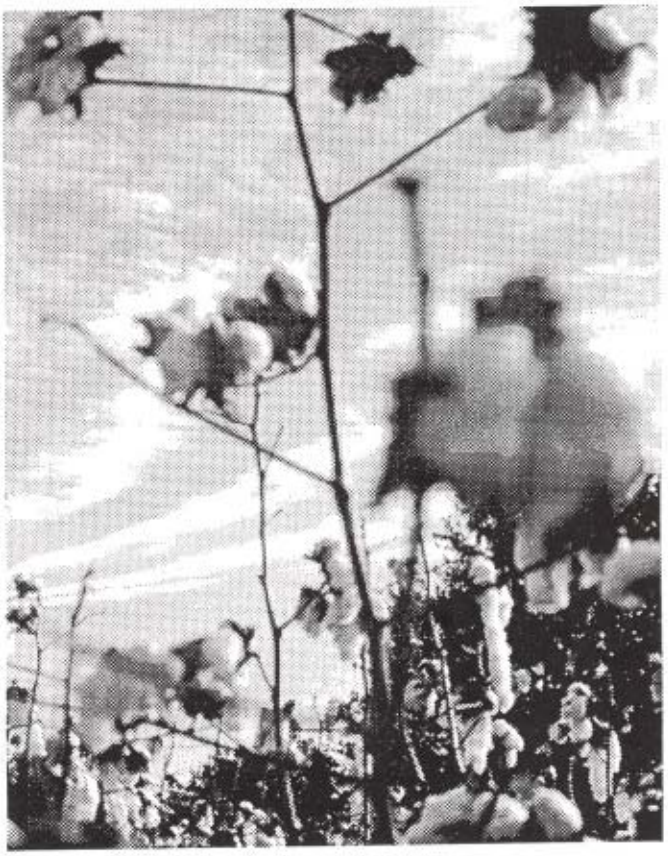
# 1999 National Fusarium Wilt Cotton Report



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Auburn, Alabama

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the Alabama Agricultural Experiment Station, Auburn University, Alabama.

# 1999 National Fusarium Wilt Cotton Report

**K. M. Glass and W. S. Gazaway[1]**

Cotton cultivars and elite breeding lines submitted by 28 cooperators were evaluated for fusarium wilt resistance under field conditions at the E. V. Smith Research Center, Plant Breeding Unit, Tallassee, Alabama. These entries were grown on an Independence loamy fine sand highly infested with both the fusarium wilt fungus *(Fusarium oxysporum)* Schlect. f. *vasinfectum* [Atk.] (Snyd. & Hans.) and root-knot nematodes *(Meloidogyne incognita)*.

Plots were 40-inch-wide rows, 20 feet in length, separated by 5-foot alleys. Four replications of the test entries and checks, arranged in a block design, were evaluated. Both susceptible (Rowden) and resistant (M-315) cultivars were included as checks. Rowden was planted in row five and every tenth row thereafter (15, 25,...,265), and M-315 in row 10 and every tenth row thereafter (20, 30,...,270) throughout the test. Plots were planted May 18. Initial plant counts were made on June 23. Wilted plants were counted and removed on July 8, July 29, and August 19. The remaining live plants were counted and recorded on September 10. Percent of wilted plants was then determined and mean wilting for a given entry calculated.

Average wilting of the susceptible Rowden was 31, 33, 21, and 21% for the four replications (27% average). Corresponding wilt percentages for the resistant check, M-315, were 0.7, 1, 2, and 1% (1% average). **Critical evaluation of a given entry should be made relative to the checks closest to the entry within each replication.** Evaluation of breeding progress or evaluation of entries over years should be made only between the relative value of this entry and that of the closest susceptible check rows for each year.

In 1994, a soil analysis for nematodes revealed that southern root-knot *(Meloidogyne incognita)* and lance *(Hoplolaimus galeatus)* are two predominant nematode species in the test plots. High populations of both species are found throughout the test area. Other nematode genera present are stubby root (*Trichodorus* sp.) and stunt (*Tylenchorhynchus* sp.). Root-knot nematodes, however, appear to be causing the major damage to cotton in the Fusarium Wilt Test as indicated by the high galling indices found on the roots of all cotton lines.

Fusarum wilt was light on all varieties including the susceptible cultivar Rowden. Early dry conditions caused plants to drop leaves early and made rating wilt difficult.

Entries submitted by Kathryn Glass are commonly grown cultivars or advanced commercial materials and are listed by name. Entries submitted by other cooperators are listed by their coded numbers. Additional information regarding the genetic background of a specific coded entry should be obtained from the named cooperator.

[1]*Glass is an Agricultural Program Associate, in the Department of Agronomy and Soils, and Gazaway is Professor and Extension Plant Pathologist/Nematologist, in the Department of Entomology and Plant Pathology, both at Auburn University.*

**1999 Fusarium Wilt Test, E. V. Smith Research Center, Tallassee, Alabama**

| Test entry designation | | Percent wilt by replication | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | Mean |
| 1 | Curtis Williams, Paymaster Cottonseed, 2476 Hwy. 130 East, Stuttgart, AR 72160 | | | | | |
| 001 | CW-1 | 1 | 0 | 0 | 0 | 0 |
| 002 | CW-2 | 0 | 0 | 0 | 6 | 2 |
| 003 | CW-3 | 10 | 11 | 6 | 2 | 7 |
| 004 | CW-4 | 0 | 10 | 1 | 3 | 4 |
| 005 | **ROWDEN** | **15** | **24** | **12** | **21** | **18** |
| 006 | CW-5 | 1 | 0 | 5 | 0 | 2 |
| 007 | CW-6 | 0 | 4 | 9 | 0 | 3 |
| 008 | CW-7 | 0 | 2 | 2 | 0 | 1 |
| 009 | CW-8 | 3 | 2 | 2 | 0 | 2 |
| 010 | **M-315** | **0** | **7** | **8** | **7** | **6** |
| 2 | Roy Creech, USDA-ARS, Mississipi State, MS 39762 | | | | | |
| 011 | 1 | 0 | 4 | 8 | 0 | 3 |
| 012 | 2 | 2 | 3 | 1 | 0 | 2 |
| 013 | 3 | 1 | 2 | 1 | 4 | 2 |
| 014 | 4 | 3 | 0 | 10 | 3 | 4 |
| 015 | **ROWDEN** | **49** | **39** | **7** | **6** | **25** |
| 016 | 5 | 0 | 6 | 0 | 2 | 2 |
| 017 | 6 | 1 | 2 | 2 | 0 | 1 |
| 018 | 7 | 0 | 3 | 0 | 9 | 3 |
| 019 | 8 | 0 | 7 | 1 | 3 | 3 |
| 020 | **M-315** | **0** | **0** | **0** | **0** | **0** |
| 3 | Charles Cook, United Agri Products, P.O. Box 1149, Santa Rosa, TX 78593 | | | | | |
| 021 | CGC-1 | 2 | 0 | 2 | 13 | 4 |
| 022 | CGC-2 | 8 | 30 | 5 | 14 | 15 |
| 023 | CGC-3 | 9 | 25 | 13 | 14 | 15 |
| 024 | CGC-4 | 1 | 28 | 0 | 15 | 11 |
| 025 | **ROWDEN** | **31** | **37** | **16** | **33** | **29** |
| 026 | CGC-5 | 4 | 18 | 2 | 0 | 6 |
| 027 | CGC-6 | 11 | 0 | 0 | 2 | 3 |
| 028 | CGC-7 | 3 | 4 | 0 | 0 | 3 |
| 029 | CGC-8 | 0 | 0 | 4 | 3 | 1 |
| 030 | **M-315** | **0** | **0** | **0** | **0** | **0** |
| 4 | Laval M. Verhalen, Oklahoma State University, 368 Agricultural Hall, Stillwater, OK 74078-6028 | | | | | |
| 031 | OKLA-1 | 1 | 4 | 0 | 6 | 3 |
| 032 | OKLA-2 | 9 | 0 | 3 | 9 | 5 |
| 033 | OKLA-3 | 1 | 0 | 3 | 2 | 1 |
| 034 | OKLA-4 | 0 | 7 | 1 | 11 | 5 |
| 035 | **ROWDEN** | **44** | **16** | **2** | **11** | **18** |
| 036 | OKLA-5 | 1 | 3 | 0 | 1 | 1 |
| 037 | OKLA-6 | 1 | 7 | 0 | 5 | 3 |
| 038 | OKLA-7 | 0 | 0 | 0 | 3 | 1 |
| 039 | OKLA-8 | 2 | 3 | 3 | 4 | 3 |
| 040 | **M-315** | **0** | **0** | **2** | **0** | 1 |

*continued*

**1999 Fusarium Wilt Test, E. V. Smith Research Center, Tallassee, Alabama**

| Test entry designation | | Percent wilt by replication 1 | 2 | 3 | 4 | Mean |
|---|---|---|---|---|---|---|
| 5 | Terry Weesner, Sure Grow Research, P.O. Box 589, Maricopa, AZ 85239 | | | | | |
| 041 | AZ-1 | 0 | 0 | 2 | 0 | 0 |
| 042 | AZ-2 | 0 | 0 | 2 | 3 | 1 |
| 043 | AZ-3 | 0 | 5 | 4 | 0 | 2 |
| 044 | AZ-4 | 0 | 0 | 3 | 0 | 1 |
| 045 | **ROWDEN** | **20** | **35** | **34** | **12** | **25** |
| 046 | AZ-5 | 6 | 4 | 0 | 0 | 2 |
| 047 | AZ-6 | 0 | 4 | 2 | 0 | 1 |
| 048 | AZ-7 | 0 | 4 | 0 | 3 | 2 |
| 049 | AZ-8 | 2 | 10 | 5 | 3 | 5 |
| 050 | **M-315** | **0** | **2** | **0** | **0** | **1** |
| 6 | Peggy Thaxton, Dept. of Soil & Crop Sci., Texas A&M Univ., College Station, TX 77843-2474 | | | | | |
| 051 | PMT-1 | 0 | 41 | 44 | 10 | 24 |
| 052 | PMT-2 | 3 | 17 | 11 | 2 | 8 |
| 053 | PMT-3 | 3 | 13 | 11 | 3 | 8 |
| 054 | PMT-4 | 0 | 6 | 0 | 2 | 2 |
| 055 | **ROWDEN** | **21** | **25** | **34** | **23** | **26** |
| 056 | PMT-5 | 3 | 5 | 6 | 13 | 7 |
| 057 | PMT-6 | 1 | 10 | 1 | 4 | 4 |
| 058 | PMT-7 | 39 | 0 | 6 | 0 | 11 |
| 059 | PMT-8 | 23 | 6 | 0 | 2 | 8 |
| 060 | **M 315** | **0** | **0** | **5** | **0** | **1** |
| 7 | Jim Mitchell, Paymaster Cottonseed, 2476 Hwy. 130 East , Stuttgart, AR 72160 | | | | | |
| 061 | JM-1 | 6 | 0 | 2 | 0 | 2 |
| 062 | JM-2 | 24 | 1 | 2 | 0 | 7 |
| 063 | JM-3 | 7 | 0 | 9 | 0 | 4 |
| 064 | JM-4 | 17 | 14 | 6 | 0 | 9 |
| 065 | **ROWDEN** | **30** | **17** | **20** | **12** | **20** |
| 066 | JM-5 | 2 | 0 | 0 | 1 | 1 |
| 067 | JM-6 | 0 | 3 | 15 | 2 | 5 |
| 068 | JM-7 | 1 | 4 | 4 | 7 | 4 |
| 069 | JM-8 | 3 | 0 | 5 | 2 | 3 |
| 070 | **M-315** | **2** | **0** | **0** | **0** | **1** |
| 8 | Don Keim, Delta and Pine Land Co., 100 Main Street, Scott, MS 38772 | | | | | |
| 071 | 1 | 0 | 2 | 3 | 6 | 3 |
| 072 | 2 | 0 | 2 | 2 | 2 | 1 |
| 073 | 3 | 0 | 1 | 0 | 0 | 0 |
| 074 | 4 | 0 | 4 | 11 | 4 | 5 |
| 075 | **ROWDEN** | **33** | **66** | **35** | **24** | **40** |
| 076 | 5 | 4 | 19 | 11 | 15 | 12 |
| 077 | 6 | 3 | 4 | 2 | 3 | 3 |
| 078 | 7 | 3 | 1 | 15 | 6 | 6 |
| 079 | 8 | 0 | 0 | 6 | 0 | 1 |
| 080 | **M-315** | **0** | **0** | **0** | **0** | **0** |

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**1999 Fusarium Wilt Test, E. V. Smith Research Center, Tallassee, Alabama**

| Test entry designation | | Percent wilt by replication | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | Mean |
| 9 | Randall McPherson, Phytogen Seed Co., P.O. Box 27, Leland, MS 38756 | | | | | |
| 081 | PX-1 | 1 | 1 | 3 | 0 | 2 |
| 082 | PX-2 | 2 | 0 | 0 | 5 | 2 |
| 083 | PX-3 | 2 | 0 | 0 | 1 | 1 |
| 084 | PX-4 | 1 | 2 | 5 | 8 | 4 |
| 085 | **ROWDEN** | **44** | **33** | **6** | **22** | **26** |
| 086 | PX-5 | 2 | 0 | 0 | 3 | 1 |
| 087 | PX-6 | 0 | 1 | 4 | 3 | 2 |
| 088 | PX-7 | 3 | 0 | 7 | 5 | 4 |
| 089 | PX-8 | 0 | 2 | 3 | 0 | 1 |
| 090 | **M-315** | **0** | **0** | **3** | **0** | **1** |
| 10 | John Green, Seed Source Inc., P.O. Box 28, Stoneville, MS 38776 | | | | | |
| 091 | SS-1 | 0 | 0 | 0 | 0 | 0 |
| 092 | SS-2 | 4 | 3 | 0 | 7 | 3 |
| 093 | SS-3 | 7 | 0 | 2 | 0 | 2 |
| 094 | SS-4 | 2 | 7 | 6 | 16 | 8 |
| 095 | **ROWDEN** | **35** | **20** | **8** | **19** | **21** |
| 096 | SS-5 | 0 | 0 | 12 | 5 | 4 |
| 097 | SS-6 | 0 | 10 | 2 | 2 | 4 |
| 098 | SS-7 | 4 | 2 | 0 | 6 | 3 |
| 099 | SS-8 | 3 | 0 | 4 | 0 | 2 |
| 100 | **M-315** | **0** | **3** | **0** | **0** | **1** |
| 11 | Ed Lubber, Phytogen Seed Co., P.O. Box 27, Leland, MS 38756 | | | | | |
| 101 | PX-9 | 2 | 4 | 40 | 0 | 11 |
| 102 | PX-10 | 2 | 7 | 4 | 0 | 3 |
| 103 | PX-11 | 0 | 3 | 11 | 32 | 11 |
| 104 | PX-12 | 2 | 17 | 3 | 3 | 6 |
| 105 | **ROWDEN** | **10** | **48** | **26** | **20** | **26** |
| 106 | PX-13 | 2 | 5 | 8 | 6 | 5 |
| 107 | PX-14 | 0 | 2 | 5 | 2 | 2 |
| 108 | PX-15 | 2 | 4 | 5 | 0 | 3 |
| 109 | PX-16 | 2 | 7 | 2 | 0 | 3 |
| 110 | **M-315** | **0** | **0** | **0** | **0** | **0** |
| 12 | Cindy Green, Delta and Pine Land Co., P.O. Box 1529, Hartsville, SC 29551 | | | | | |
| 111 | 1 | 0 | 3 | 4 | 4 | 3 |
| 112 | 2 | 1 | 0 | 0 | 21 | 6 |
| 113 | 3 | 3 | 5 | 2 | 4 | 3 |
| 114 | 4 | 2 | 0 | 36 | 4 | 10 |
| 115 | **ROWDEN** | **19** | **39** | **40** | **8** | **27** |
| 116 | 5 | 22 | 14 | 9 | 12 | 14 |
| 117 | 6 | 12 | 1 | 0 | 0 | 3 |
| 118 | 7 | 37 | 1 | 13 | 4 | 14 |
| 119 | 8 | 34 | 0 | 17 | 0 | 13 |
| 120 | **M-315** | **2** | **1** | **3** | **0** | **2** |

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**1999 Fusarium Wilt Test, E. V. Smith Research Center, Tallassee, Alabama**

| Test entry designation | | Percent wilt by replication 1 | 2 | 3 | 4 | Mean |
|---|---|---|---|---|---|---|
| 13 | C. Wayne Smith, Dept. of Soil & Crop Sci., Texas A & M Univ., College Station, TX 77843-2474 | | | | | |
| 121 | 1 | 88 | 0 | 4 | 0 | 23 |
| 122 | 2 | 8 | 0 | 0 | 33 | 3 |
| 123 | 3 | 33 | 14 | 27 | 1 | 19 |
| 124 | 4 | 42 | 6 | 8 | 13 | 17 |
| 125 | **ROWDEN** | **44** | **43** | **19** | **5** | **28** |
| 126 | 5 | 2 | 1 | 5 | 2 | 3 |
| 127 | 6 | 16 | 4 | 2 | 5 | 7 |
| 128 | 7 | 7 | 0 | 5 | 12 | 6 |
| 129 | 8 | 0 | 1 | 7 | 4 | 3 |
| 130 | **M-315** | **3** | **0** | **4** | **0** | **2** |
| 14 | O. Lloyd May, USDA-ARS, 2200 Pocket Road, Florence, SC 29506-9706 | | | | | |
| 131 | PD 94056 | 7 | 2 | 3 | 5 | 4 |
| 132 | PD 94063 | 4 | 6 | 6 | 2 | 5 |
| 133 | PD 95034 | 0 | 5 | 0 | 4 | 2 |
| 134 | PD 95079 | 7 | 0 | 2 | 3 | 3 |
| 135 | **ROWDEN** | **33** | **16** | **12** | **40** | **25** |
| 136 | PD 96001 | 5 | 4 | 9 | 9 | 6 |
| 137 | PD 96005 | 1 | 0 | 4 | 8 | 3 |
| 138 | PD 96024 | 1 | 6 | 4 | 2 | 3 |
| 139 | PD 96031 | 2 | 9 | 8 | 5 | 6 |
| 140 | **M-315** | **0** | **0** | **3** | **3** | **2** |
| 15 | Jack E. Jones, JaJo Genetics, 246 Maxine Drive, Baton Rouge, LA 70808-6831 | | | | | |
| 141 | JJ-1 | 1 | 0 | 0 | 0 | 0 |
| 142 | JJ-2 | 3 | 2 | 7 | 11 | 6 |
| 143 | JJ-3 | 9 | 6 | 2 | 10 | 7 |
| 144 | JJ-4 | 0 | 0 | 0 | 3 | 1 |
| 145 | **ROWDEN** | **26** | **14** | **25** | **70** | **34** |
| 146 | JJ-5 | 4 | 3 | 6 | 2 | 4 |
| 147 | JJ-6 | 0 | 7 | 2 | 2 | 3 |
| 148 | JJ-7 | 13 | 0 | 13 | 4 | 7 |
| 149 | JJ-8 | 0 | 0 | 0 | 5 | 1 |
| 150 | **M-315** | **0** | **0** | **0** | **0** | **0** |
| 16 | Gary Rea, Paymaster Cottonseed, RR 2, Box 60, Hale Center, TX 79041 | | | | | |
| 151 | 1 | 0 | 0 | 13 | 7 | 5 |
| 152 | 2 | 1 | 1 | 6 | 6 | 4 |
| 153 | 3 | 2 | 3 | 1 | 0 | 1 |
| 154 | 4 | 1 | 9 | 0 | 3 | 3 |
| 155 | **ROWDEN** | **34** | **20** | **22** | **22** | **24** |
| 156 | 5 | 8 | 1 | 3 | 0 | 3 |
| 157 | 6 | 2 | 0 | 0 | 3 | 1 |
| 158 | 7 | 3 | 2 | 0 | 0 | 1 |
| 159 | 8 | 5 | 0 | 0 | 3 | 2 |
| 160 | **M-315** | **3** | **0** | **3** | **0** | **1** |

*continued*

**1999 Fusarium Wilt Test, E. V. Smith Research Center, Tallassee, Alabama**

| Test entry designation | | Percent wilt by replication | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | Mean |
| 17 | W. P. Sappenfield, 115 Mango Cove, Leesburg, FL 34748 | | | | | |
| 161 | WPS-1 | 0 | 0 | 20 | 8 | 7 |
| 162 | WPS-2 | 7 | 0 | 51 | 0 | 15 |
| 163 | WPS-3 | 0 | 0 | 5 | 0 | 1 |
| 164 | WPS-4 | 0 | 2 | 4 | 0 | 1 |
| 165 | **ROWDEN** | **34** | **31** | **31** | **10** | **27** |
| 166 | WPS-5 | 4 | 0 | 0 | 0 | 1 |
| 167 | WPS-6 | 0 | 0 | 3 | 5 | 2 |
| 168 | WPS-7 | 0 | 2 | 0 | 0 | 1 |
| 169 | WPS-8 | 0 | 6 | 6 | 0 | 3 |
| 170 | **M-315** | **0** | **8** | **1** | **0** | **2** |
| 18 | Michael Swindle, Paymaster Cottonseed, 2476 Hwy. 130 East, Stuttgart, AR 72160 | | | | | |
| 171 | MS-1 | 4 | 7 | 20 | 3 | 8 |
| 172 | MS-2 | 2 | 14 | 12 | 3 | 8 |
| 173 | MS-3 | 11 | 20 | 17 | 2 | 12 |
| 174 | MS-4 | 19 | 2 | 7 | 3 | 8 |
| 175 | **ROWDEN** | **46** | **44** | **22** | **5** | **29** |
| 176 | MS-5 | 2 | 4 | 0 | 0 | 1 |
| 177 | MS-6 | 7 | 0 | 16 | 2 | 6 |
| 178 | MS-7 | 24 | 6 | 5 | 8 | 11 |
| 179 | MS-8 | 4 | 4 | 0 | 0 | 2 |
| 180 | **M-315** | **0** | **0** | **0** | **3** | **1** |
| 19 | Mark Barefield, Stoneville Pedigreed Seed Co., 2409 Commerce Lane, Albany, GA 31707 | | | | | |
| 181 | MB-1 | 28 | 0 | 2 | 4 | 9 |
| 182 | MB-2 | 21 | 11 | 0 | 2 | 8 |
| 183 | MB-3 | 10 | 24 | 7 | 2 | 11 |
| 184 | MB-4 | 0 | 6 | 1 | 8 | 4 |
| 185 | **ROWDEN** | **28** | **64** | **13** | **10** | **29** |
| 186 | MB-5 | 40 | 16 | 8 | 19 | 21 |
| 187 | MB-6 | 0 | 2 | 3 | 0 | 1 |
| 20 | Lloyd McCall, Stoneville Pedigreed Seed Co., 2409 Commerce Lane, Albany, GA 31707 | | | | | |
| 188 | LM-1 | 0 | 27 | 3 | 7 | 9 |
| 189 | LM-2 | 4 | 5 | 3 | 5 | 4 |
| 190 | **M-315** | **3** | **0** | **0** | **0** | **1** |
| 191 | LM-3 | 0 | 6 | 48 | 3 | 14 |
| 192 | LM-4 | 0 | 0 | 11 | 6 | 4 |
| 193 | LM-5 | 6 | 3 | 4 | 7 | 5 |
| 194 | LM-6 | 7 | 11 | 5 | 0 | 6 |

*continued*

**1999 Fusarium Wilt Test, E. V. Smith Research Center, Tallassee, Alabama**

| Test entry designation | | Percent wilt by replication | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | Mean |
| 21 | Steve Calhoun, Stoneville Pedigreed Seed Co., 2409 Commerce Lane, Albany, GA 31707 | | | | | |
| 195 | **ROWDEN** | **21** | **8** | **30** | **37** | **24** |
| 196 | SC-1 | 13 | 3 | 3 | 6 | 6 |
| 197 | SC-2 | 0 | 2 | 9 | 22 | 8 |
| 198 | SC-3 | 3 | 11 | 12 | 3 | 7 |
| 199 | SC-4 | 3 | 0 | 7 | 2 | 3 |
| 200 | **M-315** | **2** | **0** | **7** | **1** | **3** |
| 201 | SC-5 | 4 | 6 | 0 | 0 | 2 |
| 202 | SC-6 | 4 | 13 | 0 | 5 | 5 |
| 22 | Randy Wood, Stoneville Pedigreed Seed Co., P.O. Box 569, Maricopa, AZ 85239 | | | | | |
| 203 | RW-1 | 2 | 6 | 3 | 2 | 3 |
| 204 | RW-2 | 0 | 2 | 0 | 3 | 1 |
| 205 | **ROWDEN** | **29** | **36** | **15** | **45** | **31** |
| 206 | RW-3 | 10 | 4 | 5 | 7 | 6 |
| 207 | RW-4 | 1 | 0 | 3 | 6 | 3 |
| 208 | RW-5 | 14 | 3 | 15 | 2 | 8 |
| 209 | RW-6 | 3 | 3 | 2 | 5 | 3 |
| 23 | Mike Robinson, Stoneville Pedigreed Seed Co., 2409 Commerce Lane, Albany, GA 31707 | | | | | |
| 210 | **M-315** | **0** | **0** | **2** | **2** | **1** |
| 211 | MR-1 | 2 | 2 | 0 | 2 | 1 |
| 212 | MR-2 | 9 | 6 | 6 | 4 | 6 |
| 213 | MR-3 | 4 | 10 | 12 | 6 | 8 |
| 214 | MR-4 | 5 | 15 | 19 | 0 | 10 |
| 215 | **ROWDEN** | **41** | **39** | **35** | **6** | **30** |
| 216 | MR-5 | 8 | 3 | 0 | 2 | 4 |
| 217 | MR-6 | 8 | 57 | 15 | 11 | 23 |
| 24 | Jefferson Gwyn, AgrEvo Cotton Seed Inter., 4301-A Highway 82 East, Greenville, MS 38701 | | | | | |
| 218 | ACSI EXP0052 | 7 | 22 | 9 | 1 | 10 |
| 219 | ACSI EXP0222 | 12 | 3 | 9 | 3 | 7 |
| 220 | **M-315** | **0** | **0** | **0** | **3** | **1** |
| 221 | ACSI EXP0223 | 0 | 6 | 10 | 0 | 4 |
| 222 | ACSI EXP0321 | 10 | 4 | 10 | 3 | 7 |
| 223 | ACSI EXP0781 | 0 | 3 | 13 | 0 | 4 |
| 224 | ACSI EXPIF1000 | 2 | 1 | 0 | 0 | 1 |
| 225 | **ROWDEN** | **19** | **26** | **25** | **9** | **20** |
| 25 | Forest Robinson, USDA, Texas A & M University, College Station, TX 77843 | | | | | |
| 226 | AFR-1 | 5 | 15 | 5 | 8 | 8 |
| 227 | AFR-2 | 6 | 4 | 3 | 3 | 4 |
| 228 | AFR-3 | 4 | 18 | 9 | 4 | 9 |
| 229 | AFR-4 | 4 | 15 | 6 | 1 | 7 |
| 230 | **M-315** | **0** | **3** | **0** | **3** | **1** |

*continued*

**1999 Fusarium Wilt Test, E. V. Smith Research Center, Tallassee, Alabama**

| Test entry designation | | Percent wilt by replication | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | Mean |
| 26 | Luther Bird, 729 Shady Lane, Bryan, TX 77802-4322 | | | | | |
| 231 | GP-2-37-96 | 0 | 0 | 0 | 6 | 2 |
| 232 | GP-4-37-96 | 19 | 5 | 0 | 17 | 10 |
| 233 | GP-6-19-96 | 5 | 7 | 0 | 0 | 3 |
| 234 | GP 9529-1 | 15 | 0 | 0 | 0 | 4 |
| 235 | **ROWDEN** | **49** | **52** | **22** | **20** | **36** |
| 27 | Robert Humphries, Delta and Pine Land Co.,1305 North VIP Blvd., Casa Grande, AZ 85222 | | | | | |
| 236 | DPAZ-1 | 6 | 9 | 7 | 2 | 6 |
| 237 | DPAZ-2 | 15 | 3 | 3 | 6 | 7 |
| 238 | DPAZ-3 | 6 | 4 | 18 | 6 | 8 |
| 239 | DPAZ-4 | 28 | 10 | 4 | 2 | 11 |
| 240 | **M-315** | **0** | **0** | **0** | **2** | **0** |
| 241 | DPAZ-5 | 6 | 0 | 0 | 0 | 2 |
| 28 | Kathryn M. Glass, Dept. of Agronomy and Soils, Auburn University, AL 36849-5412 | | | | | |
| 242 | Suregrow 125 BR | 22 | 4 | 6 | 3 | 9 |
| 243 | Suregrow 747 | 24 | 8 | 3 | 5 | 10 |
| 244 | Paymaster PM 1560 BG/RR | 0 | 2 | 2 | 0 | 1 |
| 245 | **ROWDEN** | **29** | **22** | **8** | **10** | **17** |
| 246 | Stoneville 474 | 8 | 0 | 17 | 4 | 7 |
| 247 | Deltapine NuCotn 33B | 3 | 0 | 0 | 2 | 1 |
| 248 | Deltapine DP 458 B/RR | 4 | 0 | 0 | 3 | 2 |
| 249 | Deltapine Acala 90 | 0 | 0 | 0 | 2 | 1 |
| 250 | **M-315** | **3** | **0** | **6** | **0** | **2** |