



Replicated Agronomic Cotton Evaluation Mixed Technology

Grower Cooperator: Justin Cave
County Agent: Hannah Goebel
Texas A&M AgriLife: Ken Legé, Ph.D.
Location: Ackerly, TX (Dawson & Borden Co)
Replicates: 3
Plot Size: 8 rows x ~2030 to 2590'
Row Spacing: 40"
Beds: Yes
Previous crop(s): Cotton
Soil type: Amarillo Fine Sandy Loam
Acuff Sandy Clay Loam
Irrigation: None

Planting Date: 6/11/2025
Seed Treatments: Various fungicide+insecticide
Moist. @ planting: Good
Soil Temp @ planting: 2" - 80.8F: 6"-77.5F
Seed/Acre: 23,500
GPS Lat: 32.5293802
GPS Long: -101.683956
Elevation: 3094
Harvest Date: 11/7/2025



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>95F	Avg Dev>95F
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	0.78	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	0.0100	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)