

Replicated Agronomic Cotton Evaluation  
Mixed Technology - Reniform site



Grower Cooperator:	Van & Kyle Voigt	Planting Date:	6/3/2024
Texas A&M AgriLife:	Ken Legé, Ph.D.	Seed Treatments:	Various fungicide+insecticide
County Extension Agent:	Sierra Stephens	Moist. @ planting:	Very Good
Location:	Slaton, TX (Lynn Co)	Soil Temp @ planting:	98F @2"; 86F @6"
Replicates:	3	Seed/Acre:	40,000
Plot Size:	8 rows x ~1/2 mi	GPS Lat:	33.378324
Row Spacing:	40"	GPS Long:	-101.600214
Beds:	No	Elevation:	3050
Previous crop(s):	Cotton ( <i>reniform-resistant variety</i> ) /rye cover	Harvest Date:	10/21/2024
Soil type:	Estacado/Acuff Loam		
Irrigation:	Drip (80"; 4-5 gpma)		

Crop Stage*	Avg High Temp (°F)	Avg Low Temp (°F)	DD60 (95°F max)	Long Term DD60	Rain (in)
Planting to PHS	93.2	70.1	519.5	468.0	3.41
PHS to First Bloom	94.1	70.8	496.0	534.0	1.09
First Bloom to Cutout	94.5	70.0	603.5	651.0	0.52
Cutout to Defoliation	88.3	61.8	683.5	783.0	2.36
Defoliation to Harvest	84.3	53.6	165.0	106.0	0.00
<i>Total</i>			2467.5	2542.0	7.38

\*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)
PHY411W3FE	<b>754</b>	<b>34.6</b>	4.35	0.98	31.4	27.7	79.1	11, 21, 11	2.3	0.4812	<b>363</b>	<b>462</b>
PHY332W3FE	592	32.9	<b>3.91</b>	<b>1.11</b>	<b>35.5</b>	<b>28.9</b>	80.0	21, 11, 21	<b>2.0</b>	<b>0.5552</b>	329	413
DP2141NRB3XF	615	34.1	4.38	1.08	34.5	28.2	<b>80.2</b>	21, 21, 21	2.3	0.5343	330	412
DP2143NRB3XF	584	<b>34.2</b>	4.52	1.05	33.7	28.0	80.0	11, 21, 21	2.7	0.5230	305	382
Mean	636	33.9	4.29	1.06	33.9	28.2	79.8		2.3	0.5234	332	417
LSD	50	ns	0.17	0.06	1.9	ns	ns		ns	0.0287	ns	39
R-square	0.94	0.48	0.93	0.83	0.83	0.43	0.50		0.18	0.85	0.82	0.86
CV (%)	4.5	2.8	2.2	3.0	3.0	4.2	0.9		34.3	3.2	6.1	5.4
Prob>F, variety	0.0011	0.2548	0.0011	0.0122	0.0122	0.6256	0.3187		0.7925	0.0083	0.0640	0.0276

Planting Seed Quality

Variety	Plant Population (#/A)	Vigor Rating (1=excellent; 5=very poor)	% Stand Establishment	Seed/lb	Warm Germ (%)	Cool Germ (%)	Seed Yield (lbs/A)	Seed Turnout (%)	Seed Value (\$/A)	Storm Tolerance (1=very tight; 5=very loose)
PHY411W3FE	29766	2.1	74	4685	91	90	<b>961</b>	44.1	<b>99</b>	<b>2.5</b>
PHY332W3FE	<b>35066</b>	<b>2.0</b>	<b>88</b>	5000	98	97	801	44.2	82	2.8
DP2141NRB3XF	31218	2.7	78	6010	93	82	818	<b>45.5</b>	84	<b>2.5</b>
DP2143NRB3XF	32525	2.1	81	5400	94	81	752	44.0	77	2.7
Mean	32144	2.2	80				833	44.0	85	2.6
LSD	2202	ns	6				69	ns	7	ns
R-square	0.84	0.70	0.84				0.92	0.62	0.92	0.41
CV (%)	4.0	11.5	4.0				4.8	1.9	4.8	9.0
Prob>F, variety	0.0111	0.0566	0.0111				0.0032	0.1953	0.0032	0.3376

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](#))