

Replicated Agronomic Cotton Evaluation  
XtendFlex Only Location



Grower Cooperator: Jeff Edwards  
 Texas A&M AgriLife: Ken Legé, Ph.D.  
 County Extension Agents: Kristie Keys  
 Brandon Albus  
 Location: Amherst, TX (Lamb Co)  
 Replicates: 3  
 Plot Size: 8 rows x ~2640'  
 Row Spacing: 40"  
 Beds: Yes  
 Previous crop(s): Failed cotton/rye cover  
 Soil type: Amarillo Fine Sandy Loam  
 Irrigation: Drip (80", 2 gpm)

Planting Date: 6/5/2024 replant (original planting 5/20/2024)  
 Seed Treatments: Various fungicide+insecticide  
 Moist. @ planting: Adequate  
 Soil Temp @ planting: 99F @2"; 83F @6"  
 Seed/Acre: 47,000  
 GPS Lat: 34.058405  
 GPS Long: -102.42802  
 Elevation: 3650  
 Harvest Date: 10/30/2024

Crop Stage*	Avg High Temp (°F)	Avg Low Temp (°F)	DD60 (95°F max)	Long Term DD60	Rain (in)
Planting to PHS	93.2	68.3	518.0	465.0	1.47
PHS to First Bloom	90.7	66.0	488.0	563.0	1.55
First Bloom to Cutout	95.7	68.1	399.5	404.0	0.28
Cutout to Defoliation	86.0	57.6	456.0	530.0	0.99
Defoliation to Harvest	82.8	51.1	205.5	96.0	0.23
<b>Total</b>			<b>2067.0</b>	<b>2058.0</b>	<b>4.52</b>

NOTE: this site experienced season-long 2, 4-D damage, and two hail events - one during squaring, one between defoliation and harvest.

\*PHS @ ≥ 500DD60s; first bloom @ ≥ 1000 DD60s; Cutout = first bloom + 28 d

Sorted by Total Crop Value

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)	Seed Turnout (%)	Seed Yield (lbs/A)	Seed Value (\$/A)	Total Crop Value (\$/A)
FM765AX	779	38.2	4.29	1.10	35.1	30.5	81.5	21, 11, 21	2.3	0.5558	435	46.1	919	94	529
NG3434B3XF	735	38.3	4.15	1.11	35.5	28.7	80.3	11, 11, 11	2.7	0.5525	406	47.8	915	94	500
NG3457B3XF	726	35.8	3.89	1.08	34.5	28.6	80.7	11, 11, 11	1.7	0.5458	396	47.6	966	99	495
DP1820B3XF	680	34.6	3.83	1.12	35.8	31.3	80.5	11, 11, 11	2.0	0.5690	387	44.2	869	89	476
Armor9371B3XF	702	35.1	3.63	1.08	34.4	27.4	81.3	11, 11, 11	1.7	0.5403	380	44.9	901	92	472
DP1822XF	671	34.3	4.27	1.11	35.4	30.7	80.9	21, 11, 21	2.3	0.5617	377	46.5	910	93	470
FMB23AXTP	674	35.4	4.09	1.11	35.6	30.6	81.4	11, 11, 11	2.3	0.5612	379	44.6	855	88	466
NG4409B3XF	658	34.8	4.19	1.10	35.1	29.4	80.9	21, 11, 21	2.0	0.5557	366	46.0	868	89	455
Armor9413XF	686	33.9	3.64	1.08	34.4	27.1	79.1	11, 21, 11	2.0	0.5193	355	45.6	923	95	449
DP2335B3XF	651	34.8	3.30	1.10	35.1	29.3	79.9	11, 11, 11	2.0	0.5113	333	46.1	864	89	421
Mean	693	35.5	3.93	1.10	35.1	29.4	80.7		2.1	0.5473	379	45.9	899	92	471
LSD	ns	0.6	0.19	ns	ns	0.7			ns	0.0168	24	ns	ns	ns	ns
R-square	0.58	0.91	0.79	0.50	0.50	0.86	0.61		0.61	0.64	0.63	0.24	0.39	0.39	0.59
CV (%)	6.3	1.7	5.2	1.8	1.8	2.4	0.9		18.1	3.2	6.7	5.7	8.2	8.2	6.5
Prob>F, variety	0.0993	<0.0001	0.0001	0.1214	0.1214	<0.0001	0.0218		0.0894	0.0142	0.0221	0.7617	0.7355	0.7355	0.0569

Collected by Kristie Keys & Brandon Albus

Variety	Plant Population (#/A)	% Stand Establishment	7/19/2024				8/12/2024				8/27/24		Planting Seed Quality		
			Plant Ht @ Early Squaring (in)	Total Nodes @ Early Squaring	Length of 4th Internode @ Early Squaring (in)	Height-to-Node Ratio @ Early Squaring (in/Internode)	Plant Ht @ Mid Bloom (in)	Total Nodes @ Mid Bloom	Length of 4th Internode @ Mid Bloom (in)	Height-to-Node Ratio @ Mid Bloom (in/Internode)	Node of 1st Fruiting Branch	Nodes Above White Flower @ Hard Cutout	Seed/lb	Warm Germ (%)	Cool Germ (%)
FM765AX	30928	65.8	12.3	9.9	1.29	1.26	18.9	13.2	1.05	1.45	4.8	0.0	5585	93	76
NG3434B3XF	30855	65.6	13.4	9.8	1.14	1.39	20.9	14.1	1.10	1.49	5.4	0.0	5287	93	83
NG3457B3XF	28096	59.8	14.4	11.4	1.24	1.27	22.2	13.2	1.14	1.71	5.9	0.1	5750	93	91
DP1820B3XF	30710	65.3	14.1	10.6	1.31	1.35	21.8	14.6	1.14	1.51	5.0	0.5	5500	86	63
Armor9371B3XF	30274	64.4	14.3	9.9	1.33	1.45	23.7	13.9	1.25	1.73	5.4	0.8	5575	98	72
DP1822XF	38478	81.9	15.1	10.9	1.57	1.40	22.4	13.2	1.05	1.72	5.6	0.4	4612	93	69
FMB23AXTP	27588	58.7	12.3	10.2	1.05	1.23	19.8	13.5	1.02	1.48	5.8	0.0	4788	96	81
NG4409B3XF	27661	58.9	13.8	9.5	1.36	1.50	21.0	13.3	1.06	1.58	5.8	0.1	4940	96	86
Armor9413XF	30274	64.4	14.0	10.0	1.12	1.47	25.3	14.9	1.33	1.74	5.5	0.9	5000	93	81
DP2335B3XF	31581	67.2	12.5	9.4	1.10	1.34	20.3	13.1	1.00	1.56	5.5	0.3	5768	96	77
Mean	30644	65.2	13.6	10.2	1.25	1.37	21.6	13.7	1.11	1.60	5.5	0.3			
LSD	3144	6.7	ns	ns	ns	ns	1.5	ns	ns	ns	0.4	ns			
R-square	0.59	0.59	0.55	0.51	0.41	0.34	0.69	0.40	0.59	0.55	0.70	0.63			
CV (%)	10.9	10.9	12.0	9.4	19.1	13.1	7.4	8.9	12.1	8.3	6.8	142.9			
Prob>F, variety	0.0403	0.0403	0.4317	0.2934	0.3106	0.6368	0.0048	0.6353	0.1202	0.0668	0.0462	0.1978			

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.

Seed value = seed yield x \$226/metric ton (Aug 2024 price, according to US Cotton, Cottonseed Price Received Monthly Trends; USDA Farm Price Received | Ycharts.)