

## Cotton Nematode Trials in 2019

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Dawson County: The cotton in this trial got off to an excellent start. However, the irrigation is very limited at this site, and between mid-June to early September, there was only one significant rain event between planting and September (Fig. 1B), which limited the yield potential. There were very high temperatures during August and September (Fig. 1A), and so longer season varieties were able to mature out this year. Yields ranged from 773 to 1,181 lbs of lint/acre. The top yielding entries all had root-knot nematode resistance and included PHY 480W3FE and PHY 580W3FE as well as three breeding lines from Phytogen (Table 1). These top yielding entries all had strong root-knot nematode resistance which is reflected in the low densities measured in the plots in late August. The top yielding variety from Deltapine was DP 1747NRB2XF (ranked 7<sup>th</sup>), which is their top nematode resistant variety, and for BASF was ST 4946GLB2 (ranked 8<sup>th</sup>), which is their best nematode resistant variety. The highest loan value was associated with DP 1646B2XF. The fiber traits are presented in Table 2.

Hockley County: This drip irrigated field (under every bed) had a tough start to the year, like many others, which is also reflected in the relatively low stands (Table 3). However, it ended up with tremendous yields ranging from 1,618 to 2,659 lbs of lint/acre. The top three yielding varieties were: BX2005GLT, FM 1621GL, and ST 4946GLB2. FM 1621GL and ST 4946GLB2 are both considered to have tolerance to root-knot nematode (at least one root-knot nematode resistant gene) but do allow moderate reproduction from the nematode. Nematode pressure was relatively light and erratic at this site. In general, loan values were high for this test (DP 1820B3XF had the highest), and fiber properties are provided in Table 4. The nearest weather station to the field was in Sundown (Fig. 1A). No soil moisture measurements were recorded at this site.

Lubbock County: Reniform nematode density was moderate at this site. Yields ranged from 339 to 1,055 lbs of lint/acre (Table 5). The four top yielding cultivars were experimental lines from Phytogen and had gene(s?) of reniform resistance. There are no current commercial varieties with reniform nematode resistance. They also had the four lowest reniform nematode densities in the trial confirming that they do possess reniform nematode resistance. The difference in plant size during the season for these reniform resistant varieties compared with susceptible varieties was large (Fig. 2). There had been speculation that root-knot nematode resistant genes might confer some benefit in reniform nematode fields. However, that was not true in this test where root-knot resistant varieties ranked 10<sup>th</sup> (DP 1747NRB2XF), 15<sup>th</sup> (ST 4946GLB2), 19<sup>th</sup> (DP 1823NRB2XF), 21<sup>st</sup> (PHY 400W3FE), and 26<sup>th</sup> (PHY 480W3FE). This field was row watered once after planting, but did receive adequate rainfall, especially during May – July (Fig. 1B). DP 1845B3XF and DP 1646B2XF had the highest loan values. Fiber properties are presented in Table 6. The larger plants associated with a reniform nematode resistant line are in Fig. 2.

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Table 1. Root-knot nematode trial in Dawson County.

Variety <sup>1</sup>	Lint yield (lbs/a)	Yield x Loan (\$/a)	Turn out	Loan	RK <sup>3</sup> /500 cc soil	LOG10 (RK+1)	Plants /ft
PX5C45W3FE	1,181	581.53	0.321	49.23	30	0.52	3.06
PHY 480W3FE	1,178	600.06	0.312	50.95	390	1.31	3.00
PHY 580W3FE	1,130	565.88	0.304	50.10	400	2.01	2.99
PX5C05W3FE	1,095	512.24	0.321	46.78	30	0.52	3.02
PX3D43W3FE	1,066	537.01	0.300	50.40	80	1.52	3.29
PHY 500W3FE	1,055	559.28	0.299	53.00	290	1.38	3.17
DP 1747NRB2XF	1,053	515.97	0.322	49.00	780	2.83	2.63
ST 4946GLB2	1,020	519.87	0.295	50.98	3,085	3.35	3.09
PX2B14W3FE	1,014	553.68	0.281	54.63	240	2.31	3.25
NG 4098B3XF	987	532.49	0.280	53.95	12,155	4.04	2.69
DP 1646B2XF	976	543.01	0.329	55.65	9,035	3.95	2.47
PX5E34W3FE	972	532.17	0.311	54.75	80	1.10	2.74
PHY 320W3FE	966	510.05	0.278	52.80	175	1.20	3.33
PX5E28W3FE	952	516.33	0.284	54.25	350	2.40	2.59
DP 1851B3XF	940	475.30	0.325	50.55	6,400	2.91	2.78
FM 1911GLT	920	493.26	0.304	53.63	2,790	3.14	3.21
ST 5707B2XF	913	460.76	0.312	50.48	7,135	3.52	3.03
PHY 490W3FE	905	482.64	0.276	53.33	6,335	3.65	2.70
FM 2574GLT	890	481.45	0.323	54.08	14,850	4.01	2.76
DP 1522B2XF	889	443.80	0.310	49.95	7,400	3.77	2.74
MX19A005B3XF	879	488.01	0.311	55.55	8,235	3.91	2.29
DP 1823NRB2XF	873	484.24	0.304	55.50	1,295	3.05	2.01
CG 9608B3XF	856	425.61	0.337	49.75	7,745	3.76	2.90
BX2076GLTP	845	419.72	0.313	49.70	13,250	3.84	2.86
DP 1820B3XF	840	452.88	0.304	53.93	14,040	3.96	2.31
CP 9178B3XF	839	425.46	0.322	50.73	4,355	3.33	2.17
NG 3994B3XF	835	424.59	0.313	50.88	6,255	2.81	2.16
NG 4689B2XF	823	404.67	0.294	49.20	11,625	4.05	2.87
NG 3956B3XF	811	409.43	0.286	50.50	4,025	3.54	2.76
BX2037GLT	789	438.00	0.332	55.53	23,400	4.36	1.60
NG 3640XF	776	392.40	0.282	50.55	16,400	4.12	2.66
FM 2398GLTP	773	402.86	0.311	52.15	14,170	4.10	2.94
Prob>F	0.001	0.001	0.001	0.001	0.001	0.001	0.001
MSD (0.05) <sup>2</sup>	120	63	0.028	1.94	7523	1.14	0.49

<sup>1</sup>BX=experimental line for BASF, CP=Croplan, DP=Deltapine, FM=Fibermax,

MX=experimental line for Americot, NG=NexGen, PHY=Phylogen, PX=experimental line for Phylogen, and ST=Stoneville.

<sup>2</sup>MSD=minimum significant difference at  $P=0.05$ .

<sup>3</sup>RK=Root-knot nematode (eggs + second-stage juveniles).

Table 2. Fiber properties for Dawson County nematode trial.

Variety	Micro-naire	Length	Unif-ormity	Strength	Elongation	Rd	+b	Leaf
BX2037GLT	4.73	1.12	80.95	31.45	5.45	80.95	7.7	3.0
BX2076GLTP	5.27	1.07	81.85	30.60	5.40	79.90	8.3	2.5
CG 9178B3XF	4.92	1.02	80.30	27.40	5.90	78.50	9.1	1.0
CG 9608B3XF	4.89	1.03	79.95	25.90	5.90	77.10	9.1	3.5
DP 1522B2XF	5.06	1.05	81.75	30.05	7.15	76.30	8.6	4.5
DP 1646B2XF	4.86	1.11	80.50	29.90	6.55	80.30	8.3	3.0
DP 1747NRB2XF	5.26	1.04	81.00	30.70	5.95	77.45	9.2	3.5
DP 1820B3XF	5.00	1.12	80.70	31.25	5.40	78.80	8.3	2.5
DP 1823NRB2XF	4.80	1.11	83.20	32.70	6.50	76.40	8.5	5.0
DP 1851B3XF	5.16	1.05	82.10	31.15	7.00	79.15	8.9	3.0
DP 1909XF	4.71	1.09	80.65	28.85	5.45	80.15	7.5	4.0
FM 1911GLT	4.59	1.08	81.50	29.55	5.55	76.45	8.0	6.0
FM 2398GLTP	5.04	1.06	81.20	28.55	5.60	78.70	8.9	3.5
FM 2574GLT	5.16	1.13	82.15	31.90	5.45	80.25	8.0	3.5
MX19A005B3XF	4.74	1.11	81.65	29.20	5.95	80.85	8.4	3.0
NG 3640XF	5.03	1.04	82.35	32.30	6.45	75.50	9.8	3.0
NG 3956B3XF	4.88	1.04	80.95	28.45	6.25	75.95	9.7	4.5
NG 3994B3XF	4.97	1.07	80.55	28.45	6.00	75.85	9.0	5.5
NG 4098B3XF	4.78	1.11	82.70	34.00	6.30	76.15	8.3	6.0
NG 4689B2XF	5.14	1.04	81.45	29.45	5.20	76.85	9.0	4.0
NG 4777B2XF	4.61	1.06	80.45	28.85	5.05	76.50	9.4	3.5
NG 4936B3XF	4.82	1.10	82.65	27.75	6.15	80.00	7.9	3.5
PHY 320W3FE	4.60	1.06	81.80	29.10	6.25	76.90	8.9	4.5
PHY 480W3FE	4.94	1.04	82.00	29.75	7.10	76.60	8.8	4.5
PHY 490W3FE	4.72	1.07	82.90	33.50	6.70	77.35	8.5	3.5
PHY 500W3FE	4.59	1.05	81.25	30.65	5.70	77.45	8.4	4.5
PHY 580W3FE	5.15	1.05	81.70	31.50	6.50	77.90	8.5	4.0
PX2B14W3FE	4.33	1.11	79.85	29.35	5.55	77.70	8.7	5.5
PX3D43W3FE	5.14	1.06	82.20	32.00	6.25	77.60	9.2	3.0
PX5C05W3FE	5.26	1.01	82.15	31.05	6.80	77.70	8.8	4.0
PX5C45W3FE	5.08	1.03	81.65	31.45	6.70	77.60	8.7	3.0
PX5E28W3FE	4.58	1.09	82.05	32.45	6.50	79.55	8.3	3.0
Prob>F	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
MSD (0.05) <sup>2</sup>	0.19	0.04	1.33	2.03	0.38	1.6	0.4	1.8

<sup>1</sup>BX=experimental line for BASF, CP=Croplan, DP=Deltapine, FM=Fibermax,  
 MX=experimental line for Americot, NG=NexGen, PHY=Phylogen, PX=experimental line for  
 Phylogen, and ST=Stoneville.

<sup>2</sup>MSD=minimum significant difference at P=0.05.

Table 3. Root-knot nematode variety trial in Hockley County.

Variety	Lint yield (lbs/a)	Yield x Loan (\$/a)	Turnout	Loan (¢/lb)	RK <sup>3</sup> /500 cc soil	LOG10 (RK+1)	Plants /ft
BX2005GLT	2,659	1,419	0.322	53.38	30	0.52	1.72
FM 1621GL	2,427	1,323	0.308	54.50	0	0.00	1.39
ST 4946GLB2	2,312	1,204	0.291	52.08	520	1.49	2.54
DP 1845B3XF	2,296	1,299	0.280	56.58	500	2.61	1.78
ST 5600B2XF	2,283	1,144	0.298	50.10	0	0.00	1.91
FM 2498GLT	2,265	1,183	0.303	52.23	810	1.56	2.99
FM 2574GLT	2,191	1,230	0.299	56.13	1,070	2.72	2.19
NG 2982B3XF	2,159	1,177	0.267	54.53	1,730	2.41	2.80
PHY 480W3FE	2,119	1,170	0.285	55.23	30	0.52	1.66
DP 1522B2XF	2,115	1,122	0.285	53.05	360	1.42	2.22
DP 1822XF	2,114	1,179	0.275	55.78	795	2.78	2.06
PHY 400W3FE	2,102	1,144	0.279	54.40	120	1.16	1.99
DP 1747NRB2XF	2,102	1,058	0.264	50.35	840	0.88	2.02
DP 1835B3XF	2,100	1,133	0.290	53.95	50	0.58	1.94
PHY 320W3FE	2,078	1,142	0.258	54.98	180	0.71	2.69
DP 1840B3XF	2,078	1,162	0.285	55.95	315	1.95	1.47
DGX19015B3XF	2,069	1,150	0.286	55.58	75	1.08	1.20
PX3D32W3FE	2,057	1,114	0.273	54.15	50	0.58	2.91
FM 2202GL	2,052	1,092	0.272	53.20	2,240	3.28	1.28
DP 1612B2XF	2,042	1,112	0.271	54.45	145	1.23	2.87
PX2C14W3FE	2,011	1,107	0.238	55.03	25	0.50	2.85
DP 1823NRB2XF	1,989	1,064	0.267	53.48	120	1.64	1.15
CP 9598B3XF	1,984	1,073	0.323	54.08	1,515	2.15	0.94
PX2B14W3FE	1,983	1,038	0.248	52.35	0	0.00	2.99
NG 3500XF	1,948	1,037	0.275	53.23	4,310	2.80	1.96
DGX19021B3XF	1,897	1,016	0.254	53.58	170	1.19	2.54
FM 1911GLT	1,863	1,048	0.280	56.23	1,135	2.89	2.47
CP 9608B3XF	1,843	929	0.284	50.40	540	2.06	1.82
DGX19001B3XF	1,840	1,016	0.257	55.25	160	1.24	1.76
DP 1916B3XF	1,828	986	0.301	53.93	420	2.05	1.31
NG 3930B3XF	1,804	981	0.272	54.38	80	0.63	2.55
DP 1820B3XF	1,742	991	0.288	56.90	560	1.50	1.67
DP 1908B3XF	1,630	925	0.248	56.75	100	0.65	1.83
DGX19010B3XF	1,618	818	0.280	50.58	975	1.59	0.83
Prob>F	0.001	0.001	0.003	0.004	0.001	0.003	0.001
MSD (0.05) <sup>2</sup>	346	187	0.041	3.93	1663	2.26	0.48

<sup>1</sup>BX=experimental line for BASF, CP=Croplan, DGX=Dynagro experimental line, DP=Deltapine, FM=Fibermax, MX=experimental line for Americot, NG=NexGen, PHY=Phylogen, PX=experimental line for Phylogen, and ST=Stoneville.

<sup>2</sup>MSD=minimum significant difference at P=0.05.

<sup>3</sup>RK=Root-knot nematode (eggs + second-stage juveniles).

Table 4. Fiber properties for Hockley County Nematode Trial in 2019.

Variety <sup>1</sup>	Micro-naire	Length	Uniformity	Strength	Elongation	Rd	+b	Leaf
BX2005GLT	4.46	1.14	84.00	31.80	6.65	74.2	9.6	5.5
CP 9598B3XF	4.36	1.15	82.65	30.10	7.30	76.4	9.8	3.5
CP 9608B3XF	3.83	1.14	81.00	30.00	6.20	74.0	10.9	3.5
DGX19001B3XF	3.97	1.20	82.10	30.25	7.55	76.2	10.0	3.0
DGX19010B3XF	3.69	1.16	81.30	29.90	6.35	74.2	10.6	4.0
DGX19015B3XF	4.36	1.16	82.65	30.55	6.75	76.4	10.2	3.0
DGX19021B3XF	3.96	1.21	83.75	34.20	6.70	72.4	10.0	7.0
DP 1522B2XF	4.58	1.14	82.80	30.40	8.20	74.3	10.1	5.0
DP 1612B2XF	4.64	1.14	82.00	31.70	7.70	74.7	8.7	7.0
DP 1747NRB2XF	3.72	1.14	81.60	30.95	6.90	72.5	11.2	5.0
DP 1820B3XF	4.69	1.17	82.30	32.00	5.95	78.3	8.8	3.0
DP 1822XF	4.38	1.16	81.05	32.10	6.05	77.8	9.1	3.5
DP 1823NRB2XF	3.85	1.18	83.55	32.35	7.35	74.8	9.7	5.0
DP 1835B3XF	4.22	1.14	81.35	29.60	6.20	74.3	10.4	3.5
DP 1840B3XF	4.32	1.16	82.30	31.65	7.05	77.5	10.0	3.0
DP 1845B3XF	3.70	1.22	82.10	31.70	8.05	76.5	9.2	6.0
DP 1908B3XF	4.27	1.17	81.35	31.85	5.90	79.1	8.4	4.0
DP 1916B3XF	4.44	1.11	81.60	31.05	6.70	76.3	9.8	4.0
FM 1621GL	4.56	1.15	82.15	31.40	6.10	73.5	8.7	7.5
FM 1911GLT	4.08	1.16	81.65	32.40	6.40	76.2	9.4	4.0
FM 2202GL	3.90	1.13	81.55	31.25	6.75	74.7	9.9	5.0
FM 2498GLT	4.95	1.10	79.80	29.70	6.15	77.1	9.4	3.5
FM 2574GLT	4.20	1.17	81.65	32.80	6.15	77.7	8.9	3.0
NG 2982B3XF	4.05	1.15	83.25	31.70	6.45	73.8	8.4	8.0
NG 3500XF	4.64	1.09	81.55	31.60	7.05	74.9	10.2	3.0
NG 3930B3XF	4.60	1.14	82.60	29.80	6.70	76.4	9.5	5.5
PHY 320W3FE	4.07	1.13	82.55	31.05	6.80	76.5	9.5	4.5
PHY 400W3FE	3.87	1.14	81.85	31.95	6.55	76.5	9.5	5.5
PHY 480W3FE	4.12	1.14	83.00	30.85	7.35	76.0	10.1	4.5
PX2B14W3FE	3.72	1.18	80.15	30.50	6.20	75.1	9.5	6.5
PX2C14W3FE	3.89	1.10	79.95	31.50	7.20	77.1	8.8	5.5
PX3D32W3FE	4.33	1.13	81.50	30.70	7.20	75.4	10.0	4.5
ST 4946GLB2	4.70	1.12	81.55	31.25	7.00	74.8	10.0	5.0
ST 5600B2XF	4.54	1.12	82.40	32.35	7.35	72.7	11.3	4.0
Prob>F	0.009	0.005	0.016	0.007	0.001	0.001	0.001	0.001
MSD (0.05) <sup>2</sup>	0.80	0.07	2.47	2.29	0.45	2.0	0.9	2.5

<sup>1</sup>BX=experimental line for BASF, CP=Croplan, DGX=Dynagro experimental line, DP=Deltapine, FM=Fibermax, MX=experimental line for Americot, NG=NexGen, PHY=Phylogen, PX=experimental line for Phylogen, and ST=Stoneville.

<sup>2</sup>MSD=minimum significant difference at P=0.05.

Table 5. Reniform nematode trial in Lubbock County in 2019.

Variety <sup>1</sup>	Lint yield (lbs/a)	Yield x Loan (\$/a)	Turn out	Loan (€/lb)	Reniform /100 cc soil	LOG10 Reniform	Plants /ft
PX3D43W3FE	1,055	598	0.306	56.73	380	2.48	2.43
PX3D32W3FE	1,021	579	0.295	56.73	430	2.53	2.39
PX5E28W3FE	962	544	0.285	56.55	270	2.43	2.27
PX5E34W3FE	894	482	0.286	53.90	360	2.30	1.75
NG 3500XF	668	355	0.294	53.23	530	2.72	2.72
DP 1845B3XF	634	362	0.308	57.15	710	2.80	1.96
NG 4689B2XF	626	350	0.309	55.93	820	2.88	1.61
PHY 320W3FE	626	356	0.279	56.08	850	2.90	2.57
NG 4545B2XF	598	317	0.299	53.08	630	2.78	2.33
DP 1747NRB2XF	578	315	0.324	54.55	470	2.54	1.98
ST 5600B2XF	558	313	0.316	56.05	730	2.74	1.36
NG 4777B2XF	553	297	0.271	53.75	1,160	2.95	1.79
DP 1612B2XF	531	284	0.306	53.50	590	2.70	2.78
DP 1522B2XF	531	293	0.295	55.20	970	2.93	2.23
ST 4946GLB2	524	292	0.295	55.65	1,080	2.97	2.41
ST 5707B2XF	499	282	0.290	56.58	1,720	3.19	2.73
NG 3780B2XF	494	264	0.278	53.43	590	2.68	2.40
FM 2498GLT	481	264	0.325	54.78	810	2.89	2.62
DP 1823NRB3XF	466	260	0.292	55.78	930	2.77	1.62
DP 1646B2XF	458	262	0.322	57.13	1,450	3.13	1.85
PHY 400W3FE	451	252	0.292	55.75	475	2.57	2.02
DP 1820B3XF	439	244	0.316	55.65	1,010	2.91	2.06
NG 3930B3XF	438	234	0.314	53.53	710	2.78	2.47
DP 1822XF	435	248	0.294	57.03	660	2.67	2.13
FM 1830GLT	427	242	0.320	56.58	1,340	3.09	1.91
PHY 480W3FE	423	237	0.290	52.75	1,530	3.10	2.09
NG 3956B3XF	389	211	0.282	54.10	540	2.71	2.30
DP 1840B3XF	385	219	0.308	56.88	310	2.45	1.99
DP 1916B3XF	383	207	0.323	53.98	850	2.89	1.90
FM 1911GLT	380	214	0.291	56.30	1,060	2.94	2.46
PHY 490W3FE	374	197	0.285	55.90	550	2.73	2.15
NG 4936B3XF	339	193	0.314	56.85	700	2.83	1.72
Prob>F	0.001	0.001	0.025	0.002	0.005	0.002	0.001
MSD (0.05) <sup>2</sup>	76	42	0.040	2.67	912	0.51	0.61

<sup>1</sup>DP=Deltapine, FM=Fibermax, NG=NexGen, PHY=Phylogen, PX=experimental line for Phylogen, and ST=Stoneville.

<sup>2</sup>MSD=minimum significant difference at P=0.05.

Table 6. Fiber properties from a reniform nematode trial in Lubbock County.

Variety <sup>1</sup>	Micro-naire	Length	Uniformity	Strength	Elongation	Rd	+b	Leaf
DP 1522B2XF	4.18	1.11	81.85	31.35	7.65	76.5	9.3	4.0
DP 1612B2XF	4.46	1.08	80.90	31.75	6.15	76.5	9.3	3.0
DP 1646B2XF	4.46	1.18	82.30	31.55	7.25	81.1	8.2	2.5
DP 1747NRB2XF	4.39	1.08	81.60	32.80	6.45	78.5	9.0	2.5
DP 1820B3XF	4.72	1.11	80.65	32.95	5.55	78.3	9.3	2.0
DP 1822XF	4.26	1.16	82.40	35.70	5.85	77.7	8.9	2.5
DP 1823NRB3XF	4.12	1.11	81.70	33.25	7.25	78.1	8.6	3.5
DP 1840B3XF	4.54	1.15	82.35	33.75	6.55	79.2	9.0	2.0
DP 1845B3XF	4.16	1.18	82.00	34.65	7.50	80.0	7.9	4.0
DP 1916B3XF	4.29	1.09	80.10	32.30	6.35	78.3	9.2	1.0
FM 1830GLT	4.64	1.13	81.95	33.00	5.70	80.3	8.2	2.5
FM 1911GLT	4.41	1.11	81.20	31.70	5.95	80.3	8.2	3.0
FM 2498GLT	4.98	1.11	81.70	31.60	5.85	79.7	8.4	3.0
NG 3500XF	4.73	1.06	81.00	33.05	6.50	77.5	9.5	2.5
NG 3780B2XF	4.77	1.08	79.85	31.60	6.55	76.5	9.5	3.0
NG 3930B3XF	4.22	1.08	79.80	29.30	6.25	77.7	9.0	3.0
NG 3956B3XF	4.32	1.08	81.15	31.55	6.55	77.9	8.9	4.0
NG 4545B2XF	4.73	1.07	80.65	30.80	5.80	77.7	9.4	2.0
NG 4689B2XF	4.54	1.12	81.65	33.35	5.50	79.0	9.1	2.5
NG 4777B2XF	4.43	1.08	80.80	31.10	6.20	77.3	9.3	3.0
NG 4936B3XF	4.28	1.14	82.15	32.70	6.65	79.8	8.7	1.0
PHY 320W3FE	3.78	1.12	81.90	32.80	6.65	78.9	8.6	3.5
PHY 400W3FE	3.95	1.11	80.25	31.55	6.10	78.8	8.9	3.0
PHY 480W3FE	3.69	1.10	81.45	32.30	7.05	77.9	9.4	2.5
PHY 490W3FE	3.90	1.13	82.70	33.55	7.00	78.0	9.0	3.5
PX3D32W3FE	4.12	1.15	80.50	33.45	7.00	79.5	8.9	2.5
PX3D43W3FE	4.20	1.12	83.10	33.65	6.80	79.8	8.9	2.5
PX5E28W3FE	3.55	1.13	82.10	33.95	6.90	78.1	8.9	3.0
PX5E34W3FE	3.64	1.12	81.60	33.95	6.75	79.8	8.5	2.5
ST 4946GLB2	4.05	1.10	82.25	32.75	6.80	77.9	8.8	4.5
ST 5600B2XF	4.45	1.14	82.15	34.25	6.95	78.1	9.2	2.5
ST 5707B2XF	4.61	1.13	83.20	33.05	6.65	77.2	9.2	4.5
Prob>F	0.001	0.001	0.064	0.001	0.001	0.001	0.001	0.056
MSD (0.05) <sup>2</sup>	0.39	0.051	2.77	1.79	0.81	1.68	0.54	2.51

<sup>1</sup>DP=Deltapine, FM=Fibermax, NG=NexGen, PHY=Phylogen, PX=experimental line for Phylogen, and ST=Stoneville.

<sup>2</sup>MSD=minimum significant difference at P=0.05.

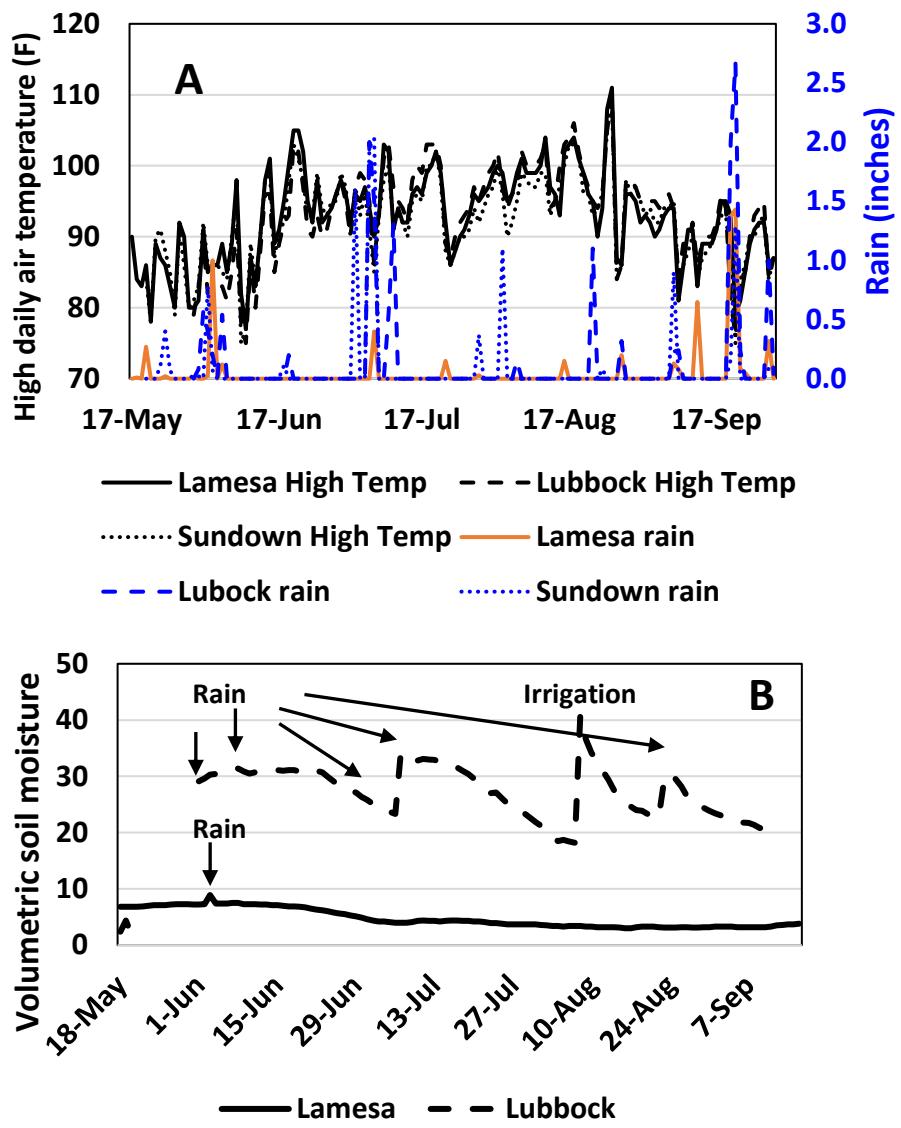


Figure 1A. Highest daily temperature in Lamesa, Lubbock, and Sundown based on the west Texas mesonet. B. Average daily volumetric soil moisture at the Lamesa and Lubbock test sites at a five-inch depth.



Figure 2. Size comparison between reniform nematode resistant PX5E34W3FE and susceptible varieties NG 3930B3XF and DP 1612B2XF at the Lubbock County reniform nematode trial in 2019.