Response of cotton varieties to diseases on the Southern High Plains of Texas, 2010

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

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

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

Table 1. Response of commercially available cotton cultivars to Verticillium wilt, bacterial blight, root-knot nematodes and Fusarium wilt[a]

Brand	Variety	Verticillium wilt[b]	Bacterial blight[c]	Root-knot nematodes[d]	Fusarium wilt[d]
All-Tex	All-Tex 65207 B2RF	Intermediate	Unknown	Unknown	Unknown
All-Tex	All-Tex 81158 RF	Unknown	S	Unknown	Unknown
All-Tex	All-Tex 81220 B2RF	Unknown	S	Unknown	Unknown
All-Tex	All-Tex 81227 B2RF	Unknown	S	Unknown	Unknown
All-Tex	All-Tex Apex B2RF	Intermediate	S	S	S
All-Tex	All-Tex Arid B2RF	Poor	S	S	S
All-Tex	All-Tex Epic RF	Poor	S	S	S
All-Tex	All-Tex Marathon B2RF	Poor	R	S	S
All-Tex	All-Tex Orbit RF	Intermediate	S	S	S
All-Tex	All-Tex Patriot +RF	Intermediate	S	S	S
All-Tex	All-Tex Summit B2RF	Intermediate	R	S	S
All-Tex	All-Tex Titan B2RF	Poor	R	S	S
Americot	AM 1504 B2RF	Poor	R	S	S
Americot	AM 1532 B2RF	Intermediate	S	S	S
Americot	AM 1550 B2RF	Poor	S	S	S
Americot	AM 1622 B2RF	Intermediate	R	S	S
Americot	AM 1664 B2RF	Poor	S	S	S
Croplan	CG 3020 B2RF	Poor	R	S	S
Croplan	CG 3035 RF	Poor	S	S	S
Croplan	CG 3220 B2RF	Poor	S	S	S
Croplan	CG3520 B2RF	Intermediate	S	S	S
Croplan	CG 4020 B2RF	Intermediate	S	S	S
Deltapine	DP 0912 B2RF	Intermediate	S	S	S
Deltapine	DP 0920 B2RF	Good	Unknown	S	S
Deltapine	DP 0924 B2RF	Intermediate	S	S	S
Deltapine	DP 0935 B2RF	Intermediate	S	S	S
Deltapine	DP 0949 B2RF	Intermediate	S	S	S
Deltapine	DP 1028 B2RF	Poor	S	S	S
Deltapine	DP 1032 B2RF	Poor	PR	S	S
Deltapine	DP 1034 B2RF	Poor	S	S	S
Deltapine	DP 104 B2RF	Good	S	S	S
Deltapine	DP 1044 B2RF	Intermediate	S	S	S
Deltapine	DP 1048 B2RF	Poor	S	S	S
Deltapine	DP 1050 B2RF	Poor	S	S	S
Deltapine	DP 1133 B2RF	Intermediate	R	S	S
Deltapine	DP 1137 B2RF	Poor	S	S	S
Deltapine	DP 121 RF	Poor	S	S	S
Deltapine	DP 141 B2RF	Poor	S	S	S
Deltapine	DP 143 B2RF	Intermediate	S	S	S
Deltapine	DP 161 B2RF	Intermediate	S	S	S
Deltapine	DP 164 B2RF	Intermediate	S	S	S

Brand	Variety	Verticillium wilt[b]	Bacterial blight[c]	Root-knot nematodes[d]	Fusarium wilt[d]
Deltapine	DP 164 B2RF	Intermediate	S	S	S
Deltapine	DP 174 RF	Intermediate	S	PR	PR
Fibermax	FM 1735 LLB2	Unknown	R	S	S
Fibermax	FM 1740 B2RF	Intermediate to Good	R	S	S
Fibermax	FM 1773 LLB2	Unknown	S	S	S
Fibermax	FM 1845 LLB2	Unknown	PR	S	S
Fibermax	FM 1880 B2RF	Good	R	S	S
Fibermax	FM 2484 B2F	Good	Unknown	S	S
Fibermax	FM 832 LL	Unknown	R	S	S
Fibermax	FM 835 LLB2	Unknown	Unknown	S	S
Fibermax	FM 840 B2RF	Poor	R	S	S
Fibermax	FM 9058 RF	Good	R	S	S
Fibermax	FM 9063 B2RF	Good	R	S	S
Fibermax	FM 9160 B2F	Good	R	S	S
Fibermax	FM 9170 B2F	Good	R	S	S
Fibermax	FM 9180 B2F	Good	R	S	S
Fibermax	FM 955 LLB2	Unknown	R	S	S
Fibermax	FM 958 LL	Good	R	S	S
Fibermax	FM 981 LL	Intermediate	R	S	S
Fibermax	FM 988 LLB2	Unknown	R	S	S
NexGen	NG 1551 RF	Intermediate	S	S	S
NexGen	NG 1556 RF	Poor	S	S	S
NexGen	NG 1572 RF	Poor	R	S	S
NexGen	NG 2549 B2RF	Good	S	S	S
NexGen	NG 3273 B2RF	Poor	R	S	S
NexGen	NG 3348 B2RF	Good	PR	S	S
NexGen	NG 3538 RF	Poor	S	S	S
NexGen	NG 3550 RF	Intermediate	S	S	S
NexGen	NG 4010 B2RF	Good	R	S	S
NexGen	NG 4012 B2RF	Good	R	S	S
NexGen	NG 4111 RF	Good	R	S	S
PhytoGen	PHY 315 RF	Poor	S	S	S
PhytoGen	PHY 367 WRF	Good	S	PR	PR
PhytoGen	PHY 375 WRF	Intermediate	R	S	S
PhytoGen	PHY 485 WRF	Intermediate	S	S	S
PhytoGen	PHY 499 WRF	Intermediate	Unknown	S	S
PhytoGen	PHY 525 RF	Intermediate	Unknown	S	S
PhytoGen	PHY 565 WRF	Intermediate	S	S	S
Stoneville	ST 4288 B2F	Intermediate	S	PR	PR
Stoneville	ST 4427 B2F	Poor	S	S	S
Stoneville	ST 4498 B2F	Intermediate	S	S	S
Stoneville	ST 4554 B2RF	Intermediate	S	S	S

Brand	Variety	Verticillium wilt[b]	Bacterial blight[c]	Root-knot nematodes[d]	Fusarium wilt[d]
Stoneville	ST 5288 B2F	Intermediate	R	S	S
Stoneville	ST 5327 B2RF	Intermediate	S	S	S
Stoneville	ST 5458 B2RF	Poor	S	PR	PR

[a] PR = partial resistance; S= susceptible; R=resistant.

[b] Verticillium wilt responses are good, intermediate, and poor, and reflect a combination of wilt ratings, defoliation ratings, and yield potential in Verticillium wilt fields. A "good" variety will be acceptable in at least yield and either wilt ratings, defoliation ratings, or both of these categories.

[c] Bacterial blight is divided into resistant, partial resistance and susceptibility. Resistant indicates that bacterial blight should not occur on that variety. PR indicates that a small percentage (probably less than 30%) will develop symptoms. Susceptible indicates that bacterial symptoms can occur on most plants. Ratings do not indicate yield in the presence of this disease.

[d] The ratings for root-knot nematode and Fusarium wilt are susceptible or partially resistant. Partially resistant refers to varieties that have been bred with specific genes for root-knot nematode resistance. These same varieties will also be partially resistant to Fusarium wilt.