



## Replicated Agronomic Cotton Evaluation Mixed Technology



Grower Cooperator: Matt Hogue  
 County Agent: Reid Lovorn  
 Texas A&M AgriLife: Ken Legé, Ph.D.  
 Location: Brownfield, TX (Terry Co)  
 Replicates: 3  
 Plot Size: 8 rows x ~1/2 mi  
 Row Spacing: 40"  
 Beds: No  
 Previous crop(s): Cotton/wheat cover  
 Soil type: Patricia/ Amarillo, Loamy Fine Sand  
 Irrigation: Pivot (LEPA, 2.5 gpma)

Planting Date: 5/23/2025  
 Seed Treatments: Various  
 fungicide+insecticide  
 Moist. @ planting: Fair-Good; irrigating up  
 Soil Temp @ planting: Warm  
 Seed/Acre: 30,000  
 GPS Lat: 33.257878  
 GPS Long: -102.353869  
 Elevation: 3389  
 Harvest Date: 10/30/2025

Crop Stage*	Avg High Temp (°F)	Avg Low Temp (°F)	DD60 (95°F max)	Long Term DD60	Rain (in)	Solar Radiation (W/m <sup>2</sup> )	Total ET (in)	# Hours >95F	Avg Dev>95F
Planting to PHS	90.0	64.7	507.0	516.0	2.54	201715	8.20	43	1.9
PHS to First Bloom	87.8	67.5	508.5	679.0	6.57	178157	6.53	8	1.8
First Bloom to Cutout	94.0	67.9	575.0	656.0	0.89	185693	7.67	57	1.1
Cutout to Defoliation	85.4	61.0	685.0	806.0	5.38	270933	9.67	4	1.8
Defoliation to Harvest	78.2	48.2	109.5	128.0	0.35	87022	3.22	0	
<b>Total</b>			<b>2385.0</b>	<b>2785.0</b>	<b>15.73</b>	<b>923520</b>	<b>35.29</b>	<b>112</b>	

\*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

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	<b>1608</b>	38.1	4.01	<b>1.21</b>	<b>38.7</b>	32.9	82.5	21, 11, 21	2.3	0.5803	<b>933</b>	<b>1160</b>	<b>1099</b>
Armor9371B3XF	1593	<b>39.9</b>	4.56	1.16	37.1	29.3	83.2	21, 21, 11	<b>1.7</b>	0.5740	914	1137	1079
FM765AX	1540	37.1	4.16	<b>1.19</b>	38.0	32.7	<b>83.8</b>	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	<b>11, 11, 11</b>	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	<b>3.78</b>	1.18	37.9	33.0	81.5	<b>11, 11, 11</b>	2.0	<b>0.5807</b>	837	1059	1007
PHY415W3FE	1429	35.7	4.48	<b>1.20</b>	<b>38.4</b>	<b>34.6</b>	<b>83.6</b>	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	<b>227</b>
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	<b>227</b>
Armor9413XF	23958	79.9	4475	94	84	45.65	2011	49.2	226
PHY400W3FE	24248	<b>80.8</b>	5020	91	86	58.04	<b>2019</b>	49.1	<b>227</b>
FM814AXTP	18368	61.2	4472	93	61	65.45	1978	49.1	222
DP2335B3XF	24684	82.3	6450	98	82	52.17	1968	<b>49.6</b>	221
PHY415W3FE	<b>25628</b>	<b>85.4</b>	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 )