Replicated Agronomic Cotton Evaluation
Mixed Technology

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/m²)	Total ET (in)	# Hours>95 F	Avg Dev>95F
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	
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	
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	*23159*	*57.9*					*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)