



Replicated Agronomic Cotton Evaluation Mixed Technology

Grower Cooperator: Barker Research Farm
 County Agents: Kerry Siders & David Holland
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 Location: Morton, TX (Cochran Co.)
 Replicates: 3
 Plot Size: 6 rows X 870'-2100'
 Row Spacing: 40"
 Beds: Yes
 Previous crop(s): Cotton
 Soil type: Medissa/Portales/Arch Fine Sandy Loam/Loam
 Irrigation: Pivot

Planting Date: 5/28/2025
 Seed Treatments: Various fungicide+insecticide
 Moist. @ planting: Excellent
 Soil Temp @ planting: 2" 78 F, 4" 83 F, 8" 85 F
 Seed/Acre: 45,000
 GPS Lat: 33.723891
 GPS Long: -102.713791
 Elevation: 3732'
 Harvest Date: 11/14/2025

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 dicamba 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	0.55	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									
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	41565	92.4	5400	93	71	83.15	1091	44.6	123
NG3434B3XF	39570	87.9	4938	93	75	86.09	948	38.2	107
FM765AX	39016	86.7	5201	94	60	67.50	1123	46.6	126
DP2335B3XF	41897	93.1	6450	98	82	78.26	1164	53.8	131
PHY332W3FE	39348	87.4	5543	92	62	85.11	1126	48.6	127
NG4522XF	41122	91.4	4160	92	74	73.37	1239	52.5	139
FM868AXTP	36799	81.8	4825	95	81	70.57	839	38.0	94
Mean	39792	88.4					1092	48	123
LSD	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
Prob>F, variety	0.8148	0.8156					0.2466	0.1312	0.2466

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)