

Verticillium wilt variety test results, 2012



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There were six locations planted in 2012, all with a history of Verticillium wilt. Each site was planted with 32 entries, in plots that were 36 ft. long and 2 rows wide, with four replications per variety, arranged in a randomized complete design. The hot weather in 2012 resulted in little to no wilt at three of the six sites, so the three sites that had sufficient wilt to impact yield will be presented. These sites are Floydada, Plainview, and Garden City. The results were remarkably similar in terms of the top yielding varieties at each site. The following varieties yielded in the top five at each of the Verticillium wilt sites that they were planted: Fibermax (FM) 2484B2F, FM 2011GT, FM 9170B2F, BX 1347GLB2, and NexGen 4111RF.

Table 5. Effect of variety in a Verticillium wilt trial in Garden City on yield and wilt.

Variety ^a	Yield X Loan	Lbs of Lint/Acre	Plants/Ft. of row	%Wilt On 21 Aug.	Defoliation on 12 Sept. ^b	Turnout	Loan (\$/lb)
FM 2484B2F	1,363	2,454	3.43	7	0.79	0.285	0.556
FM 2011GT	1,357	2,501	3.18	17	1.31	0.316	0.542
NG 4111RF	1,353	2,386	2.61	19	1.50	0.283	0.567
FM 9170B2F	1,321	2,365	2.82	15	1.05	0.284	0.559
FM 9250GL	1,228	2,263	3.05	15	1.50	0.269	0.543
BX 1347GLB2	1,227	2,390	3.52	8	1.05	0.292	0.514
FM 2989GLB2	1,226	2,224	2.63	21	1.38	0.274	0.551
FM 9160B2F	1,213	2,273	2.94	14	1.01	0.293	0.534
NG 4012B2RF	1,170	2,186	2.83	15	1.53	0.283	0.536
AT CR253B2RF	1,158	2,218	2.76	19	1.54	0.250	0.522
AT Nitro-44B2RF	1,126	2,133	2.68	18	1.50	0.282	0.528
DP 0935B2RF	1,124	2,054	2.79	23	2.01	0.291	0.548
FM 1944GLB2	1,102	2,082	2.91	15	1.58	0.280	0.529
FM 9180B2F	1,094	2,114	2.81	21	1.37	0.264	0.518
DP 1137B2RF	1,062	1,939	2.58	28	1.78	0.303	0.548
DP 1133B2RF	1,052	1,989	1.97	34	1.66	0.293	0.529
BX 1346GLB2	1,049	2,039	2.76	26	2.11	0.269	0.515
DP 1050B2RF	1,034	1,835	2.21	36	1.80	0.303	0.564
DP 1044B2RF	1,030	1,987	2.94	19	1.74	0.259	0.493
DP 1032B2RF	1,019	1,872	2.09	34	1.93	0.294	0.545
BX 1348GLB2	994	1,949	3.10	20	1.70	0.279	0.510
FM 8720GLB2	986	1,858	2.89	10	1.35	0.275	0.531
PG 499WRF	943	1,798	3.07	23	1.81	0.278	0.525
NG X00012	937	1,694	1.94	48	1.80	0.303	0.553
DG 8	930	1,742	2.95	22	2.07	0.270	0.534
DP 1252B2RF	929	1,750	2.05	41	1.82	0.305	0.531
DP 0912B2RF	923	1,750	2.22	27	1.83	0.282	0.528
PG 375WRF	918	1,736	2.48	21	2.13	0.273	0.529
DG 10	915	1,690	3.12	31	2.08	0.279	0.541
DP 1048B2RF	914	1,671	2.40	29	1.82	0.283	0.547
AM 1550B2RF	835	1,684	2.85	25	2.44	0.264	0.498
AT CR106466B2RF	777	1,641	2.94	20	1.66	0.311	0.474
Minimum Significant Difference (0.05)	108	203	0.34	9	0.4	0.037	0.053

^aAM=Americot, AT = All Tex, BX = Experimental for Bayer CropScience, DP=Deltapine, DG = DynaGro, FM = Fibermax, NG = NexGen, PG=Phytogen, ST = Stoneville.

^bThe defoliation goes from 0 (no defoliation), 1 = 1/3 or less of plant is defoliated, 2 = 1/3 – 2/3 of plant is defoliated, and 3 = > 2/3 of plant is defoliated.

Table 6. Effect of variety on HVI ratings in a Verticillium wilt field in Garden City.

Variety ^a	Micronaire	Length	Uniformity	Strength	Elongation	Rd	+b	Leaf
AM 1550B2RF	3.40	1.050	78.60	28.00	9.65	75.6	7.90	2.0
AT CR106466B2RF	3.30	1.060	77.55	27.90	8.90	74.8	7.65	2.5
AT CR253B2RF	4.75	1.050	80.35	28.25	9.70	77.2	7.80	1.0
AT Nitro-44B2RF	3.60	1.195	82.30	32.45	10.40	74.8	7.80	3.0
BX 1346GLB2	3.35	1.100	80.65	30.85	10.40	74.7	7.90	2.0
BX 1347GLB2	4.20	1.070	77.20	26.05	7.75	74.5	7.55	3.5
BX 1348GLB2	3.65	1.105	79.15	27.65	9.40	75.4	7.65	3.0
DG 10	3.60	1.135	81.15	29.25	9.50	75.2	7.55	2.0
DG 8	3.45	1.095	80.35	29.85	11.00	75.6	8.75	1.0
DP 0912B2RF	3.85	1.055	79.55	29.25	10.20	75.4	7.90	2.5
DP 0935B2RF	3.95	1.075	80.50	29.35	10.15	77.1	8.25	2.0
DP 1032B2RF	3.90	1.075	79.85	28.80	9.35	77.3	8.30	1.5
DP 1044B2RF	3.55	1.090	80.95	30.30	10.40	73.4	7.55	4.5
DP 1048B2RF	3.50	1.125	82.00	29.25	10.75	76.5	8.00	2.0
DP 1050B2RF	3.95	1.105	80.25	28.15	10.50	76.3	8.45	1.5
DP 1133B2RF	4.40	1.070	79.80	29.25	11.35	75.8	8.00	2.0
DP 1137B2RF	4.15	1.075	82.00	28.00	10.70	77.5	8.10	1.5
DP 1252B2RF	4.30	1.070	80.85	27.90	11.30	74.8	8.75	1.0
FM 1944GLB2	3.80	1.100	79.05	27.45	8.85	76.3	6.75	2.0
FM 2011GT	3.90	1.105	81.20	30.65	9.00	75.3	7.70	1.5
FM 2484B2F	3.85	1.170	80.55	30.50	8.70	77.8	7.25	2.0
FM 2989GLB2	4.30	1.105	81.55	30.10	8.15	76.3	7.80	2.5
FM 8720GLB2	3.30	1.105	79.65	29.95	8.85	77.2	7.45	1.5
FM 9160B2F	3.75	1.105	80.80	28.20	8.30	76.7	7.45	2.0
FM 9170B2F	3.85	1.165	81.30	30.90	8.75	77.3	7.45	2.5
FM 9180B2F	3.80	1.105	80.30	30.05	9.60	76.3	7.70	2.5
FM 9250GL	3.60	1.090	79.70	29.00	8.65	75.8	8.10	1.5
NG 4012B2RF	3.95	1.065	79.80	29.05	8.85	77.2	8.00	1.5
NG 4111RF	3.85	1.105	82.25	32.85	10.15	76.0	8.75	1.5
NG X00012	3.95	1.090	80.55	27.60	11.35	77.5	8.40	2.0
PG 375WRF	3.70	1.075	80.95	30.00	8.85	76.4	7.90	2.0
PG 499WRF	3.60	1.110	81.55	31.30	10.70	75.1	8.10	2.5
Minimum Significant Difference (0.05)	0.73	0.059	2.59	2.66	1.36	NS	0.98	2.7

^aAM=Americot, AT = All Tex, BX = Experimental for Bayer CropScience, DP=Deltapine, DG = DynaGro, FM = Fibermax, NG = NexGen, PG=Phytogen, ST = Stoneville.

^b NS = not significant.