

Verticillium Wilt Trials

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Floydada test: This test was planted on 18 May and harvested on 16 October. It was irrigated with a center pivot system. The field experienced water stress during the flowering and boll filling stages due to the weather conditions and the pump for the center pivot system went down. Verticillium wilt was low to moderate at this site and ranged from 3% to 26% depending on variety. Defoliation which was moderate ranged from 22 to 65%. Lint yield ranged from 1,185 to 1,590 lbs/acre. Loan value ranged from \$0.529 to \$0.575/lb and lint yield x loan value ranged from \$635 to \$894. Yield was affected by both Verticillium wilt and by water stress. The varieties that had the combination of the best yield, yield x loan value, lowest incidence of Verticillium wilt, and least defoliation were FM 2202GL, FM 1911GLT, ST 5600B2XF, and NG 4098B3XF.

Plainview test: This test was planted on 18 May and harvested after an ice storm on 12 November. The field experienced at least one significant hail event during the growing season. Irrigation was with a center pivot system. Verticillium wilt incidence ranged from 8 to 38%, which was slightly higher than the Floydada test and defoliation ranged from 16 to 64%, which was similar to the Floydada site. At harvest time, most of the varieties had a substantial amount of lint that had fallen off the plants, so yield was affected strongly by storm-proofness of varieties as well as Verticillium wilt. Yield ranged from 468 to 1,222 lbs of lint/acre. Yield x loan value ranged from \$268.17 to \$695.65. Loan value ranged from \$0.5788 to \$0.5280/lb. No variety was in the top rating categories of yield, yield x loan value, low wilt incidence, and low defoliation. There were many varieties with low wilt ratings. Only DP 2022B3XF and FM 2334GLT had the lowest category of defoliation ratings. Only FM 2202GL had top yield and yield x loan values.

Ropesville test: This test was planted on 19 May and harvested on 21 October (before the ice storm). This field was infested with both root-knot nematode and Verticillium wilt, so some entries were included with partial or full resistance to root-knot nematode. The field was irrigated with subsurface drip. Based on the top yielding entries, it is apparent that root-knot nematode was more impactful on yield than Verticillium wilt. Verticillium wilt incidence was low and ranged from 2 to 11%, with little separation between varieties. Defoliation was moderate to high and ranged from 24 to 82%. Yield ranged from 1,301 to 1,944 lbs/acre, and yield x loan value ranged from \$745 to \$1,114/acre. Loan value ranged from \$0.547 to \$0.582/lb. The varieties ST 5600B2XF and PHY 394W3FE had the best ratings overall for yield, yield x loan value, wilt incidence, and defoliation. Both varieties are resistant to root-knot nematodes.

Combined Analysis: FM 2334GLT was at all three sites as the Verticillium resistant check, and in the combined analysis, it had the lowest relative combined values of wilt incidence and defoliation. However, it did not yield particularly well in 2020 (relative yield was ranked 47th). The Verticillium susceptible check in all sites was DP 1909XF, which ranked 69th out of 70 entries for relative combined values of wilt incidence and defoliation. The best five entries in terms of wilt and defoliation ratings were: FM 2334GLT, PX2D18W3FE, PHY 394W3FE, FM 1911GLT, and NG 4050XF. However, when ranking all measured attributes (wilt, defoliation, yield, and yield x loan value), then the top five entries were: ST 5600B2XF, FM 2202GL, PHY 394W3FE, NG 4050XF, and FM 2574GLT.

Table 1. Effect of Verticillium wilt (low to moderate) on a variety test near Floydada.

Variety ¹	Lint yield (lbs/a)	Value /acre (\$)	Plants /ft	Wilt (%)	Defoliation%	Turn out	Loan (\$/lb)
FM 2202GL	1,590³	894.20	2.09	16.0	31.3	0.3523	0.5625
FM 1621GL	1,570	866.17	2.41	14.8	49.0	0.3538	0.5518
FM 2574GLT	1,535	877.84	2.43	3.3	38.6	0.3608	0.5720
DP 1822XF	1,515	868.10	2.12	16.1	48.6	0.3474	0.5730
FM 1911GLT	1,514	859.30	2.60	7.2	30.4	0.3528	0.5675
PX4B08W3FE	1,507	797.20	2.71	11.9	41.4	0.3206	0.5290
AMX19A016B3XF	1,505	798.71	2.61	19.4	36.5	0.3268	0.5308
ST 5600B2XF	1,496	828.65	2.13	7.8	30.7	0.3663	0.5540
Armor 9598B3XF	1,494	859.62	2.15	14.1	39.6	0.3490	0.5753
FM 2498GLT	1,472	808.95	2.58	5.6	36.8	0.3554	0.5495
PHY 394W3FE	1,471	838.60	2.99	4.2	25.6	0.2996	0.5700
FM 2334GLT	1,460	800.03	2.59	7.2	23.9	0.3830	0.5478
DP 2012B3XF	1,445	824.95	2.44	21.8	56.6	0.3514	0.5710
NG 4098B3XF	1,444	829.58	2.24	7.1	33.5	0.3230	0.5745
Armor 9210B3XF	1,434	822.53	2.11	14.7	60.8	0.3555	0.5735
FM 2398GLTP	1,419	777.85	2.51	10.7	42.4	0.3454	0.5480
NG 4050XF	1,417	799.75	2.17	7.3	35.8	0.3371	0.5643
PHY 210W3FE	1,381	743.12	2.46	14.2	25.4	0.3209	0.5383
PX2D18W3FE	1,379	749.49	2.55	7.8	21.6	0.3216	0.5435
AMX19A018B3XF	1,358	777.40	2.29	12.0	48.7	0.3164	0.5725
WFUT9B3XF	1,353	761.72	2.38	7.0	50.1	0.3468	0.5628
NG 3956B3XF	1,350	733.42	2.79	6.2	30.8	0.3491	0.5433
NG 3930B3XF	1,349	770.40	2.67	7.0	38.8	0.3280	0.5713
DP 2022B3XF	1,312	725.54	2.52	19.2	31.1	0.3088	0.5530
AMX19A015B3XF	1,299	738.49	2.69	19.3	47.8	0.2943	0.5683
NG 3994B3XF	1,297	730.58	1.75	12.8	55.1	0.3401	0.5635
AMX19B001B3XF	1,290	730.93	2.41	10.4	61.7	0.3444	0.5665
DP 2020B3XF	1,284	724.66	2.38	6.6	55.3	0.3294	0.5645
Armor 9608B3XF	1,273	692.12	1.91	25.3	51.8	0.3613	0.5438
DP 1909XF	1,260	722.88	2.25	24.8	57.9	0.3255	0.5735
NG 4936B3XF	1,240	709.88	2.36	22.1	54.7	0.3305	0.5725
Armor 9831B3XF	1,230	697.62	1.98	20.7	58.1	0.3329	0.5673
AMX19A014B3XF	1,199	655.96	2.63	13.0	32.8	0.3155	0.5470
ST 4480B3XF	1,196	674.43	2.18	26.2	64.6	0.3063	0.5638
NG 2982B3XF	1,188	635.00	2.45	12.7	45.7	0.2958	0.5343
ST 4990B3XF	1,185	676.78	2.12	11.1	48.8	0.3411	0.5713
Prob>F	0.0001	0.0001	0.001	0.001	0.001	0.0001	0.0695
MSD (0.05)	148	82.38	0.35	14.0	12.0	0.0329	0.0452

¹AMX are experimental lines from Americot, CP and WFU=experimental lines from Winfield United, and PX are experimental lines from PhytoGen.

²MSD is the minimum significant difference for that measurement (P=0.05).

³Numbers that are in bold represent the best (P=0.05) for that test.

Table 2. Effect of variety on fiber properties for a test near Floydada.

Variety ¹	Mic.	Length	Unif.	Strength	Elon.	Rd	+b	Leaf	CG
AMX19A014B3XF	4.21	1.08	80.50	28.35	7.05	81.35	9.15	1.5	11-1, 11-2
AMX19A015B3XF	3.78	1.15	81.85	31.50	7.30	81.25	8.45	1.0	11-2, 21-2
AMX19A016B3XF	4.55	1.06	81.05	28.80	7.50	79.70	9.35	1.5	11-2, 11-4
AMX19A018B3XF	4.76	1.12	82.00	31.10	7.05	78.25	9.00	3.0	21-1, 21-2
AMX19B001B3XF	4.65	1.11	81.90	31.45	6.00	83.00	8.25	1.0	11-1, 11-2
Armor 9210B3XF	4.55	1.14	82.80	32.30	6.90	78.70	9.10	2.0	21-1
Armor 9598B3XF	4.52	1.14	82.45	31.30	6.80	82.65	8.15	1.0	11-1, 11-2
Armor 9608B3XF	4.01	1.08	80.40	27.10	5.95	80.50	8.70	1.0	11-1, 21-2
Armor 9831B3XF	4.23	1.10	81.50	31.30	6.90	82.05	8.35	1.5	11-2, 21-1
DP 1822XF	4.69	1.12	81.50	32.65	5.75	80.45	8.80	1.0	21-1
DP 1909XF	4.46	1.13	82.40	32.10	5.70	83.70	7.35	1.0	11-1, 21-2
DP 2012B3XF	4.48	1.12	81.35	29.10	6.00	82.70	8.50	1.0	11-1, 11-2
DP 2020B3XF	4.56	1.11	81.60	29.50	5.75	82.30	8.90	1.5	11-1
DP 2022B3XF	4.18	1.09	81.30	28.85	5.50	79.10	7.95	3.0	31-1
FM 1621GL	4.89	1.09	82.20	31.15	5.60	80.55	7.95	2.5	21-1, 31-1
FM 1911GLT	4.56	1.12	81.50	31.40	5.75	82.15	7.80	1.0	21-1
FM 2202GL	4.42	1.10	81.95	31.60	6.40	79.65	8.50	1.5	21-2
FM 2334GLT	5.14	1.13	82.05	30.25	5.80	81.35	8.40	1.0	11-2, 21-1
FM 2398GLTP	5.15	1.10	82.05	31.10	6.10	81.60	8.15	1.0	21-1
FM 2498GLT	5.01	1.10	82.15	31.20	5.70	81.20	8.45	1.0	21-1
FM 2574GLT	4.55	1.13	82.35	30.50	5.70	81.85	8.00	1.0	11-2, 21-1
NG 2982B3XF	4.43	1.07	82.45	31.25	5.80	79.00	7.75	3.5	31-1
NG 3930B3XF	4.77	1.12	82.80	29.60	6.10	81.55	8.95	1.0	11-1
NG 3956B3XF	4.46	1.09	81.70	30.05	6.70	80.00	9.10	1.5	11-2, 21-1
NG 3994B3XF	4.57	1.10	81.15	28.85	6.45	80.95	9.10	2.0	11-1, 11-2
NG 4050XF	4.40	1.12	82.40	31.05	6.40	79.95	7.85	2.5	21-2, 31-1
NG 4098B3XF	3.83	1.17	81.05	34.60	6.20	79.55	8.35	2.5	21-2, 31-1
NG 4936B3XF	4.66	1.15	82.25	29.55	6.80	83.25	7.95	1.0	11-1, 11-2
PHY 210WFE	4.85	1.08	82.05	30.65	5.40	81.20	8.10	2.0	21-1
PHY 394W3FE	3.85	1.14	80.10	30.95	5.75	79.85	8.65	2.5	21-1
PX2D18W3FE	4.33	1.09	80.05	29.65	5.90	79.95	8.30	1.5	21-1, 21-2
PX4B08W3FE	4.52	1.05	81.50	32.40	6.70	82.85	7.95	1.5	11-2, 21-1
ST 4480B3XF	4.42	1.13	80.70	30.30	5.75	85.15	7.40	1.0	11-1
ST 4990B3XF	4.35	1.13	82.25	29.70	6.90	83.25	8.20	1.0	11-1
ST 5600B2XF	4.62	1.10	82.20	32.30	6.85	79.70	9.05	1.5	11-2, 21-4
WFUT9B3XF	4.57	1.10	80.40	31.20	7.00	81.75	8.80	1.0	11-1
Prob>F	0.0001	0.0001	0.002	0.0001	0.0001	0.0001	0.0001	0.0001	
MSD (0.05)	0.45	0.03	1.50	2.05	0.26	2.32	0.55	1.1	

¹AMX are experimental lines from Americot, CP and WFU=experimental lines from Winfield United, and PX are experimental lines from Phytogen.

²MSD is the minimum significant difference for that measurement ($P=0.05$).

³Mic=micronaire, unif=uniformity, elon=elongation, CG=color grade.

Table 3. Effect of Verticillium wilt (low to moderate) on a variety test near Plainview.

Variety	Lint Yield (lbs/a)	Value (\$)/a	Plants /foot row	%Wilt	%Defoliation	Turnout	Loan (\$/lb)
FM 2202GL	1,222	695.65	1.90	19.0	29.2	0.333	0.5695
FM 2398GLTP	963	553.73	2.04	14.3	43.2	0.324	0.5753
Armor 9210B3XF	953	547.64	2.04	14.5	49.6	0.365	0.5748
PHY 210WFE	945	534.54	2.45	14.8	30.5	0.314	0.5658
AMX19A016B3XF	944	508.16	2.19	26.1	40.9	0.314	0.5383
ST 4550GLT	930	533.50	2.19	21.6	64.4	0.327	0.5735
WFUT9B3XF	889	510.29	1.88	33.1	41.5	0.310	0.5740
DP 1822XF	871	503.84	1.88	11.1	34.8	0.303	0.5788
NG 3930B3XF	831	475.05	1.90	8.9	41.3	0.296	0.5720
NG 2982B3XF	828	437.32	1.96	25.2	52.8	0.280	0.5280
DP 1909XF	823	471.68	1.55	38.0	51.8	0.278	0.5733
AMX19A014B3XF	823	459.78	2.06	20.2	45.7	0.284	0.5590
AMX19B003B3XF	823	441.52	1.64	28.1	29.0	0.275	0.5368
FM 1320GL	818	464.05	1.44	20.1	55.7	0.273	0.5673
PHY 332W3FE	816	470.28	2.04	13.9	34.0	0.277	0.5765
FM 1621GL	812	459.05	1.56	24.1	42.1	0.311	0.5655
PX2C14W3FE	810	452.36	2.13	8.4	32.9	0.278	0.5583
PHY 250W3FE	807	458.48	2.07	16.5	29.6	0.298	0.5683
NG 3994B3XF	803	461.57	1.50	14.9	43.8	0.311	0.5748
NG 3500XF	791	435.31	1.46	11.6	26.7	0.294	0.5505
AMX19B001B3XF	779	446.60	2.05	20.6	59.0	0.312	0.5733
AMX19A015B3XF	765	439.82	1.74	21.3	45.9	0.278	0.5753
DP 2022B3XF	764	429.37	1.81	19.4	16.1	0.261	0.5620
DP 1820B3XF	753	435.55	1.70	10.6	28.1	0.295	0.5788
Armor 9598B3XF	739	402.90	1.72	13.8	31.5	0.301	0.5450
FM 2334GLT	733	420.09	1.91	11.1	24.6	0.281	0.5735
PHY 400W3FE	716	382.84	1.72	37.3	41.5	0.303	0.5345
FM 2322GL	716	411.63	1.53	13.6	30.9	0.290	0.5753
AMX19A018B3XF	710	407.76	1.69	24.0	31.9	0.275	0.5745
Armor 9371B3XF	700	399.42	2.13	20.5	55.9	0.298	0.5708
DP 2038B3XF	695	378.77	1.58	13.7	38.6	0.304	0.5448
DP 1823NRB2XF	686	384.99	1.51	30.2	44.0	0.285	0.5610
DP 2012B3XF	647	363.34	2.03	13.8	43.0	0.280	0.5618
DP 2020B3XF	646	367.43	1.85	24.9	34.0	0.256	0.5690
Armor 9831B3XF	560	321.33	1.69	22.9	36.3	0.277	0.5738
ST 4990B3XF	468	268.17	1.64	23.5	46.1	0.264	0.5730
Prob>F	0.0001	0.0001	0.0001	0.0002	0.0001	0.0001	0.039
MSD (0.05)	207	115.97	0.35	15.7	10.5	0.024	0.0409

¹AMX are experimental lines from Americot, CP and WFU=experimental lines from Winfield United, and PX are experimental lines from PhytoGen.

²MSD is the minimum significant difference for that measurement (P=0.05).

³Numbers that are in bold represent the best (P=0.05) for that test.

Table 4. Effect of variety on fiber properties for a test near Plainview.

Variety ¹	Mic.	Length	Unif.	Strength	Elon.	Rd	+b	Leaf	CG
AMX19A014B3XF	3.95	1.09	81.05	28.60	6.75	82.10	8.70	2.0	11-1,11-2
AMX19A015B3XF	3.55	1.15	82.20	30.55	6.95	82.00	8.10	1.5	11-2,21-1
AMX19A016B3XF	3.98	1.06	81.25	28.40	7.10	81.70	8.60	2.0	11-2
AMX19A018B3XF	3.79	1.13	82.40	32.35	6.60	80.15	8.95	2.0	11-2,21-1
AMX19B001B3XF	4.16	1.12	82.70	30.70	5.65	82.50	7.95	1.0	11-2,21-1
AMX19B003B3XF	3.29	1.13	81.15	29.10	5.85	82.80	8.55	1.0	11-1
Armor 9210B3XF	4.76	1.14	83.70	32.25	6.75	81.70	8.90	1.0	11-1,11-2
Armor 9371B3XF	3.53	1.12	83.15	29.15	6.05	83.20	7.95	1.0	11-2
Armor 9598B3XF	3.60	1.11	80.85	28.90	6.35	80.75	9.10	1.5	11-3,21-1
Armor 9831B3XF	3.94	1.12	81.35	31.50	6.60	82.15	8.60	1.0	11-1
DP 1820B3XF	4.09	1.16	82.25	32.35	5.45	83.10	8.00	1.0	11-1,21-1
DP 1822XF	4.11	1.15	82.75	32.35	5.75	82.55	8.05	1.0	11-2
DP 1823NRB2XF	3.62	1.13	81.90	32.25	6.65	81.30	8.50	2.5	21-1
DP 1909XF	3.74	1.15	82.15	31.35	5.60	83.45	7.15	1.0	11-1,31-1
DP 2012B3XF	3.79	1.10	81.55	31.35	5.70	82.60	8.55	1.0	11-1,11-2
DP 2020B3XF	3.53	1.13	81.20	27.20	5.45	82.30	8.65	1.0	11-1
DP 2022B3XF	3.88	1.10	81.40	27.60	5.15	82.30	7.15	1.5	21-1,31-1
DP 2038B3XF	3.63	1.08	81.25	28.90	6.00	82.85	8.90	1.0	11-1
FM 1320GL	3.88	1.11	81.55	31.20	6.50	83.30	8.10	1.0	11-1,11-2
FM 1621GL	4.07	1.11	81.55	30.55	5.45	81.35	8.20	2.5	21-1
FM 2202GL	3.68	1.11	82.95	33.35	6.10	81.05	8.25	2.0	21-1
FM 2322GL	3.87	1.12	82.05	32.65	5.25	81.55	8.20	1.0	21-1
FM 2334GLT	4.36	1.15	82.65	29.60	5.50	83.15	7.80	1.0	11-2,21-1
FM 2398GLTP	4.41	1.13	83.55	32.00	5.65	81.80	8.00	1.0	21-1
NG 2982B3XF	3.23	1.09	82.00	33.05	5.90	80.25	7.30	3.5	31-1
NG 3500XF	4.19	1.08	82.55	30.35	6.35	80.65	9.05	1.5	11-1,21-1
NG 3930B3XF	3.83	1.13	82.25	29.35	6.20	81.05	8.40	2.0	11-1,21-2
NG 3994B3XF	4.03	1.14	82.05	30.45	6.25	81.50	8.50	1.5	21-1
PHY 210WFE	4.27	1.10	83.00	30.35	5.35	83.50	7.60	1.5	11-2,21-1
PHY 250W3FE	4.03	1.10	81.70	31.20	5.25	83.15	7.45	1.0	21-1
PHY 332W3FE	3.79	1.14	82.90	31.45	6.40	80.95	8.80	1.0	11-2,21-1
PHY 400W3FE	3.16	1.11	81.20	29.65	6.10	80.55	8.45	2.0	21-1,21-2
PX2C14W3FE	3.61	1.09	82.00	29.25	6.65	83.65	7.95	1.0	11-1,11-2
ST 4550GLT	3.62	1.12	82.60	31.00	6.95	81.45	8.45	1.0	11-1,21-1
ST 4990B3XF	3.69	1.15	82.25	29.65	6.35	82.85	7.95	1.0	11-2
WFUT9B3XF	3.97	1.13	82.25	30.80	6.80	82.35	8.45	1.0	11-1,11-2
Prob>F	0.012	0.0001	0.0004	0.0001	0.0001	0.009	0.0001	0.0001	
MSD (0.05)	0.83	0.04	1.28	2.18	0.33	2.34	0.68	0.7	

¹AMX are experimental lines from Americot, CP and WFU=experimental lines from Winfield United, and PX are experimental lines from PhytoGen.

²MSD is the minimum significant difference for that measurement ($P=0.05$).

³Mic=micronaire, unif=uniformity, elon=elongation, CG=color grade.

Table 5. Effect of Root-knot Nematode and Verticillium wilt (low pressure) near Ropesville.

Variety	Lint yield (lbs/a)	Value (\$/acre)	Plants /ft	%Wilt	Defoliation	Turn out	Loan (\$/lb)	Root-knot rating
PHY 480W3FE	1944	1114.03	3.16	6.9	61.3	0.3226	0.5730	Resistant
ST 4946GLB2	1932	1110.11	2.73	4.7	64.4	0.3234	0.5745	Partial resistance
ST 5600B2XF	1881	1088.84	2.14	4.7	37.1	0.3364	0.5788	Resistant
PHY 350W3FE	1763	1015.25	2.99	3.6	46.0	0.3193	0.5758	Partial resistance
Armor 9371B3XF	1749	1005.94	2.61	8.4	48.7	0.3321	0.5753	Unknown
FM 2498GLT	1734	991.43	2.97	4.3	45.8	0.3446	0.5718	Susceptible
PHY 394W3FE	1733	986.98	2.95	2.8	37.0	0.2821	0.5695	Resistant
NG 4777B2XF	1712	982.16	2.09	4.1	43.7	0.3232	0.5738	Susceptible
PHY 443W3FE	1709	981.14	2.79	4.5	49.5	0.3176	0.5740	Resistant
NG 4792XF	1698	976.30	2.15	2.9	58.4	0.3292	0.5750	Susceptible
DP 1909XF	1680	974.49	2.05	9.9	60.0	0.3177	0.5800	Susceptible
NG 4050XF	1678	959.23	1.73	3.0	38.5	0.3275	0.5715	Susceptible
DP 2055B3XF	1669	944.28	2.75	5.0	55.0	0.3269	0.5658	Susceptible
PHY 400W3FE	1665	956.57	2.61	7.5	50.6	0.3185	0.5745	Partial resistance
PHY 545W3FE	1633	924.15	2.72	5.6	49.7	0.3294	0.5660	Resistant
PHY 580W3FE	1632	923.32	2.60	5.4	50.0	0.3286	0.5658	Resistant
PX2E05W3FE	1591	875.77	2.90	3.7	59.4	0.2996	0.5503	Resistant
ST 4550GLT	1554	894.20	2.26	11.1	65.9	0.3626	0.5755	Susceptible
PX2C14W3FE	1551	860.84	2.48	3.2	50.2	0.2797	0.5550	Resistant
DP 2020B3XF	1551	892.21	2.38	4.8	62.8	0.3277	0.5753	Susceptible
NG 4098B3XF	1541	880.97	2.34	8.2	37.0	0.2842	0.5715	Susceptible
DP 1845B3XF	1537	866.84	2.24	7.0	41.4	0.3236	0.5638	Susceptible
ST 5610B3XF	1537	886.86	2.24	5.5	50.6	0.3281	0.5770	Susceptible
PX3E33W3FE	1523	877.07	2.58	4.9	61.0	0.3050	0.5758	Resistant
NG 3956B3XF	1520	868.03	2.96	4.6	42.0	0.2986	0.5710	Susceptible
ST 5707B2XF	1517	881.95	2.94	7.4	55.9	0.2954	0.5815	Susceptible
DP 1840B3XF	1513	877.21	1.60	10.1	38.9	0.3334	0.5798	Susceptible
DP 2038B3XF	1510	845.07	1.58	4.6	55.0	0.3649	0.5595	Susceptible
FM 2334GLT	1479	853.91	2.24	1.7	34.2	0.3273	0.5775	Susceptible
DP 2044B3XF	1475	849.55	1.65	10.5	52.7	0.3283	0.5760	Susceptible
AMX19B003B3XF	1475	845.70	2.18	3.6	57.8	0.3198	0.5735	Unknown
PX5E34W3FE	1462	818.92	2.65	6.9	41.8	0.3004	0.5600	Resistant
PHY 500W3FE	1455	832.85	2.71	4.3	47.7	0.2819	0.5723	Resistant
DP 2022B3XF	1451	827.98	2.65	3.0	23.6	0.2819	0.5705	Susceptible
NG 4936B3XF	1427	820.62	2.32	7.8	57.5	0.3219	0.5750	Susceptible
PX5E28W3FE	1414	772.88	2.93	4.4	47.6	0.2790	0.5465	Resistant
DP 1948B3XF	1376	791.80	1.80	10.2	48.4	0.3034	0.5753	Susceptible
ST 4480B3XF	1372	793.97	2.20	6.2	57.7	0.2890	0.5788	Susceptible
DP 1916B3XF	1370	777.35	2.00	2.9	81.6	0.3512	0.5673	Susceptible
Armor 9608B3XF	1301	744.82	1.51	9.3	63.2	0.3275	0.5723	Susceptible
Prob>F	0.0001	0.0001	0.0001	0.0003	0.0001	0.0001	0.014	
MSD (0.05)	249	140.65	0.24	5.4	16.1	0.039	0.0206	

¹AMX=experimental line from Americot, CP =experimental lines from Winfield United, and PX are experimental lines from Phytogen.

²MSD is the minimum significant difference for that measurement ($P=0.05$).

Table 6. Effect of variety on fiber properties for a test near Ropesville.

Variety	Mic.	Length	Unif.	Strength	Elon.	Rd	+b	Leaf	CG
AMX19B003B3XF	4.39	1.13	81.55	30.15	7.00	82.20	8.35	1.0	11-1,11-2
Armor 9371B3XF	3.94	1.15	83.30	28.90	6.35	83.85	7.95	1.0	11-1
Armor 9608B3XF	3.79	1.14	81.45	28.40	5.90	81.30	7.90	1.5	21-1
DP 1840B3XF	4.05	1.20	82.25	32.25	7.10	82.55	8.25	1.0	11-1, 21-1
DP 1845B3XF	3.66	1.22	83.00	31.55	7.75	81.50	7.10	3.0	31-1
DP 1909XF	4.10	1.19	82.60	31.90	5.95	84.40	6.90	1.5	21-1
DP 1916B3XF	4.08	1.11	81.35	31.40	6.50	81.05	8.55	1.0	11-2, 21-1
DP 1948B3XF	3.86	1.21	82.25	31.50	8.15	82.50	7.05	3.0	21-1, 31-1
DP 2020B3XF	3.75	1.18	82.00	29.35	6.20	84.20	7.65	1.0	11-1, 11-2
DP 2022B3XF	3.71	1.14	80.80	30.00	5.55	81.35	7.35	2.5	21-2, 31-1
DP 2038B3XF	4.00	1.10	80.60	29.15	6.25	84.05	7.95	1.0	11-1
DP 2044B3XF	3.95	1.18	81.45	29.70	7.15	83.55	7.95	1.0	11-1, 11-2
DP 2055B3XF	3.45	1.21	80.35	33.25	6.20	80.35	7.90	3.0	21-2, 31-1
FM 2334GLT	4.32	1.19	82.35	31.00	5.80	83.35	7.40	1.0	11-2, 21-1
FM 2498GLT	4.23	1.13	81.63	29.30	6.10	82.23	7.80	1.3	21-1
NG 3956B3XF	4.43	1.14	82.50	30.20	6.95	81.90	8.45	1.0	11-2
NG 4050XF	4.13	1.15	81.70	30.35	6.65	81.40	7.50	1.5	21-1, 31-1
NG 4098B3XF	3.53	1.21	81.35	33.50	6.50	78.60	7.80	3.0	31-1
NG 4777B2XF	4.09	1.14	81.25	30.70	5.60	82.15	8.55	1.0	11-1, 11-2
NG 4792XF	4.36	1.15	81.65	31.25	6.85	82.00	8.40	1.0	11-1, 21-1
NG 4936B3XF	4.25	1.17	82.50	29.50	7.30	84.35	7.45	1.0	11-1, 21-1
PHY 350W3FE	4.15	1.16	81.90	30.20	6.90	82.70	7.80	1.5	11-2, 21-1
PHY 394W3FE	3.55	1.20	80.70	30.70	6.10	80.80	7.50	3.0	31-1
PHY 400W3FE	3.98	1.13	80.90	31.70	6.20	81.05	7.90	2.5	21-2
PHY 443W3FE	4.04	1.13	81.80	31.45	6.70	81.70	8.40	1.0	11-2, 21-1
PHY 480W3FE	3.89	1.15	82.10	29.80	7.70	82.05	8.30	2.0	11-2, 21-1
PHY 500W3FE	3.58	1.12	81.65	31.60	6.25	82.95	7.55	2.0	21-1
PHY 545W3FE	4.06	1.10	81.30	29.40	7.05	81.55	8.25	2.0	21-1
PHY 580W3FE	4.16	1.10	81.80	30.20	6.80	81.15	8.25	2.0	21-1
PX2C14W3FE	3.68	1.10	81.00	30.75	6.90	82.90	7.65	2.0	21-1
PX2E05W3FE	4.64	1.08	82.80	30.90	5.80	81.10	7.65	1.5	21-2
PX3E33W3FE	4.11	1.14	81.95	30.95	6.85	81.15	8.55	1.0	21-1
PX5E28W3FE	3.42	1.17	82.05	30.85	6.95	80.50	7.35	3.0	21-1, 41-1
PX5E34W3FE	3.34	1.17	82.00	32.30	6.85	83.80	7.65	1.0	11-2, 21-1
ST 4480B3XF	3.86	1.21	82.20	32.90	5.85	84.05	6.80	1.5	11-2, 21-2
ST 4550GLT	4.17	1.13	82.80	31.50	7.55	81.50	8.25	1.0	11-2, 21-2
ST 4946GLB2	4.04	1.13	82.65	32.05	7.05	81.35	8.20	2.0	21-1
ST 5600B2XF	4.23	1.18	82.90	31.65	7.30	82.45	8.05	1.5	11-2, 21-1
ST 5610B3XF	3.95	1.17	82.05	30.35	6.60	81.80	7.80	2.0	21-1, 21-2
ST 5707B2XF	3.98	1.19	84.05	33.85	6.80	81.95	8.40	2.0	11-2
Prob>F	0.0001	0.0001	0.033	0.0001	0.0001	0.0001	0.0001	0.002	
MSD (0.05)	0.37	0.03	2.27	1.69	0.4	1.82	0.4	1.49	

¹AMX=experimental line from Americot, CP =experimental line from Winfield United, and PX are experimental lines from Phytogen.

²MSD is the minimum significant difference for that measurement ($P=0.05$).

³Mic=micronaire, unif=uniformity, elon=elongation, CG=color grade.