mid | Roundup Ready Flex | Semi-Hairy | Medium Tall | 4.5 | Susceptible | Susceptible | |
| PHY415W3FE | Mid | WideStrike 3, Roundup Re | Semi-Smooth | Medium | 4.2 | Susceptible | Resistant | |
| ST5931AXTP | Mid-Full | Axant Flex, TwinLink Plus | Semi-Smooth | Med-Tall/Moderate | 4 | Good | Resistant | 5.7 |
| GS1432 | Full | Conventional | Semi-Smooth | Tall | 3.5-4.0 | Not Determined | Susceptible | Low |

Information available on official company websites. Please refer to each individually for additional variety information.

**1-10 scale 10 best

***Please refer to individual company website for scale.

PX1140F331-04W3FE ?

PX1150F360-04W3FE

TEXAS A&M AGRILIFE EXTENSION

R.A.C.E. Replicated Agronomic Cotton Evaluation

# *Table 3. Borden County Dryland Mixed Technology RACE Summary - Fluvanna, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Chad Beaver | Planting Date: | 6/17/2025 |
| County Agent: | Derek Coffman | Seed Treatments: | Various fungicide+insecticide |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Adequate |
| Location: | Fluvanna, TX (Borden Co) | Soil Temp @ planting: | 81.7F @ 2" 80.4F @ 6" |
| Replicates: | 3 | Seed/Acre: | 26,136 |
| Plot Size: | 8 rows x ~1/2 mi | GPS Lat: | 32.881168 |
| Row Spacing: | 40" | GPS Long: | -101.193456 |
| Beds: | No | Elevation: | 2697 |
| Previous crop(s): | Failed cotton | Harvest Date: | 12/12/2025 |
| Soil type: | Olton/Pyron Clay Loam | | |
| Irrigation: | None | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation (W/m$^2$) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 90.1 | 72.2 | 503.0 | 554 | 3.58 | 142786 | 6.43 | 20 | 1.19 |
| PHS to First Bloom | 93 | 72.2 | 514.0 | 577 | 0.2 | 148408 | 5.97 | 38 | 0.69 |
| First Bloom to Cutout | 93.5 | 71.3 | 607.0 | 679 | 2.3 | 168897 | 6.99 | 62 | 2.20 |
| Cutout to Defoliation | 80.3 | 56.7 | 905.5 | 796 | 1.44 | 401544 | 14.19 | 11 | 1.47 |
| Defoliation to Harvest | 60.6 | 34.3 | 0.0 | 6 | 0 | 36566 | 1.11 | 0 | |
| *Total* | | | *2529.5* | *2612* | *7.52* | *898201* | *34.69* | *131* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

*2024 weather data from same site through Aug 15* 2.34 314

*(not harvested due to drought/heat):*

*Sorted by Net Return*

| Variety | Lint Yield *(lbs/A)* | Turnout *(%)* | Mic | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FM765AX | **539** | 36.1 | 4.37 | 1.10 | 35.3 | **29.9** | **81.4** | 31, 31, 31 | 3.7 | 0.5492 | 296 | **369** | **329** |
| DP2239B3XF | 532 | **37.0** | 4.25 | **1.14** | **36.4** | 28.6 | 80.5 | **21, 21, 21** | **2.3** | **0.5700** | **300** | **369** | 322 |
| DP2335B3XF | 503 | 36.7 | **3.89** | 1.09 | 34.9 | 28.7 | 78.0 | **21, 21, 21** | 2.7 | 0.5488 | 276 | 345 | 299 |
| FM868AXTP | 481 | 35.5 | 4.19 | 1.08 | 34.5 | 28.5 | 79.2 | 21, 21, 31 | 3.0 | 0.5377 | 261 | 330 | 289 |
| *Mean* | *516* | *36.3* | *4.18* | *1.10* | *35.2* | *28.9* | *79.8* | | *2.9* | *0.5514* | *285* | *355* | *312* |
| *LSD* | *ns* | *0.6* | *0.13* | *0.02* | *0.6* | *ns* | *1.5* | | *0.6* | *0.0148* | *ns* | *ns* | *ns* |
| *R-square* | *0.89* | *0.85* | *0.93* | *0.84* | *0.84* | *0.46* | *0.81* | | *0.83* | *0.83* | *0.90* | *0.87* | *0.88* |
| *CV (%)* | *2.7* | *1.0* | *1.8* | *1.3* | *1.3* | *3.5* | *1.1* | | *12.8* | *1.5* | *3.4* | *3.3* | *3.7* |
| *Prob>F, variety* | *0.0630* | *0.0101* | *0.0014* | *0.0111* | *0.0111* | *0.3523* | *0.0142* | | *0.0219* | *0.0187* | *0.0724* | *0.0982* | *0.0895* |

*Planting Seed Quality*

| Variety | Plant Population *(#/A)* | % Stand Establishment | Seed/lb | Warm Germ *(%)* | Cool Germ *(%)* | Planting Seed Cost *($/A)* | Seed Yield *(lbs/A)* | Seed Turnout *(%)* | Seed Value *($/A)* |
|---|---|---|---|---|---|---|---|---|---|
| FM765AX | 23450 | 89.7 | 5201 | 94 | 60 | 39.20 | **645** | 43.1 | **73** |
| DP2239B3XF | 24466 | 93.6 | 6250 | 94 | 88 | 46.59 | 608 | 44.8 | 68 |
| DP2335B3XF | **25337** | **97.0** | 6450 | 98 | 82 | 45.45 | 614 | 43.6 | 69 |
| FM868AXTP | 22070 | 84.4 | 4825 | 95 | 81 | 40.99 | 618 | **45.8** | 70 |
| *Mean* | *23704* | *90.7* | | | | | *625* | *44.3* | *70* |
| *LSD* | *1918* | *7.4* | | | | | *ns* | *ns* | *ns* |
| *R-square* | *0.79* | *0.79* | | | | | *0.64* | *0.74* | *0.64* |
| *CV (%)* | *4.7* | *4.7* | | | | | *3.2* | *2.3* | *3.2* |
| *Prob>F, variety* | *0.0488* | *0.0489* | | | | | *0.3548* | *0.0593* | *0.3548* |

*Planting seed costs from PCG Seed Cost Calculator*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts )*

TEXAS A&M AGRILIFE EXTENSION

R.A.C.E. Replicated Agronomic Cotton Evaluation

# *Table 4. Cochran County Irrigated Mixed Technology RACE Summary – Morton, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Barker Research Farm | Planting Date: | 5/28/2025 |
| County Agents: | Kerry Siders & David Holland | Seed Treatments: | Various fungicide+insecticide |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Excellent |
| Location: | Morton, TX (Cochran Co.) | Soil Temp @ planting: | 2" 78 F, 4" 83 F, 8" 85 F |
| Replicates: | 3 | Seed/Acre: | 45,000 |
| Plot Size: | 6 rows X 870'-2100' | GPS Lat: | 33.723891 |
| Row Spacing: | 40" | GPS Long: | -102.713791 |
| Beds: | Yes | Elevation: | 3732' |
| Previous crop(s): | Cotton | Harvest Date: | 11/14/2025 |
| Soil type: | Medissa/Portales/Arch Fine Sandy Loam/Loam | | |
| Irrigation: | Pivot | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation ($W/m^2$) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 85.7 | 65.6 | 500.5 | 611.0 | 3.55 | 190780 | 7.00 | 2 | 0.0 |
| PHS to First Bloom | 88.4 | 66.8 | 509.5 | 625.0 | 4.62 | 189777 | 6.92 | 5 | 0.0 |
| First Bloom to Cutout | 91.4 | 66.0 | 513.0 | 588.0 | 0.89 | 164379 | 6.91 | 37 | 0.5 |
| Cutout to Defoliation | 83.3 | 56.9 | 604.5 | 609.0 | 3.07 | 267848 | 10.16 | 3 | 0.0 |
| Defoliation to Harvest | 74.1 | 38.5 | 17.0 | 27.0 | 0.01 | 78719 | 3.12 | 0 | |
| *Total* | | | *2144.5* | *2460.0* | *12.14* | *891503* | *34.11* | *47* | |

**PHS @ ≥500DD60s; first bloom @ ≥1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was ≥95F*

*NOTE: Light herbicide injury occurred to PHY332W3FE on a small section of the trial. Yield was measured from areas that were not affected.*

| Variety | Lint Yield *(lbs/A)* | Turnout *(%)* | Mic | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DP2525B3XF | 975 | 40.1 | 4.88 | **1.15** | **36.9** | **32.8** | 82.4 | **11, 11, 11** | **2.0** | **0.5795** | 565 | **688** | **605** |
| NG3434B3XF | **1021** | **40.9** | 4.85 | 1.12 | 35.9 | 28.0 | 80.7 | **11, 11, 11** | **2.0** | 0.5558 | **568** | 675 | 589 |
| FM765AX | 950 | 39.3 | 5.05 | 1.05 | 33.6 | 28.9 | 81.4 | 11, 21, 11 | 2.3 | 0.5007 | 476 | 603 | 535 |
| DP2335B3XF | 841 | 38.8 | **4.27** | 1.11 | 35.4 | 30.6 | 80.7 | **11, 11, 11** | **2.0** | 0.5637 | 474 | 605 | 527 |
| PHY332W3FE | 853 | 36.5 | 4.75 | 1.12 | 35.7 | 30.5 | 81.3 | **11, 11, 11** | 2.3 | 0.5642 | 481 | 608 | 523 |
| NG4522XF | 821 | 35.2 | 4.94 | 1.10 | 35.3 | 31.5 | **82.5** | 21, 11, 21 | 2.7 | 0.5493 | 451 | 591 | 518 |
| FM868AXTP | 878 | 39.3 | 4.74 | 1.07 | 34.2 | 29.5 | 80.6 | **11, 11, 11** | **2.0** | 0.5352 | 470 | 564 | 494 |
| *Mean* | *906* | *38.6* | *4.78* | *1.10* | *35.28* | *30.29* | *81.37* | | *2.19* | *0.5498* | *498* | *619* | *541* |
| *LSD* | *64* | *0.8* | *0.11* | *0.02* | *0.6* | *1.1* | *ns* | | *ns* | *0.0200* | *45* | *ns* | *ns* |
| *R-square* | *0.80* | *0.93* | *0.92* | *0.82* | *0.82* | *0.82* | *0.57* | | *0.41* | *0.82* | *0.78* | *0.69* | *0.66* |
| *CV (%)* | *6.5* | *1.9* | *1.9* | *1.8* | *1.8* | *3.1* | *1.1* | | *18.2* | *2.7* | *7.7* | *8.0* | *9.2* |
| *Prob>F, variety* | *0.0081* | *<0.0001* | *<0.0001* | *0.0008* | *0.0008* | *0.0007* | *0.0876* | | *0.3282* | *0.0008* | *0.0110* | *0.0849* | *0.1499* |
| | | | *Planting Seed Quality* | | | | | | | *Root-knot Nematodes** | | | |

| Variety | Plant Population *(#/A)* | % Stand Establishment | Seed/lb | Warm Germ *(%)* | Cool Germ *(%)* | Planting Seed Cost *($/A)* | Seed Yield *(lbs/A)* | Seed Turnout *(%)* | Seed Value *($/A)* | Plant Height (cm) | Root biomass (g) | Egg counts (Eggs/g root) | Juvenile counts (RK/500cc soil) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DP2525B3XF | 41565 | 92.4 | 5400 | 93 | 71 | 83.15 | 1091 | 44.6 | 123 | 21.3 | 8.3 | 221.8 | 1166.7 |
| NG3434B3XF | 39570 | 87.9 | 4938 | 93 | 75 | 86.09 | 948 | 38.2 | 107 | 21.0 | 9.1 | 43.2 | 520.3 |
| FM765AX | 39016 | 86.7 | 5201 | 94 | 60 | 67.50 | 1123 | 46.6 | 126 | 22.4 | **9.5** | 12.9 | 378.4 |
| DP2335B3XF | **41897** | **93.1** | 6450 | 98 | 82 | 78.26 | **1164** | **53.8** | 131 | 18.9 | 8.0 | 204.0 | 567.6 |
| PHY332W3FE | 39348 | 87.4 | 5543 | 92 | 62 | 85.11 | 1126 | 48.6 | 127 | 20.0 | 7.9 | 21.1 | **157.7** |
| NG4522XF | 41122 | 91.4 | 4160 | 92 | 74 | 73.37 | 1239 | 52.5 | **139** | **23.5** | 9.3 | 106.4 | 662.2 |
| FM868AXTP | 36799 | 81.8 | 4825 | 95 | 81 | 70.57 | 839 | 38.0 | 94 | 19.5 | 7.6 | **7.6** | **157.7** |
| *Mean* | *39902* | *88.7* | | | | | *1076* | *46* | *121* | *20.9* | *8.5* | *88.1* | *515.8* |
| *LSD* | *ns* | *ns* | | | | | *ns* | *ns* | *ns* | *ns* | *ns* | *ns* | *ns* |
| *R-square* | *0.21* | *0.22* | | | | | *0.46* | *0.52* | *0.46* | | | | |
| *CV (%)* | *11.2* | *11.2* | | | | | *17.7* | *16.4* | *17.7* | *9.2* | *15.5* | *117.6* | *98.5* |
| *Prob>F, variety* | *0.8148* | *0.8156* | | | | | *0.2466* | *0.1312* | *0.2466* | *0.1140* | *0.4520* | *0.8820* | *0.2810* |

*Planting seed costs from PCG Seed Cost Calculator; * NG4792XF cost substituted for NG4522XF*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts )*

TEXAS A&M AGRILIFE EXTENSION

R.A.C.E. Replicated Agronomic Cotton Evaluation

## *Table 5. Crosby County Dryland Mixed Technology RACE Summary - Mt. Blanco, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Jonathan James | Re-Planting Date: | 6/20/2025 |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Seed Treatments: | Various fungicide+insecticide |
| Location: | Mt. Blanco, TX (Crosby Co) | Moist. @ planting: | Fair-Good |
| Replicates: | 3 | Soil Temp @ planting: | Warm |
| Plot Size: | 12 rows x ~1/2 mi | Seed/Acre: | 25,000 |
| Row Spacing: | 40" | GPS Lat: | 33.786906 |
| Beds: | No | GPS Long: | -101.160051 |
| Previous crop(s): | Wheat fallow | Elevation: | 3050 |
| Soil type: | Pullman Silty Clay Loam | Harvest Date: | 11/12/2025 |
| Irrigation: | None | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation (W/m²) | Total ET (in) | # Hours>95 F | Avg Dev>95F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 88.8 | 69.1 | 511.5 | 586.0 | 1.95 | 162675 | 5.99 | 0 | |
| PHS to First Bloom | 94.7 | 71.2 | 510.0 | 520.0 | 0.58 | 152348 | 6.09 | 70 | 1.6 |
| First Bloom to Cutout | 91.1 | 67.6 | 532.5 | 584.0 | 2.93 | 155170 | 6.00 | 22 | 2.0 |
| Cutout to Defoliation | 84.0 | 59.1 | 543.0 | 498.0 | 1.05 | 222949 | 8.07 | 3 | 0.7 |
| Defoliation to Harvest | 71.6 | 42.7 | 27.5 | 51.0 | 0.14 | 76682 | 2.67 | 0 | |
| *Total* | | | *2124.5* | *2239.0* | *6.65* | *769824* | *28.82* | *95* | |

**PHS @ ≥ 500DD60s; first bloom @ ≥ 1000 DD60s; Cutout = first bloom +28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was ≥ 95F*

*2024 weather data from same site: 1724.5 5.64 220*

*Lint yield average from 2024 trial at this same site: 336 lbs/A*

| Variety | Lint Yield *(lbs/A)* | Turnout *(%)* | Mic | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PHY332W3FE | **987** | 35.7 | 4.15 | 1.15 | 36.9 | 31.3 | 82.6 | 21, 11, 12 | 2.3 | 0.5707 | **563** | **705** | **658** |
| FM765AX | 984 | 37.3 | 4.34 | 1.14 | 36.5 | 30.3 | 82.2 | 21, 21, 21 | 2.7 | 0.5673 | 559 | 691 | 653 |
| DP2123B3XF | 937 | 32.1 | 4.13 | 1.10 | 35.3 | 30.4 | 81.5 | 11, 21, 11 | 2.3 | 0.5575 | 521 | 678 | 639 |
| DP2239B3XF | 953 | **38.3** | **4.03** | **1.20** | **38.3** | 31.0 | 81.4 | **11, 11, 11** | **2.0** | **0.5803** | 553 | 683 | 638 |
| FM868AXTP | 907 | 35.8 | 4.11 | 1.14 | 36.6 | **32.3** | **82.9** | **11, 11, 11** | **2.0** | 0.5802 | 526 | 660 | 621 |
| PHY415W3FE | 914 | 33.9 | 4.37 | 1.15 | 36.8 | 32.0 | 82.3 | 21, 21, 11 | 3.0 | 0.5750 | 526 | 664 | 616 |
| *Mean* | *947* | *35.5* | *4.19* | *1.15* | *36.8* | *31.2* | *82.2* | | *2.4* | *0.5718* | *541* | *680* | *638* |
| *LSD* | *ns* | *ns* | *0.16* | *0.03* | *1.0* | *0.8* | *ns* | | *ns* | *ns* | *ns* | *ns* | *ns* |
| *R-square* | *0.47* | *0.66* | *0.75* | *0.69* | *0.69* | *0.80* | *0.45* | | *0.56* | *0.56* | *0.40* | *0.46* | *0.46* |
| *CV (%)* | *6.5* | *6.2* | *2.9* | *2.1* | *2.1* | *1.9* | *1.3* | | *18.2* | *1.9* | *6.7* | *5.6* | *5.9* |
| *Prob>F, variety* | *0.5124* | *0.0607* | *0.0391* | *0.0215* | *0.0215* | *0.0082* | *0.4992* | | *0.1107* | *0.1753* | *0.5658* | *0.7025* | *0.7011* |

| Variety | Plant Population *(#/A)* | % Stand Establishment | Seed/lb | Warm Germ *(%)* | Cool Germ *(%)* | Planting Seed Cost *($/A)* | Seed Yield *(lbs/A)* | Seed Turnout *(%)* | Seed Value *($/A)* |
|---|---|---|---|---|---|---|---|---|---|
| PHY332W3FE | 19675 | 78.7 | 5000 | 98 | 89 | 47.28 | 1264 | 45.4 | 142 |
| FM765AX | 20473 | 81.9 | 5201 | 94 | 60 | 37.50 | 1177 | 44.6 | 132 |
| DP2123B3XF | **22724** | **90.9** | 4915 | 97 | 85 | 38.59 | **1393** | **47.6** | **157** |
| DP2239B3XF | 20836 | 83.4 | 6250 | 94 | 88 | 44.57 | 1155 | 46.4 | 130 |
| FM868AXTP | 20909 | 83.7 | 4825 | 95 | 81 | 39.20 | 1187 | 46.9 | 133 |
| PHY415W3FE | 21490 | 86.0 | 4676 | 98 | 75 | 48.37 | 1232 | 45.7 | 139 |
| *Mean* | *21708* | *86.8* | | | | | *1235* | *46.1* | *139* |
| *LSD* | *ns* | *ns* | | | | | *51* | *1.3* | *6* |
| *R-square* | *0.54* | *0.54* | | | | | *0.92* | *0.65* | *0.92* |
| *CV (%)* | *6.2* | *6.2* | | | | | *3.2* | *2.1* | *3.2* |
| *Prob>F, variety* | *0.1842* | *0.1850* | | | | | *0.0002* | *0.0382* | *0.0002* |

*Planting seed costs from PCG Seed Cost Calculator.*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts )*

TEXAS A&M AGRILIFE EXTENSION

R.A.C.E. Replicated Agronomic Cotton Evaluation

# *Table 6. Crosby County Irrigated Mixed Technology RACE Summary - Cone, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Regan Ware | Planting Date: | 5/28/2025 |
| County Agent: | Caitlin Frederick, Ph.D. | Seed Treatments: | Various fungicide+insecticide |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Good |
| Location: | Cone, TX (Crosby Co) | Soil Temp @ planting: | 88F @2"; 83F @6" |
| Replicates: | 3 | Seed/Acre: | 40,000 |
| Plot Size: | 4 rows x ~1260' | GPS Lat: | 33.769436 |
| Row Spacing: | 40" | GPS Long: | -101.343612 |
| Beds: | Yes | Elevation: | 3109 |
| Previous crop(s): | Cotton | Harvest Date: | 11/18/2025 |
| Soil type: | Pullman Silty Clay Loam | | |
| Irrigation: | Drip (80"; ~4 gpma) | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation ($W/m^2$) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 87.6 | 66.0 | 500.5 | 519.0 | 3.37 | 184545 | 7.79 | 10 | 4.5 |
| PHS to First Bloom | 88.8 | 69.1 | 510.5 | 586.0 | 4.32 | 156527 | 5.95 | 14 | 1.3 |
| First Bloom to Cutout | 91.5 | 68.7 | 558.5 | 628.0 | 0.88 | 169551 | 6.33 | 21 | 4.8 |
| Cutout to Defoliation | 83.1 | 57.9 | 742.0 | 800.0 | 3.67 | 317448 | 11.15 | 6 | 1.3 |
| Defoliation to Harvest | 74.7 | 40.4 | 26.5 | 24.0 | 0 | 78925 | 2.81 | 0 | |
| *Total* | | | *2338.0* | *2557* | *12.24* | *906996* | *34.03* | *51* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

*Sorted by Net Return*

| Variety | Lint Yield *(lbs/A)* | Turnout *(%)* | Micronaire | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DP2525B3XF | 1491 | 39.6 | 3.96 | **1.21** | **38.9** | **35.0** | 82.4 | **11, 11, 21** | **2.0** | **0.5820** | **868** | **1059** | **985** |
| DP1822XF | 1410 | 33.1 | 3.85 | 1.18 | 37.8 | 33.9 | **82.9** | 21, 21, 21 | **2.0** | 0.5812 | 820 | 1048 | 983 |
| NG3434B3XF | **1505** | **40.2** | 4.09 | 1.20 | 38.4 | 29.6 | 82.6 | 21, 21, 21 | 3.0 | 0.5747 | 865 | 1052 | 976 |
| FM765AX | 1389 | 37.0 | 3.91 | 1.14 | 36.6 | 31.9 | 82.3 | 31, 21, 31 | 3.0 | 0.5730 | 796 | 981 | 921 |
| NG3457B3XF | 1320 | 37.8 | **4.15** | 1.13 | 36.0 | 29.9 | 81.9 | 11, 21, 21 | **2.0** | 0.5722 | 755 | 942 | 866 |
| FM814AXTP | 1334 | 37.9 | 3.89 | 1.14 | 36.5 | 29.8 | 81.3 | 21, 21, 21 | 2.7 | 0.5740 | 766 | 947 | 859 |
| *Mean* | *1408* | *37.6* | *3.97* | *1.17* | *37.4* | *31.7* | *82.2* | | *2.44* | *0.5762* | *812* | *1005* | *932* |
| *LSD* | *38* | *0.8* | *0.11* | *0.02* | *0.5* | *1.2* | *ns* | | *0.3* | *0.0035* | *22* | *29* | *29* |
| *R-square* | *0.92* | *0.96* | *0.83* | *0.93* | *0.93* | *0.90* | *0.40* | | *0.88* | *0.80* | *0.92* | *0.90* | *0.91* |
| *CV (%)* | *2.1* | *1.7* | *2.2* | *1.1* | *1.1* | *2.9* | *1.0* | | *9.6* | *0.5* | *2.1* | *2.3* | *2.4* |
| *Prob>F, variety* | *<0.0001* | *<0.0001* | *0.0108* | *<0.0001* | *<0.0001* | *0.0002* | *0.3571* | | *0.0003* | *0.0040* | *<0.0001* | *0.0001* | *<0.0001* |

| Variety | Plant Population *(#/A)* | % Stand Establishment | Seed/lb | Warm Germ *(%)* | Cool Germ *(%)* | Planting Seed Cost *($/A)* | Seed Yield *(lbs/A)* | Seed Turnout *(%)* | Seed Value *($/A)* |
|---|---|---|---|---|---|---|---|---|---|
| DP2525B3XF | 33977 | 87.1 | 5400 | 93 | 71 | 73.91 | 1699 | 45.1 | 191 |
| DP1822XF | **34630** | **88.8** | 4938 | 93 | 75 | 76.52 | 1663 | 44.5 | 187 |
| NG3434B3XF | 29693 | 76.1 | 4472 | 93 | 61 | 87.27 | 1614 | 45.8 | 182 |
| FM765AX | 32815 | 84.1 | 4700 | 93 | 79 | 65.22 | **2033** | 47.6 | **229** |
| NG3457B3XF | 28750 | 73.7 | 4922 | 93 | 73 | 76.52 | 1663 | **47.7** | 187 |
| FM814AXTP | 27588 | 70.7 | 5201 | 94 | 60 | 60.00 | 1650 | 44.0 | 186 |
| *Mean* | *29718* | *76.2* | | | | | *1720* | *45.8* | *194* |
| *LSD* | *ns* | *ns* | | | | | *74* | *0.5* | *8* |
| *R-square* | *0.59* | *0.59* | | | | | *0.92* | *0.96* | *0.92* |
| *CV (%)* | *9.7* | *9.7* | | | | | *3.3* | *0.9* | *3.3* |
| *Prob>F, variety* | *0.0768* | *0.0768* | | | | | *<0.0001* | *<0.0001* | *<0.0001* |

*Planting seed costs from PCG Seed Cost Calculator* ** FM823AXTP cost substituted for FM814AXTP*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts )*

## *Table 7. Dawson/Borden County Dryland Mixed Technology RACE Summary - Ackerly, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Justin Cave | Planting Date: | 6/11/2025 |
| County Agent: | Hannah Goebel | Seed Treatments: | Various fungicide+insecticide |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Good |
| Location: | Ackerly, TX (Dawson & Borden Co) | Soil Temp @ planting: | 2" - 80.8F: 6"-77.5F |
| Replicates: | 3 | Seed/Acre: | 23,500 |
| Plot Size: | 8 rows x ~2030 to 2590' | GPS Lat: | 32.5293802 |
| Row Spacing: | 40" | GPS Long: | -101.683956 |
| Beds: | Yes | Elevation: | 3094 |
| Previous crop(s): | Cotton | Harvest Date: | 11/7/2025 |
| Soil type: | Amarillo Fine Sandy Loam<br>Acuff Sandy Clay Loam | | |
| Irrigation: | None | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation ($W/m^2$) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 91.3 | 72.3 | 513.0 | 553.0 | 5.43 | 145133 | 6.89 | 40 | 1.82 |
| PHS to First Bloom | 92.3 | 71.6 | 497.5 | 540.0 | 0.48 | 155874 | 5.86 | 34 | 1.22 |
| First Bloom to Cutout | 95.3 | 70.6 | 619.0 | 659.0 | 0.15 | 173408 | 7.03 | 81 | 1.55 |
| Cutout to Defoliation | 87.6 | 65.0 | 811.5 | 729.0 | 0.55 | 255115 | 9.33 | 21 | 1.46 |
| Defoliation to Harvest | 78.3 | 51.3 | 145.0 | 102.0 | 0.25 | 105497 | 3.60 | 0 | |
| *Total* | | | *2586.0* | *2583.0* | *7.16* | *835027* | *32.71* | *176* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

*Sorted by Net Return*

| Variety | Lint Yield (lbs/A) | Turnout (%) | Mic | Length (in) | Staple (1/32 in) | Strength (g/tex) | Uniformity (%) | Color Grades | Leaf Grade | Loan Value ($/lb) | Lint Value ($/A) | Total Crop Value ($/A) | Net Return ($/A) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DP1646B2XF *(Grower std)* | 597 | **36.3** | 4.38 | **1.17** | 37.3 | 29.5 | **82.5** | 21, 21 | 2.5 | 0.5736 | **343** | **426** | **381** |
| FM765AX | **598** | 35.0 | 4.77 | 1.10 | 35.2 | 30.5 | 82.1 | 21, 21, 21 | 3.0 | 0.5610 | 335 | 416 | 380 |
| DP2335B3XF | 559 | 35.5 | 4.76 | 1.13 | 36.1 | 30.3 | 81.2 | **11, 21, 21** | **2.3** | 0.5712 | 320 | 398 | 357 |
| DP2239B3XF | 548 | 35.9 | 4.69 | **1.17** | **37.6** | 29.7 | 82.0 | 21, 21, 21 | **2.3** | **0.5745** | 315 | 389 | 348 |
| FM868AXTP | 514 | 34.4 | **4.82** | 1.12 | 35.9 | **31.2** | 82.4 | 22, 22, 22 | 3.0 | 0.5450 | 280 | 354 | 318 |
| *Mean* | *562* | *35.3* | *4.68* | *1.14* | *36.4* | *30.2* | *82.0* | | *2.6* | *0.5651* | *319* | *397* | *357* |
| *LSD* | *ns* | *ns* | *0.10* | *0.03* | *1.0* | *ns* | *ns* | | *ns* | *0.01* | *27* | *31* | *ns* |
| *R-square* | *0.75* | *0.59* | *0.92* | *0.83* | *0.83* | *0.71* | *0.73* | | *0.44* | *0.74* | *0.59* | *0.76* | *0.75* |
| *CV (%)* | *5.1* | *2.2* | *1.5* | *1.6* | *1.6* | *1.8* | *0.6* | | *19.1* | *19.1* | *5.7* | *5.5* | *6.1* |
| *Prob>F, variety* | *0.0503* | *0.1502* | *0.0008* | *0.0082* | *0.0082* | *0.0616* | *0.3910* | | *0.3482* | *0.0052* | *0.0353* | *0.0462* | *0.0539* |

*(DP1646B2XF not included on stand counts)* — *Planting Seed Quality*

| Variety | Plant Population (#/A) | % Stand Establishment | Seed/lb | Warm Germ (%) | Cool Germ (%) | Planting Seed Cost ($/A) | Seed Yield (lbs/A) | Seed Turnout (%) | Seed Value ($/A) |
|---|---|---|---|---|---|---|---|---|---|
| DP1646B2XF *(Grower std)* | *n/a* | *n/a* | *n/a* | *n/a* | *n/a* | 44.96 | **740** | **44.9** | **83** |
| FM765AX | 18949 | 80.6 | 5201 | 94 | 60 | 35.25 | 713 | 41.7 | 80 |
| DP2335B3XF | **21635** | **92.1** | 6450 | 98 | 82 | 40.87 | 696 | 44.1 | 78 |
| DP2239B3XF | 20473 | 87.1 | 6250 | 94 | 88 | 41.89 | 664 | 43.5 | 75 |
| FM868AXTP | 19384 | 82.5 | 4825 | 95 | 81 | 36.85 | 659 | 44.1 | 74 |
| *Mean* | *20497* | *87.2* | | | | | *693* | *43.6* | *78* |
| *LSD* | *ns* | *ns* | | | | | *ns* | *ns* | *ns* |
| *R-square* | *0.58* | *0.58* | | | | | *0.63* | *0.61* | *0.63* |
| *CV (%)* | *6.4* | *6.4* | | | | | *5.7* | *2.7* | *5.7* |
| *Prob>F, variety* | *0.1438* | *0.1456* | | | | | *0.2337* | *0.1202* | *0.2337* |

*Planting seed costs from PCG Seed Cost Calculator* *DP1646B2XF was included at the request of the grower/cooperator.*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts )*

TEXAS A&M AGRILIFE EXTENSION

R.A.C.E. Replicated Agronomic Cotton Evaluation

## *Table 8. Floyd County Irrigated Mixed Technology RACE Summary - Floydada, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Jon Jones | Planting Date: | 5/17/2025 |
| County Agent: | Mark Carroll | Seed Treatments: | Various |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Fair-Good |
| Location: | Floydada, TX (Floyd Co.) | Soil Temp @ planting: | 80F @2"; 69F @6" |
| Replicates: | 3 | Seed/Acre: | 40,000 |
| Plot Size: | 8 rows x 1250' | GPS Lat: | 33.934047 |
| Row Spacing: | 40" | GPS Long: | -101.255585 |
| Beds: | No | Elevation: | 3140 |
| Previous crop(s): | Cotton | Harvest Date: | 11/5/2025 |
| Soil type: | Pullman Clay Loam | | |
| Irrigation: | Drip (80"; 2.9 gpma if sorghum irri; 4.3 if only cotton) | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation (W/m$^2$) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 87.2 | 61.9 | 517.5 | 524.0 | 2.17 | 217925 | 8.91 | 14 | 2.4 |
| PHS to First Bloom | 88.2 | 68.3 | 492.0 | 586.0 | 2.78 | 150054 | 5.75 | 0 | 0 |
| First Bloom to Cutout | 93.3 | 68.9 | 576.0 | 623.0 | 0.76 | 169362 | 7.01 | 57 | 1.5 |
| Cutout to Defoliation | 85.7 | 60.5 | 797.0 | 823.0 | 1.46 | 294493 | 10.97 | 13 | 1.4 |
| Defoliation to Harvest | 74.5 | 44.1 | 51.5 | 60.0 | 0.15 | 73798 | 2.77 | 0 | 0 |
| *Total* | | | *2434.0* | *2616.0* | *7.32* | *905632* | *35.41* | *84* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

*Sorted by Net Return*

| Variety | Lint Yield (lbs/A) | Turnout (%) | Mic | Length (in) | Staple (1/32 in) | Strength (g/tex) | Uniformity (%) | Color Grades | Leaf Grade | Loan Value ($/lb) | Lint Value ($/A) | Total Crop Value ($/A) | Net Return ($/A) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NG3434B3XF | **2047** | 36.9 | 3.76 | 1.20 | 38.4 | 27.3 | 81.9 | 11, 21, 21 | 2.7 | 0.5743 | **1175** | **1439** | **1363** |
| DP1822XF | 1788 | 31.4 | 3.83 | **1.21** | **38.6** | **31.5** | 81.6 | 21, 11, 21 | **2.0** | **0.5812** | 1039 | 1333 | 1268 |
| DP2525B3XF | 1854 | 35.1 | 3.63 | 1.20 | 38.4 | 31.3 | 82.0 | **11, 11, 21** | 2.3 | 0.5777 | 1072 | 1327 | 1253 |
| FM765AX | 1772 | 34.2 | 3.73 | 1.18 | 37.7 | 29.6 | 81.6 | 21, 21, 21 | 2.3 | 0.5740 | 1018 | 1272 | 1212 |
| PHY332W3FE | 1595 | 31.0 | 3.97 | 1.14 | 36.6 | 28.8 | 80.2 | **21, 11, 11** | **2.0** | 0.5700 | 910 | 1180 | 1104 |
| PHY415W3FE | 1470 | 30.9 | **4.02** | 1.13 | 36.3 | 28.4 | 80.4 | 21, 21, 21 | 2.3 | 0.5680 | 835 | 1078 | 1001 |
| FM814AXTP | 1501 | 34.0 | 3.48 | 1.14 | 36.3 | 27.8 | 80.7 | 21, 21, 21 | **2.0** | 0.5567 | 834 | 1057 | 970 |
| NG4522XF | 1241 | 29.4 | 4.01 | 1.13 | 36.1 | 29.6 | **82.2** | 21, 21, 32 | 3.0 | 0.5532 | 686 | 920 | 855 |
| *Mean* | *1659* | *32.9* | *3.80* | *1.17* | *37.4* | *29.3* | *81.3* | | *2.3* | *0.5694* | *946* | *1201* | *1128* |
| *LSD* | *204* | *1.6* | *0.14* | *0.03* | *1.0* | *1.0* | *ns* | | *ns* | *ns* | *118* | *142* | *142* |
| *R-square* | *0.74* | *0.82* | *0.77* | *0.66* | *0.66* | *0.79* | *0.58* | | *0.52* | *0.48* | *0.76* | *0.73* | *0.73* |
| *CV (%)* | *11.5* | *4.5* | *3.4* | *2.5* | *2.5* | *3.3* | *1.1* | | *18.4* | *2.3* | *11.6* | *11.0* | *11.7* |
| *Prob>F, variety* | *0.0036* | *0.0002* | *0.0016* | *0.0143* | *0.0143* | *0.0007* | *0.0710* | | *0.1176* | *0.1806* | *0.0019* | *0.0046* | *0.0042* |

*Planting Seed Quality*

| Variety | Plant Population (#/A) | % Stand Establishment | Seed/lb | Warm Germ (%) | Cool Germ (%) | Planting Seed Cost ($/A) | Seed Yield (lbs/A) | Seed Turnout (%) | Seed Value ($/A) |
|---|---|---|---|---|---|---|---|---|---|
| NG3434B3XF | 23087 | 57.7 | 4938 | 93 | 75 | 76.52 | 2350 | 42.4 | 264 |
| DP1822XF | **28024** | **70.1** | 4700 | 93 | 79 | 65.22 | **2617** | 46.1 | **294** |
| DP2525B3XF | 21054 | 52.6 | 5400 | 93 | 71 | 73.91 | 2266 | 43.0 | 255 |
| FM765AX | 20110 | 50.3 | 5201 | 94 | 60 | 60.00 | 2263 | 43.7 | 255 |
| PHY332W3FE | 26717 | 66.8 | 5543 | 92 | 62 | 75.65 | 2399 | 46.6 | 270 |
| PHY415W3FE | 27080 | 67.7 | 4710 | 87 | 79 | 77.39 | 2158 | 45.2 | 243 |
| FM814AXTP | 18803 | 47.0 | 4472 | 93 | 61 | 87.27 | 1986 | 45.0 | 223 |
| NG4522XF | 20328 | 50.8 | 4160 | 92 | 74 | 65.22 | 2083 | **49.3** | 234 |
| *Mean* | *22349* | *55.9* | | | | | *2265* | *45.2* | *255* |
| *LSD* | *2279* | *5.7* | | | | | *ns* | *1.2* | *ns* |
| *R-square* | *0.84* | *0.84* | | | | | *0.56* | *0.86* | *0.86* |
| *CV (%)* | *9.2* | *9.2* | | | | | *9.6* | *2.5* | *2.5* |
| *Prob>F, variety* | *0.0003* | *0.0003* | | | | | *0.0721* | *<0.0001* | *<0.0001* |

*Planting seed costs from PCG Seed Cost Calculator; * FM823AXTP cost substituted for FM814AXTP; * NG4792XF cost substituted for NG4522XF*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts ).*

## *Table 9. Gaines County Irrigated Enlist Technology RACE Summary - Seminole, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Sawyer Jenkins | Planting Date: | 5/16/2025 |
| County Agents: | Terry Millican, Keegan McCollum | Seed Treatments: | TRiO |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Fair-Good |
| Location: | Seminole, TX (Gaines Co) | Soil Temp @ planting: | 72F @2"; 68F @6" |
| Replicates: | 3 | Seed/Acre: | 30,000 |
| Plot Size: | 8 rows x ~2640' | GPS Lat: | 32.809993 |
| Row Spacing: | 40" | GPS Long: | -102.797535 |
| Beds: | No | Elevation: | 3442 |
| Previous crop(s): | Wheat fallow, strip tilled | Harvest Date: | 11/17/2025 |
| Soil type: | Amarillo Loamy Fine Sand/Patricia Fine Sand | | |
| Irrigation: | ~~LEPA (1-2 gpma*~~ None | | |

**crop was irrigated to establish stand only; no in-season irrigation.*

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation ($W/m^2$) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 90.2 | 62.2 | 518.5 | 563 | 1.97 | 220761 | 9.28 | 55 | 0.60 |
| PHS to First Bloom | 88.3 | 68.5 | 496.5 | 618 | 1.89 | 156070 | 6.20 | 2 | 0.00 |
| First Bloom to Cutout | 95.3 | 67.7 | 579.0 | 659 | 0.7 | 183232 | 7.79 | 71 | 1.07 |
| Cutout to Defoliation | 86.4 | 59.7 | 1003.0 | 1079 | 3.32 | 381308 | 14.36 | 21 | 0.07 |
| Defoliation to Harvest | 76.6 | 38.4 | 27.0 | 36 | 0 | 83136 | 2.91 | 0 | |
| *Total* | | | *2624.0* | *2955* | *7.88* | *1024507* | *40.54* | *149* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

| Variety | Lint Yield (lbs/A) | Turnout *(%)* | Mic | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value ($/A) | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PHY400W3FE | **546** | **32.9** | **4.10** | 1.05 | 33.6 | 28.2 | 78.7 | **21, 21, 21** | **3.0** | 0.5203 | **284** | **363** | **305** |
| PHY415W3FE | 501 | 31.6 | 4.17 | **1.08** | **34.7** | 28.7 | **80.5** | **21, 21, 21** | **3.0** | **0.5468** | 274 | 338 | 280 |
| PHY332W3FE | 479 | 30.9 | 4.41 | 1.06 | 33.8 | 27.8 | 79.6 | **21, 21, 21** | **3.0** | 0.5298 | 254 | 321 | 264 |
| PHY411W3FE | 490 | 32.2 | 4.74 | 1.03 | 33.0 | **29.2** | 80.2 | **21, 21, 21** | **3.0** | 0.5163 | 253 | 316 | 258 |
| *Mean* | *504* | *31.9* | *4.36* | *1.06* | *33.8* | *28.5* | *79.74* | | *3.00* | *0.5283* | *266.23* | *334.34* | *276.63* |
| *LSD* | *39* | *ns* | *0.14* | *0.02* | *0.6* | *ns* | *ns* | | *ns* | *0.0180* | *ns* | *ns* | *ns* |
| *R-square* | *0.75* | *0.70* | *0.96* | *0.80* | *0.80* | *0.52* | *0.65* | | *non-est* | *0.76* | *0.75* | *0.66* | *0.66* |
| *CV (%)* | *4.5* | *2.1* | *1.8* | *1.3* | *1.3* | *3.7* | *1.0* | | *non-est* | *2.0* | *4.7* | *5.8* | *7.0* |
| *Prob>F, variety* | *0.0426* | *0.0562* | *0.0002* | *0.0178* | *0.0178* | *0.4333* | *0.1274* | | *non-est* | *0.0431* | *0.0567* | *0.0860* | *0.0901* |

| Variety | Plant Population *(#/A)* | % Stand Establishment | Seed/lb | Warm Germ *(%)* | Cool Germ *(%)* | Planting Seed Cost *($/A)* | Seed Value *($/A)* | Seed Yield (lbs/A) | Seed Turnout (%) |
|---|---|---|---|---|---|---|---|---|---|
| PHY400W3FE | 24176 | 80.6 | 5020 | 91 | 86 | 58.04 | 67 | 595 | 38.4 |
| PHY415W3FE | **24902** | **83.0** | 4676 | 98 | 75 | 58.04 | **79** | **700** | **42.1** |
| PHY332W3FE | 22070 | 73.6 | 5543 | 92 | 62 | 56.74 | 63 | 562 | 37.2 |
| PHY411W3FE | 16117 | 53.7 | 5578 | 91 | 67 | 58.04 | 64 | 565 | 35.6 |
| *Mean* | *21816* | *72.7* | | | | | *68* | *605* | *38.3* |
| *LSD* | *3257* | *10.9* | | | | | *ns* | *ns* | *ns* |
| *R-square* | *0.88* | *0.88* | | | | | *0.36* | *0.36* | *0.32* |
| *CV (%)* | *8.63* | *8.65* | | | | | *20.2* | *20.2* | *18.9* |
| *Prob>F, variety* | *0.0045* | *0.0046* | | | | | *0.0522* | *0.0522* | *0.7393* |

*Planting seed costs from PCG Seed Cost Calculator*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts )*

## *Table 10. Hale County Irrigated Mixed Technology RACE Summary - Plainview, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Bobby Byrd | Planting Date: | 5/31/2025 |
| County Agents: | Kristie Keys, Andy Hart | Seed Treatments: | Various fungicide+insecticide |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Poor-Fair |
| Location: | Plainview, TX (Hale Co.) | Soil Temp @ planting: | 74F |
| Replicates: | 3 | Seed/Acre: | 40,000 |
| Plot Size: | 8 rows x ~1/2 mi | GPS Lat: | 34.116892 |
| Row Spacing: | 30"/50" | GPS Long: | -101.788171 |
| Beds: | No | Elevation: | 3411 |
| Previous crop(s): | Cotton | Harvest Date: | 12/19/2025 |
| Soil type: | Pullman Clay Loam | | |
| Irrigation: | Drip (40"; 3 gpma) | | |

*Site damaged from hail in early June; grower managed as lower input after that point.*

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation (W/m$^2$) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 88.9 | 65.1 | 504.0 | 525 | 4.16 | 183628 | 7.65 | 21 | 2.72 |
| PHS to First Bloom | 88.3 | 66.9 | 509.0 | 582 | 5.62 | 182373 | 6.60 | 11 | 1.00 |
| First Bloom to Cutout | 91.3 | 66.2 | 517.5 | 593 | 0.64 | 168126 | 6.38 | 28 | 0.50 |
| Cutout to Defoliation | 80.2 | 51.7 | 620.5 | 695 | 2.87 | 378912 | 13.63 | 4 | 1.00 |
| Defoliation to Harvest | 57.4 | 31.1 | 0.0 | 0 | 0.32 | 55952 | 1.45 | 0 | |
| *Total* | | | *2151.0* | *2395* | *13.61* | *968991* | *35.71* | *64* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

*Sorted by Net Return*

| Variety | Lint Yield *(lbs/A)* | Turnout *(%)* | Mic | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DP1822XF | 663 | 27.3 | 3.31 | 1.12 | 35.8 | 31.1 | 80.5 | 34, 33, 33 | **2.0** | **0.4330** | **288** | **389** | **323** |
| FM765AX | 676 | 30.3 | 3.19 | 1.11 | 35.5 | 30.5 | 81.0 | 34, 33, 34 | 2.7 | 0.4172 | 284 | 371 | 311 |
| NG3434B3XF | **720** | **36.1** | 3.06 | 1.14 | 36.3 | 28.1 | 79.9 | 35, 34, 34 | 2.3 | 0.3883 | 282 | 370 | 293 |
| NG3576XF | 640 | 30.3 | **3.36** | 1.17 | 37.4 | 30.2 | **81.7** | 34, 34, 34 | 3.3 | 0.4265 | 274 | 357 | 291 |
| DP2525B3XF | 651 | 31.6 | 2.95 | **1.18** | **37.9** | **34.0** | 81.2 | 34, 34, 34 | **2.0** | 0.4002 | 260 | 345 | 271 |
| FM823AXTP | 585 | 29.5 | 3.11 | 1.12 | 35.7 | 30.9 | 80.3 | 24, 34, 34 | **2.0** | 0.3872 | 229 | 312 | 225 |
| *Mean* | *656* | *30.9* | *3.16* | *1.14* | *36.4* | *30.8* | *80.8* | | *2.4* | *0.4087* | *270* | *357* | *286* |
| *LSD* | *ns* | *3.0* | *ns* | *0.03* | *1.1* | *1.1* | *ns* | | *0.6* | *ns* | *ns* | *ns* | *ns* |
| *R-square* | *0.63* | *0.72* | *0.59* | *0.69* | *0.69* | *0.88* | *0.62* | | *0.70* | *0.67* | *0.65* | *0.65* | *0.70* |
| *CV (%)* | *8.4* | *7.5* | *7.8* | *2.4* | *2.4* | *2.8* | *1.2* | | *18.2* | *7.8* | *14.0* | *12.3* | *15.4* |
| *Prob>F, variety* | *0.1716* | *0.0160* | *0.3836* | *0.0315* | *0.0315* | *0.0006* | *0.2746* | | *0.0204* | *0.3950* | *0.4526* | *0.4223* | *0.1853* |

| | | | *Planting Seed Quality* | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Variety | Plant Population *(#/A)* | % Stand Establishment | Seed/lb | Warm Germ *(%)* | Cool Germ *(%)* | Planting Seed Cost *($/A)* | Seed Yield *(lbs/A)* | Seed Turnout *(%)* | Seed Value *($/A)* |
| DP1822XF | **26281** | **65.7** | 4700 | 93 | 79 | 61.96 | **979** | 40.2 | **100** |
| FM765AX | 20183 | 50.5 | 5201 | 94 | 60 | 57.00 | 846 | 38.0 | 87 |
| NG3434B3XF | 22942 | 57.4 | 4938 | 93 | 75 | 72.70 | 855 | **42.9** | 88 |
| NG3576XF | 23450 | 58.6 | 4994 | 95 | 85 | 61.96 | 810 | 38.2 | 83 |
| DP2525B3XF | 24394 | 61.0 | 5400 | 93 | 71 | 70.22 | 825 | 40.1 | 85 |
| FM823AXTP | 24394 | 61.0 | | | | 82.91 | 809 | 40.7 | 83 |
| *Mean* | *23607* | *59.0* | | | | | *854* | *40* | *88* |
| *LSD* | *ns* | *ns* | | | | | *ns* | *ns* | *ns* |
| *R-square* | *0.89* | *0.89* | | | | | *0.64* | *0.40* | *0.64* |
| *CV (%)* | *9.8* | *9.8* | | | | | *9.3* | *8.7* | *9.3* |
| *Prob>F, variety* | *0.1216* | *0.1216* | | | | | *0.1713* | *0.5685* | *0.1713* |

*Planting seed costs from PCG Seed Cost Calculator*

** NG3576XF cost substituted for NG 4792 XF*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts )*

TEXAS A&M AGRILIFE EXTENSION

R.A.C.E. Replicated Agronomic Cotton Evaluation

# *Table 11. Hale County Irrigated Mixed Technology RACE Summary - Hale Center, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Tyson Knight | Planting Date: | 5/19/2025 |
| County Agents: | Kristie Keys, Andy Hart | Seed Treatments: | Various fungicide+insecticide |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Fair-Good |
| Location: | Hale Center, TX (Hale Co.) | Soil Temp @ planting: | 74F @2"; 71F @6" |
| Replicates: | 3 | Seed/Acre: | 40,000 |
| Plot Size: | 8 rows x ~1/2 mi | GPS Lat: | 33.968462 |
| Row Spacing: | 40" | GPS Long: | -101.817979 |
| Beds: | No | Elevation: | 3371 |
| Previous crop(s): | Cotton/light wheat cover | Harvest Date: | 11/13/2025 |
| Soil type: | Pullman Clay Loam | | |
| Irrigation: | Drip (80"; 3 gpma) | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation (W/m²) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 88.0 | 62.2 | 504.5 | 504.0 | 1.43 | 220327 | 8.50 | 32 | 1.44 |
| PHS to First Bloom | 87.9 | 67.4 | 493.5 | 605.0 | 0.00 | 164370 | 5.86 | 2 | 0 |
| First Bloom to Cutout | 92.7 | 67.2 | 547.0 | 609.0 | 0.34 | 178528 | 6.78 | 42 | 1.82 |
| Cutout to Defoliation | 85.5 | 58.4 | 791.5 | 790.0 | 2.79 | 312687 | 10.74 | 12 | 1.29 |
| Defoliation to Harvest | 74.3 | 39.3 | 16.5 | 48.0 | 0.07 | 79760 | 2.55 | 0 | |
| *Total* | | | *2353.0* | *2556.0* | *4.63* | *955672* | *34.43* | *88* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

*NOTE: Site was damaged by hail on June 5 which caused crop injury and thinned stands of emerged seedlings; however, the associated precipitation also facilitated the emergence of the remainder of the seedlings.*

| Variety | Lint Yield (lbs/A) | Turnout (%) | Mic | Length (in) | Staple (1/32 in) | Strength (g/tex) | Uniformity (%) | Color Grades | Leaf Grade | Loan Value ($/lb) | Lint Value ($/A) | Total Crop Value ($/A) | Net Return ($/A) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DP2525B3XF | **1813** | 38.6 | 4.17 | **1.24** | **39.6** | **33.3** | 82.8 | **11, 11, 11** | 2.0 | **0.5817** | **1054** | **1283** | **1212** |
| DP1822XF | 1674 | 33.8 | **4.41** | 1.18 | 37.9 | 31.4 | 82.1 | 21, 11, 21 | **1.7** | 0.5797 | 970 | 1221 | 1159 |
| NG3434B3XF | 1754 | **39.3** | 4.25 | 1.21 | 38.8 | 28.4 | 82.1 | 21, 11, 21 | 2.0 | 0.5768 | 1012 | 1224 | 1151 |
| NG3576XF | 1647 | 34.9 | 4.23 | 1.22 | 39.0 | 30.5 | **83.7** | **11, 11, 11** | 3.0 | 0.5760 | 948 | 1172 | 1110 |
| FM765AX | 1649 | 35.5 | 3.89 | 1.17 | 37.4 | 30.8 | 82.0 | 21, 21, 21 | 2.3 | 0.5777 | 952 | 1165 | 1108 |
| PHY332W3FE | 1493 | 33.4 | 4.20 | 1.15 | 36.9 | 29.0 | 80.3 | 11, 11, 21 | 2.3 | 0.5728 | 855 | 1078 | 1006 |
| PHY400W3FE | 1498 | 34.5 | 4.10 | 1.11 | 35.5 | 28.6 | 79.3 | 21, 21, 11 | 2.7 | 0.5557 | 833 | 1044 | 971 |
| FM868AXTP | 1410 | 34.2 | 3.67 | 1.10 | 35.3 | 29.8 | 80.4 | 11, 21, 11 | 2.0 | 0.5588 | 788 | 1012 | 953 |
| *Mean* | *1617* | *35.5* | *4.12* | *1.17* | *37.4* | *30.2* | *81.6* | | *2.2* | *0.5724* | *927* | *1150* | *1084* |
| *LSD* | *42* | *0.5* | *0.20* | *0.03* | *1.0* | *1.0* | *1.2* | | *0.4* | *ns* | *32* | *34* | *34* |
| *R-square* | *0.95* | *0.97* | *0.72* | *0.82* | *0.82* | *0.82* | *0.72* | | *0.74* | *0.58* | *0.94* | *0.94* | *0.94* |
| *CV (%)* | *2.4* | *1.4* | *4.6* | *2.4* | *2.4* | *3.1* | *1.4* | | *15.3* | *1.8* | *3.2* | *2.7* | *2.9* |
| *Prob>F, variety* | *<0.0001* | *<0.0001* | *0.0086* | *0.0003* | *0.0003* | *0.0002* | *0.0047* | | *0.0074* | *0.0646* | *<0.0001* | *<0.0001* | *<0.0001* |

*Sorted by Net Return*

| | | | *Planting Seed Quality* | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Variety | Plant Population (#/A) | % Stand Establishment | Seed/lb | Warm Germ (%) | Cool Germ (%) | Planting Seed Cost ($/A) | Seed Yield (lbs/A) | Seed Turnout (%) | Seed Value ($/A) |
| DP2525B3XF | 27733 | 69.3 | 5400 | 93 | 71 | 70.22 | 2029 | 43.2 | 228 |
| DP1822XF | 24829 | 62.1 | 4700 | 93 | 79 | 61.96 | **2230** | 45.0 | **251** |
| NG3434B3XF | 25628 | 64.1 | 4938 | 93 | 75 | 72.70 | 1883 | 42.2 | 212 |
| NG3576XF | 23740 | 59.4 | 4994 | 95 | 85 | 61.96 | 1988 | 42.2 | 224 |
| FM765AX | **27951** | **69.9** | 5201 | 94 | 60 | 57.00 | 1888 | 40.7 | 212 |
| PHY332W3FE | 23232 | 58.1 | 5543 | 92 | 62 | 71.87 | 1977 | 44.3 | 222 |
| PHY400W3FE | 24829 | 62.1 | 5020 | 91 | 86 | 73.52 | 1877 | 43.2 | 211 |
| FM868AXTP | 26281 | 65.7 | 4825 | 95 | 81 | 59.59 | 1993 | **48.2** | 224 |
| *Mean* | *24742* | *61.9* | | | | | *1983* | *43.6* | *223* |
| *LSD* | *ns* | *ns* | | | | | *111* | *2.3* | *12* |
| *R-square* | *0.57* | *0.57* | | | | | *0.70* | *0.62* | *0.70* |
| *CV (%)* | *8.8* | *8.8* | | | | | *5.2* | *5.0* | *5.2* |
| *Prob>F, variety* | *0.1762* | *0.1762* | | | | | *0.0167* | *0.0278* | *0.0167* |

*Planting seed costs from PCG Seed Cost Calculator; * NG4792XF cost substituted for NG3576XF*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts ).*

## *Table 12. Hartley County Irrigated Enlist Technology RACE Summary - Hartley, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Bill Graff | Planting Date: | 5/15/2025 |
| County Agent: | Dennis Coker, Ph.D. | Seed Treatments: | TRiO |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Good |
| Location: | Hartley, TX (Hartley Co) | Soil Temp @ planting: | 70 F |
| Replicates: | 3 | Seed/Acre: | 65,000 |
| Plot Size: | 8 rows x ~1/2 mi | GPS Lat: | 35.936172 |
| Row Spacing: | 30" | GPS Long: | -102.376484 |
| Beds: | No | Elevation: | 3922 |
| Previous crop(s): | Corn (2023 & 2024) | Harvest Date: | 11/6/2025 |
| Soil type: | Dumas/Gruver Loam | | |
| Irrigation: | Pivot (5 gpma) | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation (W/m$^2$) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 83.2 | 58.3 | 504.5 | 670 | 3.74 | 286906 | 10.95 | 13 | 1.57 |
| PHS to First Bloom | 87.3 | 64.7 | 496.5 | 681 | 2.85 | 195413 | 6.76 | 0 | |
| First Bloom to Cutout | 88.7 | 63.7 | 441.0 | 601 | 2.94 | 153950 | 5.33 | 29 | 2.61 |
| Cutout to Defoliation | 81.4 | 56.0 | 430.0 | 594 | 2.88 | 209915 | 7.01 | 0 | |
| Defoliation to Harvest | 69.0 | 38.7 | 3.5 | 71 | 0.04 | 70925 | 2.20 | 0 | |
| *Total* | | | *1875.5* | *2617* | *12.45* | *917109* | *32.25* | *42* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

*Sorted by Net Return*

| Variety | Lint Yield *(lbs/A)* | Turnout *(%)* | Mic | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PHY400W3FE | **1617** | 29.9 | 3.53 | 1.19 | 38.2 | **34.0** | 82.6 | **21, 11, 11** | **4.0** | 0.5407 | **874** | **1160** | **1035** |
| PHY205W3FE | 1520 | **30.1** | **3.98** | 1.17 | 37.3 | 33.2 | 82.9 | 21, 21, 21 | 3.3 | 0.5543 | 842 | 1096 | 974 |
| PHY415W3FE | 1522 | 29.9 | 3.76 | **1.23** | **39.5** | 32.8 | **83.3** | 21, 21, 21 | **4.0** | 0.5433 | 826 | 1092 | 966 |
| PHY411W3FE | 1406 | 29.6 | 3.75 | 1.14 | 36.5 | 33.5 | 82.6 | **21, 11, 11** | 3.7 | **0.5620** | 790 | 1021 | 895 |
| *Mean* | *1516* | *29.9* | *3.76* | *1.18* | *37.9* | *33.4* | *82.9* | | *3.8* | *0.5501* | *833* | *1092* | *968* |
| *LSD* | *92* | *ns* | *ns* | *0.03* | *1.0* | *ns* | *ns* | | *ns* | *ns* | *ns* | *ns* | *ns* |
| *R-square* | *0.80* | *0.34* | *0.55* | *0.90* | *0.90* | *0.30* | *0.23* | | *0.33* | *0.18* | *0.47* | *0.71* | *0.71* |
| *CV (%)* | *3.5* | *1.8* | *7.8* | *1.5* | *1.5* | *4.6* | *1.1* | | *18.3* | *5.8* | *6.2* | *4.2* | *4.7* |
| *Prob>F, variety* | *0.0169* | *0.7106* | *0.3890* | *0.0032* | *0.0032* | *0.7983* | *0.7817* | | *0.6128* | *0.8317* | *0.3368* | *0.0530* | *0.0526* |

*Planting Seed Quality*

| Variety | Plant Population *(#/A)* | % Stand Establishment | Seed/lb | Warm Germ *(%)* | Cool Germ *(%)* | Seed Yield *(lbs/A)* | Seed Turnout *(%)* | Seed Value *($/A)* | Planting Seed Cost *($/A)* |
|---|---|---|---|---|---|---|---|---|---|
| PHY400W3FE | 46464 | 71 | 5020 | 91 | 86 | **2543** | **47.2** | **261** | 125.76 |
| PHY415W3FE | **46851** | **72** | 4676 | 98 | 75 | 2363 | 46.5 | 242 | 125.76 |
| PHY205W3FE | 46367 | 71 | 4285 | 92 | 87 | 2252 | 44.7 | 231 | 121.52 |
| PHY411W3FE | 39204 | 60 | 5578 | 91 | 67 | 2050 | 43.2 | 210 | 125.76 |
| *Mean* | *44722* | *69* | | | | *2302* | *45.4* | *236* | |
| *LSD* | *2834* | *4* | | | | *240* | *ns* | *25* | |
| *R-square* | *0.89* | *0.89* | | | | *0.77* | *0.45* | *0.77* | |
| *CV (%)* | *3.7* | *3.7* | | | | *6.0* | *6.5* | *6.0* | |
| *Prob>F, variety* | *0.0033* | *0.0033* | | | | *0.0246* | *0.4059* | *0.0246* | |

*Planting seed costs from PCG Seed Cost Calculator*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost. Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts ).*

## *Table 13. Hockley County Irrigated Mixed Technology RACE Summary - Levelland, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Scott Fred | Planting Date: | 5/16/2025 |
| County Agent: | Wes Utley | Seed Treatments: | Various fungicide+insecticide |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Fair |
| Location: | Levelland, TX (Hockley Co) | Soil Temp @ planting: | 81F @2"; 75F @6" |
| Replicates: | 3 | Seed/Acre: | 38,000 |
| Plot Size: | 10 rows x ~2673' | GPS Lat: | 33.661873 |
| Row Spacing: | 40" | GPS Long: | -102.366678 |
| Beds: | No | Elevation: | 3545 |
| Previous crop(s): | Cotton | Harvest Date: | 11/14, 16 & 18/25 |
| Soil type: | Amarillo Fine Sandy Loam | | |
| Irrigation: | Drip (80"; 2 gpma) | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation ($W/m^2$) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 88.8 | 61.7 | 505.0 | 524 | 3.08 | 220319 | 8.94 | 43 | 1.69 |
| PHS to First Bloom | 87.8 | 68.2 | 503.5 | 601 | 4.15 | 173634 | 6.59 | 5 | 0.34 |
| First Bloom to Cutout | 92.9 | 69.0 | 574.5 | 609 | 1.05 | 186077 | 7.60 | 50 | 1.48 |
| Cutout to Defoliation | 83.7 | 58.9 | 872.5 | 873 | 4.21 | 374433 | 12.98 | 11 | 0.97 |
| Defoliation to Harvest | 76.1 | 39.8 | 32.0 | 19 | 0 | 82588 | 2.73 | 0 | |
| *Total* | | | *2487.5* | *2626* | *12.49* | *1037051* | *38.84* | *109* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

*Site had significant hail on June 5; however, very little emergence had occurred at that point, and the precipitation from that storm faciliated the emergence of the majority of the stands.*

| Variety | Lint Yield *(lbs/A)* | Turnout *(%)* | Mic | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FM765AX | **1633** | 34.4 | 4.11 | 1.15 | 36.8 | 29.6 | 82.0 | 21, 11, 11 | 2.7 | 0.5712 | **933** | **1165** | **1108** |
| DP2525B3XF | 1598 | **36.9** | 3.91 | **1.25** | **40.0** | **33.2** | 82.1 | **11, 11, 11** | **2.0** | **0.5815** | 929 | 1150 | 1084 |
| PHY332W3FE | 1588 | 30.9 | **4.37** | 1.13 | 36.1 | 28.7 | 80.6 | **11, 11, 11** | **2.0** | 0.5652 | 898 | 1155 | 1083 |
| FM868AXTP | 1486 | 30.6 | 3.63 | 1.15 | 36.8 | 31.5 | 81.9 | **11, 11, 11** | 2.3 | 0.5753 | 855 | 1094 | 1034 |
| Armor9413XF | 1514 | 35.1 | 4.09 | 1.13 | 36.1 | 28.8 | 81.5 | **11, 11, 11** | **2.0** | 0.5683 | 861 | 1076 | 1018 |
| Armor9371B3XF | 1477 | 35.3 | 4.18 | 1.13 | 36.2 | 28.2 | 82.0 | **11, 11, 11** | **2.0** | 0.5680 | 839 | 1056 | 983 |
| DP2335B3XF | 1514 | 33.8 | 3.58 | 1.20 | 38.3 | 30.7 | 80.1 | **11, 11, 11** | 2.7 | 0.5517 | 832 | 1051 | 981 |
| PHY415W3FE | 1394 | 30.4 | 4.36 | 1.16 | 37.1 | 30.1 | **82.4** | 21, 21, 21 | 2.3 | 0.5762 | 803 | 1017 | 944 |
| *Mean* | *1526* | *33.4* | *4.03* | *1.16* | *37.2* | *30.1* | *81.6* | | *2.3* | *0.5697* | *869* | *1095* | *1029* |
| *LSD* | *ns* | *1.3* | *0.22* | *0.03* | *1.0* | *0.8* | *0.5* | | *ns* | *ns* | *ns* | *ns* | *ns* |
| *R-square* | *0.67* | *0.87* | *0.82* | *0.78* | *0.78* | *0.88* | *0.81* | | *0.63* | *0.46* | *0.76* | *0.75* | *0.76* |
| *CV (%)* | *7.3* | *3.6* | *5.01* | *2.36* | *2.36* | *2.52* | *0.61* | | *15.33* | *2.39* | *6.24* | *6.26* | *6.66* |
| *Prob>F, variety* | *0.2637* | *<0.0001* | *0.0013* | *0.0012* | *0.0012* | *<0.0001* | *0.0005* | | *0.0991* | *0.3153* | *0.0933* | *0.1358* | *0.1002* |

*Planting Seed Quality*

| Variety | Plant Population *(#/A)* | % Stand Establishment | Seed/lb | Warm Germ *(%)* | Cool Germ *(%)* | Planting Seed Cost *($/A)* | Seed Yield *(lbs/A)* | Seed Turnout *(%)* | Seed Value *($/A)* |
|---|---|---|---|---|---|---|---|---|---|
| FM765AX | 23595 | 62.1 | 5201 | 94 | 60 | 57.00 | 2062 | 43.4 | 232 |
| DP2525B3XF | **26644** | **70.1** | 5400 | 93 | 71 | 70.22 | 1961 | 45.2 | 221 |
| PHY332W3FE | 25555 | 67.3 | 5000 | 98 | 89 | 71.87 | **2289** | 44.4 | **257** |
| FM868AXTP | 21853 | 57.5 | 4825 | 95 | 81 | 59.59 | 2125 | 43.8 | 239 |
| Armor9413XF | 25410 | 66.9 | 4475 | 94 | 84 | 57.83 | 1911 | 44.2 | 215 |
| Armor9371B3XF | 19166 | 50.4 | 5200 | 93 | 77 | 72.70 | 1921 | **45.9** | 216 |
| DP2335B3XF | 25483 | 67.1 | 6450 | 98 | 82 | 66.09 | 1950 | 43.6 | 219 |
| PHY415W3FE | 25410 | 66.9 | 4676 | 98 | 75 | 73.52 | 1903 | 41.5 | 214 |
| *Mean* | *25410* | *66.9* | | | | | *2015* | *44.0* | *227* |
| *LSD* | *2421* | *6.4* | | | | | *ns* | *ns* | *ns* |
| *R-square* | *0.69* | *0.69* | | | | | *0.76* | *0.56* | *0.76* |
| *CV (%)* | *9.4* | *9.4* | | | | | *7.2* | *4.2* | *7.2* |
| *Prob>F, variety* | *0.0185* | *0.0185* | | | | | *0.0615* | *0.2482* | *0.0615* |

*Planting seed costs from PCG Seed Cost Calculator*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts ).*

TEXAS A&M AGRILIFE EXTENSION

R.A.C.E. Replicated Agronomic Cotton Evaluation

# *Table 14. Hutchinson County Irrigated Liberty Link Technology RACE Summary - Pringle, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Craig McCloy | Planting Date: | 5/14/2025 |
| County Agents: | Kristy Slough | Seed Treatments: | Various fungicide+insecticide |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Good |
| Location: | Pringle, TX (Hutchinson Co.) | Soil Temp @ planting: | 77F @2"; 72F @6" |
| Replicates: | 3 | Seed/Acre: | 60,000 |
| Plot Size: | 4 rows x ~1/2 mi | GPS Lat: | 35.946044 |
| Row Spacing: | 40" | GPS Long: | -101.405708 |
| Beds: | No | Elevation: | 3328 |
| Previous crop(s): | Corn for grain, strip tilled | Harvest Date: | 11/14/2025 |
| Soil type: | Sherm Clay Loam | *Slight to moderate injury from off-site 2,4-D; see damage ratings below* | |
| Irrigation: | Pivot (2.7 gpma) | *recorded near pinhead square and early bloom stages.* | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation (W/m²) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 83.7 | 59.8 | 504.5 | 595.0 | 5.27 | 275515 | 10.46 | 14 | 0.06 |
| PHS to First Bloom | 89.2 | 66.4 | 496.0 | 570.0 | 2.75 | 182678 | 6.85 | 13 | 0.31 |
| First Bloom to Cutout | 91.1 | 67.0 | 523.0 | 588.0 | 1.80 | 181435 | 6.89 | 30 | 0.35 |
| Cutout to Defoliation | 81.8 | 57.2 | 638.5 | 780.0 | 3.24 | 298527 | 10.92 | 0 | 0 |
| Defoliation to Harvest | 66.6 | 38.5 | 6.0 | 27.0 | 0.00 | 71153 | 2.27 | 0 | 0 |
| *Total* | | | *2168.0* | *2560.0* | *13.06* | *1009308* | *38.84* | *57* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

| Variety | Lint Yield (lbs/A) | Turnout (%) | Mic | Length (in) | Staple (1/32 in) | Strength (g/tex) | Uniformity (%) | Color Grades | Leaf Grade | Loan Value ($/lb) | Lint Value ($/A) | Total Crop Value ($/A) | Net Return ($/A) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DP1822XF | 1526 | 31.1 | 2.92 | 1.23 | 39.5 | 34.3 | 82.8 | 11, 21, 21 | 3.0 | 0.4992 | 761 | **1010** | **912** |
| FM765AX | **1591** | 34.9 | **3.05** | 1.16 | 37.1 | 33.3 | 82.5 | 21, 21, 21 | 3.3 | 0.4997 | 795 | 990 | 900 |
| DP2525B3XF | 1561 | **36.4** | 3.03 | **1.25** | **40.1** | **35.5** | **82.5** | **11, 11, 11** | **2.0** | **0.5112** | **798** | 1007 | 897 |
| PHY137W3E1 | 1448 | 30.6 | 3.04 | 1.18 | 37.8 | 33.3 | 82.7 | 21, 21, 21 | 3.3 | 0.5052 | 731 | 969 | 879 |
| PHY136W3E1 | 1490 | 32.3 | 2.75 | 1.15 | 36.8 | 32.1 | 80.6 | 21, 21, 11 | 2.7 | 0.4737 | 705 | 935 | 845 |
| NG3434B3XF | 1413 | 36.0 | 2.96 | 1.19 | 38.2 | 30.0 | 81.6 | 21, 21, 21 | 3.0 | 0.5035 | 712 | 890 | 775 |
| NG3576XF | 1262 | 34.3 | 3.03 | 1.23 | 39.3 | 31.7 | 82.7 | 21, 11, 11 | 3.7 | 0.4983 | 629 | 809 | 711 |
| FM757AXTP | 1069 | 32.5 | 2.59 | 1.17 | 37.6 | 30.1 | 79.6 | 21, 21, 11 | 3.0 | 0.4505 | 482 | 640 | 510 |
| *Mean* | *1420* | *33.5* | *2.92* | *1.20* | *38.3* | *32.5* | *81.9* | | *3.0* | *0.4926* | *702* | *906* | *804* |
| *LSD* | *50* | *0.8* | *ns* | *0.02* | *0.6* | *0.8* | *0.8* | | *0.5* | *ns* | *40* | *49* | *49* |
| *R-square* | *0.96* | *0.92875* | *0.502903* | *0.90* | *0.90* | *0.93* | *0.81* | | *0.70* | *0.51* | *0.92* | *0.92* | *0.93* |
| *CV (%)* | *3.3* | *2.2* | *7.4* | *1.3* | *1.3* | *2.2* | *0.9* | | *13.8* | *5.5* | *5.3* | *5.0* | *5.7* |
| *Prob>F, variety* | *<0.0001* | *<0.0001* | *0.1580* | *<0.0001* | *<0.0001* | *<0.0001* | *0.0009* | | *0.0088* | *0.1891* | *<0.0001* | *<0.0001* | *<0.0001* |

| | | | *7/2/2025* | *7/24/2025* | *Planting Seed Quality* | | | | | | | *Verticillium wilt symptom severity** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variety** | **Plant Population** *(#/A)* | **% Stand Establishment** | **Herbicide Damage Rating** *(1 = no damage; 5 = very severe damage)* | **Herbicide Damage Rating** *(1 = no damage; 5 = very severe damage)* | **Seed/lb** | **Warm Germ** *(%)* | **Cool Germ** *(%)* | **Seed Yield** *(lbs/A)* | **Seed Turnout** *(%)* | **Seed Value** *($/A)* | **Planting Seed Cost** *($/A)* | **27-Aug** | **21-Sep** | **1-Oct** |
| DP1822XF | 43850 | 73.1 | 3.4 | 3.1 | 4700 | 93 | 79 | **2211** | **45.1** | **249** | 97.83 | 5.0 | 12.9 | 65.8 |
| FM765AX | 43705 | 72.8 | 1.8 | 1.5 | 5201 | 94 | 60 | 1739 | 38.2 | 196 | 90.00 | 6.4 | 21.7 | 75.8 |
| DP2525B3XF | **45593** | **76.0** | 2.8 | 2.3 | 5400 | 93 | 71 | 1861 | 43.4 | 209 | 110.87 | 4.0 | 12.7 | **56.0** |
| PHY137W3E1 | 44068 | 73.4 | **1.0** | **1.0** | 4841 | 94 | 88 | 2111 | 44.7 | 237 | 90.00 | **3.9** | **9.3** | 75.4 |
| PHY136W3E1 | 45230 | 75.4 | **1.0** | **1.0** | 5161 | 93 | 88 | 2037 | 44.2 | 229 | 90.00 | 4.5 | 15.1 | 77.3 |
| NG3434B3XF | 40366 | 67.3 | 2.9 | 1.9 | 4938 | 93 | 75 | 1583 | 40.4 | 178 | 114.78 | 4.8 | 23.3 | 77.6 |
| NG3576XF | 38768 | 64.6 | 2.8 | 2.2 | 4994 | 95 | 85 | 1598 | 43.5 | 180 | 97.83 | 5.1 | 29.2 | 75.0 |
| FM757AXTP | 29403 | 49.0 | 2.6 | 2.2 | 5419 | 92 | 49 | 1405 | 42.7 | 158 | 130.91 | 6.8 | 26.5 | 80.6 |
| *Mean* | *38768* | *64.6* | *2.8* | *2.2* | | | | *1818* | *42.8* | *205* | | 5.1 | 18.8 | 72.9 |
| *LSD* | *3188* | *5.3* | *0.3* | *0.2* | | | | *111* | *2.5* | *13* | | ns | 0.12 | 0.06 |
| *R-square* | *0.85* | *0.85* | *0.95* | *0.97* | | | | *0.92* | *0.60* | *0.92* | | | | |
| *CV (%)* | *7.2* | *7.2* | *11.4* | *7.6* | | | | *5.7* | *5.5* | *5.7* | | 24.92 | 35.91 | 5.04 |
| *Prob>F, variety* | *0.0002* | *0.0002* | *<0.0001* | *<0.0001* | | | | *<0.0001* | *0.0379* | *<0.0001* | | 0.11 | 0.022 | <0.001 |

*Planting seed costs from PCG Seed Cost Calculator; * NG4792XF cost substituted for NG3576XF; * FM823AXTP cost substituted for FM757AXTP.*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts ).*

**Vertcillium wilt ratings as % severity of foliar symptoms including chlorosis, necrosis, and defoliation*

TEXAS A&M AGRILIFE EXTENSION

R.A.C.E. Replicated Agronomic Cotton Evaluation

# *Table 15. Lamb County Irrigated Mixed Technology RACE Summary - Amherst, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Jeff Edwards | Planting Date: | 5/16/2025 |
| County Agents: | Kristie Keys, Brandon Albus | Seed Treatments: | Various fungicide+insecticide |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Very good |
| Location: | Amherst, TX (Lamb Co) | Soil Temp @ planting: | 70F @ 6" |
| Replicates: | 3 | Seed/Acre: | 45K Armor; 40K for others* |
| Plot Size: | 8 rows x 2640' | GPS Lat: | 34.063891 |
| Row Spacing: | 40" | GPS Long: | -102.426466 |
| Beds: | No | Elevation: | 3655 |
| Previous crop(s): | Cotton | Harvest Date: | 11/11/2025 |
| Soil type: | Amarillo Fine Sandy Loam | *Grower driven decision.* | |
| Irrigation: | Drip (80"; 2 gpma) | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Total ET (in) | # Hours >95F | Avg Dev>95F |
|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 87.5 | 60.8 | 500.5 | 512.0 | 4.45 | 9.49 | 32 | 1.76 |
| PHS to First Bloom | 88.1 | 67.5 | 519.5 | 582.0 | 2.04 | 6.85 | 7 | 0.33 |
| First Bloom to Cutout | 93.4 | 67.4 | 554.5 | 595.0 | 1.39 | 6.97 | 47 | 2.18 |
| Cutout to Defoliation | 84.3 | 58.1 | 760.5 | 772.0 | 3.78 | 11.66 | 1 | 0 |
| Defoliation to Harvest | 72.0 | 38.9 | 12.0 | 40.0 | 0.29 | 2.52 | 0 | |
| *Total* | | | *2347.0* | *2501.0* | *11.95* | *37.49* | *87* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

2024 weather at this site: 2067 4.52 203

| Variety | Lint Yield *(lbs/A)* | Turnout *(%)* | Mic | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DP1822XF | **1720** | 36.5 | 4.17 | 1.18 | 37.7 | 33.0 | 82.8 | 21, 11, 11 | 1.7 | 0.5787 | **995** | **1256** | **1191** |
| DP2525B3XF | 1689 | 39.5 | 4.09 | **1.24** | **39.7** | **34.9** | 82.4 | **11, 11, 11** | 2.0 | **0.5817** | 982 | 1210 | 1136 |
| Armor9413XF | 1679 | 37.8 | 4.24 | 1.13 | 36.3 | 30.0 | 81.6 | **11, 11, 11** | 2.0 | 0.5718 | 960 | 1198 | 1129 |
| NG3434B3XF | 1662 | **41.0** | 4.14 | 1.20 | 38.3 | 29.9 | 82.6 | 21, 11, 11 | 2.3 | 0.5768 | 958 | 1165 | 1088 |
| FM765AX | 1620 | 38.6 | **4.53** | 1.13 | 36.3 | 30.6 | 81.4 | 21, 21, 21 | 2.3 | 0.5717 | 926 | 1144 | 1084 |
| Armor9371B3XF | 1577 | 37.9 | 4.17 | 1.14 | 36.7 | 28.8 | 82.5 | **11, 11, 11** | 2.0 | 0.5738 | 905 | 1127 | 1041 |
| NG3576XF | 1526 | 37.8 | 4.17 | 1.22 | 39.0 | 31.5 | **83.4** | **11, 11, 11** | **2.7** | 0.5775 | 881 | 1092 | 1027 |
| PHY332W3FE | 1510 | 35.9 | 4.41 | 1.16 | 37.0 | 30.3 | 81.1 | **11, 11, 11** | 2.0 | 0.5737 | 867 | 1091 | 1015 |
| PHY400W3FE | 1490 | 36.7 | 4.20 | 1.12 | 36.3 | 31.2 | 81.0 | 11, 21, 11 | 2.3 | 0.5693 | 847 | 1061 | 984 |
| FM814AXTP | 1451 | 38.6 | 4.24 | 1.14 | 36.3 | 30.3 | 81.5 | 11, 11, 21 | 2.0 | 0.5682 | 825 | 1026 | 939 |
| *Mean* | *1592* | *38.0* | *4.24* | *1.17* | *37.4* | *31.1* | *82.0* | | *2.1* | *0.5743* | *915* | *1137* | *1063* |
| *LSD* | *ns* | *0.8* | *ns* | *0.03* | *1.2* | *1.2* | *ns* | | *ns* | *ns* | *ns* | *ns* | *ns* |
| *R-square* | *0.52* | *0.85* | *0.41* | *0.77* | *0.72* | *0.76* | *0.53* | | *0.55* | *0.30* | *0.54* | *0.55* | *0.58* |
| *CV(%)* | *7.8* | *2.1* | *5.4* | *2.5* | *2.7* | *4.1* | *1.3* | | *17.4* | *1.6* | *7.9* | *7.7* | *8.2* |
| *Prob>F, variety* | *0.1466* | *<0.0001* | *0.4658* | *0.0007* | *0.0029* | *0.0008* | *0.1788* | | *0.1541* | *0.7255* | *0.1037* | *0.0995* | *0.0638* |

| | | | | | *Planting Seed Quality* | | | | | | | *Root-knot nematodes** | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Variety | Plant Population *(#/A @ 27 DAP)* | % Stand Establisment @ 27 DAP | Plant Population *(#/A @ 40 DAP)* | % Stand Establish-ment @ 40 DAP | Seed/lb | Warm Germ *(%)* | Cool Germ *(%)* | Planting Seed Cost *($/A)* | Seed Yield *(lbs/A)* | Seed Turnout *(%)* | Seed Value *($/A)* | Plant height (cm) | Root biomass (g) | Egg counts (eggs/g root) | Juvenile counts (RK/500 cc soil) |
| DP1822XF | **19747** | **49.4** | **25410** | **56.5** | 4700 | 93 | 79 | 65.22 | **2319** | **49.2** | **261** | 75.8 | 190.6 | 19.4 | 583.4 |
| DP2525B3XF | 19602 | 49.0 | 24394 | 54.2 | 5400 | 93 | 71 | 73.91 | 2025 | 47.4 | 228 | 71.0 | 232.0 | 116.6 | 930.2 |
| Armor9413XF | 18005 | 40.0 | 20255 | 45.0 | 4475 | 94 | 84 | 68.48 | 2110 | 47.5 | 237 | 76.3 | 235.3 | 12.6 | 283.3 |
| NG3434B3XF | 13794 | 34.5 | 19529 | 43.4 | 4938 | 93 | 75 | 76.52 | 1834 | 45.3 | 206 | 61.8 | 248.9 | 2.8 | 31.5 |
| FM765AX | 16117 | 40.3 | 19166 | 42.6 | 5419 | 92 | 78 | 60.00 | 1939 | 46.1 | 218 | 65.3 | 194.7 | 7.8 | 236.5 |
| Armor9371B3XF | 14084 | 31.3 | 20038 | 44.5 | 5200 | 93 | 77 | 86.09 | 1977 | 47.5 | 222 | **76.5** | 231.1 | 6.4 | 283.8 |
| NG3576XF | 13068 | 32.7 | 16480 | 36.6 | 4994 | 95 | 85 | 65.22 | 1879 | 46.5 | 211 | 65.3 | 186.0 | 7.8 | 189.2 |
| PHY332W3FE | 18731 | 46.8 | 23087 | 51.3 | 5543 | 92 | 62 | 75.65 | 1991 | 47.2 | 224 | 70.6 | 165.1 | 0.9 | **0.0** |
| PHY400W3FE | 16988 | 42.5 | 19384 | 43.1 | 5020 | 91 | 86 | 77.39 | 1906 | 47.0 | 214 | 69.6 | 177.0 | **0.2** | 31.5 |
| FM814AXTP | 13649 | 34.1 | 18005 | 40.0 | 4472 | 93 | 78 | 87.27 | 1784 | 47.5 | 201 | 62.0 | **249.4** | 2.0 | 78.8 |
| *Mean* | *16379* | *40.1* | *20575* | *45.7* | | | | | *1976* | *47.1* | *222* | *69.4* | *211.0* | *17.7* | *264.8* |
| *LSD* | *ns* | *6.7* | *2013* | *4.5* | | | | | *136* | *0.7* | *15* | | | | |
| *R-square* | *0.66* | *0.69* | *0.81* | *0.81* | | | | | *0.68* | *0.72* | *0.68* | | | | |
| *CV(%)* | *18.2* | *17.8* | *10.4* | *10.4* | | | | | *7.3* | *1.7* | *7.3* | *6.8* | *16.9* | *71.3* | *73.7* |
| *Prob>F, variety* | *0.0653* | *0.0332* | *0.0014* | *0.0014* | | | | | *0.0141* | *0.0015* | *0.0141* | *0.00316* | *0.055* | *0.00965* | *0.117* |

*Note: Means followed by the same letter are not significantly different according to Tukey's HSD test (α = 0.05). Egg and juvenile counts were log-transformed for analysis;*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts ).*

*Planting seed costs from PCG Seed Cost Calculator*

# *Table 16. Lubbock County Dryland Mixed Technology RACE Summary - Lubbock, TX*

| | | | | |
|---|---|---|---|---|
| Grower Cooperator: | Andrew Adams | Re-Planting Date: | 6/23/2025 | *(original planting 5/15/25 hailed out)* |
| County Agent: | Brant Baugh | Seed Treatments: | Various fungicide+insecticide | |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Fair | |
| Location: | Lubbock, TX (Lubbock Co.) | Soil Temp @ planting: | 81.9F @2"; 80.7F @6" | |
| Replicates: | 3 | Seed/Acre: | 40,000 | |
| Plot Size: | 8 rows x 1045-1764' | GPS Lat: | 33.58184 | |
| Row Spacing: | 40" | GPS Long: | -101.732560 | |
| Beds: | No | Elevation: | 3164 | |
| Previous crop(s): | Cotton | Harvest Date: | 12/9/2025 | |
| Soil type: | Amarillo Fine Sandy Loam/Acuff Loam | | | |
| Irrigation: | ~~Drip (80"; 3 gpma)~~ None | | | |

*NOTE: Although this was a drip irrigated field, given the late planting date, the grower chose to not irrigate; this was essentially a dryland trial.*

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation ($W/m^2$) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 88.4 | 69.1 | 506.0 | 631.0 | 4.73 | 156393 | 5.97 | 3 | 0.00 |
| PHS to First Bloom | 94.3 | 70.1 | 494.0 | 548.0 | 0.59 | 150565 | 6.65 | 54 | 2.05 |
| First Bloom to Cutout | 88.6 | 65.5 | 474.0 | 617.0 | 3.63 | 162636 | 5.64 | 10 | 2.00 |
| Cutout to Defoliation | 78.8 | 50.0 | 489.0 | 608.0 | 1.40 | 354733 | 11.69 | 0 | 0.00 |
| Defoliation to Harvest | 57.5 | 29.3 | 6.0 | 2.0 | 0.00 | 43139 | 1.15 | 0 | 0.00 |
| *Total* | | | *1963.0* | *2406.0* | *10.35* | *867466* | *31.10* | *67* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

| Variety | Lint Yield *(lbs/A)* | Turnout *(%)* | Mic | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NG3576XF | 441 | 27.2 | **3.04** | 1.22 | 39.0 | 31.3 | **81.6** | 23, 34, 24 | 2.7 | **0.4160** | **183** | **249** | **184** |
| PHY415W3FE | **461** | 26.8 | 2.71 | 1.11 | 35.4 | 29.7 | 79.9 | 23, 24, 23 | **2.3** | 0.3748 | 173 | 244 | 167 |
| FM765AX | 325 | 25.3 | 2.69 | 1.15 | 36.8 | 31.9 | **81.6** | 33, 33, 33 | 3.0 | 0.3917 | 129 | 180 | 120 |
| NG3434B3XF | 348 | **29.1** | 2.49 | 1.18 | 37.9 | 28.6 | 80.3 | 34, 33, 34 | 3.3 | 0.3372 | 118 | 166 | 90 |
| PHY332W3FE | 304 | 25.2 | 2.66 | 1.14 | 36.4 | 30.8 | 80.9 | 23, 24, 24 | **2.3** | 0.3732 | 114 | 165 | 89 |
| DP2525B3XF | 317 | 27.1 | 2.48 | **1.25** | **40.0** | **33.8** | 79.7 | 23, 33, 24 | **2.3** | 0.3367 | 108 | 156 | 82 |
| FM814AXTP | 294 | 28.0 | 2.64 | 1.16 | 37.1 | 30.4 | **81.6** | 33, 34, 33 | 2.7 | 0.3683 | 108 | 154 | 67 |
| DP2335B3XF | 260 | 25.7 | 2.29 | 1.14 | 36.6 | 30.3 | 79.8 | **23, 23, 23** | 2.7 | 0.3253 | 86 | 128 | 58 |
| *Mean* | *344* | *26.8* | *2.63* | *1.17* | *37.4* | *30.9* | *80.7* | | *2.7* | *0.3654* | *128* | *180* | *107* |
| *LSD* | *39* | *1.4* | *0.12* | *0.01* | *0.3* | *1.1* | *ns* | | *ns* | *0.0249* | *18* | *23* | *23* |
| *R-square* | *0.90* | *0.67* | *0.87* | *0.96* | *0.96* | *0.79* | *0.58* | | *0.58* | *0.76* | *0.90* | *0.90* | *0.91* |
| *CV (%)* | *10.5* | *5.0* | *4.2* | *1.0* | *1.0* | *3.3* | *1.2* | | *17.6* | *6.3* | *13.5* | *12.1* | *20.4* |
| *Prob>F, variety* | *<0.0001* | *0.0341* | *<0.0001* | *<0.0001* | *<0.0001* | *0.0010* | *0.0804* | | *0.1813* | *0.0040* | *<0.0001* | *<0.0001* | *<0.0001* |

| | | | *Planting Seed Quality* | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Variety | Plant Population *(#/A)* | % Stand Establishment | Seed/lb | Warm Germ *(%)* | Cool Germ *(%)* | Planting Seed Cost *($/A)* | Seed Yield *(lbs/A)* | Seed Turnout *(%)* | Seed Value *($/A)* |
| NG3576XF | 28314 | 70.8 | 4994 | 95 | 85 | 65.22 | 591 | 36.0 | 67 |
| PHY415W3FE | 31654 | 79.1 | 4676 | 98 | 75 | 77.39 | **632** | 36.8 | **71** |
| FM765AX | 27298 | 68.3 | 5201 | 94 | 60 | 60.00 | 461 | 36.2 | 52 |
| NG3434B3XF | 25773 | 64.4 | 4938 | 93 | 75 | 76.52 | 426 | 35.6 | 48 |
| PHY332W3FE | 29330 | 73.3 | 5000 | 98 | 89 | 75.65 | 453 | 37.8 | 51 |
| DP2525B3XF | **32017** | **80.0** | 5400 | 93 | 71 | 73.91 | 425 | 36.5 | 48 |
| FM814AXTP | 25410 | 63.5 | 4472 | 93 | 61 | 87.27 | 405 | **38.7** | 46 |
| DP2335B3XF | 30637 | 76.6 | 6450 | 98 | 82 | 69.57 | 368 | 36.5 | 41 |
| *Mean* | *28804* | *72.0* | | | | | *470* | *36.8* | *53* |
| *LSD* | *1905* | *4.8* | | | | | *59* | *ns* | *7* |
| *R-square* | *0.76* | *0.76* | | | | | *0.88* | *0.38* | *0.88* |
| *CV (%)* | *6.2* | *6.2* | | | | | *11.6* | *5.1* | *11.6* |
| *Prob>F, variety* | *0.0020* | *0.0020* | | | | | *0.0004* | *0.5386* | *0.0004* |

*Planting seed costs from PCG Seed Cost Calculator. * NG4792XF cost substituted for NG3576XF. * FM823AXTP cost substituted for FM814AXTP*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts )*

## *Table 17. Lynn County Dryland Mixed Technology RACE Summary – O'Donnell, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Landon Mires | Planting Date: | 6/2/2025 |
| County Agent: | Sierra Stephens | Seed Treatments: | Various fungicide+insecticide |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Adequate |
| Location: | O'Donnell, TX (Lynn Co) | Soil Temp @ planting: | 80F @2"; 78F @6" |
| Replicates: | 3 | Seed/Acre: | 30,000 |
| Plot Size: | 8 rows x ~4340' | GPS Lat: | 32.976915 |
| Row Spacing: | 40" | GPS Long: | -101.745634 |
| Beds: | No | Elevation: | 3015 |
| Previous crop(s): | Cotton | Harvest Date: | 10/20/2025 |
| Soil type: | Estacado/Pep, Acuff Loams | | |
| Irrigation: | None | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Total ET (in) | # Hours >95°F | Avg Dev>95° F |
|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 90.5 | 69.0 | 508.5 | 528.0 | 1.69 | 7.74 | 24 | 1.50 |
| PHS to First Bloom | 89.1 | 69.4 | 498.5 | 589.0 | 5.09 | 6.16 | 19 | 0.60 |
| First Bloom to Cutout | 94.9 | 69.9 | 606.0 | 652.0 | 1.53 | 7.82 | 72 | 1.90 |
| Cutout to Defoliation | 87.1 | 63.5 | 626.0 | 598.0 | 2.49 | 8.29 | 14 | 0.80 |
| Defoliation to Harvest | 84.2 | 59.7 | 238.5 | 146.0 | 0.10 | 3.64 | 0 | n/a |
| *Total* | | | *2477.5* | *2573.0* | *10.90* | *33.65* | *129* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

*Sorted by Net Return*

| Variety | Lint Yield (lbs/A) | Turnout (%) | Mic | Length (in) | Staple (1/32 in) | Strength (g/tex) | Uniformity (%) | Color Grades | Leaf Grade | Loan Value ($/lb) | Lint Value ($/A) | Total Crop Value ($/A) | Net Return ($/A) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DP2335B3XF | **260** | 35.7 | **4.28** | 1.16 | 37.0 | 33.6 | 80.9 | **21, 21, 21** | 3.0 | 0.5750 | **149** | **189** | **137** |
| DP2239B3XF | 256 | 36.6 | 4.65 | **1.23** | **39.2** | **34.0** | **83.6** | 11, 21, 31 | **2.6** | **0.5787** | 148 | 185 | 132 |
| FM765AX | 239 | **39.7** | 5.02 | 1.20 | 38.3 | 32.6 | 83.4 | 31, 31, 21 | 2.7 | 0.5472 | 131 | 163 | 118 |
| FM868AXTP | 230 | 38.6 | 5.03 | 1.17 | 37.4 | 32.0 | 82.1 | **21, 21, 21** | 2.7 | 0.5582 | 129 | 161 | 114 |
| *Mean* | *244* | *37.8* | *4.77* | *1.18* | *37.8* | *32.9* | *82.5* | | *2.7* | *0.5631* | *138* | *172* | *123* |
| *LSD* | *ns* | *0.6* | *0.35* | *ns* | *ns* | *ns* | *ns* | | *ns* | *0.0154* | *ns* | *ns* | *ns* |
| *R-square* | *0.66* | *0.98* | *0.87* | *0.70* | *0.70* | *0.61* | *0.71* | | *0.32* | *0.83* | *0.76* | *0.77* | *0.71* |
| *CV (%)* | *7.2* | *0.9* | *4.1* | *2.4* | *2.4* | *3.3* | *1.8* | | *20.0* | *1.5* | *6.9* | *7.1* | *9.9* |
| *Prob>F, variety* | *0.2747* | *0.0001* | *0.0144* | *0.1528* | *0.1528* | *0.2760* | *0.2448* | | *0.8274* | *0.0243* | *0.1015* | *0.0904* | *0.2071* |

*Planting Seed Quality*

| Variety | Plant Population (#/A) | % Stand Establishment | Seed/lb | Warm Germ (%) | Cool Germ (%) | Planting Seed Cost ($/A) | Seed Yield (lbs/A) | Seed Turnout (%) | Seed Value ($/A) |
|---|---|---|---|---|---|---|---|---|---|
| DP2335B3XF | 24466 | 82 | 6450 | 98 | 82 | 52.17 | **351** | 48.3 | **40** |
| DP2239B3XF | **27152** | **91** | 6250 | 94 | 88 | 53.48 | 328 | 46.9 | 37 |
| FM765AX | 23813 | 79 | 5201 | 94 | 60 | 45.00 | 284 | 47.1 | 32 |
| FM868AXTP | 25773 | 86 | 4825 | 95 | 81 | 47.05 | 289 | 48.4 | 33 |
| *Mean* | *25301* | *84* | | | | | *310* | *assumed* | *35* |
| *LSD* | *ns* | *ns* | | | | | *ns* | *from* | *ns* |
| *R-square* | *0.45* | *0.45* | | | | | *0.80* | *2024 RACE* | *0.80* |
| *CV (%)* | *8.2* | *8.2* | | | | | *7.9* | *data from* | *7.9* |
| *Prob>F, variety* | *0.2979* | *0.2982* | | | | | *0.0581* | *nearby site* | *0.0581* |

*Planting seed costs from PCG Seed Cost Calculator.* *Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts ).*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

TEXAS A&M AGRILIFE EXTENSION

R.A.C.E. Replicated Agronomic Cotton Evaluation

# *Table 18. Moore County Irrigated Mixed Technology RACE Summary - Sunray, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Justin Garrett | Planting Date: | 5/19/2025 |
| County Agents: | Dennis Coker, Ph.D.; Marcel Fischbacher | Seed Treatments: | Various fungicide+insecticide |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Good |
| Location: | Sunray, TX (Moore Co) | Soil Temp @ planting: | 67 F |
| Replicates: | 3 | Seed/Acre: | 77,000 |
| Plot Size: | 8 rows x 1/2 mile | GPS Lat: | 35.935862 |
| Row Spacing: | 30" | GPS Long: | -101.762884 |
| Beds: | No | Elevation: | 3472 |
| Previous crop(s): | Wheat, strip tilled | Harvest Date: | 11-12/13-25 |
| Soil type: | Sunray Loam/Gruver Clay Loam | | |
| Irrigation: | Pivot (3.1 gpma) | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation (W/m²) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 84.9 | 60.1 | 508.5 | 535.0 | 2.95 | 250191 | 9.94 | 25 | 0.93 |
| PHS to First Bloom | 89.8 | 66.1 | 499.0 | 544.0 | 1.62 | 170901 | 6.54 | 21 | 0.76 |
| First Bloom to Cutout | 91.0 | 66.1 | 527.5 | 533.0 | 1.18 | 171070 | 6.41 | 27 | 2.30 |
| Cutout to Defoliation | 81.3 | 55.8 | 534.0 | 550.5 | 5.29 | 252538 | 8.76 | 2 | 1.00 |
| Defoliation to Harves | 67.4 | 37.3 | 3.0 | 23.0 | 0.60 | 68294 | 1.98 | 0 | |
| *Total* | | | *2072.0* | *2185.5* | *11.64* | *912994* | *33.63* | *75* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

**NOTE: PHY205W3FE & PHY415W3FE were originally entered at this location; an error by AgriLife prevented their being planting; a grower standard variety replaced those entries (DP1820B3XF).*

***NOTE: severe hail occurred at this site in early August, completely defoliating the crop, but fruit load was less affected.*

| Variety | Lint Yield *(lbs/A)* | Turnout *(%)* | Mic | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DP1822XF | **1320** | 34.9 | 3.38 | 1.19 | 37.9 | 34.7 | 82.8 | 21, 11, 22 | 2.3 | 0.5415 | **715** | **919** | **793** |
| FM765AX | 1306 | 36.7 | 3.30 | 1.15 | 36.9 | 33.3 | 82.4 | 21, 21, 21 | 3.0 | 0.5345 | 700 | 876 | 761 |
| NG3434B3XF | 1246 | 37.1 | 3.25 | 1.19 | 38.0 | 30.2 | 81.8 | 21,11, 21 | 2.7 | 0.5397 | 674 | 834 | 687 |
| DP2525B3XF | 1181 | 36.4 | **3.53** | **1.23** | **39.3** | **35.9** | 82.6 | 12, 12, 12 | **2.0** | **0.5590** | 660 | 821 | 679 |
| NG3576XF | 1172 | **38.1** | 3.44 | 1.22 | 39.2 | 32.8 | **83.1** | 21, 22, 22 | 4.0 | 0.5213 | 612 | 786 | 660 |
| DP1820B3XF *(Grower Std)* | 1180 | 36.7 | 3.46 | 1.22 | 39.0 | 34.5 | 82.5 | 12, 12, 12 | **2.0** | 0.5388 | 637 | 800 | 652 |
| FM757AXTP | 1151 | 33.7 | 3.33 | 1.17 | 37.5 | 30.9 | 80.6 | **11, 11, 21** | 2.3 | 0.5403 | 623 | 787 | 619 |
| *Mean* | *1222* | *36.2* | *3.38* | *1.20* | *38.3* | *33.2* | *82.3* | | *2.6* | *0.5393* | *660* | *832* | *693* |
| *LSD* | *40* | *1.1* | *ns* | *0.01* | *0.4* | *0.7* | *0.9* | | *0.4* | *ns* | *ns* | *55* | *55* |
| *R-square* | *0.89* | *0.78* | *0.66* | *0.94* | *0.94* | *0.95* | *0.72* | | *0.85* | *0.41* | *0.70* | *0.75* | *0.80* |
| *CV (%)* | *2.8* | *2.7* | *4.6* | *0.80* | *0.80* | *1.87* | *0.89* | | *14.02* | *5.00* | *6.84* | *5.70* | *6.84* |
| *Prob>F, variety* | *0.0002* | *0.0023* | *0.3705* | *<0.0001* | *<0.0001* | *<0.0001* | *0.0235* | | *0.0003* | *0.7912* | *0.1160* | *0.0370* | *0.0078* |

| | | | *Planting Seed Quality* | | | | | | | *Verticillium wilt symptom severity** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Variety | Plant Population *(#/A)* | % Stand Establishment | Seed/lb | Warm Germ *(%)* | Cool Germ *(%)* | Planting Seed Cost *($/A)* | Seed Yield *(lbs/A)* | Seed Turnout *(%)* | Seed Value *($/A)* | 3-Sep | 17-Sep | 5-Oct |
| DP1822XF | **61468** | **79.8** | 4700 | 93 | 79 | 125.54 | **1817** | **48.0** | **204** | 2.33 | 2.93 | 28.30 |
| FM765AX | 52466 | 68.1 | 5201 | 94 | 60 | 115.50 | 1573 | 44.2 | 177 | 2.86 | 5.53 | 33.10 |
| NG3434B3XF | 58274 | 75.7 | 4938 | 93 | 75 | 147.30 | 1429 | 43.7 | 161 | 1.73 | 3.73 | 48.90 |
| DP2525B3XF | 59822 | 77.7 | 5400 | 93 | 71 | 142.28 | 1432 | 45.0 | 161 | **0.96** | 3.86 | **21.80** |
| NG3576XF | 55273 | 71.8 | 4994 | 95 | 85 | 125.54 | 1551 | 44.6 | 174 | 2.66 | 2.96 | 36.80 |
| DP1820B3XF *(Grower Std)* | 61371 | 79.7 | | | | 147.30 | 1442 | 43.8 | 162 | 1.46 | **2.73** | 24.90 |
| FM757AXTP | 40172 | 52.2 | 5419 | 92 | 49 | 168.00 | 1454 | 45.9 | 164 | 2.40 | 6.93 | 40.80 |
| *Mean* | *55549* | *72.1* | | | | | *1528* | *45.1* | *172* | *2.06* | *4.10* | *33.50* |
| *LSD* | *6623* | *8.6* | | | | | *60* | *1.3* | *7* | *ns* | *ns* | *ns* |
| *R-square* | *0.73* | *0.73* | | | | | *0.92* | *0.72* | *0.92* | | | |
| *CV (%)* | *10.2* | *10.2* | | | | | *3.4* | *2.5* | *3.4* | *50.92* | *61.53* | *31.31* |
| *Prob>F, variety* | *0.0071* | *0.0071* | | | | | *<0.0001* | *0.0078* | *<0.0001* | *0.328* | *0.387* | *0.087* |

**Vertcillium wilt ratings as % severity of foliar symptoms including chlorosis, necrosis, and defoliation*

*Planting seed costs from PCG Seed Cost Calculator; * FM823AXTP cost substituted for FM757AXTP; * NG4792XF cost substituted for NG3576XF.*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts ).*

TEXAS A&M AGRILIFE EXTENSION

R.A.C.E. Replicated Agronomic Cotton Evaluation

# *Table 19. Terry County Irrigated Mixed Technology RACE Summary - Brownfield, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Matt Hogue | Planting Date: | 5/23/2025 |
| County Agent: | Reid Lovorn | Seed Treatments: | Various |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | | fungicide+insecticide |
| Location: | Brownfield, TX (Terry Co) | Moist. @ planting: | Fair-Good; irrigating up |
| Replicates: | 3 | Soil Temp @ planting: | Warm |
| Plot Size: | 8 rows x ~1/2 mi | Seed/Acre: | 30,000 |
| Row Spacing: | 40" | GPS Lat: | 33.257878 |
| Beds: | No | GPS Long: | -102.353869 |
| Previous crop(s): | Cotton/wheat | Elevation: | 3389 |
| Soil type: | Patricia/ Amarillo, Loamy Fine Sand | Harvest Date: | 10/30/2025 |
| Irrigation: | Pivot (LEPA, 2.5 gpma) | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation ($W/m^2$) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 90.0 | 64.7 | 507.0 | 516 | 2.54 | 201715 | 8.20 | 43 | 1.90 |
| PHS to First Bloom | 87.8 | 67.5 | 508.5 | 679 | 6.57 | 178157 | 6.53 | 8 | 1.77 |
| First Bloom to Cutout | 94.0 | 67.9 | 575.0 | 656 | 0.89 | 185693 | 7.67 | 57 | 1.09 |
| Cutout to Defoliation | 85.4 | 61.0 | 685.0 | 806 | 5.38 | 270933 | 9.67 | 4 | 1.75 |
| Defoliation to Harvest | 78.2 | 48.2 | 109.5 | 128 | 0.35 | 87022 | 3.22 | 0 | |
| *Total* | | | *2385.0* | *2785* | *15.73* | *923520* | *35.29* | *112* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

2024 weather data from same site: 2615.0 6.83 267.00

*Sorted by Net Return*

| Variety | Lint Yield *(lbs/A)* | Turnout *(%)* | Mic | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DP2436NRB3TXF | **1608** | 38.1 | 4.01 | **1.21** | **38.7** | 32.9 | 82.5 | 21, 11, 21 | 2.3 | 0.5803 | **933** | **1160** | **1099** |
| Armor9371B3XF | 1593 | **39.9** | 4.56 | 1.16 | 37.1 | 29.3 | 83.2 | 21, 21, 11 | **1.7** | 0.5740 | 914 | 1137 | 1079 |
| FM765AX | 1540 | 37.1 | 4.16 | 1.19 | 38.0 | 32.7 | **83.8** | 21, 21, 21 | 2.3 | 0.5803 | 894 | 1121 | 1076 |
| Armor9413XF | 1565 | 38.3 | 4.47 | 1.13 | 36.3 | 28.7 | 81.5 | 11, 11, 21 | 2.0 | 0.5702 | 892 | 1118 | 1073 |
| PHY400W3FE | 1525 | 37.1 | 4.32 | 1.16 | 37.0 | 32.8 | 82.0 | **11, 11, 11** | 2.0 | 0.5800 | 884 | 1111 | 1053 |
| FM814AXTP | 1545 | 38.4 | 4.17 | 1.17 | 37.5 | 31.2 | 82.6 | 11, 11, 21 | 2.3 | 0.5783 | 893 | 1116 | 1050 |
| DP2335B3XF | 1442 | 36.4 | **3.78** | 1.18 | 37.9 | 33.0 | 81.5 | **11, 11, 11** | 2.0 | **0.5807** | 837 | 1059 | 1007 |
| PHY415W3FE | 1429 | 35.7 | 4.48 | 1.20 | 38.4 | **34.6** | 83.6 | 21, 21, 21 | 2.3 | 0.5802 | 829 | 1051 | 993 |
| *Mean* | *1531* | *37.6* | *4.24* | *1.18* | *37.8* | *31.9* | *82.6* | | *2.1* | *0.5780* | *885* | *1109* | *1054* |
| *LSD* | *ns* | *0.7* | *0.12* | *0.02* | *0.6* | *0.8* | *0.8* | | *ns* | *0.0033* | *ns* | *ns* | *ns* |
| *R-square* | *0.55* | *0.87* | *0.92* | *0.76* | *0.76* | *0.91* | *0.70* | | *0.28* | *0.72* | *0.53* | *0.44* | *0.43* |
| *CV (%)* | *4.7* | *1.7* | *2.6* | *1.5* | *1.5* | *2.4* | *0.9* | | *23.0* | *0.5* | *4.7* | *4.7* | *5.0* |
| *Prob>F, variety* | *0.0760* | *<0.0001* | *<0.0001* | *0.0016* | *0.0016* | *<0.0001* | *0.0095* | | *0.6181* | *0.0062* | *0.0986* | *0.2434* | *0.2473* |

| | | | *Planting Seed Quality* | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Variety | Plant Population *(#/A)* | % Stand Establishment | Seed/lb | Warm Germ *(%)* | Cool Germ *(%)* | Planting Seed Cost *($/A)* | Seed Yield *(lbs/A)* | Seed Turnout *(%)* | Seed Value *($/A)* |
| DP2436NRB3TXF | 22579 | 75.3 | 5400 | 93 | 71 | 61.30 | 2014 | 47.8 | **227** |
| Armor9371B3XF | 21562 | 71.9 | 5200 | 93 | 77 | 57.39 | 1977 | 49.5 | 222 |
| FM765AX | 21635 | 72.1 | 5201 | 94 | 60 | 45.00 | 2018 | 48.6 | **227** |
| Armor9413XF | 23958 | 79.9 | 4475 | 94 | 84 | 45.65 | 2011 | 49.2 | 226 |
| PHY400W3FE | 24248 | 80.8 | 5020 | 91 | 86 | 58.04 | **2019** | 49.1 | **227** |
| FM814AXTP | 18368 | 61.2 | 4472 | 93 | 61 | 65.45 | 1978 | 49.1 | 222 |
| DP2335B3XF | 24684 | 82.3 | 6450 | 98 | 82 | 52.17 | 1968 | **49.6** | 221 |
| PHY415W3FE | **25628** | **85.4** | 4676 | 98 | 75 | 58.04 | 1968 | 49.1 | 221 |
| *Mean* | *23232* | *77.4* | | | | | *1994* | *49.0* | *224* |
| *LSD* | *1389* | *4.6* | | | | | *ns* | *ns* | *ns* |
| *R-square* | *0.83* | *0.83* | | | | | *0.13* | *0.39* | *0.13* |
| *CV (%)* | *5.7* | *5.7* | | | | | *5.2* | *1.9* | *5.2* |
| *Prob>F, variety* | *0.0002* | *0.0002* | | | | | *0.9907* | *0.3829* | *0.9907* |

*Planting seed costs from PCG Seed Cost Calculator*

* FM823AXTP cost substituted for FM814AXTP

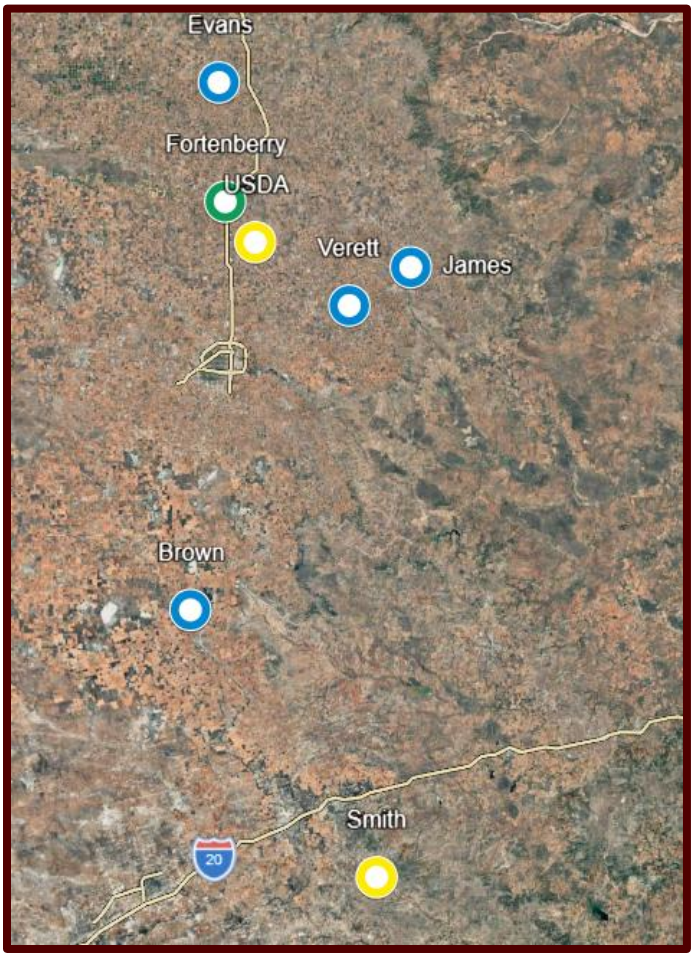
*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts ).*

# 2025

# Cropping System

# RACE Trials




Roller Gin Upland

ELS vs Upland

Row Spacing x Seeding Rate

*Table 20. 2025 Cropping System RACE Trial Location Summary*

| County | Cooperator | Irrigation? | Planted? | Harvested? | Comments |
|---|---|---|---|---|---|
| Crosby | James | Y | Y | N | Lost early due to hail |
| Crosby | Verett | Y | Y | N | Lost early due to hail |
| Dawson | Brown | Y | Y | Y | |
| Glasscock | Smith | Y | Y | Y | |
| Hale | Fortenberry | Y | Y | Y | |
| Hale | USDA | Y | Y | Y | |
| Swisher | Evans | N | Y | Y | |

## *Table 21. Hale County Roller Gin Upland Cropping System RACE Trial - Hale Center, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Steve Fortenberry | Planting Date: | 5/13/2025 |
| County Agents: | Kristie Keys, Andy Hart | Seed Treatments: | Base fungicide |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Fair-Good |
| Location: | Hale Center, TX (Hale Co) | Soil Temp @ planting: | 70F @2"; 66F @6" |
| Replicates: | 3 | Seed/Acre: | 44,000 |
| Plot Size: | 16 rows x 1/2 circle | GPS Lat: | 34.036184 |
| Row Spacing: | 40" | GPS Long: | -101.8604 |
| Beds: | No | Elevation: | 3429 |
| Previous crop(s): | Cotton | Harvest Date: | 11/7/2025 |
| Soil type: | Pullman Clay Loam/Olton Loam | | |
| Irrigation: | LEPA (7.5 gpma) | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Total ET (in) | # Hours >95°F | Avg Dev>95° F |
|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 86.1 | 60.1 | 507.5 | 536.0 | 2.50 | 5.56 | 6 | 3.0 |
| PHS to First Bloom | 88.4 | 69.3 | 509.0 | 591.0 | 3.67 | 6.14 | 1 | 0.0 |
| First Bloom to Cutout | 94.4 | 70.5 | 607.5 | 608.0 | 1.68 | 7.65 | 69 | 2.1 |
| Cutout to Defoliation | 86.2 | 62.5 | 915.0 | 804.0 | 2.40 | 11.85 | 13 | 1.2 |
| Defoliation to Harvest | 75.0 | 44.2 | 42.5 | 58.0 | 0.19 | 2.85 | 0 | |
| *Total* | | | *2581.5* | *2597.0* | *10.44* | *34.05* | *89* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

*Sorted by Net Return*

| System *(Variety, harvest type, gin type)* | Lint Yield *(lbs/A)* | Turnout *(%)* | Mic | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DP1822XF Stripper, Saw Gin | **1460** | 32.0 | 3.57 | 1.22 | 39.1 | 32.5 | 81.3 | 21, 21, 21 | 3.0 | 0.5747 | **839** | **1087** | **1015** |
| DP1822XF Picker, Saw Gin | 1281 | **36.7** | **3.59** | 1.22 | 39.1 | **32.6** | 82.1 | **11, 21, 21** | **2.0** | **0.5810** | 744 | 955 | 884 |
| DGP224B3XF Picker, Roller Gin | 987 | 33.3 | 3.27 | **1.41** | **45.2** | 32.0 | **82.9** | 41, 41, 41 | 4.0 | 0.4902 | 483 | 664 | 530 |
| *Mean* | *1243* | *34.0* | *3.48* | *1.29* | *41.3* | *32.3* | *82.1* | | *3.0* | *0.5486* | *689* | *902* | *809* |
| *LSD* | *69* | *1.2* | *ns* | *0.05* | *1.6* | *ns* | *ns* | | *non-est*[1] | *ns* | *108* | *116* | *116* |
| *R-square* | *0.99* | *0.97* | *0.61* | *0.98* | *0.98* | *0.60* | *0.26* | | *non-est*[1] | *0.77* | *0.96* | *0.97* | *0.97* |
| *CV (%)* | *2.5* | *1.5* | *5.1* | *1.6* | *1.6* | *2.7* | *2.3* | | *non-est*[1] | *6.8* | *6.9* | *5.7* | *6.3* |
| *Prob>F, variety* | *0.0001* | *0.0009* | *0.1548* | *0.0005* | *0.0005* | *0.6847* | *0.6210* | | *non-est*[1] | *0.0698* | *0.0018* | *0.0013* | *0.0007* |

*1. leaf grade was the same for each system for every replicate; hence, no variance can be measured.*

| System *(Variety, harvest type, gin type)* | Plant Population *(#/A)* | % Stand Establishment | Planting Seed Cost ($/A) | Seed Yield *(lbs/A)* | Seed Turnout *(%)* | Seed Value *($/A)* |
|---|---|---|---|---|---|---|
| DP1822XF Stripper, Saw Gin | **27007** | **61.38** | 71.72 | **2200** | 48.2 | **247** |
| DP1822XF Picker, Saw Gin | **27007** | **61.38** | 71.72 | 1877 | 53.8 | 211 |
| DGP224B3XF Picker, Roller Gin | 22361 | 50.82 | 134.64 | 1611 | **54.2** | 181 |
| *Mean* | *27007* | *61.38* | | *1896* | *52.1* | *213* |
| *LSD* | *ns* | *ns* | | *181* | *4.9* | *20* |
| *R-square* | *0.91* | *0.91* | | *0.96* | *0.81* | *0.96* |
| *CV (%)* | *5.6* | *5.6* | | *4.2* | *4.1* | *4.2* |
| *Prob>F, variety* | *0.0541* | *0.0540* | | *0.0022* | *0.0461* | *0.0022* |

*Planting seed costs from PCG Seed Cost Calculator.*

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts ).*

*NOTES:*
*Varieties were chosen and purchased by grower/cooperator.*

*DP1822XF Stripper and Picker treatments were collected from adjacent areas within each plot of DP1822XF.*

*DGP224B3XF is part of Nutrien's* LLANO *"roller ginned upland" series, which are upland varieties intended to be roller ginned to preserve genetic higher fiber quality.*

*Ginning was done at the Texas Tech University Fiber & Biopolymer Research Institute; the saw gin is of commercial scale, complete with all cleaning phases. Roller gin samples were pre-cleaned prior to roller ginning on a stand-alone stand with no post gin stand cleaner. DP1822XF fiber was classed at the TTU FBRI; DGP224B3XF fiber was classed at the USDA-AMS cotton classing office at Memphis, TN, as per instructions from USDA-AMS.*

## *Table 22.Hale County ELS vs Upland Cropping System RACE Trial - Petersburg, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Dr. John Wanjura | Planting Date: | 4/28/2025 |
| | USDA-ARS | Seed Treatments: | |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Moist. @ planting: | Adequate |
| Location: | Petersburg | Soil Temp @ planting: | 68.7F @2"; 67.4F @6" |
| Replicates: | 3 | Seed/Acre: | 46000 |
| Plot Size: | 24 rows x ~2640 ft | GPS Lat: | 33.916 |
| Row Spacing: | 40 in | GPS Long: | -101.75328 |
| Beds: | Yes | Elevation: | 3332 |
| Previous crop(s): | Cotton | Harvest Date: | 10/30/2025 |
| Soil type: | Pullman Clay Loam | | |
| Irrigation: | LEPA | | |

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Total ET (in) | # Hours >95°F | Avg Dev>95° F |
|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 83.4 | 58.0 | 515.0 | 555.0 | 6.57 | n/a | n/a | 0.0 |
| PHS to First Bloom | 88.1 | 68.5 | 490.0 | 576.0 | 4.03 | 5.98 | 6 | 4.3 |
| First Bloom to Cutout | 94.3 | 67.6 | 564.0 | 615.0 | 0.00 | 7.50 | 66 | 2.2 |
| Cutout to Defoliation | 87.6 | 60.6 | 862.0 | 901.0 | 2.55 | 10.89 | 33 | 1.7 |
| Defoliation to Harvest | 76.5 | 48.1 | 98.0 | 82.0 | 0.38 | 2.77 | 0 | 0.0 |
| *Total* | | | *2529.0* | *2729.0* | *13.53* | *27.14* | *105* | |

*PHS @ >500DD60s; first bloom @ >1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was >95F

*NOTE: Site experienced moderate hail damage on 3 occasions throughout season.*

Based on Loan Value

| Treatment | Lint Yield *(lbs/A)* | Turnout *(%)* | Micronaire | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DP1822XF (AUP) | **1024** | **32.5** | **3.49** | 1.19 | 38.0 | 33.6 | 82.2 | 21, 11, 21 | **2.0** | 0.5653 | 578 | 749 | 674 |
| Gowan1432 (ELS) | 735 | 36.5 | 3.37 | **1.38** | **47.3** | **37.8** | **86.2** | 2, 2, 2 | 2.7 | **0.9022** | **663** | **805** | **687** |
| *Mean* | *879* | *34.5* | *3.43* | *1.28* | *41.0* | *35.7* | *84.2* | | *2.3* | *0.7338* | *621* | *777* | *681* |
| *LSD* | *216* | *1.9* | *ns* | *0.04* | *1.3* | *1.1* | *1.3* | | *ns* | *0.1340* | *63* | *ns* | *ns* |
| *R-square* | *0.96* | *0.98* | *0.32* | *1.00* | *1.00* | *1.00* | *0.99* | | *0.75* | *0.99* | *0.97* | *0.87* | *0.80* |
| *CV (%)* | *5.7* | *1.3* | *5.1* | *0.7* | *0.7* | *0.7* | *0.4* | | *17.5* | *4.2* | *2.4* | *3.1* | *3.5* |
| *Prob>F, variety* | *0.0197* | *0.0079* | *0.4701* | *0.0013* | *0.0013* | *0.0024* | *0.0039* | | *0.1835* | *0.0057* | *0.0197* | *0.1040* | *0.5845* |

Based on Spot Price, 12/15/25

| Treatment | Plant Population *(#/A)* | % Stand Establishment | Seed Yield *(lbs/A)* | Seed Turnout *(%)* | Seed Value *($/A)* | Planting Seed Cost *($/A)* | Spot Price *($/lb, 12/15/25)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|
| DP1822XF (AUP) | **18803** | **40.88** | **1518** | 48.2 | **171** | 74.98 | 0.6200 | 635 | 805 | 730 |
| Gowan1432 (ELS) | 15028 | 32.67 | 1261 | **62.5** | 142 | 117.85 | **1.4008** | **1031** | **1173** | **1055** |
| *Mean* | *16916* | *36.77* | *1389* | *55.3* | *156* | | *1.0104* | *833* | *989* | *893* |
| *LSD* | *ns* | *ns* | *ns* | *1.0* | *ns* | | *0.0615* | *316* | *356* | *68* |
| *R-square* | *0.47* | *0.47* | *0.88* | *1.00* | *0.88* | | *1.00* | *0.96* | *0.94* | *0.92* |
| *CV (%)* | *22.6* | *22.6* | *6.2* | *0.4* | *6.2* | | *1.4* | *8.8* | *8.4* | *9.3* |
| *Prob>F, variety* | *0.3501* | *0.3500* | *0.0676* | *0.0002* | *0.0676* | | *0.0002* | *0.0221* | *0.0322* | *0.0407* |

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value. Planting seed costs from PCG Seed Cost Calculator for DP1822XF, and from personal correspondence with Gowan Co. for Gowan1432.*
*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts ).*

*ELS was spindle picked, roller ginned, and classed as ELS at the USDA-AMS cotton classing office at Visalia, CA; AUP (upland) was stripper harvested, saw ginned and classed as AUP at the Texas Tech University Fiber & Biopolymer Research Instititute.*
*ELS base loan value is $0.95/lb, and AUP base loan is $0.52/lb, +/- premiums/discounts, according to 2025 CCC loan charts. Spot prices source: https://www.ams.usda.gov/mnreports/cnddsq.pdf*

## *Table 23. Glasscock County ELS vs Upland Cropping System RACE Trial - Forsan, TX*

| | | | Pima | Hybrid | Upland |
|---|---|---|---|---|---|
| Grower Cooperator: | Vance Smith | Planting Date(s): | 4/23/2025 | 5/12/2025 | (5/16/2025; hailed out) |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Seed Treatments: | Acephate | | Replanted 6/5/25 |
| Location: | Forsan, TX (Glasscock Co) | Moist. @ planting: | Good | Good | Adequate |
| Replicates: | 3 | Soil Temp @ planting: | 77F @2"; 70F @6" | Adequate | Warm |
| Plot Size: | 24-60 rows x ~1294 to 1644 ft | Seed/Acre: | 30,000 | 30,000 | 30,000 |
| Row Spacing: | 40" | Harvest Date: | 11/6/2025 | 11/6/2025 | 11/6/2025 |
| Beds: | Yes | Harvest Type: | Picker | Picker | Picker |
| Previous crop(s): | Sorghum | GPS Lat: | 32.029286 | | |
| Soil type: | Angelo Clay Loam | GPS Long: | -101.330135 | | |
| Irrigation: | Drip (40", 4 gpma) | Elevation: | 2572 | | |

*NOTE: site experienced a bacterial blight infestation in early August. While the upland was resistant, both ELS varieties were susceptible and yield was reduced by an undeterminable amount.*

Based on Loan Value

| Variety (System) | Lint Yield *(lbs/A, using FBRI gin turnouts)* | Turnout *(%; FBRI gin, grower gin )* | Mic | Length *(in)* | Staple *(1/32 in)* | Strength *(g/tex)* | Uniformity *(%)* | Color Grades | Leaf Grade | Loan Value *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gowan 1432 (Hybrid ELS/Roller Gin) | 1183 | 27.9, 30.2 | 3.50 | 1.35 | 46.0 | 36.6 | 85.6 | 2, 2, 2 | 3.3 | 0.8075 | 963 | 1212 | 1135 |
| PHY807RF (Pima ELS/Roller Gin) | 990 | 31.2, 33.8 | 3.60 | **1.39** | **48.0** | **43.6** | **86.5** | 2, 2, 2 | 3.3 | **0.9098** | 901 | 1076 | 1033 |
| ST6000AXTP (Upland/Saw Gin) | **1750** | **40.4, 42.4** | **4.10** | 1.13 | 36.2 | 30.7 | 81.7 | 21, 21, 21 | **2.3** | 0.5722 | **1002** | **1224** | **1158** |
| *Mean* | *1308* | *33.2* | *3.73* | *1.29* | *41.3* | *37.0* | *84.6* | | *3.0* | *0.7632* | *955* | *1170* | *1109* |
| *LSD* | *262* | *1.2* | *ns* | *0.03* | *1.0* | *3.0* | *3.1* | | *ns* | *0.1506* | *ns* | *ns* | *ns* |
| *R-square* | *0.95* | *1.00* | *0.80* | *0.99* | *0.99* | *0.97* | *0.85* | | *0.67* | *0.91* | *0.25* | *0.33* | *0.28* |
| *CV (%)* | *8.8* | *1.7* | *5.9* | *1.0* | *1.0* | *3.6* | *1.6* | | *19.2* | *8.7* | *16.4* | *15.1* | *16.0* |
| *Prob>F, variety* | *0.0029* | *<0.0001* | *0.0569* | *<0.0001* | *<0.0001* | *0.0008* | *0.0245* | | *0.1600* | *0.0080* | *0.7485* | *0.5722* | *0.6818* |

Based on Spot Price, 12/15/25

| Variety (System) | Plant Population (#/A) | % Stand Establish-ment | Planting Seed Cost *($/A)* | Seed Yield *(lbs/A)* | Seed Turnout *(%; FBRI gin, grower gin )* | Seed Value *($/A)* | Spot Price, 12/15/25 *($/lb)* | Lint Value *($/A)* | Total Crop Value *($/A)* | Net Return *($/A)* |
|---|---|---|---|---|---|---|---|---|---|---|
| Gowan 1432 (Hybrid ELS/Roller Gin) | **15827** | **52.8** | 76.89 | **2210** | **52.2, 51.4** | **249** | 1.3208 | **1567** | **1816** | **1739** |
| PHY807RF (Pima ELS/Roller Gin) | 15682 | 52.3 | 42.63 | 1552 | 48.9, 46.7 | 175 | **1.4242** | 1412 | 1586 | 1543 |
| ST6000AXTP (Upland/Saw Gin) | 13721 | 45.7 | 65.40 | 1975 | 45.6, 42.4 | 222 | 0.6200 | 1085 | 1307 | 1242 |
| *Mean* | *15077* | *50.3* | | *1912* | *48.9* | *215* | *1.1217* | *1355* | *1570* | *1508* |
| *LSD* | *ns* | *ns* | | *205* | *2.3* | *46* | *0.1472* | *ns* | *ns* | *ns* |
| *R-square* | *0.62* | *0.62* | | *0.84* | *0.94* | *0.84* | *0.99* | *0.71* | *0.69* | *0.68* |
| *CV (%)* | *13.6* | *13.6* | | *9.5* | *2.1* | *9.5* | *5.8* | *14.5* | *13.8* | *14.3* |
| *Prob>F, variety* | *0.4467* | *0.4467* | | *0.0270* | *0.0033* | *0.0270* | *0.0002* | *0.0889* | *0.1052* | *0.1101* |

*Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.*

*ELS base loan value is $0.95/lb, and AUP base loan is $0.52/lb, +/- premiums/discounts, according to 2025 CCC loan charts. Spot prices source: https://www.ams.usda.gov/mnreports/cnddsq.pdf*

*Seed value = seed yield x $248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts )*

*ELS systems were spindle picked, roller ginned, and classed at USDA-AMS Cotton Classing in Visalia, CA, as ELS; Upland System was spindle picked, saw ginned, and classed as AUP at the Texas Tech Univ. Fiber and Biopolymer Research Institute.*

## *Table 24. Glasscock County Weather ELS vs Upland Cropping System RACE Trial - Forsan, TX*

| | | | Pima | Hybrid | Upland |
|---|---|---|---|---|---|
| Grower Cooperator: | Vance Smith | Planting Date(s): | 4/23/2025 | 5/12/2025 | (5/16/2025; hailed out) |
| Texas A&M AgriLife: | Ken Legé, Ph.D. | Seed Treatments: | Acephate | | Replanted 6/5/25 |
| Location: | Forsan, TX (Glasscock Co) | Moist. @ planting: | Good | Good | Adequate |
| Replicates: | 3 | Soil Temp @ planting: | 77F @2"; 70F @6" | Adequate | Warm |
| Plot Size: | 24-60 rows x ~1294 to 1644 ft | Seed/Acre: | 30,000 | 30,000 | 30,000 |
| Row Spacing: | 40" | Harvest Date: | 11/6/2025 | 11/6/2025 | 11/6/2025 |
| Beds: | Yes | Harvest Type: | Picker | Picker | Picker |
| Previous crop(s): | Sorghum | GPS Lat: | 32.029286 | | |
| Soil type: | Angelo Clay Loam | GPS Long: | -101.330135 | | |
| Irrigation: | Drip (40", 4 gpma) | Elevation: | 2572 | | |

**On-site weather data for 4/23/25 planting****

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation (W/m²) | Total ET (in) | # Hours>95F | Avg Dev>95F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 86.6 | 61.9 | 513.0 | 544.0 | 1.82 | *n/a* | *n/a* | *n/a* | *n/a* |
| PHS to First Bloom | 91.1 | 70.7 | 489.5 | 532.0 | 1.73 | *n/a* | *n/a* | *n/a* | *n/a* |
| First Bloom to Cutout | 90.4 | 70.5 | 569.0 | 729.0 | 3.29 | 154561 | 5.70 | 22 | 0.57 |
| Cutout to Defoliation | 90.7 | 66.2 | 1703.5 | 1750.0 | 4.67 | 496883 | 18.69 | 117 | 1.39 |
| Defoliation to Harvest | 76.8 | 47.2 | 65.0 | 64.0 | 0.66 | 55254 | 1.84 | 0 | |
| *Total* | | | *3340.0* | *3619.0* | *12.17* | *706698* | *26.23* | *139* | |

**On-site weather data for 5/12/25 planting****

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation (W/m²) | Total ET (in) | # Hours>95F | Avg Dev>95F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 92.4 | 66.4 | 507.5 | 468.0 | 2.79 | *n/a* | *n/a* | *n/a* | *n/a* |
| PHS to First Bloom | 92.6 | 72.3 | 505.0 | 571.0 | 0.48 | *n/a* | *n/a* | *n/a* | *n/a* |
| First Bloom to Cutout | 90.4 | 70.4 | 565.0 | 714.0 | 2.84 | 166076 | 6.08 | 27 | 1.34 |
| Cutout to Defoliation | 90.3 | 65.6 | 1517.0 | 1555.0 | 4.65 | 443243 | 16.58 | 99 | 1.34 |
| Defoliation to Harvest | 76.8 | 47.2 | 65.0 | 64.0 | 0.66 | 55254 | 1.84 | 0 | |
| *Total* | | | *3159.5* | *3372.0* | *11.42* | *664573* | *24.50* | *126* | |

**On-site weather data for 6/5/25 planting****

| Crop Stage* | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in) | Solar Radiation (W/m²) | Total ET (in) | # Hours>95F | Avg Dev>95F |
|---|---|---|---|---|---|---|---|---|---|
| Planting to PHS | 92.3 | 72.1 | 500.5 | 561.0 | 0.22 | *n/a* | *n/a* | *n/a* | *n/a* |
| PHS to First Bloom | 90.1 | 70.3 | 521.0 | 666.0 | 3.10 | 153696 | 5.60 | 23 | 0.90 |
| First Bloom to Cutout | 95.7 | 71.5 | 636.5 | 724.0 | 0.65 | 171943 | 6.76 | 87 | 1.61 |
| Cutout to Defoliation | 88.3 | 63.5 | 997.0 | 957.0 | 4.00 | 304942 | 11.14 | 25 | 0.75 |
| Defoliation to Harvest | 76.8 | 47.2 | 65.0 | 64.0 | 0.66 | 55254 | 1.84 | 0 | |
| *Total* | | | *2720.0* | *2972.0* | *8.63* | *685835* | *25.34* | *135* | |

**PHS @ ≥500DD60s; first bloom @ ≥1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95F=average degrees above 95F when the daily high was ≥95F*

***on-site weather station installed on 6/24/25; weather data previous to that date from NWS weather station at Big Spring Airport; hourly data not available for those days.*

# *Table 25. Dawson County Row Spacing X Seeding Rate RACE Trial Summary - Lamesa, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Jeremy Brown | Planting Date: | 6/16/25 |
| Texas A&M AgriLife: | Rebekah Ortiz | Seed Treatments: | |
| Location: | Lamesa, TX | Moist. @ planting: | Adequate |
| Replicates: | 4 | Soil Temp @ planting: | 80.4F @ 2" 80.1F @ 6" |
| Plot Size: | 8 Rows x ~2640 ft. | GPS Lat: | 32.8265129 |
| Variety: | DP1822XF | GPS Long: | -101.9836733 |
| Beds: | yes | Elevation: | 3034 |
| Previous crop(s): | Mixed Species Raddish, Vetch, Barley, Rye Winter 24 - Cotton Summer 24 | Harvest Date: | 11/15/2025 |
| Soil type: | Patricia and Amarillo Loamy Fine Sand | | |
| Irrigation: | Pivot 3.2 GPMA | | |

Special thanks to Hannah Peirce, Jeremy Brown, and crew

| Month | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Rain (in.) |
|---|---|---|---|---|
| June | 93.1 | 71.7 | 320 | 1.19 |
| July | 91.0 | 69.2 | 626 | 2.44 |
| August | 93.5 | 67.8 | 618 | 1.48 |
| September | 86.3 | 61.6 | 412 | 1.07 |
| October | 81.2 | 51.3 | 219 | 0.22 |
| November | 78.3 | 37.9 | 20 | 0.00 |
| Total | | | 2214 | 6.40 |

| Row Spacing | Seeds/ Ft | Row Spacing x Seeds/Ft | Seeds/A | Turnout (%) | | Lint Yield Land (lbs/A) | | Lint Yield Planted (lbs/A) | | Mic | Length (in) | Staple (1/32 in) | | Strength (g/tex) | Uniformity (%) | Color Grades | Leaf Grade | Loan Value ($/lb) | Land Basis Net Return ($/A) | | Planted Basis Net Return ($/A) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | | | | 30.8 | B | **751** | A | 751 | B | 3.72 | 1.16 | 37.0 | | 32.5 | 81.8 | | 2.1 | 0.5773 | **354** | A | 354 | B |
| 80 | | | | **31.9** | A | 589 | B | **1179** | A | 3.82 | 1.17 | 37.3 | | 32.8 | 82.3 | | 2.3 | 0.5791 | 281 | B | **562** | A |
| | 1.5 | | | 31.6 | | 667 | | 964 | | 3.78 | **1.17** | A | **37.5** | A | 32.8 | 82.4 | | 2.1 | 0.5789 | 317 | | 459 | |
| | 3 | | | 31.0 | | 674 | | 966 | | 3.76 | 1.15 | B | 36.8 | B | 32.5 | 81.7 | | 2.3 | 0.5774 | 318 | | 457 | |
| | | 40 x 1.5 | 19602 | 31.0 | | 738 | | 738 | | 3.78 | 1.17 | | 37.3 | | 32.5 | 82.0 | 21, 11, 21, 11 | 1.8 | 0.5790 | 350 | | 350 | |
| | | 40 x 3 | 39204 | 30.5 | | 764 | | 764 | | 3.67 | 1.15 | | 36.7 | | 32.6 | 81.7 | 21, 21, 21, 21 | 2.5 | 0.5756 | 359 | | 359 | |
| | | 80 x 1.5 | 9801 | 32.2 | | 595 | | 1190 | | 3.78 | 1.18 | | 37.7 | | 33.2 | 82.9 | 21, 21, 21, 21 | 2.5 | 0.5789 | 284 | | 569 | |
| | | 80 x 3 | 19602 | 31.5 | | 583 | | 1167 | | 3.86 | 1.15 | | 36.9 | | 32.4 | 81.8 | 11, 21, 21, 21 | 2.0 | 0.5793 | 278 | | 556 | |
| *Mean* | | | | *31.3* | | *670* | | *965* | | *3.77* | *1.16* | | *37.2* | | *32.7* | *82* | | *2.2* | *0.5782* | *318* | | *458* | |
| *LSD* | | | | *1.0* | | *60* | | *97* | | *ns* | *0.02* | | *0.65* | | *ns* | *ns* | | *ns* | *ns* | *28* | | *46* | |
| *R-square* | | | | *0.64* | | *0.89* | | *0.96* | | *0.26* | *0.69* | | *0.69* | | *0.62* | *0.64* | | *0.54* | *0.56* | *0.88* | | *0.96* | |
| *CV (%)* | | | | *2.1* | | *5.6* | | *6.3* | | *4.1* | *1.1* | | *1.1* | | *2.4* | *1.0* | | *21.9* | *0.4* | *5.7* | | *6.3* | |
| *Prob>F, Row Spacing* | | | | *0.0090* | | *<0.0001* | | *<0.0001* | | *0.2555* | *0.2574* | | *0.2574* | | *0.4933* | *0.2738* | | *0.6141* | *0.1810* | *<0.0001* | | *<0.0001* | |
| *Prob>F, Seeds/Ft* | | | | *0.0984* | | *0.7029* | | *0.9596* | | *0.8874* | *0.0066* | | *0.0066* | | *0.3872* | *0.1372* | | *0.6141* | *0.2453* | *0.9111* | | *0.8786* | |
| *Prob>F, Row Spacing x Seeds/Ft* | | | | *0.8038* | | *0.3373* | | *0.4333* | | *0.2555* | *0.6055* | | *0.6055* | | *0.2487* | *0.2970* | | *0.0282* | *0.1547* | *0.4132* | | *0.4707* | |

| Row Spacing | Seeds/ Ft | Row Spacing x Seeds/Ft | Seeds/A | Planting Seed Cost ($/A) | Plant Population (Plts/A) | | Stand Establishment (%) | |
|---|---|---|---|---|---|---|---|---|
| 40 | | | | | 22651 | A | 79.0 | A |
| 80 | | | | | 9665 | B | 67.3 | B |
| | 1.5 | | | | 11829 | B | 78.3 | A |
| | 3 | | | | 20487 | A | 67.9 | B |
| | | 40 x 1.5 | 19602 | 31.96 | 16607 | B | 84.7 | |
| | | 40 x 3 | 39204 | 63.92 | 28695 | A | 73.2 | |
| | | 80 x 1.5 | 9801 | 15.98 | 7051 | D | 71.9 | |
| | | 80 x 3 | 19602 | 31.96 | 12279 | C | 62.6 | |
| *Mean* | | | | | *16158* | | *73.1* | |
| *LSD* | | | | | *2537* | | *0.09* | |
| *R-square* | | | | | *0.98* | | *0.82* | |
| *CV (%)* | | | | | *9.8* | | *7.3* | |
| *Prob>F, Row Spacing* | | | | | *<0.0001* | | *0.0019* | |
| *Prob>F, Seeds/Ft* | | | | | *<0.0001* | | *0.0037* | |
| *Prob>F, Row Spacing x Seeds/Ft* | | | | | *0.0019* | | *0.6888* | |

*Planting seed costs from the 2025 PCG Seed Cost Calculator.*
*Loan Value and Net Return from 2025 Upland Loan Calculator via Cotton Inc.*
*Values in bold are best within each column and section; Letters within column and section reflect differnces.*

## *Table 26. Swisher County Row Spacing X Seeding Rate RACE Trial Summary - Kress, TX*

| | | | |
|---|---|---|---|
| Grower Cooperator: | Barry Evans | Planting Date: | 5/20/25 |
| Texas A&M AgriLife: | Rebekah Ortiz | Seed Treatments: | AHNPX Core Seed Treatments |
| Location: | Swisher, TX | Moist. @ planting: | adequate |
| Replicates: | 3 | Soil Temp @ planting: | 2"-78F 4" - 70F |
| Plot Size: | 64 Rows x ~2640 ft. | GPS Lat: | 34.3901 |
| Variety: | FM765AX | GPS Long | -101.883 |
| Beds: | No | Elevation: | 3575 ft |
| Previous crop(s): | Grain Sorghum | Harvest Date: | 10/16-17/2025 |
| Soil type: | Mansker, Estacado, Pullman | | |
| Clay Loam: | | | |
| Irrigation: | None | | |

| Month | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Rain (in.) |
|---|---|---|---|---|
| May | 83.58 | 55.00 | 113 | 0.14 |
| June | 87.90 | 65.13 | 489.5 | 4.95 |
| July | 89.29 | 67.06 | 557 | 2.60 |
| August | 91.32 | 66.48 | 568.5 | 2.43 |
| September | 84.93 | 58.03 | 344 | 0.51 |
| October | 82.41 | 57.59 | 170 | 1.90 |
| Total | | | 2242 | 12.53 |

| Trt | Row Spacing | Seeds/ Ft | Seeds/A | Planting Seed Cost ($/A) | Plant Population (Plts/A) | | Stand Establishment (%) | | Turnout (%) | Lint Yield Land (lbs/A) | | Lint Yield Planted (lbs/A) | | Mic | | Length (in) | Staple (1/32 in) | Strength (g/tex) | Uniformity (%) | Color Grades | Leaf Grade | Loan Value ($/lb) | | Land Basis Net Return ($/A) | | Planted Basis Net Return ($/A) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | 1.5 | 26,136 | 39.20 | **20038** | A | **76.7** | | **38.0** | 706 | B | 706 | B | 5.17 | B | 1.15 | **37.0** | **32.8** | 81.6 | 31, 31, 31 | 3.3 | 0.5375 | B | 319 | B | 319 | B |
| 2 | 60 | 1.5 | 13,068 | 19.60 | 10600 | B | 70.7 | | 36.9 | 781 | A | 1172 | A | 4.39 | A | **1.15** | **37.0** | 32.4 | **82.6** | 31, 31, 31 | **3.7** | 0.5593 | B | 368 | A | 552 | A |
| 3 | 60 | 2 | 17,424 | 26.14 | 9244 | B | 60.8 | | 37.3 | **782** | A | **1173** | A | **4.64** | A | 1.13 | 36.3 | 32.0 | 82.3 | 31, 21, 31 | 3.3 | **0.5633** | A | **373** | A | **559** | A |
| *Mean* | | | | | *13294* | | *69.4* | | *37.4* | *756* | | *1017* | | *4.73* | | *1.15* | *36.8* | *32.4* | *82.2* | | *3.4* | *0.5534* | | *353* | | *477* | |
| *LSD* | | | | | *3587* | | *NS* | | *NS* | *57* | | *87* | | *0.30* | | *NS* | *NS* | *NS* | *NS* | | *NS* | *0.0030* | | *27* | | *47* | |
| *R-square* | | | | | *0.96* | | *0.81* | | *0.50* | *0.88* | | *0.99* | | *0.93* | | *0.80* | *0.71* | *0.43* | *0.81* | | *0.80* | *0.94* | | *0.94* | | *0.99* | |
| *CV (%)* | | | | | *11.9* | | *9.2* | | *2.4* | *3.3* | | *3.8* | | *2.8* | | *0.7* | *0.9* | *2.8* | *0.5* | | *9.7* | *0.9* | | *3.4* | | *4.4* | |
| *Prob>F, variety* | | | | | *0.0021* | | *0.0885* | | *0.4078* | *0.0328* | | *0.0002* | | *0.0048* | | *0.0530* | *0.1111* | *0.5915* | *0.0883* | | *0.4444* | *0.0071* | | *0.0097* | | *0.0002* | |

*Planting seed costs from the 2025 PCG Seed Cost Calculator*
*Loan Value and Net Return from 2025 Upland Loan Calculator via Cotton Inc.*
*Values in bold are best within each column.*

****NOTE; These results are based on grab samples ginned and classed at the Texa Tech University Fiber & Bipolymer Research Institute; Windstar gins will be compiling and publishing data from the entire field.**

# Thank You to Our Sponsors and Collaborators!

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