2015 High Plains Verticillium wilt trial results

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Verticillium wilt was surprisingly low across the region in 2015. While the disease did develop at all test sites, only the test in Plainview had sufficient wilt to significantly impact the yield. Looking at relative differences in wilt between varieties across all the sites will likely have some validity as to their tolerance to Verticillium wilt. However, it is still unknown how well these new varieties/breeding lines will yield in the presence of Verticillium wilt. The best entries in terms of low incidence of wilt and defoliation were: Fibermax (FM) 2334GLT, BX 1635GLT, FM 2484B2F (a resistant check present at all sites), FM 2322GL, DynaGro (DG) 3109B2XF, and FM 1830GLT (a resistant check present at all sites). The site at Plains also included bacterial blight ratings, which had more impact on yield than wilt, and the site at Ropes included root-knot nematode density taken in September.

Table 1. Relative Verticillium wilt and defoliation ratings for varieties or breeding lines present in at least two sites (maximum of five sites)

Variety[a]	Relative wilt[b]	Rank of wilt	Relative Defoliation[b]	Rank of Defoliation	Combined Ranking
FM 2334GLT	24.9	4	18.5	1	2.5
FM 1911GLT	16.0	1	32.5	7	4.0
FM 2484B2F	28.4	8	21.5	2	5.0
FM 2322GL	27.4	6	29.7	5	5.5
DG 3109B2XF	32.2	11	25.2	4	7.5
FM 1830GLT	27.7	7	32.6	8	7.5
DG 2615B2RF	29.9	9	33.0	9	9.0
NG 3517B2XF	20.7	2	38.3	20	11.0
DG 14555	30.8	10	36.2	15	12.5
ST 4949GLT	37.0	18	34.0	11	14.5
PHY 339WRF	34.0	14	37.8	18	16.0
AMDG1B2XF	27.3	5	43.1	27	16.0
ST 4747GLB2	35.2	17	37.2	17	17.0
ST 5115GLT	42.5	26	33.5	10	18.0
BX 1636GLT	41.1	24	35.7	13	18.5
PHY 243WRF	34.1	15	40.0	23	19.0
ST 5289GLT	50.1	42	21.7	3	22.5
NG 3500XF	44.5	28	38.0	19	23.5
PHY 308WRF	39.1	22	42.2	25	23.5
DG 3544B2XF	35.0	16	45.2	31	23.5
DP 1410B2RF	32.7	12	48.4	37	24.5
PHY223WRF	52.5	44	31.4	6	25.0
NG 4545B2XF	37.3	20	45.6	33	26.5
FM 9250GL	41.1	25	44.5	29	27.0
FM 1320GL	45.0	29	43.3	28	28.5
CT 15445B2RF	48.2	36	39.9	22	29.0
BX 1638GLT	46.8	33	43.1	26	29.5
BX 1634GLT	42.5	27	45.3	32	29.5
DP 1311B2RF	53.9	48	34.6	12	30.0

Variety[a]	Relative wilt[b]	Rank of wilt	Relative Defoliation[b]	Rank of Defoliation	Combined Ranking
DP 1538B2XF	53.9	49	37.2	16	32.5
NG 4111RF	56.2	52	38.5	21	36.5
ST 4946GLB2	49.0	39	48.2	36	37.5
ST 4848GLT	46.9	34	52.7	42	38.0
NG 1511B2RF	78.2	66	36.0	14	40.0
FM 2007GLT	54.2	50	44.7	30	40.0
BX 1637GLT	49.9	41	49.1	39	40.0
DP 1321B2RF	37.2	19	100.0	61	40.0
DP 1522B2XF	45.8	31	63.5	51	41.0
BX 1531GLT	55.4	51	47.6	34	42.5
PHY 367WRF	49.7	40	60.3	46	43.0
All-Tex Concho B2XF	48.1	35	68.6	52	43.5
ATX12wstR4-267-7B2RF	51.2	43	60.5	47	45.0
PHY 444WRF	95.9	70	41.7	24	47.0
PHY 222WRF	48.7	38	71.7	56	47.0
FM 1900GLT	56.4	53	54.2	43	48.0
NG 3405B2XF	48.6	37	85.9	59	48.0
BX 1532GLT	59.1	55	55.9	44	49.5
PHY 312WRF	67.6	59	51.7	41	50.0
PHX 3003-04WRF	76.6	65	49.0	38	51.5
DP 0912B2RF	65.2	58	59.8	45	51.5
PHY 417WRF	53.8	47	83.2	58	52.5
PHY 499WRF	59.2	56	63.0	50	53.0
PHY 487WRF	79.3	67	49.3	40	53.5
DP 1518B2XF	69.7	60	61.6	48	54.0
ATX15050B2RF	62.1	57	69.7	53	55.0
PHY 427WRF	59.0	54	74.7	57	55.5
NG 3406B2XF	73.4	64	62.6	49	56.5
DP 1441RF	71.4	62	71.1	55	58.5
PHY 495W3RF	69.8	61	94.9	60	60.5
PHY 333WRF	93.0	69	70.8	54	61.5

[a]AMDG are experimental lines for Americot; BX is experimental line for Bayer CropScience; ATX, CT and DG are experiment lines for All-Tex/DynaGro; DP is Deltapine; FM is Fibermax; NG is NexGen; PX is an experimental line for Phytogen; PHY is Phytogen; ST is Stoneville. Checks present at all sites are in bold.

[b]Relative wilt is the incidence of wilt in a test for each variety/the highest incidence of wilt for a variety at every site. A value of 100 would mean the entry had the maximum amount of wilt for a site. Relative defoliation is similar, with the percent defoliation for an entry divided by the maximum % defoliation at that site.

Table 2. Floydada variety trial with low Verticillium wilt incidence

Variety[a]	Yield (lbs of lint/A)	Turn out (%)	Loan value ($/lb)	%Defol. 9/18	%Wilt 8/31	Plants /foot Row	Yield X Loan ($/A)
NG 3517B2XF	1,479	31.4	0.482	17.2	1.3	2.77	712
NG 4545B2XF	1,415	26.9	0.540	22.0	3.5	2.73	764
DP 1518B2XF	1,407	28.4	0.492	16.3	7.7	2.00	693
PHY 243WRF	1,382	27.3	0.467	11.8	3.0	2.40	646
PHY 223WRF	1,363	27.6	0.506	14.9	4.4	2.20	690
PHY 339WRF	1,355	28.8	0.526	17.8	2.3	2.35	713
NG 3406B2XF	1,347	28.5	0.532	19.9	8.8	2.24	717
ST 4747GLB2	1,346	28.3	**0.287**[b]	15.0	4.1	2.31	385
DP 1522B2B2XF	1,340	29.3	0.519	18.6	5.9	2.37	695
ATX 15050B2RF	1,309	28.9	0.480	25.3	5.7	2.28	629
DG 14555	1,305	26.4	**0.286**	14.1	3.5	2.06	374
PHY 312WRF	1,302	27.5	0.490	20.3	12.8	1.69	637
ATX 12wstR4-267-7B2RF	1,294	29.5	0.508	18.2	5.3	2.25	657
DP 0912B2RF	1,294	28.4	0.522	19.7	8.6	1.96	675
BX 1636GLT	1,291	29.1	0.461	17.0	5.6	2.16	595
AMDG1B2XF	1,289	26.3	0.547	17.6	1.4	2.78	705
BX 1634GLT	1,288	27.6	0.517	16.8	5.3	2.18	666
PHY 308WRF	1,287	25.4	0.474	17.6	6.3	2.04	609
FM 1320GL	1,277	28.4	0.510	18.9	5.4	1.65	651
NG 3405B2XF	1,275	28.4	0.521	24.1	7.2	1.97	664
DG 2615B2RF	1,274	28.6	0.518	12.6	1.9	1.84	660
ST 4949GLT	1,273	29.4	0.510	17.0	5.9	1.79	649
BX 1531GLT	1,269	31.7	0.533	17.4	7.7	1.41	677
ST 5115GLT	1,265	27.4	0.512	16.4	5.9	2.44	647
FM 9250GL	1,254	25.9	**0.294**	16.2	3.5	2.51	369
BX 1638GLT	1,249	29.2	**0.280**	15.5	5.3	1.94	349
FM 1830GLT	1,248	30.3	0.550	13.2	3.7	1.82	686
NG 4111RF	1,241	27.3	0.529	15.7	6.2	1.41	656
PHY 417WRF	1,228	27.9	0.450	27.0	6.5	2.33	553
FM 2007GLT	1,216	26.0	0.488	15.3	6.3	2.14	593
PHY 222WRF	1,212	27.0	0.483	21.4	5.8	1.70	585
PHY 333WRF	1,212	26.7	0.466	22.4	14.1	1.65	564
FM 2484B2F	1,202	27.2	0.512	8.9	1.9	2.37	615
PHX 3003-04WRF	1,160	25.9	0.525	17.2	13.2	1.98	608
[c]MSD(0.05)	109	NS	NS	5.9	5.1	0.3	46

[a]AMDG are experimental lines for Americot; BX is experimental line for Bayer CropScience; ATX, CT and DG are experiment lines for All-Tex/DynaGro; DP is Deltapine; FM is Fibermax; NG is NexGen; PX is an experimental line for Phytogen; PHY is Phytogen; ST is Stoneville.

[b]Loan values < $0.40/lb lint were due to leaf ratings >6.5.

[c]MSD is minimum significant difference with P=0.05.

Table 3. Floydada variety trial HVI fiber results

Variety[a]	Mic[b]	Length	Unif[b]	Strength	Elon[b]	Rd	+b	Leaf
AMDG1B2XF	3.60	1.165	81.2	34.1	8.0	72.6	7.8	3.5
ATX 12wstR4-267-7B2RF	3.55	1.245	81.7	32.4	8.6	72.5	7.6	5.5
ATX 15050B2RF	3.25	1.185	81.2	34.1	7.8	73.3	6.9	5.5
BX 1531GLT	3.70	1.140	81.1	31.3	7.4	75.0	7.9	4.5
BX 1634GLT	3.60	1.215	82.3	34.1	5.8	72.4	7.6	4.0
BX 1636GLT	3.15	1.215	80.4	31.9	7.0	75.2	6.8	6.0
BX 1638GLT	3.25	1.185	79.0	34.4	7.3	70.5	7.7	7.0
DG 2615B2RF	3.70	1.175	80.3	34.5	7.9	73.7	8.0	5.0
DG 14555	3.30	1.255	83.2	34.6	8.8	71.3	7.4	7.5
DP 0912B2RF	3.80	1.145	82.7	32.9	8.8	73.0	7.4	5.0
DP 1518B2XF	3.35	1.175	80.8	33.1	7.5	72.7	6.8	5.0
DP 1522B2B2XF	3.70	1.185	81.0	33.3	8.9	72.6	7.5	4.5
FM 1320GL	3.55	1.175	82.1	34.6	7.6	72.2	7.3	5.0
FM 1830GLT	3.80	1.230	82.0	33.1	7.0	76.8	6.8	3.5
FM 2007GLT	3.20	1.220	81.4	33.7	7.0	73.0	6.8	4.5
FM 2484B2F	3.45	1.265	81.8	35.4	7.1	74.8	7.0	5.0
FM 9250GL	3.35	1.215	81.7	33.5	6.2	69.6	6.2	6.5
NG 3405B2XF	3.35	1.130	79.1	30.0	8.9	74.1	8.0	3.0
NG 3406B2XF	3.50	1.155	81.1	32.9	8.8	73.7	7.2	4.0
NG 3517B2XF	3.60	1.180	82.3	33.4	7.6	70.5	7.7	5.5
NG 4111RF	3.40	1.180	82.3	35.5	8.1	73.0	8.2	4.0
NG 4545B2XF	3.50	1.175	81.4	34.7	6.0	73.2	7.7	3.5
PHX 3003-04WRF	3.45	1.180	81.8	34.2	7.7	74.0	7.4	4.5
PHY 222WRF	3.75	1.180	82.2	32.7	8.4	71.4	7.3	6.0
PHY 223WRF	3.55	1.195	81.9	34.1	7.5	71.1	6.9	5.5
PHY 243WRF	3.45	1.225	80.1	31.2	7.6	71.3	7.2	6.0
PHY 308WRF	3.85	1.170	81.4	34.6	8.3	69.4	7.7	6.5
PHY 312WRF	3.45	1.200	82.7	33.9	7.9	71.3	7.6	5.5
PHY 333WRF	3.35	1.200	81.8	33.9	6.9	70.8	7.6	6.0
PHY 339WRF	3.75	1.200	82.2	32.4	8.9	73.3	7.0	4.0
PHY 417WRF	2.90	1.160	81.1	32.2	9.2	72.5	7.2	5.5
ST 4747GLB2	3.45	1.205	80.5	32.5	5.7	69.8	6.9	7.5
ST 4949GLT	3.55	1.135	81.4	31.6	7.6	72.2	7.3	4.0
ST 5115GLT	3.35	1.150	80.1	33.5	7.4	75.4	7.2	4.5
[c]MSD(0.05)	0.31	0.027	2.1	1.3	1.3	3.1	0.5	2.5

[a]AMDG are experimental lines for Americot; BX is experimental line for Bayer CropScience; ATX, CT and DG are experiment lines for All-Tex/DynaGro; DP is Deltapine; FM is Fibermax; NG is NexGen; PX is an experimental line for Phytogen; PHY is Phytogen; ST is Stoneville.

[b]Mic is micronaire; Unif is uniformity; Elon is Elongation.

[c]MSD is minimum significant difference with P=0.05.

Table 4. Garden City variety trial with minimum Verticillium wilt

Variety[a]	Yield (lbs of lint/A)	Value ($/A)	Loan value ($/lb)	Turnout (%)	Plants/ ft row	%Wilt 8/25	%Defol-iation
NG 4545B2XF	2,756	1513	0.549	31.6	2.84	5.3	2.3
BX 1636GLT	2,726	1369	0.502	30.4	2.41	3.6	1.1
FM 2334GLT	2,569	1441	0.561	31.2	2.20	2.3	0.2
PHY 243WRF	2,542	1262	0.497	29.0	2.68	2.0	2.5
DP 1518B2XF	2,528	1169	0.462	28.0	2.73	9.7	7.5
DP 0912B2RF	2,508	1341	0.535	29.1	2.76	7.7	8.4
ST 5115GLT	2,494	1358	0.544	29.0	2.68	5.6	1.0
DP 1321B2RF	2,478	803	0.324[c]	30.6	2.59	4.8	12.3
DP 1522B2XF	2,462	1293	0.525	30.3	2.57	3.9	5.2
ST 4747GLB2	2,436	1132	0.465	28.4	2.43	2.8	2.7
FM 2484B2F	2,432	1224	0.503	28.6	2.43	1.6	0.0
DP 1441RF	2,418	1208	0.500	28.8	2.46	6.5	6.7
FM 1830GLT	2,402	1291	0.538	31.1	2.11	2.9	1.9
PHY 339WRF	2,399	1252	0.522	29.8	2.68	5.0	1.5
DP 1538B2XF	2,395	1296	0.541	31.5	2.37	6.4	2.5
DG 3109B2XF	2,383	1215	0.510	30.7	1.98	2.3	0.6
NG 1511B2RF	2,381	1305	0.548	29.6	2.44	7.3	1.7
FM 2322GL	2,371	1206	0.509	33.4	1.74	3.8	0.4
BX 1532GLT	2,369	1230	0.519	31.0	2.33	6.7	7.5
FM 1900GLT	2,363	1234	0.522	29.4	2.33	5.4	3.1
BX 1638GLT	2,361	1274	0.540	29.4	2.34	4.9	3.5
DP 1311B2RF	2,337	1172	0.502	30.6	1.73	7.1	1.5
AMDG1B2XF	2,334	1248	0.535	28.3	2.76	3.3	3.5
DP 1410B2RF	2,331	1135	0.487	28.8	2.71	2.4	5.0
ST 4949GLT	2,325	1150	0.495	30.4	2.02	2.6	0.6
PHY 495W3RF	2,261	1082	0.479	30.5	2.52	4.8	9.6
PHY 499WRF	2,253	1099	0.488	30.2	2.53	4.8	7.5
DG 2615B2RF	2,223	1108	0.499	28.2	2.32	2.8	2.1
PHY 487WRF	2,203	1052	0.477	27.5	2.81	6.4	4.0
PHY 427WRF	2,168	975	0.450	27.2	2.70	5.7	8.1
ST 5289GLT	2,092	972	0.465	28.9	2.26	3.5	0.6
NG 3405B2XF	2,018	1024	0.508	28.2	2.28	5.2	6.9
[b]MSD (0.05)	205	94	NS	3.3	0.42	4.1	6.7

[a]AMDG are experimental lines for Americot; BX is experimental line for Bayer CropScience; ATX, CT and DG are experiment lines for All-Tex/DynaGro; DP is Deltapine; FM is Fibermax; NG is NexGen; PX is an experimental line for Phytogen; PHY is Phytogen; ST is Stoneville.
[b]MSD is minimum significant difference with P=0.05.
[c]One of 2 ginned samples for this variety had a leaf grade of 8, which resulted in a loan value of $0.126/lb for that sample.

Table 5. Garden City variety trial HVI fiber results

Variety[a]	Mic[b]	Length	Unif[b]	Strength	Elon[b]	Rd	+b	Leaf
AMDG1B2XF	3.95	1.185	82.2	33.30	8.5	73.7	7.5	4.5
BX 1532GLT	3.75	1.180	82.3	30.00	9.1	77.0	7.0	5.0
BX 1636GLT	3.20	1.250	81.2	32.35	7.8	75.5	6.8	4.0
BX 1638GLT	3.45	1.250	81.4	33.30	8.9	75.7	8.0	3.5
DG 2615B2RF	3.10	1.195	80.6	32.45	9.9	77.7	7.8	4.5
DG 3109B2XF	3.85	1.200	82.8	32.75	9.1	73.9	6.9	5.5
DP 0912B2RF	4.20	1.140	82.3	31.15	9.2	75.6	7.4	4.0
DP 1311B2RF	3.60	1.180	81.6	30.40	10.4	76.3	6.6	5.5
DP 1321B2RF	4.00	1.185	82.9	32.80	10.8	74.6	7.4	6.5
DP 1410B2RF	3.60	1.225	81.9	31.65	8.4	74.9	6.9	6.5
DP 1441RF	3.40	1.170	82.7	32.35	9.9	75.4	7.6	5.5
DP 1518B2XF	3.40	1.220	81.5	30.75	8.3	73.5	6.8	6.5
DP 1522B2XF	3.60	1.185	82.6	32.60	10.1	74.9	7.2	4.5
DP 1538B2XF	3.80	1.135	82.1	29.70	9.6	79.0	7.3	4.0
FM 1830GLT	3.75	1.235	82.7	33.60	8.0	78.4	6.6	4.0
FM 1900GLT	3.80	1.215	82.2	33.80	6.5	73.0	7.2	5.0
FM 2322GL	4.05	1.220	81.4	33.15	6.6	75.3	7.2	5.5
FM 2334GLT	3.95	1.250	83.0	31.05	7.6	78.9	6.9	3.0
FM 2484B2F	3.45	1.260	82.2	32.65	8.0	79.3	6.6	5.5
NG 1511B2RF	3.80	1.145	82.2	32.95	9.3	74.3	7.6	3.5
NG 3405B2XF	3.30	1.130	80.8	28.35	10.2	76.4	7.7	5.0
NG 4545B2XF	4.00	1.175	81.9	33.60	8.0	75.3	7.7	3.5
PHY 243WRF	3.60	1.225	80.7	29.90	9.1	74.6	6.8	6.0
PHY 339WRF	3.70	1.220	83.4	31.65	9.2	75.6	6.7	5.0
PHY 427WRF	3.10	1.175	82.2	32.80	9.7	74.9	6.9	6.5
PHY 487WRF	3.40	1.145	81.4	31.05	9.6	73.1	7.5	6.5
PHY 495W3RF	3.30	1.160	82.2	32.60	10.0	74.7	7.5	6.0
PHY 499WRF	3.80	1.160	82.7	32.50	10.2	72.8	7.3	6.5
ST 4747GLB2	3.85	1.205	81.4	30.95	6.8	72.6	6.0	7.0
ST 4949GLT	3.95	1.150	81.4	30.10	9.6	73.2	7.3	6.0
ST 5115GLT	3.50	1.170	80.6	31.45	9.5	78.6	7.0	3.5
ST 5289GLT	4.00	1.175	81.7	30.55	8.4	72.3	6.4	7.0
[c]MSD (0.05)	0.38	0.374	2.2	1.37	1.2	2.0	0.4	2.0

[a]AMDG is experimental lines for Americot; BX is experimental line for Bayer CropScience; ATX, CT and DG are experiment lines for All-Tex/DynaGro; DP is Deltapine; FM is Fibermax; NG is NexGen; PX is an experimental line for Phytogen; PHY is Phytogen; ST is Stoneville.

[b]Mic is micronaire; Unif is uniformity; Elon is Elongation.

[c]MSD is minimum significant difference with P=0.05.

Table 6. Plains Bacterial blight and Verticillium wilt (minimum wilt) variety trial

Variety[a]	Yield X Loan ($/A)	Yield (lbs of lint/A)	Turn out (%)	Loan value ($/lb)	Blight incidence 8/5	Blight incidence 8/26	Blight incidence 9/16	%Defol. 9/16	%Wilt 9/16
NG 5007B2XF	1,325	2,304	34.0	0.575	35.0	71.7	55.0	16.7	5.5
BX 1634GLT	1,292	2,320	29.5	0.557	21.3	57.5	52.5	14.6	3.8
BX 1532GLT	1,290	2,344	31.5	0.550	20.0	35.0	21.3	11.3	1.5
BX 1531GLT	1,269	2,261	31.5	0.561	27.5	18.8	13.8	7.1	4.9
FM 2334GLT	1,263	2,249	31.5	0.562	1.7	0.0	0.0	6.3	1.8
PHY 339WRF	1,260	2,203	30.5	0.572	10.0	0.0	0.0	11.8	3.7
FM 1320GL	1,250	2,272	29.5	0.551	2.5	10.0	5.0	16.3	1.9
FM 1911GLT	1,241	2,227	29.8	0.558	6.7	0.0	0.0	5.4	0.8
PHY 575WRF	1,210	2,234	27.0	0.542	0.0	0.0	1.3	31.8	5.4
FM 1830GLT	1,187	2,059	31.0	0.577	0.0	3.3	0.0	5.0	1.3
NG 1511B2RF	1,185	2,130	30.5	0.556	26.3	57.5	43.8	2.9	13.7
FM 2484B2F	1,181	2,166	28.7	0.545	2.5	0.0	0.0	10.4	1.6
BX 1637GLT	1,116	2,110	28.7	0.529	2.5	1.3	0.0	28.7	5.0
DP 1558NRB2RF	1,099	2,056	30.1	0.535	51.7	80.0	68.8	16.2	1.3
PHY 499WRF	1,095	2,033	28.7	0.539	33.8	51.3	66.3	12.5	7.7
DP 1538B2XF	1,094	1,897	30.1	0.577	16.3	58.8	53.8	21.3	4.1
DP 1410B2RF	1,089	2,003	28.7	0.544	5.0	1.3	0.0	10.0	2.3
ST 6182GLT	1,085	2,007	31.3	0.541	35.0	61.3	41.3	12.9	4.5
DP 0912B2RF	1,078	1,925	28.5	0.560	16.3	58.8	45.0	16.7	6.8
FM 2322GL	1,073	2,030	29.0	0.529	33.3	56.7	32.5	3.8	0.3
PHY 444WRF	1,068	2,125	29.1	0.503	15.0	5.0	15.0	7.1	10.4
ST 4848GLT	1,041	2,048	29.9	0.508	45.0	80.0	67.5	9.2	3.9
DP 1549B2XF	1,015	1,894	29.7	0.536	53.8	95.0	100.0	6.7	2.8
FM 2007GLT	1,002	1,876	27.1	0.534	0.0	0.0	0.0	4.2	3.5
ST 5289GLT	995	1,908	26.7	0.522	5.0	1.3	1.3	19.2	7.1
DP 1441RF	994	1,916	28.6	0.519	55.0	71.7	80.0	21.7	8.6
PHX 3003-04WRF	982	1,860	26.5	0.528	18.8	28.8	7.5	10.4	7.8
PHY 487WRF	978	1,981	27.5	0.494	50.0	80.0	87.5	6.2	12.8
DP 1311B2RF	961	1,845	27.5	0.521	6.3	51.3	46.3	25.0	4.2
DP 1454NRB2RF	911	1,724	30.0	0.528	92.5	100.0	100.0	21.7	3.4
DP 1553B2XF	909	1,697	29.0	0.536	43.8	87.5	85.0	14.2	7.9
DP 1555B2RF	901	1,706	28.3	0.528	35.0	77.5	61.3	31.7	10.0
DP 1321B2RF	885	1,644	29.2	0.539	70.0	100.0	100.0	22.1	1.7
PHY 495W3RF	876	1,730	28.2	0.507	51.7	83.3	86.3	15.4	10.7
DP 1359B2RF	842	1,653	26.1	0.510	6.7	0.0	1.3	11.7	4.4
PHY 417WRF	832	1,847	29.1	0.451	50.0	75.0	27.5	23.8	5.7
[b]MSD(0.05)	113	216	3.6	0.070	38.3	33.0	28.6	17.5	3.5

[a]BX is experimental line for Bayer CropScience; DP is Deltapine; FM is Fibermax; NG is NexGen; PHX is an experimental line for Phytogen; PHY is Phytogen; ST is Stoneville.
[b]MSD is minimum significant difference with P=0.05.

Table 7. Plains variety HVI fiber results

Variety[a]	Mic[b]	Length	Unif[b]	Strength	Elon[b]	Rd	+b	Leaf	Blight rating
BX 1531GLT	3.55	1.155	81.2	31.8	8.2	78.1	8.8	2.0	susceptible
BX 1532GLT	3.95	1.160	82.8	31.9	8.2	75.2	7.8	4.0	susceptible
BX 1634GLT	3.65	1.195	83.5	34.5	6.9	76.6	8.2	2.5	susceptible
BX 1637GLT	3.30	1.225	81.7	34.5	7.0	76.6	7.2	4.0	resistant
DP 0912B2RF	3.80	1.140	82.6	33.3	7.8	75.9	8.4	3.5	susceptible
DP 1311B2RF	3.60	1.190	82.3	33.3	9.0	76.2	7.8	4.5	susceptible
DP 1321B2RF	3.40	1.160	81.9	33.7	10.2	74.7	8.7	3.5	susceptible
DP 1359B2RF	2.80	1.225	81.0	33.4	7.5	76.5	9.1	2.5	resistant
DP 1410B2RF	3.40	1.205	80.6	33.6	8.1	76.5	8.2	3.0	resistant
DP 1441RF	3.25	1.160	81.9	35.2	9.6	75.4	8.6	4.0	susceptible
DP 1454NRB2RF	3.40	1.140	81.1	33.1	8.3	74.8	9.4	3.5	susceptible
DP 1538B2XF	3.85	1.135	82.7	30.7	9.4	77.8	9.1	2.0	susceptible
DP 1549B2XF	3.20	1.170	80.7	33.3	8.5	75.4	8.5	2.0	susceptible
DP 1553B2XF	3.05	1.165	81.3	30.7	9.8	77.9	9.1	2.0	susceptible
DP 1555B2RF	2.95	1.150	79.8	33.9	8.4	78.3	9.3	2.0	susceptible
DP 1558NRB2RF	3.45	1.205	82.3	33.9	7.8	74.8	9.7	3.0	susceptible
FM 1320GL	3.95	1.145	81.5	34.6	8.8	74.9	8.2	3.5	susceptible
FM 1830GLT	3.70	1.265	83.3	34.0	7.3	79.4	7.7	1.5	resistant
FM 1911GLT	3.95	1.210	82.5	34.1	7.3	78.1	7.2	3.5	resistant
FM 2007GLT	3.60	1.235	83.6	33.2	8.3	77.0	7.8	4.0	resistant
FM 2322GL	3.40	1.210	81.2	34.8	6.4	75.2	8.7	3.5	susceptible
FM 2334GLT	3.80	1.275	82.9	32.9	7.7	78.5	7.9	3.0	resistant
FM 2484B2F	3.40	1.270	82.6	34.4	6.6	79.0	8.2	2.0	resistant
NG 1511B2RF	3.70	1.140	81.8	33.8	9.6	75.1	8.4	3.5	susceptible
NG 5007B2XF	3.80	1.160	81.9	31.0	8.9	77.3	8.9	2.0	susceptible
PHX 3003-04WRF	3.40	1.150	81.6	34.5	7.6	76.3	8.1	4.5	susceptible
PHY 339WRF	3.70	1.210	82.3	32.0	9.1	76.2	8.4	2.5	resistant
PHY 417WRF	2.85	1.110	79.2	31.5	9.3	72.7	8.2	5.0	susceptible
PHY 444WRF	2.90	1.250	82.7	34.9	8.2	76.7	8.7	3.5	susceptible
PHY 487WRF	3.20	1.155	81.3	33.5	9.1	71.5	9.3	3.5	susceptible
PHY 495W3RF	3.10	1.135	81.4	33.9	9.0	74.0	8.3	4.0	susceptible
PHY 499WRF	3.70	1.180	82.9	34.9	9.3	74.1	8.2	4.5	susceptible
PHY 575WRF	3.20	1.225	82.0	32.5	8.6	75.5	8.6	2.5	resistant
ST 4848GLT	3.55	1.175	82.3	33.8	8.4	73.3	8.3	5.5	susceptible
ST 5289GLT	3.80	1.180	81.4	32.4	6.8	73.4	7.1	5.0	resistant
ST 6182GLT	3.75	1.140	81.5	31.0	8.7	76.1	8.6	3.5	susceptible
[c]MSD(0.05)	0.53	0.024	1.4	1.5	1.1	1.8	0.6	1.8	susceptible

[a]BX is experimental line for Bayer CropScience; DP is Deltapine; FM is Fibermax; NG is NexGen; PHX is an experimental line for Phytogen; PHY is Phytogen; ST is Stoneville.
[b]Mic is micronaire; Unif is uniformity; Elon is Elongation.
[c]MSD is minimum significant difference with P=0.05.

Table 8. Plainview Verticillium wilt variety trial (with yield limiting wilt levels)

Variety[a]	Yield (lbs of Lint/A)	Turn out (%)	Loan value ($/lb)	%Defol. 9/15	%Wilt 8/28	Plants/ ft row	Yield X Loan ($/A)
NG 3500XF	1,500	30.7	0.534	10.2	32.2	2.13	801
FM 2484B2F	1,417	30.1	0.508	4.0	28.0	2.07	720
ST 4747GLB2	1,391	29.3	**0.250**[b]	8.5	25.6	2.15	348
PHY 223WRF	1,295	29.2	**0.302**	0.6	33.8	2.32	391
FM 1320GL	1,270	30.1	0.512	8.3	34.1	1.49	650
PHY 243WRF	1,244	28.5	0.477	17.3	31.0	2.05	594
FM 9250GL	1,218	26.2	0.441	13.3	29.2	2.37	537
ST 5115GLT	1,194	28.5	0.467	7.5	17.5	2.39	557
FM 1911GLT	1,189	30.1	0.498	0.6	10.3	2.08	592
PHY 312WRF	1,167	29.3	0.469	16.3	24.5	2.17	547
PHY 308WRF	1,160	27.9	0.466	6.5	18.8	2.36	541
CT 15445B2RF	1,153	30.8	0.483	9.6	31.0	1.24	557
DP 1518B2XF	1,146	27.1	**0.310**	20.2	28.6	2.34	355
DG 14555	1,140	28.4	0.427	9.8	20.7	2.08	487
DP 0912B2RF	1,117	28.5	0.471	19.0	39.5	1.80	526
NG 3406B2XF	1,097	29.9	0.507	22.3	40.0	2.20	556
NG 4111RF	1,097	28.8	0.527	9.2	33.6	1.49	578
PHY 333WRF	1,093	30.6	0.451	25.0	40.5	1.77	493
PHX 3003-04WRF	1,076	26.9	0.452	15.4	32.6	1.85	486
PHY 222WRF	1,069	26.9	**0.273**	21.1	29.0	1.86	292
FM 1830GLT	1,054	29.9	0.462	5.6	12.4	1.27	487
BX 1637GLT	1,051	27.9	**0.272**	8.3	22.2	1.90	286
ATX 12wstR4-267-7B2RF	1,048	30.0	0.503	23.0	32.2	2.00	527
DP 1522B2XF	1,043	28.1	0.445	26.5	34.3	2.07	464
All-Tex Concho B2XF	1,036	26.6	0.491	21.7	29.1	1.99	509
NG 3517B2XF	1,032	27.5	**0.251**	6.9	19.0	2.25	259
DG 3544B2XF	1,031	28.3	0.505	12.9	22.9	2.17	521
PHY 339WRF	1,024	29.8	0.481	9.2	17.2	2.07	493
DG 3109B2XF	997	31.5	0.508	1.8	29.2	1.07	506
BX 1532GLT	921	30.4	**0.319**	12.5	40.5	1.33	294
ST 4848GLT	908	28.8	0.513	19.8	28.4	1.65	466
PHY 427WRF	902	26.6	0.412	30.0	32.2	2.01	372
PHY 367WRF	836	27.7	0.452	24.4	30.5	1.51	378
NG 3405B2XF	784	26.8	0.420	39.8	23.0	1.85	329
[c]MSD(0.05)	116	4.2	NS	14.3	18.1	0.52	52

[a]AMDG are experimental lines for Americot; BX is experimental line for Bayer CropScience; ATX, CT and DG are experiment lines for All-Tex/DynaGro; DP is Deltapine; FM is Fibermax; NG is NexGen; PX is an experimental line for Phytogen; PHY is Phytogen; ST is Stoneville.
[b]Loan values < $0.40/lb lint were due to leaf ratings >6.5.
[c]MSD is minimum significant difference with P=0.05.

Table 9. Plainview variety HVI fiber results

Variety[a]	Mic[b]	Length	Unif[b]	Strength	Elon[b]	Rd	+b	Leaf
All-Tex Concho B2XF	2.90	1.175	81.9	32.10	7.4	78.6	7.1	5.0
ATX 12wstR4-267-7B2RF	3.40	1.190	81.8	32.45	7.7	75.6	7.8	5.0
BX 1532GLT	3.50	1.120	80.9	29.40	7.4	75.3	7.4	6.5
BX 1637GLT	3.05	1.175	80.0	31.90	6.2	75.9	7.2	7.0
CT 15445B2RF	3.25	1.165	83.0	33.75	8.3	74.6	7.2	5.5
DG 14555	3.00	1.225	82.3	33.10	8.6	73.9	6.9	7.0
DG 3109B2XF	3.50	1.155	82.1	32.20	7.7	75.7	7.5	5.5
DG 3544B2XF	3.40	1.195	82.9	34.45	6.5	77.2	7.1	5.0
DP 0912B2RF	3.35	1.100	80.8	30.05	8.1	75.4	7.5	6.0
DP 1518B2XF	3.25	1.150	80.7	30.05	8.1	75.6	6.6	6.0
DP 1522B2XF	3.10	1.130	80.9	31.85	9.5	75.5	7.4	7.0
FM 1320GL	3.45	1.140	80.5	32.05	7.3	75.8	7.8	5.0
FM 1830GLT	3.15	1.210	81.7	32.90	6.3	77.7	6.6	6.0
FM 1911GLT	3.25	1.180	81.1	31.65	6.5	78.3	7.1	5.0
FM 2484B2F	3.10	1.215	81.6	31.55	6.4	78.2	6.9	4.5
FM 9250GL	2.85	1.180	81.8	32.75	5.9	74.4	6.8	6.5
NG 3405B2XF	2.75	1.105	80.4	29.05	7.0	74.5	7.9	6.5
NG 3406B2XF	3.30	1.145	82.1	31.50	8.4	76.5	7.3	4.5
NG 3500XF	3.85	1.120	82.3	32.70	8.2	74.8	8.2	4.5
NG 3517B2XF	2.90	1.165	82.3	31.40	7.2	74.2	7.1	7.0
NG 4111RF	3.45	1.135	81.9	33.40	7.8	75.1	8.0	4.0
PHX 3003-04WRF	2.90	1.115	80.2	31.65	6.5	77.0	7.0	5.5
PHY 222WRF	3.20	1.155	82.7	31.25	9.5	73.6	7.4	7.5
PHY 223WRF	3.40	1.195	82.4	32.50	7.0	74.2	7.0	7.0
PHY 243WRF	2.95	1.175	79.6	28.70	8.0	75.4	6.7	4.5
PHY 308WRF	3.10	1.155	82.4	36.15	7.4	73.7	7.4	6.0
PHY 312WRF	3.40	1.155	81.6	30.75	7.0	73.7	7.0	6.5
PHY 333WRF	3.10	1.145	81.6	30.20	6.9	72.9	7.7	6.5
PHY 339WRF	3.25	1.165	81.7	32.00	7.7	76.3	7.1	5.5
PHY 367WRF	3.05	1.130	81.0	31.10	8.3	73.4	7.8	6.5
PHY 427WRF	2.85	1.110	79.9	29.65	7.9	74.0	7.0	7.0
ST 4747GLB2	3.00	1.180	80.0	30.05	6.2	73.3	6.8	7.0
ST 4848GLT	3.40	1.135	80.9	30.40	7.2	74.3	7.8	4.5
ST 5115GLT	3.00	1.130	80.1	31.25	8.0	77.8	7.2	5.0
[c]MSD(0.05)	0.38	0.0339	1.75	2.11	1.19	2.09	0.45	3.16

[a]AMDG are experimental lines for Americot; BX is experimental line for Bayer CropScience; ATX, CT and DG are experiment lines for All-Tex/DynaGro; DP is Deltapine; FM is Fibermax; NG is NexGen; PX is an experimental line for Phytogen; PHY is Phytogen; ST is Stoneville.

[b]Mic is micronaire; Unif is uniformity; Elon is Elongation.

[c]MSD is minimum significant difference with P=0.05.

Table 10. Ropesville variety trial with minimum Verticillium wilt

Variety[a]	Yield (lbs of lint/A)	Turn out (%)	Loan value ($/lb)	%Defol. 9/14	%Wilt 8/25	Plants /foot row	Yield X Loan ($/A)	RK[c]/500 cc soil
DG 2615B2RF	960	31.0	0.5548	7.9	8.8	2.30	533	810 abc
NG 3500XF	955	30.7	0.5263	8.3	6.1	2.51	503	1,980 a-d
FM 2322GL	937	34.0	0.5085	8.5	5.9	2.09	477	1,620 a-d
FM 1911GLT	908	30.3	0.5108	10.4	4.7	2.32	464	125 bcd
FM 2011GT	905	30.9	0.5150	9.9	8.0	2.16	466	240 bcd
BX 1637GLT	897	29.1	0.4860	12.6	13.7	2.25	436	255 a-d
NG 4545B2XF	894	30.9	0.5355	8.1	5.6	2.43	479	2,155 abc
DP 1410B2RF	887	30.8	0.5003	8.5	8.8	2.26	444	990 abc
CT 15445B2RF	877	31.8	0.4960	9.1	8.3	1.96	435	2,260 ab
DP 1522B2XF	872	30.5	**0.3298**[b]	12.4	6.5	2.31	288	300 a-d
FM 1830GLT	863	32.0	0.5458	8.5	9.1	1.70	472	1,700 abc
NG 1511B2RF	862	32.2	0.5058	8.9	9.6	1.84	436	260 a-d
ST 4946GLB2	860	30.4	0.5078	9.9	10.1	2.09	437	55 cd
PHY 312WRF	855	30.0	0.4770	9.1	13.8	2.28	408	360 a-d
BX 1532GLT	852	33.8	0.5305	9.5	13.6	2.07	452	1,710 a-d
ATX 15050B2RF	846	31.3	0.4945	12.3	16.3	2.01	418	265 a-d
PHY 499WRF	836	30.6	0.5040	9.9	12.3	2.10	421	500 a-d
FM 2007GLT	825	29.8	0.4870	10.1	15.3	1.95	402	3,000 abc
FM 2484B2F	810	29.7	0.4960	7.0	6.8	2.24	402	650 abc
AT Concho B2XF	801	28.8	0.5455	13.5	9.3	2.56	437	2,190 abc
AMDG1B2XF	790	30.1	0.4865	7.9	6.7	2.22	384	2,820 a-d
PHY 444WRF	786	31.6	0.5578	8.9	21.6	1.86	439	1,520 ac
DP 1311B2RF	782	32.9	**0.3150**	8.7	9.4	1.34	247	990 a-d
FM 1900GLT	781	30.2	0.4838	12.9	12.2	2.19	378	1,230 abc
PHY 487WRF	763	30.5	0.4730	10.2	13.9	2.13	361	80 cd
ST 4848GLT	755	30.4	0.5103	9.1	10.1	2.13	385	1,170 a-d
PHY 427WRF	754	29.3	0.4940	10.8	12.7	2.22	372	360 bcd
PHY 308WRF	751	28.6	0.4693	10.2	8.4	2.37	352	50 d
DP 0912B2RF	748	31.0	0.4973	8.3	8.5	2.24	372	210 bcd
DG 3544B2XF	740	29.9	0.5493	9.5	7.0	2.59	406	3,060 a-d
PHY 223WRF	729	28.6	0.4898	8.9	11.9	2.24	357	3,360 a
PHY 222WRF	711	27.9	0.5178	16.3	9.7	1.66	368	2,640 a-d
PHY 367WRF	691	28.3	0.4855	9.7	9.2	1.72	335	150 bcd
DG 3109B2XF	675	30.2	0.4830	8.1	4.4	1.69	326	120 bcd
[d]MSD(0.05)	175	2.4	NS	5.1	5.8	0.33	70	[c]

[a]AMDG are experimental lines for Americot; BX is experimental line for Bayer CropScience; AT, ATX, CT and DG are experiment lines for All-Tex/DynaGro; DP is Deltapine; FM is Fibermax; NG is NexGen; PX is an experimental line for Phytogen; PHY is Phytogen; ST is Stoneville.

[b]Loan values < $0.40/lb lint were due to leaf ratings >6.5.

[c]Mean separation based on a LOG^{10} transformation of root-knot nematode counts.

[d]MSD is minimum significant difference with P=0.05.

Table 11. Ropesville variety HVI fiber results

Variety[a]	Mic[b]	Length	Unif[b]	Strength	Elon[b]	Rd	+b	Leaf
All-Tex Concho B2XF	3.80	1.150	81.7	32.35	6.5	75.5	7.1	4.0
AMDG1B2XF	4.00	1.080	79.9	32.05	8.1	73.2	8.1	6.0
ATX 15050B2RF	4.00	1.105	82.4	31.45	7.7	74.8	7.2	6.0
BX 1532GLT	4.25	1.105	81.5	30.75	6.9	75.4	7.3	4.0
BX 1637GLT	3.20	1.150	80.8	32.00	6.6	74.8	7.1	5.0
CT 15445B2RF	4.10	1.100	82.6	35.05	8.1	73.1	7.2	5.5
DG 2615B2RF	4.45	1.110	81.9	33.20	8.5	76.5	8.2	3.5
DG 3109B2XF	3.95	1.070	80.7	30.25	8.3	71.5	7.7	6.0
DG 3544B2XF	4.30	1.150	83.4	34.05	6.1	74.9	7.0	3.5
DP 0912B2RF	4.25	1.050	81.0	30.35	8.0	72.3	7.9	5.0
DP 1311B2RF	4.45	1.095	81.1	28.95	8.8	72.3	7.1	6.5
DP 1410B2RF	3.85	1.145	80.8	32.55	7.4	73.4	7.3	6.0
DP 1522B2XF	4.10	1.085	81.7	32.05	8.3	71.9	7.8	6.0
FM 1830GLT	3.90	1.155	82.4	32.30	6.4	75.3	7.2	4.0
FM 1900GLT	3.60	1.155	81.9	32.30	5.5	71.9	7.4	6.0
FM 1911GLT	3.50	1.125	80.9	31.75	6.4	76.1	7.5	5.0
FM 2007GLT	3.40	1.150	80.0	31.80	6.9	75.4	6.9	6.0
FM 2011GT	3.65	1.100	81.3	31.05	6.0	74.5	7.5	5.0
FM 2322GL	4.20	1.125	80.9	32.50	6.2	72.4	7.7	5.5
FM 2484B2F	3.65	1.135	81.1	32.00	6.1	76.0	7.0	6.0
NG 1511B2RF	4.25	1.085	81.4	31.55	8.8	71.7	8.0	5.0
NG 3500XF	4.20	1.085	81.8	32.75	8.6	73.0	8.3	4.5
NG 4545B2XF	4.10	1.075	80.7	29.75	7.0	74.4	8.4	3.0
PHY 222WRF	3.90	1.105	82.5	30.80	8.2	72.4	8.2	5.0
PHY 223WRF	3.60	1.165	83.6	33.55	7.5	72.7	7.2	6.0
PHY 308WRF	3.90	1.085	82.3	32.90	8.7	70.8	7.7	6.5
PHY 312WRF	3.80	1.120	81.8	31.20	7.0	73.0	7.4	7.0
PHY 367WRF	3.75	1.070	80.8	30.15	7.8	72.2	8.3	6.0
PHY 427WRF	3.55	1.090	81.3	31.15	8.0	74.1	7.8	5.5
PHY 444WRF	3.50	1.150	81.8	31.25	7.2	76.2	8.4	3.0
PHY 487WRF	4.10	1.040	79.8	29.80	8.3	73.2	7.8	6.0
PHY 499WRF	4.05	1.090	82.6	32.55	8.9	73.1	7.9	5.5
ST 4848GLT	4.30	1.115	82.3	31.90	6.5	72.3	7.8	5.0
ST 4946GLB2	4.05	1.105	81.6	32.15	8.9	74.3	7.9	5.5
[c]MSD(0.05)	0.30	0.030	1.5	2.61	1.2	2.4	0.5	3.2

[a]AMDG are experimental lines for Americot; BX is experimental line for Bayer CropScience; ATX, CT and DG are experiment lines for All-Tex/DynaGro; DP is Deltapine; FM is Fibermax; NG is NexGen; PX is an experimental line for Phytogen; PHY is Phytogen; ST is Stoneville.

[b]Mic is micronaire; Unif is uniformity; Elon is Elongation.

[c]MSD is minimum significant difference with P=0.05.