

SOUTHERN UNIFORM WINTER WHEAT SCAB NURSERY

2015 NURSERY REPORT

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LOCATION NOTES

Highland, Illinois

- Cooperator: Jennifer Vonderwell.
- Agripro-Syngenta Seeds Inc.

Champaign, Illinois

- Cooperator: Jana Murche
- KWS Cereals USA.

Urbana, Illinois

- Cooperator: Fred Kolb.
- University of Illinois.

Fayetteville and Newport, Arkansas

- Cooperator: Esten Mason.
- University of Arkansas.

Lexington, Kentucky

- Cooperator: Dave Van Sanford.
- University of Kentucky.

Blacksburg, Virginia

- Cooperator: Carl A. Griffey.
- Virginia Tech.

Kinston, North Carolina

- Cooperators: Paul Murphy and Brandon Poole
- North Carolina State University.

Columbia, Missouri

- Cooperators: Anne L. McKendry and David Tague.
- University of Missouri

Winnsboro and Baton Rouge, Louisiana.

- Cooperator: Stephen Harrison.
- Louisiana State University.

Griffin, Georgia

- Cooperator: Jerry Johnson.
- University of Georgia.

Raleigh, North Carolina

- Cooperator: Gina Brown-Guedira.
- USDA-ARS Eastern Regional Small Grains Genotyping Lab

West Lafayette, Indiana

- Cooperator: Sue Cambron.
- USDA-ARS Crop Production and Pest Control Research Unit:

Wooster, Ohio

- Cooperator: Byung-Kee Baik
- USDA-ARS Soft Wheat Quality Laboratory



**Lake
Wheeler,
NC, 2015**



Entry List and Pedigrees, 2015 Nursery

ENTRY NO	CULTIVAR/ DESIGNATION	PEDIGREE	CONTRIBUTOR	N NURSERY SINCE
1	ERNIE	<i>Check</i>	CHECK(RES)	1999-00
2	COKER9835	<i>Check</i>	CHECK(SUS)	2000-01
3	BESS	<i>MO11769/Madison</i>	CHECK(RES)	2006-07
4	JAMESTOWN	<i>Roane / Pioneer 2691</i>	Check (RES)	2007-08
5	LA07085CW-P4	<i>LA06101,F1(LA98094BUB-58-5/AGS 2060)/VA02W-713</i>	Harrison	2013-14
6	LANC8170-41-2	<i>NC03-11458 / Bess // SS8641</i>	Harrison	2013-14
7	NC11-22289	<i>NC97BGTD7 / NC-Neuse // C9511</i>	Murphy	2013-14
8	AR06024-7-2	<i>AR800-1-3-1/VA01W-476</i>	Mason	2014-15
9	AR06037-17-2	<i>AR96077-7-2/VA00W526</i>	Mason	2014-15
10	AR06045-2-4	<i>BESS/AR97124-4-1</i>	Mason	2014-15
11	AR06045-16-4	<i>BESS/AR97124-4-1</i>	Mason	2014-15
12	AR06046-10-3	<i>BESS/PAT</i>	Mason	2014-15
13	AR06061-11-1	<i>P961341A3-1-2/VA01W-476</i>	Mason	2014-15
14	LW08190C-57-3	<i>(NC04-27617/LA841)LA07151,F1/VA04W-33</i>	Mason	2014-15
15	ARGE08-1398	<i>P25R18-4/Roane-5</i>	Mason	2014-15
16	B12*1792	<i>D01-7017//McCormick/Natchez</i>	Fogleman	2014-15
17	B12-2180NC#	<i>MD01W233-06-1/SS8641</i>	Fogleman	2014-15
18	GA 071171-14ES8	<i>Jamestown /GA 991371-6E12</i>	Johnson	2014-15
19	GA 071092-14ES11	<i>USG 3120*2 / Jamestown</i>	Johnson	2014-15
20	GA071092-14ES13	<i>USG 3120*2 / Jamestown</i>	Johnson	2014-15
21	GA 081129-14ES16	<i>Baldwin/ Neuse//GA 991336-6E9</i>	Johnson	2014-15
22	GA 08250-14ES7	<i>Jamestown / GA 991336-6E9</i>	Johnson	2014-15
23	GA 08250-14ES5	<i>Jamestown / GA 991336-6E9</i>	Johnson	2014-15
24	GA 071171-14ES19	<i>Jamestown /GA 991371-6E12</i>	Johnson	2014-15
25	GA 081562-14ES14	<i>GA 991371*2/Neuse/Langdon</i>	Johnson	2014-15
26	KWS 054	<i>IL04-8445 / MO5-1526</i>	Murche	2014-15
27	LA06146E-P4	<i>JAMESTOWN/AGS2060</i>	Harrison	2014-15
28	LA08265C-50	<i>P26R61/LA07175,F1(JAMESTOWN/SS8641)</i>	Harrison	2014-15
29	LA09144C-6	<i>M03-3616C / LA01164D-94-2-B</i>	Harrison	2014-15
30	LANC8248-1	<i>Bess / NC-Neuse</i>	Harrison	2014-16
31	ES13-1591	<i>Patton/INW9811"L"</i>	Obert	2014-15
32	ES13-3423	<i>Patton//T814/Coker 9663</i>	Obert	2014-15
33	ES12-3030	<i>Va.99W-200/BW239</i>	Obert	2014-15
34	M11-2024#	<i>M00-3904-9/P 25R78//W1104</i>	Vonderwell	2014-15
35	M12-3301	<i>D01-7017/TRIBUTE</i>	Vonderwell	2014-15
36	M12-2036#	<i>CK9511//P 25R62/M05-1172</i>	Vonderwell	2014-15
37	NC11-23084	<i>CO25-17 (FHB Ae. tauschii) / VA04W-478 // NC-Neuse</i>	Murphy	2014-15
38	NC12-23576	<i>BESS / SS8641</i>	Murphy	2014-15
39	NC12-23219	<i>NC-Neuse / IL96-6472 // SS 8641</i>	Murphy	2014-15
40	NC12-20662	<i>ARGE97-1022-51 / McCormick // NC-Cape Fear</i>	Murphy	2014-15
41	NC9305-7	<i>Bess / NC-Yadkin</i>	Murphy	2013-14
42	VA11W-106	<i>PIONEER 25R47 / JAMESTOWN</i>	Griffey	2014-15
43	VA11W-313	<i>PIONEER 25R47 / G/F951079-2E31 // USG3555</i>	Griffey	2014-15
44	VA12W-72	<i>PIONEER 25R47 / G/F951079-2E31 // USG3555</i>	Griffey	2014-15
45	VA12W-54	<i>NC00-15389 / GF951079-2E31 // USG 3555</i>	Griffey	2014-15
46	VA12FHB-53	<i>VA04W-433 // VA96-54-244 / BRANSON</i>	Griffey	2014-15
47	VA12FHB-4	<i>IL99-15867 / VA04W-433 //VA96-54-244</i>	Griffey	2014-15
48	VA13W-177	<i>Shirley / Branson // Jamestown</i>	Griffey	2014-15
49	VA08MAS5-39-6-4	<i>GA981621-1-3-5 / Shirley // VA04W-360</i>	Griffey	2014-15

FHB Incidence (1-100)

CULTIVAR/ DESIGNATION	LEX'TON	COL'BIA	B'ROUGE	B'BURG	U'BANA	K'STON	H'LAND	GRIFFIN	KWS	MEAN	RANK
	KY	MO	LA	VA	IL	NC	IL	GA	IL	ALL LOC.	
1 ERNIE	78	80	95	10	87	13	60	18	85	58	11
2 COKER9835	98	100	95	63	88	70	85	80	100	86	49
3 BESS	75	43	95	35	77	28	45	13	80	55	8
4 JAMESTOWN	83	80	80	5	77	20	50	22	70	54	5
5 LA07085CW-P4	63	58	95	45	65	30	70	40	95	62	20
6 LANC8170-41-2	85	78	100	25	88	38	70	34	100	69	36
7 NC11-22289	15	65	95	23	75	13	60	12	90	50	1
8 AR06024-7-2	50	80	100	55	75	10	50	22	75	57	10
9 AR06037-17-2	93	98	95	65	68	53	80	55	100	78	47
10 AR06045-2-4	70	58	75	40	70	23	45	23	85	54	5
11 AR06045-16-4	68	58	95	28	70	42	65	25	85	59	12
12 AR06046-10-3	60	93	100	18	88	45	50	35	70	62	18
13 AR06061-11-1	80	75	80	33	80	18	65	35	85	61	15
14 LW08190C-57-3	83	73	100	28	58	23	60	55	95	64	22
15 ARGE08-1398	50	55	95	25	68	12	60	10	80	51	2
16 B12*1792	88	85	80	45	95	20	65	32	85	66	29
17 B12-2180NC#	93	75	90	75	68	55	75	67	100	78	47
18 GA 071171-14ES8	68	83	100	60	58	40	55	48	65	64	22
19 GA 071092-14ES11	65	73	100	68	52	18	75	53	95	67	32
20 GA071092-14ES13	78	85	95	30	33	38	85	52	95	66	29
21 GA 081129-14ES16	45	88	90	.	83	17	85	38	95	64	22
22 GA 08250-14ES7	70	98	100	55	52	17	60	33	75	62	18
23 GA 08250-14ES5	70	58	100	43	50	45	60	42	95	62	20
24 GA 071171-14ES19	75	85	100	45	67	23	70	55	85	67	32
25 GA 081562-14ES14	100	100	100	68	40	52	55	70	85	74	43
26 KWS 054	50	93	100	28	90	18	85	37	95	66	29
27 LA06146E-P4	75	80	75	15	60	32	70	27	100	59	12
28 LA08265C-50	73	70	95	50	93	45	70	40	100	71	39
29 LA09144C-6	90	95	95	45	65	47	75	55	100	74	43
30 LANC8248-1	90	80	100	53	92	38	85	42	100	76	45
31 ES13-1591	25	85	85	8	67	23	70	28	100	55	8
32 ES13-3423	65	75	35	23	67	22	55	37	90	52	3
33 ES12-3030	55	70	95	28	80	27	80	47	100	65	27
34 M11-2024#	85	80	90	38	85	25	70	18	95	65	27
35 M12-3301	68	70	75	38	68	45	45	47	90	61	15
36 M12-2036#	68	55	95	20	70	40	40	30	70	54	5
37 NC11-23084	85	65	55	45	77	45	80	55	100	67	32
38 NC12-23576	85	83	90	35	80	47	65	38	100	69	36
39 NC12-23219	75	88	85	18	90	20	80	18	100	64	22
40 NC12-20662	53	53	100	55	75	20	80	33	70	60	14
41 NC9305-7	70	68	100	40	80	48	60	38	70	64	22
42 VA11W-106	85	70	85	40	80	60	45	75	85	69	36
43 VA11W-313	75	95	95	50	88	25	70	43	100	71	39
44 VA12W-72	88	88	100	38	85	22	90	42	100	72	41
45 VA12W-54	93	88	100	50	85	23	80	32	100	72	41
46 VA12FHB-53	85	75	50	20	78	45	60	52	85	61	15
47 VA12FHB-4	78	80	85	38	63	37	85	47	100	68	35
48 VA13W-177	30	75	90	25	75	10	75	27	70	53	4
49 VA08MAS5-39-6-4	63	100	95	85	88	25	90	38	100	76	45
Mean	71	77	90	39	74	32	67	39	90	64	
LSD (0.05)	.	.	.	.	.	24	.	.	12	26	
CV%	.	.	.	.	.	37.8	.	.	6.4	20.7	

FHB Incidence (1-100)

FHB Severity (1-100)

CULTIVAR/ DESIGNATION	F'VILLE	N'PORT	LEX'TON	COL'BIA	B'ROUGE	B'BURG	U'BANA	K'STON	H'LAND	GRIFFIN	KWS	MEAN
	AR	AR	KY	MO	LA	VA	IL	NC	IL	GA	IL	ALL LOC.
	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK
1 ERNIE	95 25	63 21	32 17	17 25	30 19	7 1	69 42	7 1	30 13	25 8	25 20	36 28
2 COKER9835	100 27	90 29	52 44	52 48	70 49	31 43	75 44	54 49	65 43	80 49	80 48	68 49
3 BESS	35 8	23 4	42 31	3 1	25 12	13 15	48 29	18 25	25 10	26 12	23 17	25 7
4 JAMESTOWN	33 7	60 20	45 37	18 26	35 27	7 1	46 25	7 1	40 23	22 3	13 2	30 12
5 LA07085CW-P4	42 12	75 27	29 11	8 4	45 37	24 37	55 32	14 13	55 35	33 20	35 30	38 35
6 LANC8170-41-2	38 10	67 22	46 40	31 42	40 31	20 31	66 38	18 25	45 30	28 13	38 36	40 38
7 NC11-22289	33 7	32 8	16 1	13 14	45 37	9 4	22 5	7 1	35 16	18 2	20 10	23 5
8 AR06024-7-2	25 3	22 3	30 12	14 18	25 12	14 19	22 5	7 1	45 30	13 1	18 8	21 4
9 AR06037-17-2	50 16	28 7	46 40	36 46	30 19	19 30	43 21	33 46	25 10	40 33	20 10	34 22
10 AR06045-2-4	42 12	22 3	25 7	5 2	10 1	30 42	25 7	14 13	10 1	22 3	13 2	20 2
11 AR06045-16-4	42 12	23 4	30 12	11 12	20 7	22 34	33 12	21 33	20 6	30 16	15 4	24 6
12 AR06046-10-3	43 13	28 7	33 18	29 41	25 12	15 21	67 39	31 44	15 3	35 25	15 4	31 16
13 AR06061-11-1	38 10	25 5	44 35	24 33	40 31	9 4	34 16	14 13	10 1	25 8	23 17	26 8
14 LW08190C-57-3	35 8	47 15	34 20	14 18	45 37	15 21	27 9	11 9	40 23	30 16	30 26	30 12
15 ARGE08-1398	13 1	7 1	17 2	6 3	25 12	10 7	14 1	11 9	15 3	22 3	15 4	14 1
16 B12*1792	53 18	55 18	54 47	33 43	25 12	13 15	77 46	14 13	70 46	35 25	25 20	41 39
17 B12-2180NC#	45 14	33 9	52 44	10 9	20 7	20 31	53 30	27 36	35 16	33 20	35 30	33 20
18 GA 071171-14ES8	42 12	50 16	47 42	33 43	35 27	18 28	67 39	29 42	65 43	35 25	35 30	41 39
19 GA 071092-14ES11	52 17	67 22	31 15	15 22	55 44	18 28	30 10	21 33	35 16	40 33	33 27	36 28
20 GA071092-14ES13	53 18	68 23	34 20	27 39	55 44	11 9	26 8	29 42	40 23	45 43	45 41	39 37
21 GA 081129-14ES16	37 9	70 24	17 2	23 30	30 19	.	60 34	14 13	55 35	35 25	35 30	36 35
22 GA 08250-14ES7	35 8	43 13	35 23	33 43	50 41	12 13	42 20	14 13	20 6	33 20	20 10	31 16
23 GA 08250-14ES5	47 15	45 14	43 32	9 7	40 31	12 13	44 22	31 44	40 23	40 33	45 41	36 28
24 GA 071171-14ES19	40 11	53 17	28 8	26 37	50 41	24 37	45 24	14 13	35 16	40 33	35 30	35 26
25 GA 081562-14ES14	38 10	32 8	45 37	38 47	60 48	21 33	14 1	18 25	55 35	28 13	25 20	34 22
26 KWS 054	40 11	33 9	22 6	25 36	30 19	10 7	47 28	7 1	55 35	30 16	33 27	30 12
27 LA06146E-P4	32 6	45 14	43 32	9 7	40 31	23 36	39 19	7 1	55 35	28 13	28 25	32 18
28 LA08265C-50	28 5	38 11	43 32	13 14	45 37	22 34	89 49	18 25	55 35	35 25	80 49	42 42
29 LA09144C-6	78 21	73 26	40 29	63 49	55 44	32 45	68 41	18 25	45 30	40 33	50 43	51 48
30 LANC8248-1	45 14	73 26	69 49	13 14	55 44	25 39	76 45	18 25	65 43	33 20	70 47	49 47
31 ES13-1591	43 13	47 15	28 8	16 24	15 4	11 9	31 11	14 13	40 23	35 25	35 30	29 10
32 ES13-3423	100 27	73 26	38 27	14 18	10 1	11 9	33 12	11 9	35 16	50 47	20 10	36 28
33 ES12-3030	55 19	50 16	36 24	14 18	20 7	13 15	78 47	14 13	40 23	40 33	40 37	36 28
34 M11-2024#	27 4	37 10	53 46	23 30	15 4	15 21	73 43	14 13	45 30	45 43	55 45	37 34
35 M12-3301	90 23	57 19	36 24	23 30	20 7	13 15	37 17	18 25	20 6	40 33	20 10	34 22
36 M12-2036#	25 3	15 2	36 24	8 4	15 4	16 24	38 18	28 41	50 34	35 25	18 8	26 8
37 NC11-23084	92 24	72 25	44 35	10 9	20 7	38 48	46 25	27 36	15 3	55 48	40 37	42 42
38 NC12-23576	50 16	63 21	39 28	20 28	35 27	35 46	64 36	33 46	30 13	45 43	40 37	41 39
39 NC12-23219	27 4	42 12	30 12	24 33	30 19	8 3	63 35	14 13	55 35	25 8	50 43	33 20
40 NC12-20662	97 26	80 28	19 5	8 4	30 19	27 41	18 3	11 9	40 23	40 33	15 4	35 26
41 NC9305-7	35 8	32 8	28 8	27 39	35 27	16 24	59 33	27 36	20 6	30 16	20 10	30 12
42 VA11W-106	55 19	28 7	45 37	10 9	25 12	14 19	65 37	21 33	25 10	40 33	23 17	32 18
43 VA11W-313	57 20	68 23	34 20	24 33	50 41	16 24	79 48	7 1	75 48	25 8	25 20	42 42
44 VA12W-72	40 11	55 18	40 29	16 23	40 31	17 27	46 27	16 24	60 42	22 3	20 10	34 22
45 VA12W-54	55 19	75 27	57 48	26 37	30 19	25 39	54 31	27 36	70 46	33 20	33 27	44 45
46 VA12FHB-53	43 13	27 6	49 43	18 26	10 1	11 9	33 12	33 46	35 16	35 25	25 20	29 10
47 VA12FHB-4	90 23	33 9	31 15	13 14	25 12	31 43	20 4	27 36	35 16	45 43	40 37	36 28
48 VA13W-177	18 2	25 5	17 2	11 12	40 31	9 4	33 12	7 1	30 13	22 3	10 1	20 2
49 VA08MAS5-39-6-4	88 22	80 28	33 18	22 29	30 19	37 47	44 22	18 25	75 48	40 33	55 45	47 46
Mean	49	48	37	20	34	18	48	18	41	34	32	34
LSD (0.05)	13	19	.	.	.	.	.	16	.	.	16	26
CV%	16.6	24.5	.	.	.	.	.	44.2	.	.	25.0	38.3

FHB Index (1-100)

CULTIVAR/ DESIGNATION	LEX'TON	COL'BIA	B'ROUGE	B'BURG	U'BANA	K'STON	H'LAND	GRIFFIN	KWS	MEAN
	KY	MO	LA	VA	IL	NC	IL	GA	IL	ALL LOC.
	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK
1 ERNIE	26 24	14 23	29 22	1 2	61 42	1 1	18 13	5 5	21 20	19 16
2 COKER9835	51 47	52 48	67 49	20 47	66 45	37 49	55 46	64 49	80 48	55 49
3 BESS	32 31	1 1	24 15	5 18	36 26	5 26	11 6	3 3	18 12	15 10
4 JAMESTOWN	37 37	15 27	28 21	0 1	35 25	1 1	22 19	5 5	9 2	17 13
5 LA07085CW-P4	19 10	4 4	44 39	12 34	34 24	4 20	40 39	13 25	33 31	22 23
6 LANC8170-41-2	39 40	24 40	40 34	5 18	58 40	7 29	31 30	10 15	38 36	28 41
7 NC11-22289	2 1	9 14	42 37	2 4	16 6	1 1	21 18	2 1	18 12	13 4
8 AR06024-7-2	17 8	12 22	25 17	8 29	17 7	1 1	18 13	3 3	13 8	12 3
9 AR06037-17-2	43 42	35 46	29 22	13 38	31 22	18 48	20 15	22 42	20 17	26 37
10 AR06045-2-4	17 8	3 2	8 3	12 34	18 8	3 15	5 1	5 5	11 4	9 2
11 AR06045-16-4	21 14	6 8	19 10	6 21	25 16	9 33	14 11	8 11	13 8	13 4
12 AR06046-10-3	25 22	27 42	25 17	3 9	60 41	15 44	8 3	12 24	10 3	20 18
13 AR06061-11-1	35 34	18 30	30 25	3 9	27 19	3 15	7 2	9 13	20 17	17 13
14 LW08190C-57-3	28 26	10 16	45 40	4 16	22 11	2 8	24 23	17 31	29 27	20 18
15 ARGE08-1398	8 5	3 2	24 15	2 4	10 3	1 1	9 4	2 1	12 6	8 1
16 B12*1792	47 45	28 44	21 12	7 26	73 48	3 15	46 41	11 18	22 22	28 41
17 B12-2180NC#	48 46	8 12	18 9	14 41	37 28	16 47	26 26	22 42	35 34	25 31
18 GA 071171-14ES8	31 30	27 42	35 31	11 31	39 29	11 37	36 37	17 31	22 22	25 31
19 GA 071092-14ES11	20 11	11 19	55 46	12 34	20 9	4 20	26 26	21 40	31 29	22 23
20 GA071092-14ES13	28 26	23 37	52 44	3 9	9 2	13 39	34 34	23 46	43 41	25 31
21 GA 081129-14ES16	7 3	20 33	27 20	. .	51 36	2 8	47 42	13 25	33 31	23 31
22 GA 08250-14ES7	27 25	32 45	50 42	7 26	28 21	2 8	12 8	11 18	15 11	20 18
23 GA 08250-14ES5	30 29	5 7	40 34	5 18	23 13	13 39	24 23	17 31	43 41	22 23
24 GA 071171-14ES19	21 14	22 35	50 43	11 31	33 23	4 20	25 25	22 42	30 28	24 30
25 GA 081562-14ES14	45 43	38 47	60 48	14 41	6 1	9 33	22 19	20 39	22 22	26 37
26 KWS 054	12 7	24 40	30 25	3 9	43 33	1 1	47 42	11 18	31 29	22 23
27 LA06146E-P4	33 32	7 10	30 25	3 9	24 14	2 8	34 34	7 10	28 26	19 16
28 LA08265C-50	29 28	9 14	43 38	11 31	83 49	8 31	39 38	14 28	80 48	35 46
29 LA09144C-6	36 36	60 49	53 45	14 41	42 32	9 33	35 36	22 42	50 43	36 47
30 LANC8248-1	62 49	10 16	55 46	13 38	69 46	7 29	56 47	14 28	70 47	40 48
31 ES13-1591	7 3	14 23	13 5	1 2	21 10	3 15	28 28	10 15	35 34	15 10
32 ES13-3423	24 18	11 19	4 1	2 4	22 11	2 8	20 15	19 36	18 12	14 7
33 ES12-3030	20 11	10 16	19 10	4 16	62 43	4 20	32 31	19 36	40 37	23 29
34 M11-2024#	46 44	19 32	14 6	6 21	62 43	4 20	32 31	8 11	53 45	27 39
35 M12-3301	25 22	16 28	16 8	6 21	24 14	8 31	9 4	19 36	18 12	16 12
36 M12-2036#	24 18	4 4	15 7	3 9	27 19	13 39	17 12	11 18	12 6	14 7
37 NC11-23084	37 37	6 8	12 4	17 46	36 26	12 38	12 8	30 47	40 37	22 23
38 NC12-23576	33 32	17 29	32 30	14 41	52 37	15 44	20 15	17 31	40 37	27 39
39 NC12-23219	22 16	21 34	26 19	2 4	57 39	3 15	44 40	5 5	50 43	25 31
40 NC12-20662	10 6	4 4	30 25	14 41	13 4	2 8	32 31	13 25	11 4	14 7
# NC9305-7	20 11	18 30	35 31	7 26	47 35	14 43	12 8	11 18	14 10	20 18
# VA11W-106	38 39	7 10	21 12	6 21	53 38	13 39	11 6	30 47	19 16	22 23
# VA11W-313	24 18	23 37	48 41	8 29	70 47	2 8	53 44	11 18	25 25	29 43
# VA12W-72	35 34	14 23	40 34	6 21	39 29	5 26	54 45	9 13	20 17	25 31
# VA12W-54	53 48	23 37	30 25	13 38	46 34	6 28	56 47	10 15	33 31	30 44
# VA12FHB-53	42 41	14 23	5 2	3 9	26 17	15 44	22 19	18 35	21 20	18 15
# VA12FHB-4	24 18	11 19	22 14	12 34	15 5	10 33	30 29	21 40	40 37	21 22
# VA13W-177	5 2	8 12	36 33	2 4	26 17	1 1	23 22	6 9	7 1	13 4
# VA08MAS5-39-6-4	22 16	22 35	29 22	32 48	39 29	4 20	67 49	15 30	55 45	32 45

Mean	28	17	31	8	37	7	28	14	29	22
LSD (0.05)	.	.	.	.	10	.	.	15	.	22
CV%	.	.	.	.	69.9	.	.	25.2	.	50.4

Percent Fusarium Damaged Kernels

CULTIVAR/ DESIGNATION	F'VILLE	N'PORT	U'BANA	K'STON	H'LAND	LEX'TON	COL'BIA	MEAN
	AR	AR	IL	NC	IL	KY	MO	ALL LOC.
	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK
1 ERNIE	90 24	38 15	30 24	4 10	25 24	19 35	35 8	34 18
2 COKER9835	95 27	75 26	55 46	25 49	60 43	31 48	80 41	60 49
3 BESS	47 4	20 4	15 4	3 3	60 43	17 27	18 1	26 9
4 JAMESTOWN	45 3	32 11	23 13	4 10	10 5	26 45	40 14	26 9
5 LA07085CW-P4	72 16	55 24	50 40	6 30	60 43	14 13	63 31	46 42
6 LANC8170-41-2	53 7	47 20	40 33	4 10	20 12	17 27	88 45	38 27
7 NC11-22289	57 9	18 3	25 16	3 3	50 37	5 1	20 4	25 7
8 AR06024-7-2	45 3	15 2	28 21	3 3	13 8	5 1	18 1	18 2
9 AR06037-17-2	73 17	30 10	32 25	12 48	20 12	20 39	85 43	39 32
10 AR06045-2-4	75 18	25 7	13 2	3 3	23 15	12 7	38 11	27 12
11 AR06045-16-4	62 11	28 9	27 18	7 38	6 3	12 7	35 8	25 7
12 AR06046-10-3	75 18	50 22	23 13	6 30	20 12	16 23	73 37	38 27
13 AR06061-11-1	48 5	18 3	10 1	4 10	23 15	15 19	43 16	23 4
14 LW08190C-57-3	77 19	38 15	52 42	5 23	10 5	19 35	63 31	38 27
15 ARGE08-1398	27 1	4 1	25 16	1 1	4 2	6 3	45 17	16 1
16 B12*1792	82 21	48 21	20 8	4 10	23 15	16 23	55 21	35 19
17 B12-2180NC#	48 5	33 12	27 18	6 30	13 8	21 42	38 11	26 9
18 GA 071171-14ES8	55 5	48 21	33 26	5 23	23 15	14 13	50 18	33 17
19 GA 071092-14ES11	63 12	48 21	38 31	6 30	30 25	18 31	68 35	39 32
20 GA071092-14ES13	67 14	50 22	42 35	6 30	30 25	16 23	55 21	38 27
21 GA 081129-14ES16	48 5	45 19	52 42	4 10	55 39	12 7	65 34	40 34
22 GA 08250-14ES7	52 6	50 22	23 13	4 10	48 35	14 13	63 31	36 23
23 GA 08250-14ES5	68 15	40 16	50 40	8 40	15 10	20 39	40 14	35 19
24 GA 071171-14ES19	48 5	40 16	28 21	8 40	50 37	12 7	55 21	35 19
25 GA 081562-14ES14	65 13	38 15	73 49	7 38	43 32	26 45	60 27	45 40
26 KWS 054	77 19	53 23	53 44	4 10	65 46	17 27	58 24	47 43
27 LA06146E-P4	57 9	43 18	53 44	6 30	75 48	20 39	80 41	48 44
28 LA08265C-50	48 5	33 12	47 38	6 30	45 33	17 27	60 27	37 26
29 LA09144C-6	75 18	50 22	33 26	8 40	58 41	34 49	90 48	50 45
30 LANC8248-1	47 4	23 6	20 8	8 40	23 15	28 47	50 18	28 14
31 ES13-1591	82 21	38 15	22 12	3 3	48 35	15 19	58 24	38 27
32 ES13-3423	95 27	47 20	42 35	4 10	40 31	13 12	78 40	45 40
33 ES12-3030	68 15	42 17	27 18	3 3	45 33	12 7	58 24	36 23
34 M11-2024#	53 7	28 9	20 8	6 30	23 15	14 13	25 5	24 6
35 M12-3301	88 23	48 21	15 4	9 45	23 15	16 23	50 18	36 23
36 M12-2036#	57 9	37 14	15 4	4 10	70 47	14 13	88 45	41 35
37 NC11-23084	93 26	50 22	33 26	8 40	7 4	19 35	33 6	35 19
38 NC12-23576	83 22	47 20	38 31	10 46	23 15	23 44	85 43	44 38
39 NC12-23219	58 10	22 5	28 21	5 23	15 10	15 19	60 27	29 15
40 NC12-20662	82 21	35 13	33 26	4 10	30 25	8 5	33 6	32 16
41 NC9305-7	53 7	22 5	17 7	4 10	12 7	14 13	18 1	20 3
42 VA11W-106	83 22	47 20	40 33	11 47	35 29	19 35	73 37	44 38
43 VA11W-313	92 25	78 27	57 47	5 23	32 28	18 31	90 48	53 47
44 VA12W-72	92 25	75 26	70 48	4 10	75 48	15 19	75 39	58 48
45 VA12W-54	80 20	60 25	43 37	5 23	58 41	21 42	88 45	51 46
46 VA12FHB-53	90 24	47 20	47 38	5 23	23 15	18 31	68 35	42 36
47 VA12FHB-4	88 23	33 12	13 2	3 3	3 1	11 6	38 11	27 12
48 VA13W-177	38 2	27 8	20 8	1 1	35 29	6 3	35 8	23 4
49 VA08MAS5-39-6-4	88 23	33 12	33 26	5 23	57 40	18 31	60 27	42 36

Mean	67	40	34	6	34	16	56	36
LSD (0.05)	15	14.7	.	6	.	.	.	25
CV%	14.1	22.8	.	51.7	.	.	.	36.1

**Incidence, Severity, Kernel Rating (ISK) Index
(0.3 * Incidence + 0.3 * Severity + 0.4 * Fusarium Damaged Kernels)**

CULTIVAR/ DESIGNATION	LEX'TON		U'BANA		K'STON		H'LAND		COL'BIA		MEAN	
	KY		IL		NC		IL		MO		ALL LOC.	
	RANK		RANK		RANK		RANK		RANK		RANK	
1 ERNIE	40	24	59	38	8	5	37	14	45	17	38	16
2 COKER9835	57	48	71	47	47	49	69	47	63	40	61	49
3 BESS	42	29	43	16	15	25	45	24	20	1	33	7
4 JAMESTOWN	49	41	46	18	10	7	31	7	45	17	36	13
5 LA07085CW-P4	33	10	56	33	15	25	62	42	45	17	42	26
6 LANC8170-41-2	46	35	62	43	18	29	43	20	61	33	46	36
7 NC11-22289	11	1	39	10	7	3	49	30	34	5	28	2
8 AR06024-7-2	26	7	41	12	6	1	34	10	33	4	28	2
9 AR06037-17-2	50	43	46	18	31	48	40	19	75	48	48	41
10 AR06045-2-4	33	10	34	3	12	14	26	2	34	5	28	2
11 AR06045-16-4	34	12	41	12	22	33	28	3	38	10	33	7
12 AR06046-10-3	34	12	56	33	25	41	28	3	66	44	42	26
13 AR06061-11-1	43	32	38	5	11	8	32	8	41	13	33	7
14 LW08190C-57-3	42	29	46	18	12	14	34	10	51	23	37	15
15 ARGE08-1398	22	3	33	2	7	3	24	1	36	8	25	1
16 B12*1792	49	41	60	42	12	14	50	31	62	37	46	36
17 B12-2180NC#	52	44	47	22	27	45	38	16	41	13	41	23
18 GA 071171-14ES8	40	24	51	28	23	36	45	24	61	33	44	32
19 GA 071092-14ES11	36	15	40	11	14	21	45	24	53	24	38	16
20 GA071092-14ES13	40	24	35	4	23	36	50	31	62	37	42	26
21 GA 081129-14ES16	23	5	64	45	11	8	64	43	63	40	45	33
22 GA 08250-14ES7	37	19	38	5	11	8	43	20	65	43	39	20
23 GA 08250-14ES5	42	29	48	24	26	44	36	13	36	8	38	16
24 GA 071171-14ES19	36	15	45	17	14	21	52	34	61	33	42	26
25 GA 081562-14ES14	54	47	46	18	24	39	50	31	70	46	49	44
26 KWS 054	28	8	63	44	9	6	68	44	57	31	45	33
27 LA06146E-P4	44	33	51	28	14	21	68	44	59	32	47	38
28 LA08265C-50	41	28	73	48	21	32	56	39	49	21	48	41
29 LA09144C-6	53	45	53	30	23	36	59	41	86	49	55	48
30 LANC8248-1	59	49	58	36	20	30	54	36	48	20	48	41
31 ES13-1591	22	3	38	5	12	14	52	34	54	28	36	13
32 ES13-3423	36	15	47	22	11	8	43	20	56	29	39	20
33 ES12-3030	32	9	58	36	13	19	54	36	50	22	41	23
34 M11-2024#	47	38	55	32	14	21	44	23	38	10	40	22
35 M12-3301	37	19	38	5	22	33	29	5	43	16	34	12
36 M12-2036#	37	19	38	5	22	33	55	38	53	24	41	23
37 NC11-23084	46	35	50	26	25	41	32	8	35	5	38	16
38 NC12-23576	47	38	59	38	28	46	38	16	63	40	47	38
39 NC12-23219	37	19	57	35	12	14	47	28	56	29	42	26
40 NC12-20662	24	6	41	12	11	8	48	29	31	3	31	6
41 NC9305-7	35	14	50	26	24	39	29	5	28	2	33	7
42 VA11W-106	46	37	59	38	29	47	35	12	53	24	45	33
43 VA11W-313	40	24	73	48	11	8	56	39	73	47	51	45
44 VA12W-72	44	33	67	46	13	19	75	49	62	37	52	46
45 VA12W-54	53	45	59	38	17	28	68	44	68	45	53	47
46 VA12FHB-53	47	38	48	24	25	41	38	16	53	24	42	26
47 VA12FHB-4	37	19	30	1	20	31	37	14	42	15	33	7
48 VA13W-177	17	2	41	12	6	1	46	27	38	10	29	5
49 VA08MAS5-39-6-4	36	15	53	30	15	25	72	48	61	33	47	38

Mean	39	50	17	46	51	41
LSD (0.05)	.	.	11	.	18	19
CV%	.	.	30.3	.	24.0	23.1

SEED CHARACTERISTICS and GRAIN YIELD

CULTIVAR/ DESIGNATION	F'VILLE N'PORT		B'BURG	
	AR	AR	VA	VA
	Seed Quality		bu / ac	
			RANK	
1 ERNIE	1	2	97	41
2 COKER9835	1	1	105	28
3 BESS	1	2	106	24
4 JAMESTOWN	1	2	106	24
5 LA07085CW-P4	1	1	114	13
6 LANC8170-41-2	1	1	98	40
7 NC11-22289	1	2	82	49
8 AR06024-7-2	1	3	95	42
9 AR06037-17-2	1	2	103	32
10 AR06045-2-4	1	2	92	45
11 AR06045-16-4	1	2	91	47
12 AR06046-10-3	1	1	107	22
13 AR06061-11-1	1	2	104	30
14 LW08190C-57-3	1	2	94	43
15 ARGE08-1398	3	4	92	45
16 B12*1792	1	2	119	8
17 B12-2180NC#	1	2	109	19
18 GA 071171-14ES8	1	1	104	30
19 GA 071092-14ES11	1	1	103	32
20 GA071092-14ES13	1	1	107	22
21 GA 081129-14ES16	2	1	86	48
22 GA 08250-14ES7	1	1	105	28
23 GA 08250-14ES5	1	1	112	16
24 GA 071171-14ES19	1	1	115	11
25 GA 081562-14ES14	1	1	99	37
26 KWS 054	1	1	109	19
27 LA06146E-P4	1	1	99	37
28 LA08265C-50	1	1	110	17
29 LA09144C-6	1	1	120	7
30 LANC8248-1	2	2	101	36
31 ES13-1591	1	1	103	32
32 ES13-3423	1	2	113	14
33 ES12-3030	1	1	106	24
34 M11-2024#	1	2	110	17
35 M12-3301	1	1	99	37
36 M12-2036#	1	2	115	11
37 NC11-23084	1	1	103	32
38 NC12-23576	1	1	106	24
39 NC12-23219	1	3	94	43
40 NC12-20662	1	1	113	14
41 NC9305-7	2	3	109	19
42 VA11W-106	1	1	116	9
43 VA11W-313	1	1	132	1
44 VA12W-72	1	1	128	3
45 VA12W-54	1	1	131	2
46 VA12FHB-53	1	1	123	5
47 VA12FHB-4	1	2	125	4
48 VA13W-177	2	3	116	9
49 VA08MAS5-39-6-4	1	1	121	6
Mean	1	2	107	
LSD (0.05)	0.5	0.8	.	
CV%	27.9	30.0	.	

DON (ppm)

CULTIVAR/ DESIGNATION	F'VILLE	N'PORT	B'BURG	K'STON	LEX'TON	GRIFFIN	COL'BIA	MEAN
	AR	AR	VA	NC	KY	GA	MO	ALL LOC.
	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK
1 ERNIE	17 41	13 17	0.1 2	4 14	12 42	3 15	6 20	8 23
2 COKER9835	14 29	22 39	1.0 45	17 47	11 40	7 42	7 26	11 43
3 BESS	10 8	9 4	0.2 16	6 31	6 14	2 8	4 6	5 4
4 JAMESTOWN	11 11	12 14	0.1 2	2 4	6 14	1 3	6 20	5 4
5 LA07085CW-P4	17 41	16 21	0.5 33	3 12	9 30	7 42	7 26	8 23
6 LANC8170-41-2	7 2	11 8	0.4 26	2 4	6 14	1 3	4 6	5 4
7 NC11-22289	12 15	7 2	0.2 16	1 1	3 1	1 3	2 2	4 3
8 AR06024-7-2	8 4	7 2	0.1 2	2 4	3 1	0.5 2	3 3	3 2
9 AR06037-17-2	13 22	19 33	0.8 42	7 35	9 30	4 28	11 43	9 31
10 AR06045-2-4	14 29	16 21	0.1 2	3 12	7 20	2 8	3 3	7 18
11 AR06045-16-4	13 22	17 25	0.1 2	4 14	7 20	3 15	4 6	7 18
12 AR06046-10-3	14 29	28 47	0.1 2	9 40	5 11	5 35	9 39	10 38
13 AR06061-11-1	11 11	10 6	0.2 16	2 4	4 5	5 35	9 39	6 10
14 LW08190C-57-3	8 4	9 4	0.1 2	2 4	4 5	5 35	5 12	5 4
15 ARGE08-1398	2 1	4 1	0.0 1	1 1	3 1	0.1 1	1 1	1 1
16 B12*1792	22 46	26 45	0.6 36	5 22	16 46	3 15	8 34	11 43
17 B12-2180NC#	9 6	20 35	0.9 44	6 31	10 38	4 28	6 20	8 23
18 GA 071171-14ES8	12 15	20 35	0.7 41	5 22	8 25	4 28	5 12	8 23
19 GA 071092-14ES11	13 22	25 43	0.3 24	5 22	8 25	8 45	5 12	9 31
20 GA071092-14ES13	12 15	25 43	0.3 24	6 31	9 30	4 28	4 6	9 31
21 GA 081129-14ES16	14 29	18 30	. .	2 4	9 30	2 8	6 20	7 18
22 GA 08250-14ES7	16 37	18 30	0.4 26	4 14	9 30	6 40	8 34	9 31
23 GA 08250-14ES5	11 11	22 39	0.4 26	5 22	13 43	4 28	5 12	9 31
24 GA 071171-14ES19	12 15	22 39	0.4 26	9 40	10 38	7 42	8 34	10 38
25 GA 081562-14ES14	19 45	27 46	0.8 42	9 40	16 46	9 47	11 43	13 46
26 KWS 054	14 29	19 33	0.6 36	5 22	9 30	4 28	9 39	9 31
27 LA06146E-P4	16 37	20 35	1.0 45	7 35	15 45	2 8	7 26	10 38
28 LA08265C-50	7 2	11 8	1.0 45	8 39	8 25	2 8	5 12	6 10
29 LA09144C-6	22 46	23 42	1.3 48	19 49	20 49	5 35	8 34	14 49
30 LANC8248-1	12 15	10 6	0.4 26	11 45	11 40	6 40	7 26	8 23
31 ES13-1591	10 8	11 8	0.1 2	4 14	3 1	3 15	5 12	5 4
32 ES13-3423	13 22	17 25	0.2 16	5 22	4 5	3 15	10 42	8 23
33 ES12-3030	13 22	12 14	0.1 2	4 14	6 14	3 15	8 34	6 10
34 M11-2024#	14 29	16 21	0.5 33	9 40	7 20	3 15	7 26	8 23
35 M12-3301	11 11	16 21	0.2 16	4 14	6 14	3 15	4 6	6 10
36 M12-2036#	18 44	17 25	0.4 26	7 35	8 25	3 15	17 49	10 38
37 NC11-23084	14 29	15 18	0.1 2	10 44	7 20	10 48	3 3	8 23
38 NC12-23576	23 48	20 35	0.6 36	12 46	14 44	3 15	7 26	11 43
39 NC12-23219	14 29	11 8	0.1 2	2 4	5 11	1 3	12 45	6 10
40 NC12-20662	13 22	15 18	0.1 2	2 4	6 14	2 8	5 12	6 10
41 NC9305-7	12 15	12 14	0.2 16	6 31	4 5	4 28	6 20	6 10
42 VA11W-106	17 41	28 47	0.5 33	17 47	9 30	10 48	7 26	13 46
43 VA11W-313	16 37	17 25	0.6 36	5 22	8 25	3 15	12 45	9 31
44 VA12W-72	26 49	31 49	0.6 36	4 14	9 30	8 45	13 47	13 46
45 VA12W-54	13 22	18 30	0.4 26	5 22	16 46	5 35	16 48	10 38
46 VA12FHB-53	16 37	17 25	0.2 16	5 22	4 5	2 8	4 6	7 18
47 VA12FHB-4	12 15	11 8	0.1 2	4 14	5 11	3 15	5 12	6 10
48 VA13W-177	10 8	11 8	0.1 2	1 1	4 5	1 3	6 20	5 4
49 VA08MAS5-39-6-4	9 6	15 18	0.2 16	7 35	7 20	3 15	7 26	7 18
Mean	13	17	0.4	6	8	4	7	8
LSD (0.05)	.	.	.	.	.	.	.	6
CV%	.	.	.	.	.	.	.	38.8

Greenhouse Severity

CULTIVAR/ DESIGNATION	COL'BIA MO	RANK
1 ERNIE	21	19
2 COKER9835	47	48
3 BESS	6	1
4 JAMESTOWN	32	34
5 LA07085CW-P4	38	40
6 LANC8170-41-2	44	47
7 NC11-22289	26	28
8 AR06024-7-2	10	4
9 AR06037-17-2	19	15
10 AR06045-2-4	23	21
11 AR06045-16-4	24	22
12 AR06046-10-3	25	25
13 AR06061-11-1	10	4
14 LW08190C-57-3	14	12
15 ARGE08-1398	11	8
16 B12*1792	30	32
17 B12-2180NC#	8	2
18 GA 071171-14ES8	22	20
19 GA 071092-14ES11	31	33
20 GA071092-14ES13	24	22
21 GA 081129-14ES16	19	15
22 GA 08250-14ES7	19	15
23 GA 08250-14ES5	43	46
24 GA 071171-14ES19	12	9
25 GA 081562-14ES14	25	25
26 KWS 054	25	25
27 LA06146E-P4	16	14
28 LA08265C-50	37	39
29 LA09144C-6	39	42
30 LANC8248-1	47	48
31 ES13-1591	34	38
32 ES13-3423	24	22
33 ES12-3030	41	44
34 M11-2024#	26	28
35 M12-3301	20	18
36 M12-2036#	10	4
37 NC11-23084	13	10
38 NC12-23576	14	12
39 NC12-23219	38	40
40 NC12-20662	13	10
41 NC9305-7	41	44
42 VA11W-106	27	30
43 VA11W-313	33	36
44 VA12W-72	10	4
45 VA12W-54	40	43
46 VA12FHB-53	8	2
47 VA12FHB-4	29	31
48 VA13W-177	33	36
49 VA08MAS5-39-6-4	32	34

Mean	25
LSD (0.05)	.
CV%	.

**Genotypic Analyses of Regions Associated with FHB Resistance
and Other Pertinent Loci**

DESIGNATION	<i>Rht-B1</i>	<i>Rht-D1</i>	<i>Fhb1</i>	<i>Fhb Massey 3BL</i>	<i>Fhb 2DL-Wuhan1/W14</i>	<i>Fhb 5A</i>	<i>Sr36</i>	<i>Sr24/Lr24</i>	<i>Lr37/Yr17/Sr38</i>	<i>Lr9</i>	<i>1RS</i>	<i>H13</i>	<i>Sbm1</i>	<i>Tsn1</i>	<i>Sucrose Synthase</i>
1 ERNIE	<i>Rht-B1b</i>	<i>het</i>	<i>no</i>	3BL?	<i>no</i>	<i>het</i>	<i>Sr36</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>het</i>	1	<i>TaSus-2B</i>
2 COKER9835	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sr36</i>	<i>no</i>	<i>no</i>	<i>Lr9</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>TaSus-2B</i>
3 BESS	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>het</i>	<i>Tsn1</i>	<i>no</i>
4 JAMESTOWN	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
5 LA07085CW-P4	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>het</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>het</i>
6 LANC8170-41-2	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>Fhb1</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
7 NC11-22289	<i>Rht-B1a</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sr36</i>	<i>no</i>	<i>no</i>	<i>Lr9</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>TaSus-2B</i>
8 AR06024-7-2	<i>Rht-B1a</i>	<i>Rht-D1a</i>	<i>het</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
9 AR06037-17-2	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sr36</i>	<i>no</i>	<i>no</i>	<i>no</i>	1RS:1AL	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>TaSus-2B</i>
10 AR06045-2-4	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>Tsn1</i>	<i>no</i>
11 AR06045-16-4	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>Tsn1</i>	<i>no</i>
12 AR06046-10-3	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
13 AR06061-11-1	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>Tsn1</i>	<i>no</i>
14 LW08190C-57-3	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>Fhb1</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sr36</i>	<i>no</i>	<i>yes</i>	<i>no</i>	1RS:1BL	<i>no</i>	<i>no</i>	<i>no</i>	<i>TaSus-2B</i>
15 ARGE08-1398	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>Fhb1?</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
16 B12*1792	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
17 B12-2180NC#	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>	1RS:1AL	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
18 GA 071171-14ES8	<i>het</i>	<i>het</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>het</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>hrt</i>	<i>Tsn1</i>	<i>no</i>
19 GA 071092-14ES11	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>
20 GA071092-14ES13	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>het</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>
21 GA 081129-14ES16	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>hrt</i>	<i>no</i>	<i>no</i>
22 GA 08250-14ES7	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>
23 GA 08250-14ES5	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
24 GA 071171-14ES19	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>Tsn1</i>	<i>no</i>
25 GA 081562-14ES14	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>Sr36</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>TaSus-2B</i>
26 KWS 054	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no call</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>
27 LA06146E-P4	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>Lr9</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
28 LA08265C-50	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
29 LA09144C-6	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
30 LANC8248-1	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>Sr36</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>TaSus-2B</i>
31 ES13-1591	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	1RS:1BL	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
32 ES13-3423	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	1RS:1BL	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
33 ES12-3030	<i>Rht-B1a</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sr36</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>TaSus-2B</i>
34 M11-2024#	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	3BL	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	1RS:1BL	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
35 M12-3301	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
36 M12-2036#	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
37 NC11-23084	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>Sr36</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>TaSus-2B</i>
38 NC12-23576	<i>no call</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>Tsn1</i>	<i>no</i>
39 NC12-23219	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
40 NC12-20662	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sr36</i>	<i>no</i>	<i>no</i>	<i>Lr9</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>TaSus-2B</i>
41 NC9305-7	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sr36</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>TaSus-2B</i>
42 VA11W-106	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
43 VA11W-313	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sr36</i>	<i>no</i>	<i>het</i>	<i>no</i>	<i>no</i>	<i>het</i>	<i>Sbm1</i>	<i>no</i>	<i>TaSus-2B</i>
44 VA12W-72	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	3BL	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>H13</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>
45 VA12W-54	<i>Rht-B1a</i>	<i>Rht-D1b</i>	<i>no</i>	3BL	<i>no</i>	<i>no</i>	<i>Sr36</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>H13</i>	<i>Sbm1</i>	<i>no</i>	<i>TaSus-2B</i>
46 VA12FHB-53	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>het</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sr36</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>het</i>	<i>no</i>	<i>TaSus-2B</i>
47 VA12FHB-4	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>het</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sr36</i>	<i>no</i>	<i>no</i>	<i>no</i>	1RS:1BL	<i>no</i>	<i>no</i>	<i>no</i>	<i>TaSus-2B</i>
48 VA13W-177	<i>Rht-B1a</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sr36</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>TaSus-2B</i>
49 VA08MAS5-39-6-4	<i>Rht-B1b</i>	<i>Rht-D1a</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	1RS:1BL	<i>no</i>	<i>Sbm1</i>	<i>no</i>	<i>no</i>

Efficacy of Selected FHB Resistance QTL

Mean Incidence, Severity, Fusarium Damaged Kernels (FDK), and DON for entries in the 2013-2015 Uniform Southern Winter

QTL	Allele [‡]	n [§]	INC	SEV	FDK	DON				
<i>Qfhb.nc-2B.1 (Bess)</i>	S	119	62.4	p=0.0014	35.1	p=0.006	32.6	p=0.0001	9.1	p<0.0001
	R	31	58.5		32.6		28.5		7.3	
<i>Qfhb.nc-3B.2 (Bess)</i>	S	143	62.2	p=0.0034	35.0	p<0.0001	32.2	p=0.0006	8.7	p=0.1000
	R	10	56.9		28.6		26.5		9.8	
Ning_5A	S	150	62.0	p=0.0723	34.9	p=0.0044	32.2	p<0.0001	9.0	p<0.0001
	R	6	57.7		30.1		22.2		4.7	
Ernie_5A	S	143	61.4	p=0.0098	33.9	p<0.0001	31.1	p<0.0001	8.5	p<0.0001
	R	12	65.5		41.8		39.6		12.5	
Wuhan-1_2DL	S	151	61.9	p=0.64	34.9	p=0.0002	32.2	p<0.0001	9.0	p<0.0001
	R	6	60.8		28.6		21.3		4.3	
Sumai 3_Fhb1	S	132	62.0	p=0.7352	35.6	p<0.0001	32.7	p<0.0001	9.3	p<0.0001
	R	21	62.4		31.0		28.2		6.3	
<i>QTL_3BL (Massey)</i>	S	149	61.6	p=0.8879	34.4	p=0.1012	31.5	p=0.0492	8.7	p=0.1870
	R	8	61.8		36.7		34.8		9.6	
<i>QTL_1A (Neuse)</i>	S	58	63.2	p=0.0278	36.8	p<0.0001	33.8	p<0.0001	9.7	p<0.0001
	R	70	61.0		33.3		30.1		8.2	
<i>QTL_6A (Neuse)</i>	S	128	62.5	p=0.5406	34.6	p=0.9816	32.7	p=0.4448	9.4	p=0.0807
	R	18	61.4		34.6		31.5		8.3	
<i>QTL_1B (Jamestown)</i>	S	25	67.2	p<0.0001	37.5	p<0.0001	39.4	p<0.0001	8.6	p<0.0001
	R	24	61.5		31.3		32.7		7.1	
<i>QTL_6A (Jamestown)</i>	S	43	64.6	p=0.4126	34.2	p=0.2359	35.8	p=0.2256	7.8	p=0.6362
	R	6	62.0		36.3		38.3		8.1	

[‡] Indicates presence of resistance allele (R) or susceptibility allele (S) at the respective QTL.

[§] n indicates the number of lines in the allele group.

Heading Date (Julian Days*)

CULTIVAR/ DESIGNATION	COL'BIA	WARSAW	B'BURG	K'STON	U'BANA	LEX'TON	KWS	MEAN	RANK
	MO	VA	VA	NC	IL	KY	IL	ALL LOC.	
1 ERNIE	137	127	137	107	134	131	138	129	12
2 COKER9835	140	128	136	110	135	132	142	131	40
3 BESS	138	127	139	111	134	132	141	130	24
4 JAMESTOWN	135	125	137	105	133	129	139	128	5
5 LA07085CW-P4	134	124	137	104	136	129	140	128	5
6 LANC8170-41-2	140	127	138	108	134	131	139	130	24
7 NC11-22289	137	125	135	108	131	128	137	128	5
8 AR06024-7-2	140	126	138	108	134	130	140	130	24
9 AR06037-17-2	144	129	137	110	135	134	143	132	48
10 AR06045-2-4	138	127	137	110	134	130	141	130	24
11 AR06045-16-4	140	127	138	111	134	131	140	130	24
12 AR06046-10-3	141	127	137	110	133	130	140	130	24
13 AR06061-11-1	140	127	138	111	134	131	142	131	40
14 LW08190C-57-3	137	127	139	106	137	129	141	129	12
15 ARGE08-1398	138	128	137	109	135	131	141	130	24
16 B12*1792	138	127	134	106	133	129	139	129	12
17 B12-2180NC#	138	127	135	109	135	131	141	130	24
18 GA 071171-14ES8	140	127	137	105	135	131	141	130	24
19 GA 071092-14ES11	138	127	136	107	137	132	142	130	24
20 GA071092-14ES13	140	127	137	108	137	131	141	130	24
21 GA 081129-14ES16	140	124	140	105	134	129	143	129	12
22 GA 08250-14ES7	141	127	137	107	137	131	141	131	40
23 GA 08250-14ES5	138	127	136	109	136	131	145	131	40
24 GA 071171-14ES19	140	126	139	106	135	131	144	130	24
25 GA 081562-14ES14	144	130	138	110	138	135	145	134	49
26 KWS 054	134	127	134	107	134	128	138	128	5
27 LA06146E-P4	138	124	137	105	135	130	145	130	24
28 LA08265C-50	138	126	137	108	134	131	140	129	12
29 LA09144C-6	141	125	137	108	136	131	145	131	40
30 LANC8248-1	138	127	134	109	134	130	142	130	24
31 ES13-1591	135	125	136	106	131	128	138	127	2
32 ES13-3423	137	127	136	110	132	130	140	129	12
33 ES12-3030	137	127	134	109	134	130	138	129	12
34 M11-2024#	140	127	137	109	133	129	138	129	12
35 M12-3301	140	129	134	109	134	131	140	130	24
36 M12-2036#	137	127	137	111	133	129	138	129	12
37 NC11-23084	138	129	139	110	135	131	141	131	40
38 NC12-23576	140	128	135	109	134	131	140	130	24
39 NC12-23219	135	127	137	109	133	130	139	129	12
40 NC12-20662	133	124	134	105	131	126	138	126	1
41 NC9305-7	140	127	135	111	134	131	141	131	40
42 VA11W-106	138	128	137	112	134	131	141	131	40
43 VA11W-313	135	124	134	107	133	128	140	128	5
44 VA12W-72	135	125	137	108	133	129	141	128	5
45 VA12W-54	135	125	134	105	133	129	143	128	5
46 VA12FHB-53	137	127	134	109	134	129	140	129	12
47 VA12FHB-4	137	127	136	109	134	129	139	129	12
48 VA13W-177	137	124	135	103	133	128	138	127	2
49 VA08MAS5-39-6-4	133	125	137	106	130	128	138	127	2

Mean	138	127	136	108	134	130	140	129
LSD (0.05)	.	.	.	2	.	.	2	3
CV%	.	.	.	0.9	.	.	0.7	1.1

*Days after December 31, 2014

Plant Height (in)

CULTIVAR/ DESIGNATION	WARSAW	COL'BIA	LEX'TON	MEAN	RANK
	VA	MO	KY	ALL LOC.	
1 ERNIE	33	28	35	32	16
2 COKER9835	33	28	33	31	11
3 BESS	35	34	37	35	42
4 JAMESTOWN	34	29	34	32	18
5 LA07085CW-P4	34	32	34	33	28
6 LANC8170-41-2	34	29	32	31	12
7 NC11-22289	37	33	36	35	43
8 AR06024-7-2	40	31	38	36	49
9 AR06037-17-2	30	29	31	30	2
10 AR06045-2-4	37	33	37	36	47
11 AR06045-16-4	36	32	39	35	45
12 AR06046-10-3	35	30	35	33	26
13 AR06061-11-1	36	34	36	35	44
14 LW08190C-57-3	35	30	33	32	19
15 ARGE08-1398	38	33	37	36	48
16 B12*1792	35	29	36	33	29
17 B12-2180NC#	31	28	32	30	3
18 GA 071171-14ES8	36	33	35	35	40
19 GA 071092-14ES11	34	28	34	32	17
20 GA071092-14ES13	34	31	34	33	25
21 GA 081129-14ES16	32	29	33	31	5
22 GA 08250-14ES7	32	30	33	32	13
23 GA 08250-14ES5	36	33	35	34	39
24 GA 071171-14ES19	34	33	36	34	36
25 GA 081562-14ES14	32	31	34	32	20
26 KWS 054	31	29	34	31	6
27 LA06146E-P4	35	32	34	34	31
28 LA08265C-50	34	33	37	35	41
29 LA09144C-6	37	31	35	34	38
30 LANC8248-1	31	26	31	29	1
31 ES13-1591	36	31	35	34	33
32 ES13-3423	33	30	36	33	22
33 ES12-3030	36	29	37	34	34
34 M11-2024#	31	29	34	31	7
35 M12-3301	34	32	36	34	35
36 M12-2036#	34	32	37	34	37
37 NC11-23084	34	30	34	33	23
38 NC12-23576	33	32	34	33	27
39 NC12-23219	34	31	35	33	30
40 NC12-20662	32	28	34	31	8
41 NC9305-7	35	31	35	34	32
42 VA11W-106	31	31	34	32	15
43 VA11W-313	33	29	32	31	9
44 VA12W-72	34	30	34	33	24
45 VA12W-54	30	29	33	31	4
46 VA12FHB-53	32	30	34	32	14
47 VA12FHB-4	35	29	34	33	21
48 VA13W-177	37	31	38	35	46
49 VA08MAS5-39-6-4	31	28	35	31	10

Mean	34	30	35	33
LSD (0.05)	.	.	.	2
CV%	.	.	.	3.6

Leaf Disease Ratings

CULTIVAR/ DESIGNATION	Leaf Rust 0-9	Stripe Rust 0-9	Leaf Blotch 0-9	Leaf Rust 0-9	Powdery Mildew 0-9	Stripe Rust 0-100	Stripe Rust 0-100	Leaf Blotch 0-100
	B'ROUGE	B'ROUGE	B'ROUGE	W'RSAW	W'RSAW	F'VILLE	N'PORT	N'PORT
	LA	LA	LA	VA	VA	AR	AR	AR
1 ERNIE	1	3	8	1	1	43	64	1
2 COKER9835	1	3	8	1	0	37	64	1
3 BESS	1	2	6	3	1	15	46	1
4 JAMESTOWN	2	1	5	0	1	2	1	13
5 LA07085CW-P4	1	1	6	0	1	0	0	1
6 LANC8170-41-2	1	1	4	1	0	1	0	11
7 NC11-22289	1	1	5	0	0	10	10	11
8 AR06024-7-2	1	2	5	1	0	1	0	3
9 AR06037-17-2	1	1	4	1	0	4	1	1
10 AR06045-2-4	2	1	5	7	1	2	0	10
11 AR06045-16-4	5	2	5	6	1	3	5	15
12 AR06046-10-3	3	1	5	3	1	0	0	1
13 AR06061-11-1	3	1	4	4	1	20	40	2
14 LW08190C-57-3	1	1	3	0	0	3	1	12
15 ARGE08-1398	1	2	4	1	0	17	47	2
16 B12*1792	3	1	5	2	1	1	1	8
17 B12-2180NC#	1	1	3	0	0	1	0	1
18 GA 071171-14ES8	1	1	5	1	0	2	0	4
19 GA 071092-14ES11	1	2	5	0	0	5	15	7
20 GA071092-14ES13	1	2	5	0	0	7	15	5
21 GA 081129-14ES16	2	2	5	0	0	0	0	11
22 GA 08250-14ES7	1	1	4	0	1	0	0	12
23 GA 08250-14ES5	1	0	4	0	1	1	0	3
24 GA 071171-14ES19	1	1	5	0	0	4	5	4
25 GA 081562-14ES14	1	1	4	0	0	1	0	2
26 KWS 054	1	2	5	1	0	12	62	2
27 LA06146E-P4	1	1	5	0	0	0	0	0
28 LA08265C-50	1	1	4	0	0	0	1	4
29 LA09144C-6	1	2	5	0	1	1	0	2
30 LANC8248-1	0	0	3	1	1	1	0	13
31 ES13-1591	2	2	6	1	1	25	63	0
32 ES13-3423	1	1	4	1	1	50	90	0
33 ES12-3030	1	1	5	2	1	37	52	6
34 M11-2024#	1	1	4	3	1	2	0	1
35 M12-3301	1	2	6	3	3	50	71	2
36 M12-2036#	3	2	7	3	1	8	7	1
37 NC11-23084	1	1	6	1	0	50	90	1
38 NC12-23576	1	1	4	0	0	0	0	1
39 NC12-23219	1	1	5	0	0	0	0	0
40 NC12-20662	1	2	6	1	1	43	76	4
41 NC9305-7	1	1	4	0	0	25	47	2
42 VA11W-106	1	1	4	0	1	2	0	1
43 VA11W-313	1	1	4	1	2	1	0	10
44 VA12W-72	1	1	3	1	0	0	0	5
45 VA12W-54	1	1	3	1	0	0	0	3
46 VA12FHB-53	0	0	2	1	0	15	5	20
47 VA12FHB-4	1	2	4	0	0	57	54	8
48 VA13W-177	1	1	3	1	0	0	0	1
49 VA08MAS5-39-6-4	1	1	5	0	1	43	69	0
Mean	1	1	4	1	1	12	20	5
LSD (0.05)	.	.	.	.	.	8	26	10
CV%	.	.	.	.	.	40.4	79.7	133.7

Hessian Fly Screening (Resistant - Susceptible Plants)¹

CULTIVAR/ DESIGNATION	Biotype B	Biotype C	Biotype O	Biotype L
1 ERNIE	0-17	1-16	0-12	0-15
2 COKER9835	0-17	0-19	6-8	0-15
3 BESS	0-21	0-17	0-14	0-15
4 JAMESTOWN	16-1	20-0	0-14	0-14
5 LA07085CW-P4	0-15	0-16	0-11	0-17
6 LANC8170-41-2	11-0	16-0	10-1	11-0
7 NC11-22289	0-19	0-16	0-12	0-17
8 AR06024-7-2	0-14	0-17	0-15	0-15
9 AR06037-17-2	0-15	0-20	0-14	0-18
10 AR06045-2-4	0-13	0-13	0-10	0-12
11 AR06045-16-4	0-15	0-15	0-13	0-13
12 AR06046-10-3	0-19	0-19	0-13	0-14
13 AR06061-11-1	0-17	0-18	0-10	0-14
14 LW08190C-57-3	0-15	0-15	0-12	0-11
15 ARGE08-1398	15-2	3-15	0-13	0-14
16 B12*1792	17-0	17-0	14-0	16-1
17 B12-2180NC#	17-0	18-0	12-0	16-0
18 GA 071171-14ES8	17-1	17-1	15-0	9-8
19 GA 071092-14ES11	0-15	0-19	0-15	0-17
20 GA071092-14ES13	0-16	0-19	0-14	0-16
21 GA 081129-14ES16	0-18	0-17	0-17	0-16
22 GA 08250-14ES7	17-0	18-0	10-4	0-16
23 GA 08250-14ES5	22-0	19-0	13-4	0-16
24 GA 071171-14ES19	17-3	13-4	15-1	0-18
25 GA 081562-14ES14	0-18	0-20	0-16	0-14
26 KWS 054	11-0	0-18	0-14	0-14
27 LA06146E-P4	0-12	16-1	0-14	0-14
28 LA08265C-50	0-17	0-18	10-2	0-16
29 LA09144C-6	0-17	0-17	0-15	0-14
30 LANC8248-1	18-0	19-0	0-16	0-12
31 ES13-1591	0-16	13-6	0-15	0-16
32 ES13-3423	0-15	15-4	0-14	0-21
33 ES12-3030	0-15	0-18	0-14	0-15
34 M11-2024#	0-17	0-20	5-10	0-17
35 M12-3301	0-16	0-17	0-13	0-19
36 M12-2036#	0-15	0-20	0-16	0-18
37 NC11-23084	0-16	0-18	0-17	0-18
38 NC12-23576	0-18	16-1	0-13	0-20
39 NC12-23219	7-7	19-0	0-17	0-18
40 NC12-20662	0-18	0-16	0-16	0-16
41 NC9305-7	0-17	0-16	0-14	0-17
42 VA11W-106	0-17	0-18	0-15	0-20
43 VA11W-313	0-16	6-12	0-15	0-16
44 VA12W-72	15-1	18-0	13-2	17-1
45 VA12W-54	19-0	16-1	16-0	21-0
46 VA12FHB-53	0-18	0-15	15-1	0-17
47 VA12FHB-4	15-2	0-17	0-11	0-16
48 VA13W-177	0-18	0-18	10-5	0-17
49 VA08MAS5-39-6-4	0-20	0-18	0-16	0-16

¹ Sue Cambron, USDA-ARS, Dept Entomology, Purdue Univ.

Milling and Baking Quality Scores¹

Cultivar/ Designation	FLOUR	SOFT.	TEST	KERNEL	FLOUR	LACTIC	Na ₂ CO ₃	SKCS	SKCS	SKCS
	YIELD	EQUIV.	WEIGHT	PROT.	PROT.	ACID	SRC	Ker.	Ker. Dia.	Ker. Wt
	%	%	lb / bu	(at 12%)	(at 14%)	SRC(%)	%	Hardness	mm	mg
1 ERNIE	67	55	58.3	11.6	9.2	130	67	0	2.9	38.2
2 COKER9835	68	65	57.4	10.4	8.3	113	72	1	2.6	33.5
3 BESS	67	61	58.5	10.4	8.5	120	69	6	2.5	31.9
4 JAMESTOWN	68	59	60.2	11.6	9.5	134	70	11	2.8	31.1
5 LA07085CW-P4	69	63	59.1	10.5	8.4	118	72	3	2.8	37.9
6 LANC8170-41-2	66	50	59.6	11.0	9.7	128	63	21	2.8	34.4
7 NC11-22289	66	52	59.7	12.1	9.8	137	64	13	2.9	36.1
8 AR06024-7-2	66	56	61.9	11.3	9.1	114	65	14	2.8	31.4
9 AR06037-17-2	68	59	57.0	10.0	8.4	130	71	9	2.4	28.7
10 AR06045-2-4	68	62	58.7	10.4	8.5	134	70	2	2.6	32.2
11 AR06045-16-4	68	62	58.8	10.6	8.6	136	69	1	2.6	32.5
12 AR06046-10-3	68	58	57.6	11.3	9.0	115	68	3	2.6	34.9
13 AR06061-11-1	67	63	58.3	10.1	8.3	121	69	3	2.5	30.8
14 LW08190C-57-3	67	58	57.8	10.9	9.1	105	71	20	2.6	33.6
15 ARGE08-1398	67	58	57.2	10.9	8.8	106	71	20	2.6	33.4
16 B12*1792	68	59	58.9	10.3	8.7	135	65	10	2.8	37.2
17 B12-2180NC#	67	60	57.1	10.7	8.8	126	68	17	2.4	28.0
18 GA 071171-14ES8	70	57	62.1	10.4	8.7	139	65	2	2.9	37.2
19 GA 071092-14ES11	71	61	59.2	9.6	8.1	131	65	6	2.8	37.6
20 GA071092-14ES13	71	64	59.0	9.4	8.0	130	67	1	2.8	37.7
21 GA 081129-14ES16	70	53	61.2	11.2	9.5	141	65	13	3.0	40.7
22 GA 08250-14ES7	70	63	59.0	10.8	8.9	132	68	-2	2.8	36.1
23 GA 08250-14ES5	69	61	60.6	10.2	8.7	152	67	-4	2.8	33.7
24 GA 071171-14ES19	70	56	62.1	10.8	9.1	135	66	9	2.9	37.9
25 GA 081562-14ES14	71	56	59.4	10.5	9.0	127	64	6	2.7	33.3
26 KWS 054	69	64	58.9	10.0	8.4	129	67	-5	2.7	33.7
27 LA06146E-P4	68	50	60.6	11.3	9.1	139	69	25	3.0	38.9
28 LA08265C-50	68	58	60.8	10.0	8.4	144	64	11	2.8	35.6
29 LA09144C-6	70	57	60.2	11.2	9.2	138	66	-2	2.7	34.9
30 LANC8248-1	71	52	58.8	11.1	9.3	130	65	21	2.6	31.8
31 ES13-1591	69	61	58.1	11.6	9.5	102	69	1	2.8	38.4
32 ES13-3423	65	58	58.6	11.5	9.3	126	73	7	2.6	33.8
33 ES12-3030	66	53	59.8	11.2	9.4	140	66	16	2.7	35.2
34 M11-2024#	68	52	60.1	12.1	10.0	91	65	12	2.8	36.5
35 M12-3301	69	64	57.2	10.6	8.8	115	65	3	2.5	30.1
36 M12-2036#	70	64	56.9	10.4	8.5	152	65	1	2.6	32.0
37 NC11-23084	70	55	60.5	11.6	9.7	121	63	12	2.9	38.1
38 NC12-23576	67	53	58.5	11.6	9.8	150	67	16	2.6	32.9
39 NC12-23219	65	55	60.6	12.0	10.0	148	69	13	2.7	31.9
40 NC12-20662	66	53	61.1	11.8	9.6	161	70	1	2.9	41.4
41 NC9305-7	67	58	59.1	11.4	9.2	125	70	4	2.6	32.7
42 VA11W-106	67	64	57.9	10.5	8.7	128	74	2	2.6	31.9
43 VA11W-313	67	54	56.9	11.4	9.8	138	67	18	2.9	39.2
44 VA12W-72	65	57	57.5	12.3	10.3	123	66	4	2.9	43.6
45 VA12W-54	68	58	59.5	10.9	9.0	137	68	7	2.7	33.4
46 VA12FHB-53	66	59	58.8	11.9	9.5	120	67	10	2.7	33.2
47 VA12FHB-4	67	59	58.0	12.2	9.7	108	67	-1	2.7	34.8
48 VA13W-177	68	54	60.9	12.1	9.8	125	64	12	2.7	32.5
49 VA08MAS5-39-6-4	70	59	59.2	11.3	9.1	120	69	3	2.6	36.0
USG 3120	70	58	60.2	10.7	8.9	118	68	4	2.8	40.8
Branson	69	65	56.8	11.1	9.0	137	67	2	2.6	33.3
Mean	68	58	59.1	11.0	9.1	129	68	8	2.7	34.8
St. Deviation	1.5	4.2	1.4	0.7	0.6	13.8	2.6	7.3	0.1	3.3

¹ Seed kindly supplied to USDA-ARS Wooster Quality Lab by Carl Griffey, Va Tech.

Means Across Locations 2014-15

	Cultivar/ Designation	FHB Incidence		FHB Severity		FHB Index		FDK		ISK		DON	
			RANK		RANK		RANK		RANK		RANK		RANK
1	ERNIE	58	11	36	28	19	16	34	18	38	16	8	23
2	COKER9835	86	49	68	49	55	49	60	49	61	49	11	43
3	BESS	55	8	25	7	15	10	26	9	33	7	5	4
4	JAMESTOWN	54	5	30	12	17	13	26	9	36	13	5	4
5	LA07085CW-P4	62	20	38	35	22	23	46	42	42	26	8	23
6	LANC8170-41-2	69	36	40	38	28	41	38	27	46	36	5	4
7	NC11-22289	50	1	23	5	13	4	25	7	28	2	4	3
8	AR06024-7-2	57	10	21	4	12	3	18	2	28	2	3	2
9	AR06037-17-2	78	47	34	22	26	37	39	32	48	41	9	31
10	AR06045-2-4	54	5	20	2	9	2	27	12	28	2	7	18
11	AR06045-16-4	59	12	24	6	13	4	25	7	33	7	7	18
12	AR06046-10-3	62	18	31	16	20	18	38	27	42	26	10	38
13	AR06061-11-1	61	15	26	8	17	13	23	4	33	7	6	10
14	LW08190C-57-3	64	22	30	12	20	18	38	27	37	15	5	4
15	ARGE08-1398	51	2	14	1	8	1	16	1	25	1	1	1
16	B12*1792	66	29	41	39	28	41	35	19	46	36	11	43
17	B12-2180NC#	78	47	33	20	25	31	26	9	41	23	8	23
18	GA 071171-14ES8	64	22	41	39	25	31	33	17	44	32	8	23
19	GA 071092-14ES11	67	32	36	28	22	23	39	32	38	16	9	31
20	GA071092-14ES13	66	29	39	37	25	31	38	27	42	26	9	31
21	GA 081129-14ES16	64	22	36	35	23	31	40	34	45	33	7	18
22	GA 08250-14ES7	62	18	31	16	20	18	36	23	39	20	9	31
23	GA 08250-14ES5	62	20	36	28	22	23	35	19	38	16	9	31
24	GA 071171-14ES19	67	32	35	26	24	30	35	19	42	26	10	38
25	GA 081562-14ES14	74	43	34	22	26	37	45	40	49	44	13	46
26	KWS 054	66	29	30	12	22	23	47	43	45	33	9	31
27	LA06146E-P4	59	12	32	18	19	16	48	44	47	38	10	38
28	LA08265C-50	71	39	42	42	35	46	37	26	48	41	6	10
29	LA09144C-6	74	43	51	48	36	47	50	45	55	48	14	49
30	LANC8248-1	76	45	49	47	40	48	28	14	48	41	8	23
31	ES13-1591	55	8	29	10	15	10	38	27	36	13	5	4
32	ES13-3423	52	3	36	28	14	7	45	40	39	20	8	23
33	ES12-3030	65	27	36	28	23	29	36	23	41	23	6	10
34	M11-2024#	65	27	37	34	27	39	24	6	40	22	8	23
35	M12-3301	61	15	34	22	16	12	36	23	34	12	6	10
36	M12-2036#	54	5	26	8	14	7	41	35	41	23	10	38
37	NC11-23084	67	32	42	42	22	23	35	19	38	16	8	23
38	NC12-23576	69	36	41	39	27	39	44	38	47	38	11	43
39	NC12-23219	64	22	33	20	25	31	29	15	42	26	6	10
40	NC12-20662	60	14	35	26	14	7	32	16	31	6	6	10
41	NC9305-7	64	22	30	12	20	18	20	3	33	7	6	10
42	VA11W-106	69	36	32	18	22	23	44	38	45	33	13	46
43	VA11W-313	71	39	42	42	29	43	53	47	51	45	9	31
44	VA12W-72	72	41	34	22	25	31	58	48	52	46	13	46
45	VA12W-54	72	41	44	45	30	44	51	46	53	47	10	38
46	VA12FHB-53	61	15	29	10	18	15	42	36	42	26	7	18
47	VA12FHB-4	68	35	36	28	21	22	27	12	33	7	6	10
48	VA13W-177	53	4	20	2	13	4	23	4	29	5	5	4
49	VA08MAS5-39-6-4	76	45	47	46	32	45	42	36	47	38	7	18

Mean	64	34	22	33	41	8
LSD (0.05)	26	26	22	24	19	7
CV%	20.7	38.3	50.4	36.8	23.1	37.7

Means Across Locations 2014 - 2015

Cultivar/ Designation	Heading Date		Plant Height		Flour Yield %		Softness Equivalent %		Hessian Fly Biotype L	Fhb1	Fhb Massey 3BL	Fhb 5A	Fhb 2DL- Wuhan1/W14	Bess 2B	Bess 3B	Jamestown 1I	Jamestown 6I	NC-Neuse 1A	NC-Neuse 6A
	RANK		RANK		RANK		RANK												
1 ERNIE	129	12	32	16	67	30	55	36	0-15	no	3BL?	het	no	no	no	no	no	yes	yes
2 COKER9835	131	40	31	11	68	18	65	1	0-15	no	no	no	no	no	no	no	no	.	no
3 BESS	130	24	35	42	67	30	61	12	0-15	no	no	no	no	yes	yes	yes	no	.	no
4 JAMESTOWN	128	5	32	18	68	18	59	17	0-14	no	no	no	no	no	no	yes	yes	yes	no
5 LA07085CW-P4	128	5	33	28	69	13	63	7	0-17	no	no	no	no	no	no	no	no	.	no
6 LANC8170-41-2	130	24	31	12	66	41	50	48	11-0	Fhb1	no	no	no	no	no	yes	yes	yes	no
7 NC11-22289	128	5	35	43	66	41	52	45	0-17	no	no	no	no	no	no	yes	no	.	yes
8 AR06024-7-2	130	24	36	49	66	41	56	33	0-15	het	no	no	no	no	no	yes	no	yes	no
9 AR06037-17-2	132	48	30	2	68	18	59	17	0-18	no	no	no	no	no	no	no	no	.	no
10 AR06045-2-4	130	24	36	47	68	18	62	10	0-12	no	no	no	no	yes	yes	yes	no	no	no
11 AR06045-16-4	130	24	35	45	68	18	62	10	0-13	no	no	no	no	.	yes	yes	no	no	no
12 AR06046-10-3	130	24	33	26	68	18	58	23	0-14	no	no	no	no	no	yes	yes	no	no	no
13 AR06061-11-1	131	40	35	44	67	30	63	7	0-14	no	no	no	no	yes	yes	yes	no	yes	no
14 LW08190C-57-3	129	12	32	19	67	30	58	23	0-11	Fhb1	no	no	no	no	no	no	no	yes	no
15 ARGE08-1398	130	24	36	48	67	30	58	23	0-14	Fhb1?	no	no	no	no	no	yes	no	yes	no
16 B12*1792	129	12	33	29	68	18	59	17	16-1	no	no	no	no	no	no	no	no	yes	no
17 B12-2180NC#	130	24	30	3	67	30	60	16	16-0	no	no	no	no	no	no	no	no	no	no
18 GA 071171-14ES8	130	24	35	40	70	5	57	30	9-8	no	no	het	no	no	no	yes	no	.	no
19 GA 071092-14ES11	130	24	32	17	71	1	61	12	0-17	no	no	no	no	no	no	yes	no	no	no
20 GA071092-14ES13	130	24	33	25	71	1	64	2	0-16	no	no	no	no	no	no	yes	no	no	no
21 GA 081129-14ES16	129	12	31	5	70	5	53	41	0-16	no	no	no	no	no	no	yes	no	no	no
22 GA 08250-14ES7	131	40	32	13	70	5	63	7	0-16	no	no	no	no	no	no	yes	yes	no	no
23 GA 08250-14ES5	131	40	34	39	69	13	61	12	0-16	no	no	no	no	no	no	no	no	.	no
24 GA 071171-14ES19	130	24	34	36	70	5	56	33	0-18	no	no	no	no	no	no	yes	no	.	no
25 GA 081562-14ES14	134	49	32	20	71	1	56	33	0-14	no	no	yes	no	no	no	no	no	yes	yes
26 KWS 054	128	5	31	6	69	13	64	2	0-14	no	no	no	no	no	no	no	no	yes	no
27 LA06146E-P4	130	24	34	31	68	18	50	48	0-14	no	no	no	no	no	no	yes	yes	yes	no
28 LA08265C-50	129	12	35	41	68	18	58	23	0-16	no	no	no	no	no	no	yes	no	yes	no
29 LA09144C-6	131	40	34	38	70	5	57	30	0-14	no	no	no	no	no	no	no	yes	no	no
30 LANC8248-1	130	24	29	1	71	1	52	45	0-12	no	no	yes	no	no	no	no	no	yes	no
31 ES13-1591	127	2	34	33	69	13	61	12	0-16	no	no	no	no	no	no	no	no	yes	no
32 ES13-3423	129	12	33	22	65	47	58	23	0-21	no	no	yes	no	no	no	no	no	yes	yes
33 ES12-3030	129	12	34	34	66	41	53	41	0-15	no	no	no	no	no	no	yes	no	yes	no
34 M11-2024#	129	12	31	7	68	18	52	45	0-17	no	3BL	no	no	no	no	no	no	yes	no
35 M12-3301	130	24	34	35	69	13	64	2	0-19	no	no	no	no	no	no	yes	no	no	no
36 M12-2036#	129	12	34	37	70	5	64	2	0-18	no	no	no	no	no	no	no	no	yes	no
37 NC11-23084	131	40	33	23	70	5	55	36	0-18	no	no	yes	no	no	no	yes	no	yes	yes
38 NC12-23576	130	24	33	27	67	30	53	41	0-20	no	no	no	no	no	yes	yes	no	.	no
39 NC12-23219	129	12	33	30	65	47	55	36	0-18	no	no	yes	no	no	no	no	no	.	no
40 NC12-20662	126	1	31	8	66	41	53	41	0-16	no	no	no	no	no	no	no	yes	.	no
41 NC9305-7	131	40	34	32	67	30	58	23	0-17	no	no	no	no	no	yes	no	no	yes	no
42 VA11W-106	131	40	32	15	67	30	64	2	0-20	no	no	no	no	no	no	yes	no	.	no
43 VA11W-313	128	5	31	9	67	30	54	39	0-16	no	no	no	no	no	no	no	no	no	no
44 VA12W-72	128	5	33	24	65	47	57	30	17-1	no	3BL	no	no	no	no	no	no	no	no
45 VA12W-54	128	5	31	4	68	18	58	23	21-0	no	3BL	no	no	no	no	no	no	.	no
46 VA12FHB-53	129	12	32	14	66	41	59	17	0-17	het	no	no	no	no	no	no	no	yes	yes
47 VA12FHB-4	129	12	33	21	67	30	59	17	0-16	het	no	no	no	no	no	no	no	.	no
48 VA13W-177	127	2	35	46	68	18	54	39	0-17	no	no	no	no	no	no	yes	no	.	no
49 VA08MAS5-39-6-4	127	2	31	10	70	5	59	17	0-16	no	no	no	no	no	no	no	no	yes	no

Mean	129	33	68	58
LSD (0.05)	3	2	.	.
CV%	1.1	3.6	.	.

Means Over the 2014 and 2015 Seasons

	Cultivar/ Designation	FHB Incidence %	FHB Severity %	FHB Index	FDK %	ISK	DON ppm	Heading Date Julian	Plant Height in	Flour Yield %	Softness Equivalent %
1	ERNIE	56	30	17	28	32	8	130	33	66.4	55.3
2	COKER9835	87	65	55	56	62	16	133	31	66.7	64.2
3	BESS	51	24	14	22	27	7	132	37	67.0	62.2
4	JAMESTOWN	53	26	15	22	29	7	129	33	67.7	59.2
5	LA07085CW-P4	59	34	21	37	35	8	129	34	68.3	61.3
6	LANC8170-41-2	62	35	22	31	36	5	131	32	67.2	50.4
7	NC11-22289	46	21	10	22	24	4	129	35	66.1	51.1
	Mean	59	33	22	31	35	8	130	33	67.1	57.7
	LSD (0.05)	8	6	7	7	12	6	1	2	2.2	3.4
	CV%	5.5	7.5	13.1	9.2	13.5	32.1	0.4	2.9	1.3	2.4