

TEXAS HIGH PLAINS VERTICILLIUM WILT TRIAL RESULTS, 2007

Dr. Terry A. Wheeler
Research Plant Pathologist, Texas AgriLife Research



Dr. Jason E. Woodward, Extension Plant Pathologist
Texas AgriLife Extension Service



Texas AgriLife Research and Extension Service Center
1102 East Fm 1294
Lubbock, Texas 79403
(806)-746-6101

The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by Texas AgriLife Extension Service, Texas AgriLife Research Experiment Station and the Texas A&M System is implied.

Table 1. Relative yield, value of the lint/acre and wilt for varieties tested during 2006 and 2007 in fields infested with *Verticillium dahliae*.

Variety	Relative yield (rank)	Relative value/acre ^b (rank)	Relative wilt (rank)	Number of sites
Deltapine 455 BG/RR	0.937 (1)	0.899 (3)	0.62 (30)	5
Fibermax 960BR	0.936 (2)	0.913 (2)	0.56 (22)	7
NexGen 2448R	0.894 (3)	0.952 (1)	0.45 (8)	2
Fibermax 9058RF	0.896 (4)	0.855 (6)	0.76 (49)	6
Fibermax 960B2R	0.890 (5)	0.860 (5)	0.53 (17)	4
Fibermax 9150RF	0.889 (6)	0.835 (8)	0.77 (50)	3
Fibermax 9180B2RF	0.884 (7)	0.849 (7)	0.72 (46)	3
Paymaster 2326RR	0.882 (8)	0.897 (4)	0.28 (1)	6
Fibermax 989BR	0.878 (9)	0.813 (13)	0.48 (9)	2
Fibermax 9060RF	0.874 (10)	0.819 (11)	0.78 (51)	3
Fibermax 9063B2RF	0.864 (11)	0.834 (9)	0.55 (20)	6
Fibermax 989B2R	0.855 (12)	0.821 (10)	0.55 (21)	3
Fibermax 9068RF	0.847 (13)	0.819 (12)	0.82 (54)	4
AFD 5064F	0.834 (14)	0.804 (14)	0.42 (4)	6
Deltapine 167RF	0.808 (15)	0.778 (15)	0.66 (37)	3
Paymaster 2140B2RF	0.794 (16)	0.719 (19)	0.49 (10)	2
Fibermax 1880B2RF	0.792 (17)	0.705 (22)	0.37 (2)	2
Fibermax 1840B2RF	0.790 (18)	0.660 (31)	0.37 (3)	3
Deltapine 164B2RF	0.790 (19)	0.738 (16)	0.51 (12)	4
Fibermax 960RR	0.768 (20)	0.709 (21)	0.59 (26)	2
Deltapine 174RF	0.763 (21)	0.720 (17)	0.66 (38)	3
Fibermax 1740B2RF	0.763 (22)	0.688 (24)	0.66 (40)	2
CS370001G (DG 2100B2RF, CG3020B2RF, W3255B2RF) ^a	0.758 (23)	0.685 (25)	0.44 (7)	3
AFD 5065B2F	0.755 (24)	0.718 (20)	0.42 (5)	6
Phytogen 470WR	0.755 (25)	0.720 (18)	0.55 (18)	2
Deltapine 147RF	0.753 (26)	0.678 (28)	1.00 (59)	2
Deltapine 143B2RF	0.751 (27)	0.679 (26)	0.88 (57)	2
Phytogen 425RF	0.735 (28)	0.692 (23)	0.64 (35)	5
Phytogen 485WRF	0.734 (29)	0.674 (30)	0.80 (52)	4
Deltapine 488 BG/RR	0.728 (30)	0.679 (27)	0.80 (53)	2
Phytogen 480WR	0.721 (31)	0.677 (29)	0.72 (47)	4
Stoneville 5327B2RF	0.721 (32)	0.647 (33)	0.71 (42)	3
CS 10001G (NG 3273B2RF, BW 4021B2RF)	0.715 (33)	0.624 (37)	0.52 (14)	2
Stoneville 4554B2RF	0.712 (34)	0.643 (34)	0.59 (28)	6
Deltapine 121RF	0.698 (35)	0.652 (32)	0.64 (34)	2
Stoneville 6611B2RF	0.697 (36)	0.637 (35)	0.53 (16)	3

Table 1. continued

CS530001G (CG 3520B2RF, ST4700B2F, DG 2242B2RF)	0.696 (37)	0.609 (39)	0.58 (24)	4
Deltapine 117B2RF	0.695 (38)	0.583 (45)	0.71 (41)	4
NexGen 1572RF	0.693 (39)	0.606 (40)	0.88 (58)	3
Stoneville 5283RF	0.676 (40)	0.618 (38)	0.84 (56)	4
Stoneville 4664RF	0.676 (41)	0.597 (43)	0.54 (18)	3
Stoneville 6622RF	0.672 (42)	0.635 (36)	0.66 (39)	3
Deltapine 454 BG/RR	0.670 (43)	0.528 (55)	0.76 (48)	4
All-Tex Summitt B2RF	0.667 (44)	0.598 (42)	0.64 (33)	2
All-Tex Marathon B2RF	0.664 (45)	0.562 (47)	0.83 (55)	2
NexGen 3550RF	0.659 (46)	0.588 (44)	0.72 (45)	4
Phytogen 125RF	0.656 (47)	0.598 (41)	0.52 (15)	5
CS450001G (DG 2520B2RF, CG4020B2RF, W4630B2RF, AM 1532B2RF)	0.653 (48)	0.557 (48)	0.71 (43)	6
Americot 1664B2RF	0.644 (49)	0.532 (54)	0.51 (13)	2
All-Tex Apex B2RF	0.643 (50)	0.575 (46)	0.64 (36)	5
Stoneville 4427B2RF	0.638 (51)	0.549 (49)	0.43 (6)	3
All-Tex Titan B2RF	0.622 (52)	0.532 (53)	0.62 (31)	3
CS 170001G (ST 5007B2RF, AM 1622B2RF)	0.620 (53)	0.548 (50)	0.49 (11)	4
Americot 427R	0.607 (54)	0.548 (51)	0.71 (44)	2
Americot 2220RF	0.594 (55)	0.510 (57)	0.55 (19)	4
All-Tex Arid B2RF	0.593 (56)	0.500 (58)	0.63 (32)	3
Deltapine 110RF	0.585 (57)	0.512 (56)	0.60 (29)	
All-Tex Atlas RR	0.566 (58)	0.533 (52)	0.59 (27)	2
Phytogen 370WR	0.556 (59)	0.450 (59)	0.58 (25)	2

^aCS stands for Cotton States varieties, and the varieties in parenthesis are those that were combined under the cotton states designation. Abbreviations are AM=Americot, BW=Beltwide, CG=Cropland Genetics, DG=DynaGro, NG=NexGen, and ST=Stoneville.

^bValue/acre was calculated as the (lbs of lint/acre)(loan value in \$/lb), and relative value/acre was the (average value/acre for a variety)/(average highest value/acre for a variety at each site).

Table 2. Affect of varieties on Verticillium wilt of cotton in Levelland, 2007.

Variety ^a	Lbs of lint per acre	% Lint	Loan value (\$/lb)	Loan x yield – (seed + tech fees) (\$/acre)	% Wilt on 29 Aug.	Plants/ft. row
Fibermax 960BR	1,709 a^b	32.4	0.566	923.21 ab	8.2 g-i	2.6 a-f
Fibermax 960B2R	1,708 a	31.8	0.571	929.15 a	9.3 e-i	2.5 a-f
Deltapine 455 BG/RR	1,676 abc	33.2	0.586	928.65 a	14.2 a-g	2.3 a-h
Fibermax 9150F	1,670 abc	31.7	0.571	905.89 abc	11.3 d-h	2.6 a-e
Fibermax 9058F + Pro	1,597 a-d	31.5	0.566	855.84 a-e	12.8 b-h	2.5 a-g
Fibermax 9180B2F	1,594 a-d	29.6	0.589	882.81 a-d	11.9 c-h	2.4 a-h
Fibermax 9063B2F + A	1,582 a-d	30.7	0.589	874.91 a-d	8.8 f-i	2.7 a-d
Fibermax 9058F	1,570 a-e	30.6	0.575	854.66 a-e	11.8 c-h	2.7 abc
Fibermax 9063B2F	1,569 a-e	30.2	0.587	864.08 a-d	7.2 hij	2.5 a-f
AFD 5065B2F	1,550 b-f	31.0	0.580	846.32 b-e	7.3 hij	2.5 a-g
AFD 5064F	1,548 b-f	29.3	0.548	803.65 d-g	7.3 hij	2.7 ab
Fibermax 989B2R	1,543 c-f	28.2	0.573	838.46 c-f	13.1 b-h	2.6 a-f
Paymaster 2140B2F	1,487 d-g	30.6	0.546	760.10 f-i	8.8 f-i	2.7 a-d
Phytogen 425F	1,479 d-g	29.5	0.562	782.94 e-h	11.8 c-h	2.6 a-e
Stoneville 5327B2F	1,432 e-g	29.9	0.562	746.82 g-j	12.3 c-h	2.2 e-i
Deltapine 147F	1,422 f-i	29.7	0.562	749.82 g-j	19.6 a	2.3 a-h
Deltapine 454 BG/RR	1,406 f-j	30.6	0.519	676.20 j-m	11.6 d-h	2.5 a-g
Fibermax 1740B2F	1,381 g-k	29.3	0.561	718.52 h-k	10.2 d-i	2.8 a
Deltapine 164B2F	1,366 g-k	27.8	0.556	700.37 i-l	11.5 d-h	2.3 a-h
Deltapine 117B2F	1,355 g-l	29.5	0.546	680.58 i-m	15.8 a-d	2.3 b-h
Deltapine 121F	1,327 h-l	29.4	0.580	719.93 h-k	14.6 a-f	2.2 e-i
Stoneville 4554B2F	1,315 h-l	29.2	0.571	693.13 i-m	13.8 a-g	2.2 c-h
Phytogen 485WF	1,315 h-l	28.8	0.557	677.43 j-m	18.0 abc	2.0 hi
All-Tex Apex B2F	1,306 h-l	29.7	0.572	693.12 i-m	15.2 a-e	1.7 i
Phytogen 480WR	1,304 h-l	28.4	0.575	696.49 i-m	11.5 d-h	2.1 f-i
Paymaster 2326RR	1,291 h-l	27.3	0.534	659.86 k-n	2.5 j	2.2 e-i
Phytogen 125F	1,287 h-l	27.5	0.532	636.56 lmn	12.5 c-h	2.4 a-h
Americot 1622B2F	1,280 i-l	26.8	0.561	664.27 k-n	8.9 e-i	2.4 a-h
Stoneville 5283F	1,264 jkl	28.1	0.554	651.01 k-n	18.8 ab	2.2 d-h
NexGen 3550F	1,255 kl	28.6	0.580	687.21 i-m	12.0 c-h	2.3 b-h
Americot 2220F	1,234 kl	26.5	0.538	618.62 mn	11.0 d-h	2.2 e-i
All-Tex Arid B2F	1,208 l	27.4	0.529	588.65 n	16.2 a-d	2.0 ghi

^aAM=Americot, AT=All Tex, DP=Deltapine, FM=Fibermax, PG=Phytogen, PM=Paymaster, ST=Stoneville, FM 058F+Pro=variety+ProAct, FM 9063B2F+A=variety+Actinovate.

^bLetters that are different indicate a significant difference between varieties ($P = 0.05$) with the Waller-Duncan k-ratio t-test.

Table 3. Affect of variety on fiber properties in Hockley county 2007.

Variety ^a	Micronaire	Length	Uniformity	Strength	Elongation	Leaf	Rd	+b
AFD 5064F	4.3	1.06	80.8	28.3	8.7	1.0	81.0	8.0
AFD 5065B2F	4.2	1.10	81.1	28.8	9.0	1.0	82.5	7.7
AM 1622B2F	3.8	1.12	79.7	25.3	9.3	1.5	81.7	8.2
AM 2220F	3.4	1.07	79.4	27.6	8.7	1.5	80.6	8.6
AT Apex B2F	4.0	1.10	79.6	25.8	9.3	1.0	81.6	8.7
AT Arid B2F	4.1	1.05	79.0	28.3	8.8	2.0	80.6	8.2
DP 117B2F	4.0	1.08	80.0	29.1	8.5	2.5	79.0	8.2
DP 121F	4.3	1.10	81.1	28.5	9.4	1.5	81.3	8.6
DP 147F	3.5	1.15	79.4	29.0	7.8	1.5	81.4	8.0
DP 164B2F	3.7	1.12	79.0	27.7	8.3	1.0	81.7	8.4
DP 454 BG/RR	3.5	1.05	79.3	27.7	8.8	2.0	81.3	8.1
DP 455 BG/RR	3.7	1.11	80.2	28.6	8.2	1.0	80.2	9.1
FM 1740B2F	4.2	1.08	81.1	27.5	8.8	1.0	82.2	8.4
FM 9058F	4.1	1.11	79.1	27.4	7.9	1.5	82.0	8.0
FM 9058F+Pro	4.1	1.11	79.2	27.5	7.8	1.0	82.0	8.1
FM 9063B2F	4.4	1.13	80.9	28.6	8.2	1.0	83.4	8.0
FM 9063B2F+A	4.4	1.15	80.8	29.4	8.0	1.0	81.8	7.8
FM 9150F	4.0	1.12	79.3	28.9	7.6	2.5	81.1	7.6
FM 9180B2F	4.3	1.12	80.9	30.1	8.4	1.0	82.2	8.1
FM 960B2R	4.2	1.10	79.3	28.2	7.4	1.0	81.4	8.4
FM 960BR	4.1	1.09	79.0	28.9	7.6	1.0	81.5	8.2
FM 989B2R	3.8	1.13	81.7	31.1	8.3	1.0	81.6	8.2
NG 3550F	4.0	1.10	79.9	27.8	9.0	1.5	81.5	8.2
PG 125F	4.3	1.05	80.9	29.0	9.2	1.5	80.0	7.9
PG 425F	4.4	1.08	82.3	28.6	10.1	1.5	79.0	9.1
PG 480WR	4.1	1.10	81.5	28.9	10.0	1.5	80.4	8.9
PG 485WF	4.0	1.08	80.8	27.9	9.9	2.0	78.8	9.1
PM 2140B2F	4.2	1.06	80.5	27.7	8.7	2.5	80.9	8.2
PM 2326RR	4.7	1.05	82.5	29.6	9.0	1.0	80.1	8.4
ST 4554B2F	3.7	1.10	80.6	28.0	10.5	1.0	80.9	9.0
ST 5283F	3.5	1.10	79.9	29.3	9.3	1.5	81.7	8.7
ST 5327B2F	3.8	1.08	81.0	28.2	9.6	1.5	79.9	8.7

^aAM=Americot, AT=All Tex, DP=Deltapine, FM=Fibermax, PG=Phytogen, PM=Paymaster, ST=Stoneville, FM 058F+Pro=variety+ProAct, FM 9063B2F+A=variety+Actinovate.

Table 4. Affect of Verticillium wilt on cotton in Floyd county, 2007.

Variety ^a	Lbs of lint per acre	% Lint	Loan value (\$/lb)	Loan x yield – (seed+tech fees) (\$/acre)	% Wilt on 30 August	Plants/ft. row
Fibermax 960BR	1,467 a^b	30.1	0.544	778.34 ab	13.0 a-f	2.5 f-i
Fibermax 9063B2F	1,428 abc	28.4	0.589	819.73 a	11.6 a-f	3.1 abc
Fibermax 9058F	1,396 a-d	28.1	0.542	748.19 abc	13.6 a-e	3.2 abc
Fibermax 9063B2F+A	1,335 a-f	28.1	0.577	743.59 abc	13.5 a-e	3.1 a-d
Fibermax 9060F	1,297 b-f	27.0	0.516	640.21 d-f	16.0 ab	2.8 a-g
Fibermax 9058F+Pro	1,292 b-f	25.9	0.527	664.57 c-e	14.6 abc	3.2 ab
Fibermax 9180B2F	1,264 c-g	26.3	0.546	673.93 c-e	13.9 a-d	2.7 b-h
Paymaster 2326RR	1,236 d-g	26.3	0.544	633.11 d-g	3.6 g	2.0 i
Fibermax 9150F	1,181 e-h	26.4	0.536	624.82 d-g	10.9 a-g	3.1 a-d
Fibermax 9068F	1,171 e-h	24.5	0.554	629.62 d-g	16.7 a	2.8 a-g
Deltapine 455 BG/RR	1,169 fgh	28.6	0.514	584.34 e-i	5.8 fg	2.7 c-h
Paymaster 2140B2F	1,117 ghi	26.8	0.517	552.21 f-k	6.3 efg	3.0 a-e
Phytogen 425F	1,116 ghi	25.4	0.562	591.59 e-h	10.0 a-g	3.2 abc
Fibermax 1740B2F	1,106 g-j	28.1	0.507	538.01 g-k	14.0 a-d	2.8 a-g
AFD 5065B2F	1,036 i-k	24.8	0.568	564.66 f-j	6.9 d-g	2.6 c-h
Stoneville 4664F	1,030 h-l	25.7	0.474	460.08 k-m	7.3 c-g	2.9 a-f
AFD 5064F	1,014 h-m	24.5	0.528	519.88 h-l	7.7 c-g	2.8 a-g
Deltapine 117B2F	973 i-m	26.5	0.529	484.30 j-m	9.1 b-g	3.2 a
Phytogen 470WR	939 j-n	24.9	0.511	477.94 j-m	7.8 c-g	2.6 c-h
Deltapine 121F	933 k-n	25.0	0.517	478.47 j-m	8.0 c-g	2.8 a-g
Stoneville 4554B2F	924 k-n	25.3	0.497	418.48 m-o	7.2 c-g	2.8 a-g
Phytogen 125F	915 k-n	23.8	0.560	492.74 i-m	7.1 d-g	2.9 a-f
All-Tex Summitt B2F	912 k-n	24.0	0.513	432.99 l-n	9.7 a-g	2.6 d-h
Phytogen 370WR	894 k-n	25.6	0.474	406.27 m-o	4.1 g	2.9 a-f
Americot 1664B2F	864 l-o	25.3	0.490	403.39 m-o	6.7 d-g	2.4 f-i
NexGen 1572F	857 mno	25.1	0.466	419.46 m-o	15.7 ab	2.3 ghi
Stoneville 4427B2F	779 nop	23.6	0.468	357.00 no	5.5 fg	2.7 b-h
All-Tex Apex B2F	708 op	23.0	0.504	330.50 o	7.4 c-g	2.2 hi
Deltapine 110F	646 p	22.3	0.491	342.40 no	7.1 d-g	2.8 a-g

^aAM=Americot, AT=All Tex, DP=Deltapine, FM=Fibermax, PG=Phytogen, PM=Paymaster, ST=Stoneville, FM 058F+Pro=variety+ProAct, FM 9063B2F+A=variety+Actinovate.

^bLetters that are different indicate a significant difference between varieties ($P = 0.05$) with the Waller-Duncan k-ratio t-test.

Table 5. Affect of varieties on fiber properties in Floyd county in 2007.

Variety ^a	Micronaire	Length	Uniformity	Strength	Elongation	Leaf	Rd	+b
AFD 5064F	3.2	1.11	80.8	29.6	8.3	2.5	81.3	7.9
AFD 5065B2F	3.8	1.11	80.1	28.2	8.8	1.0	82.1	7.6
AM 1664B2F	3.0	1.08	78.7	25.2	9.4	2.0	80.8	7.7
AT Apex B2F	2.8	1.11	78.9	26.3	8.7	1.5	81.2	8.0
AT Summitt B2F	3.1	1.09	81.0	26.4	9.1	1.5	82.6	8.1
DP 110F	3.0	1.12	79.5	30.6	8.9	3.5	78.4	7.9
DP 117B2F	3.1	1.12	79.9	31.0	8.0	3.5	79.4	7.9
DP 121F	3.2	1.08	78.8	27.7	9.1	2.5	80.0	8.4
DP 455 BG/RR	3.2	1.07	79.2	27.4	8.1	1.0	79.7	9.1
FM 1740B2F	3.2	1.06	79.3	27.7	8.6	1.0	83.2	7.9
FM 9058F	3.3	1.12	78.7	27.5	7.6	2.0	81.6	7.4
FM 9058F+Pro	3.2	1.12	78.1	26.9	7.7	2.0	81.9	7.3
FM 9060F	3.0	1.11	77.5	26.8	7.8	1.0	82.9	7.5
FM 9063B2F	3.8	1.17	81.1	28.4	8.0	1.0	82.5	7.5
FM 9063B2F+A	3.9	1.12	79.6	29.1	8.0	1.5	82.1	7.6
FM 9068F	3.3	1.17	80.6	29.6	8.3	1.0	82.1	7.4
FM 9150F	3.3	1.13	78.9	29.0	7.4	2.5	80.0	7.3
FM 9180B2F	3.2	1.15	80.9	30.0	8.2	2.0	83.3	7.4
FM 960BR	3.2	1.11	79.7	29.0	7.5	1.0	82.7	7.6
NG 1572F	2.7	1.08	78.6	27.9	8.2	3.0	80.6	7.6
PG 125F	3.6	1.10	81.3	29.1	9.1	2.5	78.9	8.1
PG 370WR	3.0	1.07	79.4	27.8	8.8	1.5	81.0	8.2
PG 425F	3.4	1.13	81.8	30.0	9.7	2.5	78.3	8.6
PG 470WR	3.1	1.09	79.7	28.2	9.5	2.0	80.0	8.5
PM 2140B2F	3.4	1.08	80.5	27.6	8.4	3.0	80.8	7.4
PM 2326RR	3.9	1.06	82.0	28.4	8.7	1.5	78.6	8.3
ST 4427B2F	2.7	1.09	78.3	28.0	8.0	3.0	80.5	7.8
ST 4554B2F	2.8	1.10	79.4	29.2	9.7	2.5	80.2	8.4
ST 4664F	2.8	1.08	79.2	27.9	9.6	1.0	80.5	9.0

^aAM=Americot, AT=All Tex, DP=Deltapine, FM=Fibermax, PG=Phytogen, PM=Paymaster, ST=Stoneville, FM 058F+Pro=variety+ProAct, FM 9063B2F+A=variety+Actinovate.

Table 6. Affect of varieties in a Verticillium wilt test in Gaines county, 2007

Variety ^a	Lbs of lint per acre	% Lint	Loan value (\$/lb)	Yield x loan value – (seed+techfee) (\$/acre)	% Wilt on 23 July	Plants/ft. row
Fibermax 9058F+Pro	1,664 a^b	32.2	0.570	900.55 a	38.2 a-e	2.2
Fibermax 9068F	1,546 ab	30.5	0.573	835.45 ab	39.9 a-d	2.0
Fibermax 9058F	1,516 abc	29.5	0.571	817.89 abc	39.7 a-d	2.4
Fibermax 9150F	1,513 a-d	30.6	0.542	771.87 b-e	47.3 a	2.2
Fibermax 9060F	1,484 a-e	30.2	0.573	802.58 a-d	41.0 abc	1.9
Deltapine 174F	1,473 a-e	31.5	0.564	781.08 b-e	24.4 g-k	1.9
Deltapine 167F	1,470 a-e	28.9	0.587	813.31 a-d	26.3 g-k	2.2
Fibermax 9180B2F	1,459 b-e	29.4	0.572	778.05 b-e	32.9 b-g	2.6
Deltapine 164B2F	1,345 c-f	28.4	0.579	719.78 c-f	20.8 h-m	2.4
Stoneville 6611B2F	1,315 c-g	27.6	0.577	701.11 d-g	24.5 g-k	2.4
Fibermax 9063B2F	1,310 d-g	29.0	0.552	666.31 e-h	25.1 g-k	2.6
Phytogen 485WF	1,301 efg	28.3	0.559	672.47 e-h	26.5 f-k	2.5
Stoneville 6622F	1,297 e-h	29.6	0.577	699.08 d-g	31.1 c-i	2.5
Stoneville 4554B2F	1,281 e-h	30.0	0.569	671.18 e-h	21.1 h-m	2.1
Deltapine 143B2F	1,210 f-i	27.7	0.570	630.46 f-i	39.8 a-d	2.0
Fibermax 1880B2F	1,199 f-j	28.6	0.563	618.88 f-i	12.2 m	2.2
Phytogen 425F	1,195 f-k	27.2	0.571	633.91 f-i	27.7 e-k	2.9
Stoneville 5327B2F	1,180 f-k	29.4	0.553	594.69 g-j	29.5 c-j	2.2
Fibermax 1840B2F	1,168 f-k	29.9	0.515	544.97 ijk	12.4 lm	2.1
Stoneville 5283F	1,157 f-k	29.6	0.582	623.73 f-i	38.0 a-f	1.7
FM 9063B2F+A	1,156 f-k	29.6	0.579	612.49 f-i	31.5 c-h	2.1
AFD 5064F	1,151 f-k	28.2	0.555	594.02 g-j	19.7 i-m	2.6
Americot 2220F	1,142 f-k	28.3	0.547	579.68 hij	27.0 e-k	2.6
NexGen 1572F	1,113 g-l	28.8	0.555	577.08 h-k	43.6 ab	2.1
Stoneville 4427B2F	1,095 h-l	29.2	0.568	563.91 h-k	23.3 g-m	1.9
All-Tex Apex B2F	1,064 i-l	28.1	0.580	562.86 h-k	29.3 d-j	1.7
All-Tex Titan B2F	1,015 i-l	25.2	0.578	532.60 ijk	21.6 g-m	2.7
Americot 1622B2F	1,006 i-l	25.5	0.575	524.62 ijk	25.8 g-k	2.2
AFD 5065B2F	1,002 jkl	26.7	0.572	520.47 ijk	21.1 h-m	2.4
All-Tex Arid B2F	991 kl	27.3	0.549	493.85 jk	23.9 g-l	2.0
Phytogen 125F	922 l	23.7	0.555	463.74 k	17.2 klm	2.5

^aAM=Americot, AT=All Tex, DP=Deltapine, FM=Fibermax, PG=Phytogen, PM=Paymaster, ST=Stoneville, FM 058F+Pro=variety+ProAct, FM 9063B2F+A=variety+Actinovate.

^bLetters that are different indicate a significant difference between varieties ($P = 0.05$) with the Waller-Duncan k-ratio t-test.

Table 7. Affect of variety on fiber properties in Gaines county, 2007

Variety ^a	Micronaire	Length	Uniformity	Strength	Elongation	Leaf	Rd	+b
AFD 5064F	4.7	1.08	80.2	30.3	7.6	3.0	78.5	8.0
AFD 5065B2F	4.4	1.12	80.3	27.6	7.9	3.0	81.1	7.7
AM 1622B2F	4.4	1.15	81.0	27.4	8.2	2.0	78.9	8.3
AM 2220F	4.2	1.08	79.1	27.0	8.0	2.0	78.0	8.1
AT Apex B2F	4.2	1.12	78.3	26.8	7.9	1.0	81.0	8.3
AT Arid B2F	4.1	1.08	79.0	28.5	7.9	2.0	79.0	7.9
AT Titan B2F	4.4	1.13	79.9	26.6	8.3	1.5	80.8	7.9
DP 143B2F	4.1	1.16	78.8	27.9	7.4	2.5	79.2	7.5
DP 164B2F	4.4	1.13	78.0	28.6	7.3	1.0	81.4	7.9
DP 167F	4.2	1.15	79.7	29.3	7.5	1.5	81.6	7.9
DP 174F	4.4	1.10	79.5	25.2	8.5	1.5	77.6	8.6
FM 1840B2F	4.3	1.01	80.5	31.4	8.4	2.0	79.7	8.6
FM 1880B2F	4.1	1.09	78.4	29.8	7.8	2.5	80.9	7.4
FM 9058F	4.2	1.14	78.7	28.7	7.0	1.5	79.4	7.6
FM 9058F+Pro	4.2	1.15	80.2	26.9	7.2	2.0	81.3	7.5
FM 9060F	4.3	1.15	79.5	27.8	6.9	2.5	79.4	7.8
FM 9063B2F	4.5	1.12	78.6	29.0	7.1	1.5	80.4	7.0
FM 9063B2F+A	4.6	1.15	79.9	29.7	7.2	2.5	81.0	7.6
FM 9068F	4.6	1.14	80.2	29.2	7.4	2.5	80.6	7.7
FM 9150F	4.3	1.13	80.4	28.8	6.8	3.5	77.6	7.3
FM 9180B2F	4.6	1.10	80.0	30.0	7.4	2.5	80.3	7.3
NG 1572F	4.2	1.09	79.7	27.2	7.6	3.5	78.1	7.6
PG 125F	4.2	1.08	80.7	29.6	8.2	3.0	78.3	7.6
PG 425F	4.8	1.12	80.8	29.1	8.2	3.0	77.2	8.4
PG 485WF	4.4	1.11	82.0	28.6	8.8	3.5	76.7	8.6
ST 4427B2F	4.4	1.08	80.5	25.9	8.2	2.5	79.0	8.4
ST 4554B2F	4.7	1.10	80.3	28.6	9.1	2.5	78.1	8.5
ST 5283F	4.1	1.10	79.5	30.2	8.0	1.5	79.5	8.7
ST 5327B2F	4.5	1.08	79.5	28.0	8.2	2.5	78.5	8.5
ST 6611B2F	4.6	1.11	80.9	29.4	7.4	1.0	78.9	8.4
ST 6622F	4.5	1.14	81.0	29.5	7.2	2.0	78.4	8.0

^aAM=Americot, AT=All Tex, DP=Deltapine, FM=Fibermax, PG=Phytogen, PM=Paymaster, ST=Stoneville, FM 058F+Pro=variety+ProAct, FM 9063B2F+A=variety+Actinovate.

Table 8. Affect of varieties at a Verticillium wilt site in Garden City in 2007.

Variety ^a	Lbs of lint per acre	Loan value (\$/lb)	Loan value x yield – (seed+techfees) (\$/acre)	% Wilt on 22 August	% Lint	Plants/ft. row
Deltapine 455 BG/RR	1,708 a^b	0.551	887.57 a	40 a-f	30.9	3.3 a-e
Fibermax 9058F	1,594 ab	0.520	780.76 cde	40 a-f	27.8	3.1 a-e
Paymaster 2326RR	1,568 abc	0.569	862.63 ab	24 g	26.0	3.2 a-e
Fibermax 9058F+Pro	1,545 bcd	0.547	797.39 bcd	41 a-e	28.0	3.1 a-e
Deltapine 164B2F	1,523 b-e	0.571	810.69 abc	29 efg	26.9	3.3 a-e
Fibermax 960BR	1,520 b-e	0.534	767.89 cde	39 a-f	28.7	3.2 a-e
Fibermax 989B2F	1,482 b-e	0.547	764.85 cde	35 a-g	26.1	3.4 a-d
Deltapine 167F	1,479 b-e	0.560	778.63 cde	38 a-g	27.8	3.3 a-e
Fibermax 1880B2F	1,430 cde	0.510	673.06 fgh	31 d-g	26.9	3.6 a
Fibermax 9063B2F	1,429 c-f	0.561	744.80 c-f	42 a-e	25.9	3.4 abc
Fibermax 9063B2F+A	1,417 d-g	0.555	729.50 def	44 a-d	26.1	3.3 a-d
AFD 5064F	1,416 d-g	0.556	742.58 c-f	34 b-g	25.9	3.2 a-e
Fibermax 960B2R ^c	1,411 d-g	----	-----	-----	28.7	-----
Fibermax 1840B2F	1,280 fgh	0.511	597.97 h-k	26 fg	24.6	3.2 a-e
Phytogen 480WR	1,276 gh	0.568	671.09 fgh	45 a-d	26.9	2.8 de
Deltapine 174F	1,221 hi	0.569	644.72 ghi	45 a-d	28.9	2.8 cde
Phytogen 485WF	1,211 hi	0.547	607.40 hij	50 a	26.2	3.1 a-e
Deltapine 488 BG/RR	1,208 hi	0.547	608.37 hij	47 abc	26.5	2.9 b-e
AFD 5065B2F	1,200 hi	0.532	585.84 ijk	32 c-g	24.6	3.2 a-e
Stoneville 6611B2F	1,163 hij	0.543	573.69 i-l	37 a-g	25.4	3.5 ab
Stoneville 6622F	1,140 h-k	0.578	609.52 hij	44 a-d	25.0	3.1 a-e
Stoneville 5327B2F	1,121 ijk	0.536	542.97 j-m	50 a	28.8	3.0 b-e
Stoneville 4554B2F	1,109 ijk	0.524	523.22 k-n	40 a-f	27.0	3.0 b-e
Stoneville 4664F	1,028 jkl	0.531	496.58 l-o	43 a-e	25.8	2.9 b-e
Stoneville 5283F	1,001 klm	0.534	485.43 mno	50 a	26.4	2.9 cde
All-Tex Apex B2F	929 lmn	0.536	443.99 nop	41 a-e	25.3	2.8 de
Americot 1622B2F	906 lmn	0.522	419.59 opq	31 d-g	22.2	3.3 a-e
All-Tex Arid B2F	882 lmn	0.511	400.32 pq	34 b-g	22.8	3.1 a-e
Deltapine 454 BG/RR	861 mn	0.480	360.07 q	49 ab	26.8	3.2 a-e
Americot 2220F	782 n	0.505	349.66 q	34 b-g	22.8	3.3 a-e

^aAM=Americot, AT=All Tex, DP=Deltapine, FM=Fibermax, PG=Phytogen, PM=Paymaster, ST=Stoneville, FM 058F+Pro=variety+ProAct, FM 9063B2F+A=variety+Actinovate.

^bLetters that are different indicate a significant difference between varieties ($P = 0.05$) with the Waller-Duncan k-ratio t-test.

^cThis variety was planted by the producer next to the test, but was not included within the test. The reported yield was based on identical plot size as the test plots, and harvested by the same cotton stripper as in the test plots.

Table 9. Affect of variety on lint properties at Garden City in 2007.

Variety ^a	Miconaire	Length	Uniformity	Strength	Elongation	Leaf	Rd	+b
AFD 5064F	3.6	1.09	81.2	29.5	8.6	3.5	79.9	8.0
AFD 5065B2F	3.1	1.15	79.9	28.7	8.9	2.0	81.0	7.1
AM 1622B2F	3.0	1.15	80.3	28.3	8.6	2.5	80.1	7.7
AM 2220F	2.9	1.12	81.0	28.0	7.9	3.0	79.1	8.5
AT Apex B2F	3.1	1.12	79.8	26.1	8.7	1.5	81.8	8.3
AT Arid B2F	3.0	1.12	79.9	27.7	8.5	3.0	81.4	7.4
DP 164B2F	3.4	1.17	81.2	28.3	8.0	2.0	81.1	7.9
DP 167F	3.3	1.16	79.8	28.7	7.9	1.5	80.6	8.3
DP 174F	3.6	1.11	79.3	25.9	8.6	2.5	79.6	8.1
DP 454 BG/RR	3.0	1.06	79.0	27.4	8.2	3.0	79.7	7.8
DP 455 BG/RR	3.3	1.10	79.4	27.7	8.0	1.0	80.9	9.1
DP 488 BG/RR	3.3	1.13	79.5	28.7	7.9	2.5	80.8	8.0
FM 1840B2F	3.4	1.05	80.4	31.4	8.5	2.5	78.4	8.2
FM 1880B2F	3.0	1.14	79.8	28.3	8.2	2.0	80.5	7.2
FM 9058F	3.0	1.14	78.5	26.8	7.6	2.0	81.0	7.6
FM 9058F+Pro	3.3	1.16	79.4	27.9	7.7	2.5	80.7	7.8
FM 9063B2F	3.3	1.18	80.8	29.2	7.8	2.0	83.2	7.6
FM 9063B2F+A	3.2	1.18	80.8	30.4	7.8	2.0	83.3	7.3
FM 960BR	3.1	1.12	80.8	29.7	7.5	2.0	82.7	7.4
FM 989B2R	3.2	1.15	81.2	30.2	7.7	3.0	82.1	7.5
PG 480WR	3.6	1.13	82.1	28.4	8.9	2.5	79.7	8.2
PG 485WF	3.9	1.11	80.9	28.2	9.0	4.0	78.3	8.4
PM 2326RR	4.0	1.08	82.5	29.5	8.7	3.0	77.8	7.9
ST 4554B2F	3.2	1.12	80.1	28.1	9.7	3.5	79.3	8.1
ST 4664F	3.2	1.12	80.7	28.6	9.9	3.0	78.8	8.9
ST 5283F	3.3	1.10	80.0	28.4	9.0	3.5	79.2	8.6
ST 5327B2F	3.2	1.10	80.4	29.1	8.7	3.0	79.5	8.3
ST 6611B2F	3.3	1.14	80.7	28.4	8.1	2.5	81.1	7.7
ST 6622F	3.5	1.16	81.4	28.6	7.7	2.0	80.3	8.4

^aAM=Americot, AT=All Tex, DP=Deltapine, FM=Fibermax, PG=Phytogen, PM=Paymaster, ST=Stoneville, FM 058F+Pro=variety+ProAct, FM 9063B2F+A=variety+Actinovate.

Table 10. Affect of Variety on Verticillium wilt and yield in Lamesa, TX 2007

Variety ^a	Lbs of lint per acre	% Wilt 3 Sept.	Turnout %	Loan value (\$/lb)	Value/acre (yield xloan) -(seed+tech)	Plants/ft. row
Deltapine 455 BG/RR	1,083 a^b	13 b-e	30.6	0.557	550.03 a	2.4 a-h
Fibermax 960BR	1,046 ab	4 jkl	29.7	0.558	539.55 a	2.4 a-g
AFD 5064F	1,025 ab	4 jkl	28.5	0.555	524.45 ab	2.7 a-d
Fibermax 960B2R	1,015 abc	5 i-l	28.6	0.557	519.37 ab	2.6 a-e
Fibermax 9068F	1,012 abc	9 d-j	28.7	0.571	527.07 ab	2.8 abc
Fibermax 9063B2F	1,000 a-d	7 h-l	26.2	0.563	506.16 a-d	2.9 ab
Fibermax 9058F+Pro	984 a-e	13 b-f	29.7	0.569	512.21 ab	2.6 a-f
Fibermax 1840B2F	980 a-e	6 h-l	27.5	0.492	425.43 b-g	2.5 a-g
Fibermax 9063B2F+A	970 a-f	7 h-l	29.4	0.586	511.44 abc	3.0 a
Fibermax 9058F	969 a-f	16 ab	28.5	0.574	508.26 a-d	2.9 ab
Paymaster 2326RR	937 a-g	3 l	28.6	0.578	511.98 abc	2.1 c-h
Deltapine 454 BG/RR	903 a-h	10 c-i	29.5	0.481	381.03 e-j	2.3 b-h
Stoneville 4554B2F	903 a-h	7 h-l	28.1	0.566	453.08 a-f	2.3 b-h
Phytogen 470WR	893 a-i	9 e-k	27.4	0.583	467.46 a-e	2.6 a-e
Deltapine 143B2F	853 b-j	14 bcd	26.3	0.540	401.60 d-h	2.4 a-h
NexGen 1572F	851 b-j	14 abc	28.1	0.521	402.67 c-g	2.1 d-h
Deltapine 147F	816 c-j	19 a	28.6	0.523	377.00 e-j	2.3 b-h
Stoneville 5283F	799 d-k	11 c-h	28.1	0.547	387.75 e-j	2.0 e-h
Deltapine 488 BG/RR	796 e-k	13 b-f	28.9	0.557	390.69 e-i	1.8 hi
Deltapine 164B2F	774 f-k	8 g-l	26.1	0.543	361.08 e-j	2.5 a-g
AFD 5065B2F	773 f-k	5 jkl	26.7	0.570	388.44 e-j	2.2 c-h
NexGen 3550F	755 g-k	10 c-i	26.9	0.550	374.45 e-j	2.1 d-h
Deltapine 174F	736 g-k	11 b-h	28.7	0.550	355.40 f-j	1.3 i
Phytogen 425F	725 h-k	8 g-l	25.8	0.549	349.95 f-j	2.5 a-g
Americot 1664B2F	724 h-k	8 f-k	24.1	0.503	310.50 hij	1.9 ghi
Stoneville 4427B2F	724 h-k	4 kl	26.8	0.546	337.54 g-j	2.2 c-h
Deltapine 167F	713 h-k	12 b-g	25.9	0.553	344.81 f-j	2.5 a-g
All-Tex Titan B2F	704 h-k	10 c-i	22.4	0.537	324.00 g-j	2.3 b-h
Phytogen 480WR	695 ijk	13 b-f	26.7	0.563	337.36 g-j	1.9 f-i
Stoneville 6611B2F	686 jk	6 h-l	25.6	0.558	324.98 g-j	2.8 abc
Americot 2220F	610 k	7 h-l	24.2	0.534	280.36 j	2.3 b-h
Stoneville 6622F	605 k	8 g-l	25.6	0.554	285.98 ij	1.9 f-i

^aAM=Americot, AT=All Tex, DP=Deltapine, FM=Fibermax, PG=Phytogen, PM=Paymaster, ST=Stoneville, FM 058F+Pro=variety+ProAct, FM 9063B2F+A=variety+Actinovate.

^bLetters that are different indicate a significant difference between varieties ($P = 0.05$) with the Waller-Duncan k-ratio t-test.

Table 11. Affect of variety on fiber properties in a Verticillium wilt field in Lamesa, 2007

Variety ^a	Micronaire	Length	Uniformity	Strength	Elongation	Rd	+b	Leaf
AFD 5064F	3.90	1.090	79.95	27.85	8.25	81.1	7.3	3.5
AFD 5065B2F	3.50	1.145	80.20	26.25	8.60	83.6	6.8	2.0
AM 1664B2F	3.20	1.130	79.90	24.55	8.55	80.4	7.6	4.0
AM 2220F	3.40	1.130	81.75	26.90	7.80	80.1	8.2	4.0
AT Titan B2F	3.15	1.150	80.25	25.05	8.25	81.8	7.5	2.5
DP 143B2F	3.05	1.150	78.55	27.80	7.55	82.3	7.6	2.5
DP 147F	3.30	1.145	79.60	26.45	7.25	81.7	7.1	3.0
DP 164B2F	3.25	1.150	78.50	24.20	7.75	82.0	7.9	1.5
DP 167F	3.20	1.165	79.50	26.95	7.40	81.7	7.9	2.0
DP 174F	3.35	1.125	79.75	24.45	8.50	81.3	7.8	2.5
DP 454 BG/RR	3.20	1.060	79.35	24.20	8.25	80.4	7.5	3.5
DP 455 BG/RR	3.45	1.100	80.05	26.80	7.85	80.6	8.7	1.5
DP 488 BG/RR	3.45	1.105	79.25	28.65	7.95	81.1	7.9	2.0
FM 1840B2F	3.40	1.005	80.15	28.15	8.55	80.7	8.2	2.5
FM 9058F	3.45	1.165	79.95	27.15	7.25	83.2	7.2	2.5
FM 9058F+Pro	3.50	1.160	80.05	27.75	6.95	82.2	7.1	2.5
FM 9063B2F	3.45	1.205	81.05	29.50	7.50	83.2	7.0	2.0
FM 9063B2F+A	3.70	1.155	80.05	29.30	7.30	83.1	7.1	2.0
FM 9068F	3.55	1.200	81.30	28.60	7.40	82.7	7.3	3.0
FM 960B2R	3.25	1.135	79.40	29.50	6.70	83.1	7.5	2.0
FM 960BR	3.35	1.115	80.45	28.00	7.10	82.8	7.6	1.5
NG 1572F	3.25	1.115	81.20	26.00	7.75	81.5	6.7	4.0
NG 3550F	3.25	1.135	79.65	27.75	8.05	81.6	7.7	2.0
PG 425F	3.70	1.120	80.65	26.25	8.85	79.3	8.1	4.0
PG 470WR	3.60	1.115	82.35	26.80	9.15	80.9	7.8	2.5
PG 480WR	3.80	1.130	81.55	26.55	9.30	78.9	7.9	3.5
PM 2326RR	4.20	1.115	82.45	28.45	8.25	80.3	7.8	2.0
ST 4427B2F	3.40	1.115	79.45	26.65	7.70	80.0	8.3	3.0
ST 4554B2F	3.45	1.140	81.35	27.55	9.15	80.9	8.4	2.0
ST 5283F	3.30	1.125	79.95	26.90	8.20	80.6	8.5	2.5
ST 6611B2F	3.35	1.120	80.40	28.25	7.60	81.1	8.4	1.5
ST 6622F	3.35	1.125	81.10	27.20	7.65	80.7	8.1	2.0

^aAM=Americot, AT=All Tex, DP=Deltapine, FM=Fibermax, PG=Phytogen, PM=Paymaster, ST=Stoneville, FM 058F+Pro=variety+ProAct, FM 9063B2F+A=variety+Actinovate.