



## Replicated Agronomic Cotton Evaluation Mixed Technology

Grower Cooperator: Scott Fred  
 County Agent: Wes Utley  
 Texas A&M AgriLife: Ken Legé, Ph.D.  
 Location: Levelland, TX (Hockley Co)  
 Replicates: 3  
 Plot Size: 10 rows x ~2673'  
 Row Spacing: 40"  
 Beds: No  
 Previous crop(s): Cotton  
 Soil type: Amarillo Fine Sandy Loam  
 Irrigation: Drip (80"; 2 gpma)

Planting Date: 5/16/2025  
 Seed Treatments: Various fungicide+insecticide  
 Moist. @ planting: Fair  
 Soil Temp @ planting: 81F @2"; 75F @6"  
 Seed/Acre: 38,000  
 GPS Lat: 33.661873  
 GPS Long: -102.366678  
 Elevation: 3545  
 Harvest Date: 11/14, 16 & 18/25

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	88.8	61.7	505.0	524.0	3.08	220319	8.94	43	1.69
PHS to First Bloom	87.8	68.2	503.5	601.0	4.15	173634	6.59	5	0.34
First Bloom to Cutout	92.9	69.0	574.5	609.0	1.05	186077	7.60	50	1.48
Cutout to Defoliation	83.4	58.5	872.5	876.0	4.21	378919	13.10	11	0.97
Defoliation to Harvest	77.0	40.3	32.0	17.0	0.00	78102	2.61	0	
<b>Total</b>			<b>2487.5</b>	<b>2627.0</b>	<b>12.49</b>	<b>1037051</b>	<b>38.84</b>	<b>109</b>	

\*PHS @ ≥ 5000 DD60s; 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 facilitated 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	<b>1633</b>	34.4	4.11	1.15	36.8	29.6	82.0	21, 11, 11	2.7	0.5712	<b>933</b>	<b>1165</b>	<b>1108</b>
DP2525B3XF	1598	<b>36.9</b>	3.91	<b>1.25</b>	<b>40.0</b>	<b>33.2</b>	82.1	<b>11, 11, 11</b>	<b>2.0</b>	<b>0.5815</b>	929	1150	1084
PHY332W3FE	1588	30.9	<b>4.37</b>	1.13	36.1	28.7	80.6	<b>11, 11, 11</b>	<b>2.0</b>	0.5652	898	1155	1083
FM868AXTP	1486	30.6	3.63	1.15	36.8	31.5	81.9	<b>11, 11, 11</b>	2.3	0.5753	855	1094	1034
Armor9413XF	1514	35.1	4.09	1.13	36.1	28.8	81.5	<b>11, 11, 11</b>	<b>2.0</b>	0.5683	861	1076	1018
Armor9371B3XF	1477	35.3	<b>4.18</b>	1.13	36.2	28.2	82.0	<b>11, 11, 11</b>	<b>2.0</b>	0.5680	839	1056	983
DP2335B3XF	1514	33.8	3.58	1.20	38.3	30.7	80.1	<b>11, 11, 11</b>	2.7	0.5517	832	1051	981
PHY415W3FE	1394	30.4	<b>4.36</b>	1.16	37.1	30.1	<b>82.4</b>	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	<b>26644</b>	<b>70.1</b>	5400	93	71	70.22	1961	45.2	221
PHY332W3FE	25555	67.3	5000	98	89	71.87	<b>2289</b>	44.4	<b>257</b>
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	<b>45.9</b>	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)