

Replicated Agronomic Cotton Evaluation
Enlist-Only Location



Grower Cooperator: Sawyer Jenkins
 Texas A&M AgriLife: Ken Legé, Ph.D.
 IPM Agent: Keegan McCollum
 Location: Seminole, TX (Gaines Co)
 Replicates: 3
 Plot Size: 8 rows x ~2640'
 Row Spacing: 40"
 Beds: No
 Previous crop(s): Wheat fallow
 Soil type: Amarillo/Patricia Loamy Fine Sand/Fine Sand
 Irrigation: LEPA (1-2 gpma)

Planting Date: 5/23/2024
 Seed Treatments: TriO
 Moist. @ planting: Very Good
 Soil Temp @ planting: 74F @2"; 76F @6"
 Seed/Acre: 30,000
 GPS Lat: 32.80223
 GPS Long: -102.798073
 Elevation: 3443
 Harvest Date: 10/29/2024

Crop Stage*	Avg High Temp (°F)	Avg Low Temp (°F)	DD60 (95°F max)	Long Term DD60	Rain (in)
Planting to PHS	94.7	64.9	508.0	448.0	1.93
PHS to First Bloom	94.3	69.5	496.0	532.0	0.66
First Bloom to Cutout	93.8	67.1	550.5	658.0	1.18
Cutout to Defoliation	89.6	62.6	837.0	970.0	4.16
Defoliation to Harvest	84.4	51.7	225.5	154.0	0.00
Total			2617.0	2762.0	7.93

*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)	Total Crop Value (\$/A)
PHY332W3FE	933	33.9	4.62	1.07	34.3	29.7	80.7	21, 11, 11	2.3	0.5360	500	614
PHY400W3FE	945	34.9	4.30	1.06	33.8	30.0	79.8	11, 12, 21	2.7	0.5182	491	601
PHY443W3FE	910	35.4	4.80	1.02	32.6	30.0	80.4	21, 11, 11	2.3	0.5040	459	566
PHY415W3FE	860	32.9	4.43	1.07	34.3	31.4	81.1	11, 22, 22	3.3	0.5223	450	556
PHY411W3FE	879	34.3	4.76	1.02	32.5	29.1	80.0	21, 11, 11	3.0	0.5047	442	548
PHY475W3FE	838	32.8	4.63	1.04	33.2	30.6	80.1	11, 21, 21	2.7	0.5115	429	537
Mean	894	34.0	4.59	1.05	33.5	30.1	80.4		2.7	0.5161	462	570
LSD	29	0.5	0.14	ns	ns	ns	ns		0.4	ns	ns	ns
R-square	0.90	0.91	0.83	0.36	0.36	0.35	0.32		0.78	0.26	0.67	0.69
CV (%)	2.5	1.2	2.4	4.0	4.0	4.9	1.3		12.8	5.8	6.9	6.0
Prob>F, variety	0.0009	<0.0001	0.0016	0.4295	0.4295	0.5388	0.7105		0.0364	0.7707	0.1201	0.1157
Grower field	727	29.53	4.60	1.061	34.06	29.98	79.82	11, 12	1.56	0.5216	379	
level data						870	35.3					

Variety	Plant Population (#/A)	% Stand Establishment	Seed/lb	Warm Germ (%)	Cool Germ (%)	Seed Yield (lbs/A)	Seed Turnout (%)	Seed Value (\$/A)
PHY332W3FE	28314	94.4	5000	98	97	1109	40.2	114
PHY400W3FE	27515	91.7	5250	98	88	1067	39.3	109
PHY443W3FE	26281	87.6	4450	92	90	1046	40.7	107
PHY415W3FE	27878	92.9	4464	97	92	1034	39.5	106
PHY411W3FE	24974	83.2	4685	91	90	1029	40.2	106
PHY475W3FE	24902	83.0	4511	92	77	1051	41.1	108
Mean	26644	88.8				1056	40.2	108
LSD	1644	5.5				ns	ns	ns
R-square	0.68	0.68				0.77	0.39	0.77
CV (%)	4.8	4.8				3.7	3.1	3.7
Prob>F, variety	0.0286	0.0286				0.2443	0.5334	0.2443

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](#))