DEPARTMENT OF AGRONOMY AND SOILS AGRICULTURAL EXPERIMENT STATION

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REGIONAL COTTON FUSARIUM WILT TEST RESULTS 1979

November 1979

1979 REGIONAL COTTON FUSARIUM WILT REPORT¹

A. J. Kappelman, Jr.²

Cultivars and elite breeding lines submitted by 20 cooperators were evaluated for fusarium wilt resistance under field conditions at Tallassee, Alabama. These materials were evaluated on a Wickham sandy loam soil which was highly infested with both the fusarium wilt fungus [Fusarium oxysporum Schlect. f. vasinfectum (Atk.) Snyd. & Hans.] and root-knot nematodes (Meloidogyne spp.). Both the susceptible ('Rowden') and resistant ('Stoneville 603') cultivars were included as checks. Rowden was planted in row 5 (15, 25, ..., 145) and Stoneville 603 in row 10 (20, 30, ..., 140) and then in every tenth row thereafter throughout the test.

All plots were bedded, 30 ft in length, spaced 40 in apart, and separated by 6-ft alleys. Four replications of the test entries were arranged in a systematically randomized complete block design. Entries were planted May 3 and thinned to one plant every 3 or 4 inches on June 5. Initial live plant counts were taken June 12. Wilted plants were counted and removed five times during the growing season. Final counts of live plants were made on September 6. Percent wilted plants per plot were determined as the difference between initial and final live plant counts. Mean wilting percentages for a given entry were then calculated.

Environmental conditions during the growing season were somewhat unusual. Minimum air temperature was lower than 60 F until May 27 while

¹This is a progress report for information and guidance of cooperators, the interpretation of which may be modified with additional experimentation.

²Research Plant Pathologist, USDA-SEA-AR, Adjunct Assistant Professor, Department of Agronomy and Soils. maximum air temperatures of 90 F or above occurred only on 15 days during the entire test period. In addition, rainfall was somewhat limiting. Regardless of this, a great deal of wilting occurred although considerable variability was evident. Average wilting over the entire test for Rowden was 75% but wilt incidence ranged from 21.1 to 100%. The mean incidence of wilting in Stoneville 603 was only 18% but ranged from 0 to 48.1%. Thus, while extremely resistant or susceptible entries could be easily distinguished, the variation across replications makes an entry with intermediate resistance difficult to classify. Critical evaluation of an entry or comparison between entries should be made relative to the nearest check cultivars.

Entries submitted by Wiley C, Johnson are commonly grown cultivars or highly advanced commercial materials; therefore, they are listed by name. Entries submitted by other cooperators are listed by their coded number. Additional information regarding the genetic background of a specific coded entry should be obtained from the given cooperator.

Regional Cotton Fusarium Wilt Test Results, 1979

Plant Breeding Unit, Tallassee, Alabama

Test entry			t by replic		
lesignation	1	2	3	4	Mean
Larry L. Barton,	Rogers Delinted	Cottonseed	l Co., Waco,	Texas	
LLB-1	30.6	16.9	17.8	46.4	27.9
LLB-2	38.6	23.1	34.9	15.4	28.0
LLB-3	48.1	15.9	15.3	73.4	38.2
LLB-4	56.9	29.2	27.8	44.4	39.6
Rowden	61.0	24.1	51.5	70.2	51.7
LLB-5	50,9	42.2	48.4	53.1	48.7
Keith R. Jones,	Delta & Pine Lan	d Co., Sco	tt, Mississi	lppi	
DPL-1	39.0	23.1	44.2	37.1	35.9
DPL-2	26.6	25,7	25.7	36.0	28.5
DPL-3	22.5	30,0	3.9	14.2	17.7
ST-603	31.4	1.0	5.0	20.0	14.3
DPL-4	59.5	6.2	8.9	5.8	20.1
DPL-5	29.6	15.9	17.9	43.7	26.8
Robert R. Bridge	, Miss. State Un	iversity,	Stoneville,	Mississippi	
Bridge-1	7.8	41.9	1.4	12.5	15.9
Bridge-2	23.2	15,8	19.1	18.5	19.1
Rowden	53.3	79.3	21.1	100.0	63.4
Bridge-3	21.0	23.3	31.0	7.6	20.7
Bridge-4	6.2	14.3	16.1	10.9	11.9
Bridge-5	32.9	16.7	6.3	4.7	15.1
	toneville Pedigr				
Stoneville-1	16.2	2.7	19.4	0	9.6
ST-603	25.0	37.3	20.7	5.1	22.0
Stoneville-2	12.4	29.7	11.2	10.5	15.9
Stoneville-3	49.4	33.8	21.9	16.1	30.3
Stoneville-4	40.0	19.7	22.2	4.4	21.6
Stoneville-5	49.4	18.5	10.7	8.3	21.7
Jerry L. Baker,	Pioneer Hi-Bred	Internat'1	Inc., Verno	on, Texas	
Rowden	70.2	84.7	87.9	84.1	81.7
PR-1	69.9	14.5	38.0	21.2	35.9
PR-2	44.8		47.6	24.5	37.4
PR-3	26.7	14.3	29.4	10.2	20.1
PR-4	13.1	4.8	11.1	16.1	11.3
ST-603	27.6	2.4	6.3	1.2	9.4
PR-5	27.0 53.4	2.4	18.5	11.2	26.1
	Bobshaw Pedigree				
Bobshaw-1	44.7	17.6	5.5	13.6	20.3
Bobshaw-2	50.7	18.1	14.9	27.3	27.7
Bobshaw-3	31.2	22.4	2.5	3.8	15.0
Rowden	93.3	81.1	25.5	90.7	72.7
Bobshaw-4	19.5	24.6	4.8	12.7	15.4
Bobshaw-5	49.2	18.0	16.4	7.0	22.7

Test entry			by replic		
lesignation	1	2	3	4	Mean
J. B. Weaver, Jr., Un	iv. of Georgia,	Athens,	Georgia		
JBW-1	28.2	36.1	7.3	9.5	20.3
JBW-2	6.5	18.8	10.4	10.3	11.5
ST-603	10.8	13.4	3.7	0	7.0
JBW-3	47.4	60.3	4.9	23.8	34.1
JBW-4	72.9	37.5	4.6	43.7	39.7
JBW-5	35.6	34.1	11.5	5.3	21.6
Jerry D. Carroll, Del	ta & Pine Land	Co., Lub	bock, Texa	S	an an Arian An Anna An
IDC-1	97.6	41.6	29.3	32.0	50.1
Rowden	84.3	45.1	67.1	82.6	69.8
JDC-2	30.6	22.2	28.9	42.9	31.1
JDC-3	41.3	82.3	11.9	13.4	37.2
JDC-4	68.8	29.0	34.1	18.4	37.6
JDC-4 JDC-5	39.3	19.7	41.2	41.0	35.3
Henry Webb, Coker Ped		The Contract of the Contract o			
ST-603	14,9	26.5	21.8	2.6	16.5
Coker-1	63.2	19.8	34.8	20.6	34.0
Coker-2	18,2	20.6	54,2	19,1	28.0
Coker-3	36.1	24.7	20.3	15.9	24.3
그는 것 같아요. 이 것 같아요. 이 것 같아요. 한 것 같아요. 한 것 같아요. 한 것 같아요.	24.0	20.0	52.6	7,6	26.1
Coker-4		A DATE OF A DESCRIPTION OF		and the second se	
Rowden Coker-5	100.0 57.1	89.3 23.1	100.0 9.3	100.0 13.0	97. 25.0
MO-2 MO-3	5.7 16.9	32.4 21.4	16.4 4.5	9.4 5.3	16.0 12.0
Roger G. Ward, Delta	- Consect Wester Constant of			a standar i seri	
RGW-1	사람도 맛있는 것은 것을 가 없다.	29.3	16.7	15.9	26.3
이 사람이 가지 못 하는 것이 있는 것에서 가장에 가지 않는 것 같아.	43.3				e de la companya de l
ST-603	21,2	22.9	16.7	2.8	15.9
RGW-2	1,7	19.0	9.8	10.6	10.3
RGW-3	38.6	32.1	6.6	6.1	20.9
RGW-4	25.3	25.5	9.0	3.5	10.8
RGW-5	83.6	55.4	61.3	4.4	51.2
Rowden	99.0	100.0	93.0	76.0	92.0
Gene Douglas, Holland	ale Agr. Servio	e, Holla	ndale, Mis	sissippi	
HAS-1801	21.4	18.4	12.5	19.7	18.0
HAS-1802	29.6	26.0	8.3	7.3	17.8
	19.5	15.2	1.6	1.3	9.4
		32.1	62.4	0	35.
HAS-1803	48.9	J6 + 1			
HAS-1803 HAS-1804			27.8	38.3	32.
HAS-1803 HAS-1804 ST-603	31.9	32.2	27.8 17.5	38.3 21.5	32. 20.
HAS-1803 HAS-1804 ST-603 HAS 1805	31.9 36.0	32.2 7.9	17.5		
HAS-1803 HAS-1804 ST-603 HAS 1805 Carl A. Mossberg, Gro	31.9 36.0 owers Seed Assoc	32.2 7.9 2., Lubbo	17.5 ock, Texas	21.5	20.
HAS-1803 HAS-1804 ST-603 HAS 1805 Carl A. Mossberg, Gro GSA-1 GSA-2	31.9 36.0	32.2 7.9	17.5		

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lest entry	Pe	rcent wilt	by replic	ation	
lesignation	1	2	3	4	Mean
elbert C. Hess, ACCO	Seed, Plainv	iew, Texas			
ACCO-1	51.5	14.1	30.4	59.3	38.8
Rowden	88.4	84.5	89.0	100.0	90.5
CCO-2	31.6	33.8	40.2	.76.4	45.5
ACC0-3	61.2	35.7	22.8	82.4	50.5
ACC0-4	31.2	70.2	18.2	24.7	36.1
ACCO-5	64.8	30.6	42.9	52.9	47.8
ST-603	28.0	11.5	12.2	1.9	13.4
Jack E. Jones, Louisia	and the state of the second	the group of the			
ILSU–1	24.4	32.1	20.2	9.5	21.5
ILSU-2	17.3	12.1	16.4	30.6	19.1
LSU-3	20.3	8.4	19.0	11.3	14.7
ILSU-3 ILSU-4	20.3 59.4	28.0	21.6	41.3	37.6
- ふうとう ちょうえん えんしゅう かんしょう かいかいしょう ひょうしん		the second se			92.4
lowden	86.0	95.1	94.2	94.4	
ILSU-5	30.6	13.9	18.7	11.1	18.6
ILSU-6	27.0	11.4	32.1	3.6	18.5
aval M. Verhalen, Okl	la. State Uni	v., Stillw	ater, Okla	homa	
)kla-1	27.8	9.9	10.3	16.7	16.2
)kla-2	30.7	13.1	12.7	39.7	24.1
ST-603	25.7	9.6	27.2	35.1	24.4
)kla-3	61.2	44.4	38.4	23.3	41.8
)kla-4	12.9	16.5	13.0	15.6	14.5
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0kla-5	31.2	14.3	11.4	15.3	18.1
			11.4	15.3	18.1
r. W. Culp, USDA, SEA,	, AR, Florenc	e, South C	11.4 arolina		
r. W. Culp, USDA, SEA, Culp-1	, AR, Florenc 27.9	e, South C 20.5	<u>11.4</u> arolina 54.2	17.3	30.0
f. W. Culp, USDA, SEA, Culp-1 Rowden	, AR, Florenc 27.9 67.1	e, South C 20.5 63.8	11.4 arolina 54.2 98.8	17.3 53.4	30.0 70.8
F. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2	, AR, Florenc 27.9 67.1 17.1	e, South C 20.5 63.8 15.6	11.4 arolina 54.2 98.8 36.6	17.3 53.4 20.4	30.0 70.8 22.4
r. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3	, AR, Florenc 27.9 67.1 17.1 23.9	e, South C 20.5 63.8 15.6 34.2	11.4 arolina 54.2 98.8 36.6 7.2	17.3 53.4 20.4 20.7	30.0 70.8 22.4 21.5
f. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4	AR, Florenc 27.9 67.1 17.1 23.9 16.2	e, South C 20.5 63.8 15.6 34.2 39.1	11.4 arolina 54.2 98.8 36.6 7.2 69.0	17.3 53.4 20.4 20.7 2.9	30.0 70.8 22.4 21.5 31.8
C. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9	e, South C 20.5 63.8 15.6 34.2 39.1 64.2	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8	17.3 53.4 20.4 20.7	30.0 70.8 22.4 21.5
I. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Wiley C. Johnson, Aubu	, AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn,	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama	17.3 53.4 20.4 20.7 2.9 18.9	30.0 70.8 22.4 21.5 31.8 65.2
C. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Wiley C. Johnson, Aubu	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4	17.3 53.4 20.4 20.7 2.9 18.9 43.0	30.0 70.8 22.4 21.5 31.8 65.2 24.3
I. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Wiley C. Johnson, Aubu ST-603 Coker 310	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9
C. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Wiley C. Johnson, Aubu ST-603 Coker 310 Dixie King III	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3
C. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Viley C. Johnson, Aubu ST-603 Coker 310 Dixie King III	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5
C. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Viley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5
C. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Viley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213 DES-24	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6 87.7	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2 51.3	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5 30.0
C. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Viley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213 DES-24 Rowden	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6 87.7 40.2 92.6	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2 51.3 44.7	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8 25.3	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0 9.9	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5 30.0 85.8
C. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Niley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213 DES-24 Rowden AcNair 235	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6 87.7 40.2 92.6 12.7	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2 51.3 44.7 92.3 13.1	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8 25.3 77.4 14.8	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0 9.9 80.8 26.9	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5 30.0 85.8 16.9
C. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Viley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213 DES-24 Rowden AcNair 235 Brycot 4	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6 87.7 40.2 92.6 12.7 86.3	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2 51.3 44.7 92.3 13.1 35.6	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8 25.3 77.4 14.8 73.4	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0 9.9 80.8 26.9 43.9	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5 30.0 85.8 16.9 59.8
2. W. Culp, USDA, SEA, Sulp-1 Rowden Sulp-2 Sulp-3 Sulp-4 Sulp-4 Sulp-5 Miley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213 DES-24 Rowden AcNair 235 Brycot 4 AcNair 220	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6 87.7 40.2 92.6 12.7 86.3 7.4	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2 51.3 44.7 92.3 13.1 35.6 19.1	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8 25.3 77.4 14.8 73.4 14.9	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0 9.9 80.8 26.9 43.9 16.3	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5 30.0 85.8 16.9 59.8 14.4
C. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-4 Culp-5 Viley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213 DES-24 Rowden McNair 235 Brycot 4 McNair 220 Hancock	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6 87.7 40.2 92.6 12.7 86.3 7.4 40.7	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2 51.3 44.7 92.3 13.1 35.6 19.1 30.8	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8 25.3 77.4 14.8 73.4 14.9 54.5	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0 9.9 80.8 26.9 43.9 16.3 90.1	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5 30.0 85.8 16.9 59.8 14.4 54.0
C. W. Culp, USDA, SEA, Sulp-1 Rowden Sulp-2 Sulp-3 Sulp-4 Sulp-4 Sulp-5 Wiley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213 DES-24 Rowden McNair 235 Brycot 4 McNair 220 Hancock ST-603	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6 87.7 40.2 92.6 12.7 86.3 7.4 40.7 48.1	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 Ty, Auburn, 14.5 36.5 34.2 51.3 44.7 92.3 13.1 35.6 19.1 30.8 2.5	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8 25.3 77.4 14.8 73.4 14.9 54.5 7.7	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0 9.9 80.8 26.9 43.9 16.3 90.1 17.1	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5 30.0 85.8 16.9 59.8 14.4 54.0 18.8
C. W. Culp, USDA, SEA, Culp-1 Nowden Culp-2 Culp-3 Culp-4 Culp-5 Niley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213 DES-24 Rowden AcNair 235 Brycot 4 AcNair 220 Hancock ST-603 Rex 731	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6 87.7 40.2 92.6 12.7 86.3 7.4 40.7 48.1 35.8	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2 51.3 44.7 92.3 13.1 35.6 19.1 30.8 2.5 20.3	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8 25.3 77.4 14.8 73.4 14.9 54.5 7.7 14.1	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0 9.9 80.8 26.9 43.9 16.3 90.1 17.1 2.6	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5 30.0 85.8 16.9 59.8 14.4 54.0 18.8 18.2
C. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Viley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213 DES-24 Rowden McNair 235 Brycot 4 McNair 220 Hancock ST-603 Rex 731 Deltapine 55	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6 87.7 40.2 92.6 12.7 86.3 7.4 40.7 48.1 35.8 33.3	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2 51.3 44.7 92.3 13.1 35.6 19.1 30.8 2.5 20.3 23.2	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8 25.3 77.4 14.8 73.4 14.9 54.5 7.7 14.1 5.5	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0 9.9 80.8 26.9 43.9 16.3 90.1 17.1 2.6 9.9	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5 30.0 85.8 16.9 59.8 14.4 54.0 18.8 18.2 18.0
C. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Viley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213 DES-24 Rowden McNair 235 Brycot 4 McNair 220 Hancock ST-603 Rex 731 Deltapine 55 Coker 3114	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6 87.7 40.2 92.6 12.7 86.3 7.4 40.7 48.1 35.8 33.3 35.2	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2 51.3 44.7 92.3 13.1 35.6 19.1 30.8 2.5 20.3 23.2 17.6	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8 25.3 77.4 14.8 73.4 14.9 54.5 7.7 14.1 5.5 16.2	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0 9.9 80.8 26.9 43.9 16.3 90.1 17.1 2.6 9.9 8.3	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5 30.0 85.8 16.9 59.8 14.4 54.0 18.8 18.2 18.0 19.3
<pre>C. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Wiley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213 DES-24 Rowden McNair 235 Brycot 4 McNair 220 Hancock ST-603 Rex 731 Deltapine 55 Coker 3114</pre>	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6 87.7 40.2 92.6 12.7 86.3 7.4 40.7 48.1 35.8 33.3 35.2 24.1	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2 51.3 44.7 92.3 13.1 35.6 19.1 30.8 2.5 20.3 23.2 17.6 29.5	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8 25.3 77.4 14.8 73.4 14.9 54.5 7.7 14.1 5.5 16.2 17.7	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0 9.9 80.8 26.9 43.9 16.3 90.1 17.1 2.6 9.9 8.3 32.2	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5 30.0 85.8 16.9 59.8 14.4 54.0 18.8 18.2 18.0 19.3 25.9
<pre>C. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Wiley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213 DES-24 Rowden McNair 235 Brycot 4 McNair 220 Hancock ST-603 Rex 731 Deltapine 55 Coker 3114 DES-56</pre>	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6 87.7 40.2 92.6 12.7 86.3 7.4 40.7 48.1 35.8 33.3 35.2	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2 51.3 44.7 92.3 13.1 35.6 19.1 30.8 2.5 20.3 23.2 17.6	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8 25.3 77.4 14.8 73.4 14.9 54.5 7.7 14.1 5.5 16.2	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0 9.9 80.8 26.9 43.9 16.3 90.1 17.1 2.6 9.9 8.3	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5 30.0 85.8 16.9 59.8 14.4 54.0 18.8 18.2 18.0 19.3 25.9 73.1
<pre>F. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Wiley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213 DES-24 Rowden McNair 235 Brycot 4 McNair 220 Hancock ST-603 Rex 731 Deltapine 55 Coker 3114 DES-56 Rowden</pre>	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6 87.7 40.2 92.6 12.7 86.3 7.4 40.7 48.1 35.8 33.3 35.2 24.1	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2 51.3 44.7 92.3 13.1 35.6 19.1 30.8 2.5 20.3 23.2 17.6 29.5	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8 25.3 77.4 14.8 73.4 14.9 54.5 7.7 14.1 5.5 16.2 17.7	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0 9.9 80.8 26.9 43.9 16.3 90.1 17.1 2.6 9.9 8.3 32.2 89.8 29.4	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5 30.0 85.8 16.9 59.8 14.4 54.0 18.8 18.2 18.0 19.3 25.9
Dkla-5 F. W. Culp, USDA, SEA, Culp-1 Rowden Culp-2 Culp-3 Culp-4 Culp-5 Wiley C. Johnson, Aubu ST-603 Coker 310 Dixie King III Stoneville 213 DES-24 Rowden McNair 235 Brycot 4 McNair 220 Hancock ST-603 Rex 731 Deltapine 55 Coker 3114 DES-56 Rowden Delcot 277 Vail 7	AR, Florenc 27.9 67.1 17.1 23.9 16.2 85.9 urn Universit 12.2 42.0 17.6 87.7 40.2 92.6 12.7 86.3 7.4 40.7 48.1 35.8 33.3 35.2 24.1 36.3	e, South C 20.5 63.8 15.6 34.2 39.1 64.2 y, Auburn, 14.5 36.5 34.2 51.3 44.7 92.3 13.1 35.6 19.1 30.8 2.5 20.3 23.2 17.6 29.5 87.7	11.4 arolina 54.2 98.8 36.6 7.2 69.0 91.8 Alabama 27.4 30.9 12.1 81.8 25.3 77.4 14.8 73.4 14.9 54.5 7.7 14.1 5.5 16.2 17.7 78.6	17.3 53.4 20.4 20.7 2.9 18.9 43.0 30.1 29.5 37.0 9.9 80.8 26.9 43.9 16.3 90.1 17.1 2.6 9.9 8.3 32.2 89.8	30.0 70.8 22.4 21.5 31.8 65.2 24.3 34.9 23.3 64.5 30.0 85.8 16.9 59.8 14.4 54.0 18.8 18.2 18.0 19.3 25.9 73.1

Test entry	Percent wilt by replication				
designation	1	2	3	4	Mean
Wiley C. Johnson, Au	uburn University	, continu	ued		
Coker 420	19.0	18.5	18.0	11.0	16.6
ST-603	16.7	15.4	7.2	4.1	10.9
Coker 3114	19.5	16.9	11.9	1.2	12.4
Deltapine 41	40.5	9.5	16.5	37.4	26.0
Coker 315	59.0	12.5	15.4	16.7	25.9
Deltapine 26	74.4	15.1	13.5	5.5	27.1
Rowden	100.0	47.9	98.8	63.4	77.5
Deltapine 70	64.2	42.5	17.2	9.1	33.3
Coker 304	53.6	12,7	22.4	1.4	22.5
Deltapine 61	29.2	31.2	41.5	5.5	26.9
Stoneville 825	76,1	14.6	100.0	14.1	51.2
ST-603	39.7	7.6	45.7	17.4	27.6
RR-50	30.0	4.7	40.6	10.1	21.3
James L. Helm, McNat	ir Seed Co., La	urinburg	, North Car	olina 835	
McNair-l	47.5	5.1	37.5	6.1	24.1
	47.8		7 7 0	3 /	10 0
McNair-2	T/ • V	5.7	15.9	3.4	18.2
	42.9	5./ 19.5	15.9	10.6	
McNair-3				and the second second second second second	23.0
McNair-2 McNair-3 Rowden McNair 3150	42.9	19.5	19.1	10.6	18.2 23.0 49.5 19.3
McNair-3 Rowden	42.9 55.6	19.5 24.0	19.1 97.6	10.6 20.7	23.0 49.5
McNair-3 Rowden McNair 3150 McNair 3151	42.9 55.6 27.9 23.8	19.5 24.0 12.7 14.7	19.1 97.6 23.0 23.9	10.6 20.7 13.4	23.0 49.5 19.3
McNair-3 Rowden McNair 3150	42.9 55.6 27.9 23.8	19.5 24.0 12.7 14.7	19.1 97.6 23.0 23.9	10.6 20.7 13.4	23.0 49.5 19.3 19.1
McNair-3 Rowden McNair 3150 <u>McNair 3151</u> A. J. Kappelman, Jr.	42.9 55.6 27.9 23.8 ., USDA, SEA, AR	19.5 24.0 12.7 14.7 , Auburn	19.1 97.6 23.0 23.9 , Alabama	10.6 20.7 13.4 14.0	23.0 49.5 19.3 <u>19.1</u> 9.6
McNair-3 Rowden McNair 3150 <u>McNair 3151</u> A. J. Kappelman, Jr. AK-1 AK-2	42.9 55.6 27.9 23.8 ., USDA, SEA, AR 1.3	19.5 24.0 12.7 14.7 , Auburn 11.5	19.1 97.6 23.0 23.9 , Alabama 17.1	10.6 20.7 13.4 14.0 8.6	23.0 49.5 19.3 <u>19.1</u> 9.6 12.8
McNair-3 Rowden McNair 3150 <u>McNair 3151</u> A. J. Kappelman, Jr. AK-1 AK-2 ST-603	42.9 55.6 27.9 23.8 ., USDA, SEA, AR 1.3 10.5	19.5 24.0 12.7 14.7 , Auburn 11.5 24.3	19.1 97.6 23.0 23.9 , Alabama 17.1 7.2	10.6 20.7 13.4 14.0 8.6 9.2	23.0 49.5 19.3 19.1 9.6 12.8 21.9
McNair-3 Rowden McNair 3150 <u>McNair 3151</u> A. J. Kappelman, Jr. AK-1 AK-2 ST-603 AK-3	42.9 55.6 27.9 23.8 ., USDA, SEA, AR 1.3 10.5 25.0	19.5 24.0 12.7 14.7 , Auburn 11.5 24.3 24.1	19.1 97.6 23.0 23.9 , Alabama 17.1 7.2 19.5	10.6 20.7 13.4 14.0 8.6 9.2 18.8	23.0 49.5 19.3 <u>19.1</u> 9.6 12.8 21.9 15.7
McNair-3 Rowden McNair 3150 <u>McNair 3151</u> A. J. Kappelman, Jr. AK-1	42.9 55.6 27.9 23.8 ., USDA, SEA, AR 1.3 10.5 25.0 30.7	19.5 24.0 12.7 14.7 , Auburn 11.5 24.3 24.1 0	19.1 97.6 23.0 23.9 , Alabama 17.1 7.2 19.5 11.4	10.6 20.7 13.4 14.0 8.6 9.2 18.8 20.8	23.0 49.5 19.3
McNair-3 Rowden McNair 3150 <u>McNair 3151</u> A. J. Kappelman, Jr. AK-1 AK-2 ST-603 AK-3 AK-4	42.9 55.6 27.9 23.8 ., USDA, SEA, AR 1.3 10.5 25.0 30.7 9.7	19.5 24.0 12.7 14.7 , Auburn 11.5 24.3 24.1 0 6.6	19.1 97.6 23.0 23.9 , Alabama 17.1 7.2 19.5 11.4 19.2	10.6 20.7 13.4 14.0 8.6 9.2 18.8 20.8 11.1	23.0 49.5 19.3 19.1 9.6 12.8 21.9 15.7 11.7