



Evaluation of Planting Systems on the Texas High Plains

Grower Cooperator: Jeremy Brown

Texas A&M AgriLife: Rebekah Ortiz

Location: Lamesa, TX

Replicates: 4

Plot Size: 8 Rows x ~2640 ft.

Variety: DP1822XF

Beds: yes

Previous crop(s): Mixed Species Raddish, Vetch, Barley,

Rye Winter 24 - Cotton Summer 24

Soil type: Patricia and Amarillo

Loamy Fine Sand

Irrigation: Pivot 3.2 GPMA

Planting Date: 6/16/25

Seed Treatments:

Moist. @ planting: adequate

Soil Temp @ planting: 80.4F @ 2" 80.1F @ 6"

GPS Lat: 32.8265129

GPS Long: -101.9836733

Elevation: 3034

Harvest Date: 11/15/2025

Month	Avg High Temp (°F)	Avg Low Temp (°F)	DD60 (95°F max)	Rain (in.)
June	93.1	71.7	320	1.19
July	91.0	69.2	626	2.44
August	93.5	67.8	618	1.48
September	86.3	61.6	412	1.07
October	81.2	51.3	219	0.22
November	78.3	37.9	20	0.00
Total			2214	6.40

Special thanks to Hannah Peirce, Jeremy Brown, and crew



Texas State
Support
Committee



Row Spacing	Seeds/ Ft	Row Spacing x Seeds/Ft	Seeds/A	Turnout (%)	Lint Yield Land (lbs/A)	Lint Yield Planted (lbs/A)	Mic	Length (in)	Staple (1/32 in)	Strength (g/tex)	Uniformity (%)	Color Grades	Leaf Grade	Loan Value (\$/lb)	Land Basis Net Return (\$/A)	Planted Basis Net Return (\$/A)			
40				30.8	B	751	A	751	B	3.72	1.16	37.0	32.5	81.8					
80				31.9	A	589	B	1179	A	3.82	1.17	37.3	32.8	82.3					
	1.5			31.6		667		964		3.78	1.17	A	37.5	A	32.8	82.4			
	3			31.0		674		966		3.76	1.15	B	36.8	B	32.5	81.7			
		40 x 1.5	19602	31.0		738		738		3.78	1.17	37.3	32.5	82.0	21, 11, 21, 11	1.8	0.5790	350	350
		40 x 3	39204	30.5		764		764		3.67	1.15	36.7	32.6	81.7	21, 21, 21, 21	2.5	0.5756	359	359
		80 x 1.5	9801	32.2		595		1190		3.78	1.18	37.7	33.2	82.9	21, 21, 21, 21	2.5	0.5789	284	569
		80 x 3	19602	31.5		583		1167		3.86	1.15	36.9	32.4	81.8	11, 21, 21, 21	2.0	0.5793	278	556
Mean				31.3		670		965		3.77	1.16	37.2	32.7	82					
LSD				1.0		60		97		ns	0.02	0.65	ns	ns					
R-square				0.64		0.89		0.96		0.26	0.69	0.69	0.62	0.64	0.54	0.56	0.88	0.96	
CV (%)				2.1		5.6		6.3		4.1	1.1	1.1	2.4	1.0	21.9	0.4	5.7	6.3	
Prob>F, Row Spacing				0.0090		<0.0001		<0.0001		0.2555	0.2574	0.2574	0.4933	0.2738	0.6141	0.1810	<0.0001	<0.0001	
Prob>F, Seeds/Ft				0.0984		0.7029		0.9596		0.8874	0.0066	0.0066	0.3872	0.1372	0.6141	0.2453	0.9111	0.8786	
Prob>F, Row Spacing x Seeds/Ft				0.8038		0.3373		0.4333		0.2555	0.6055	0.6055	0.2487	0.2970	0.0282	0.1547	0.4132	0.4707	

Row Spacing	Seeds/ Ft	Row Spacing x Seeds/Ft	Seeds/A	Planting Seed Cost (\$/A)	Plant Population (Plts/A)	Stand Establishment (%)		
40					22651	A	79.0	A
80					9665	B	67.3	B
	1.5				11829	B	78.3	A
	3				20487	A	67.9	B
		40 x 1.5	19602	31.96	16607	B	84.7	
		40 x 3	39204	63.92	28695	A	73.2	
		80 x 1.5	9801	15.98	7051	D	71.9	
		80 x 3	19602	31.96	12279	C	62.6	
Mean					16158		73.1	
LSD					2537		0.09	
R-square					0.98		0.82	
CV (%)					9.8		7.3	
Prob>F, Row Spacing					<0.0001		0.0019	
Prob>F, Seeds/Ft					<0.0001		0.0037	
Prob>F, Row Spacing x Seeds/Ft					0.0019		0.6888	

Planting seed costs from the 2025 PCG Seed Cost Calculator

Loan Value and Net Return from 2025 Upland Loan Calculator via Cotton Inc.

Values in bold are best within each column and section; Letters within column and section reflect differences;