SOUTHERN UNIFORM WINTER WHEAT SCAB NURSERY

2012 NURSERY REPORT

J. P. Murphy
R. A. Navarro

This is a progress report of cooperative investigations underway and funded by the U. S. Wheat and Barley Scab Initiative, State Agricultural Experiment Stations, private companies and the United States Department of Agriculture, Agricultural Research Service. This report contains preliminary data that have not been sufficiently confirmed to justify general release; interpretations may be modified with additional experimentation. Confirmed results will be published through established channels. The report is a tool for the use of the cooperators and their official staff and those persons having direct interest in the development of agricultural research programs. This report is not intended for publication and should not be referred to in literature citations or quoted in publicity or advertising. Use of the data may be granted for certain purposes upon written request to the authors.

This material is based upon work supported by the U.S. Department of Agriculture, under Agreement No. 59-0790-4-117. This is a cooperative project with the U.S. Wheat & Barley Scab Initiative. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the U.S. Department of Agriculture.

.

North Carolina State University
Department of Crop Science
Box 7629
Raleigh, NC 27695-7629

December 1, 2012

This Report is available on the Web at;
http://scabusa.org/
RESEARCH UPDATES/REPORTS/PUBLICATIONS

TABLE OF CONTENTS

LOCATION NOTES

Brookston, Indiana
- Cooperator: Barton Fogleman, Jennifer Vonderwell.
- Agripro-Syngenta Seeds Inc.

Fayetteville and Newport, Arkansas
- Cooperator: Gene Milus
- University of Arkansas

Urbana, Illinois
- Cooperators: Fred Kolb and Eric Brucker.
- University of Illinois

Lexington, Kentucky
- Cooperators: Nicki Mundell and Dave Van Sanford
- University of Kentucky

Blacksburg, Virginia
- Cooperators: Carl A. Griffey.
- Virginia Tech

Kinston, North Carolina
- Cooperators: Rene Navarro, Paul Murphy, Christina Cowger
- North Carolina State University

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

Salisbury, Maryland.
- Cooperators: Jose Costa, and Aaron Cooper.
- University of Maryland.

Crowley, Louisiana.
- Cooperators: Harrison, and Arceneaux,.
- Louisiana State University.

Griffin, Georgia
- Cooperator: Jerry Johnson.
- University of Georgia.

Fundulea, Romania.
- Cooperator: Marianna Ittu.
- National Agricultural Research Development Institute.

Szeged, Hungary.
- Cooperator: Akos Mesterhazy.
- Cereal Research Institute.

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:

- Hessian Fly resistance evaluations.

Wooster, Ohio
USDA-ARS Soft Wheat Quality Laboratory

- Milling and Baking Quality evaluations.

"Look! There is UMN10. It's almost diagnostic for *Fhb1* , you know.

Plots were inoculated with three applications of four grams of autoclaved corn seed infected with *F. graminearum* isolates collected from the previous year's crop. Corn was applied three, two, and one week prior to anthesis.

Evaluation began 21 days following spray inoculation.

View original, color versions of photographs at: http://www.scabusa.org/research_vdhr.html#vdhr-updates

Entry List and Pedigrees, 2012 Nursery

ENTRY NO	CULTIVAR/ DESIGNATION	*PEDIGREE*	CONTRIBUTOR	IN NURSERY SINCE
1	ERNIE	*Check*	CHECK(RES)	1999-00
2	COKER 9835	*Check*	CHECK(SUS)	2000-01
3	BESS	*MO11769/Madison*	CHECK(RES)	2006-07
4	JAMESTOWN	*Roane / Pioneer 2691*	Check (RES)	2007-08
5	NC09-21916	*B990081 / NC96BGTA6 // McCormick*	Murphy	2111-12
6	VA08W-613	*FREEDOM / NEUSE"S" // VA98W-688*	Griffey	2010-11
7	M08-8036#	*COKER 9511/BRANSON*	Fogleman	2010-11
8	IL02-18228	*Pio25R26/ IL9634-24437 (IL90-4813/IL85-3132//Ning 7840) // IL95-4162*	Kolb	2010-11
9	ARS07-1214	*McCormick/Dominator*	Marshall	2011-12
10	ARS09-173	*GA961565-27-6/TAM303*	Marshall	2011-12
11	ARS09-367	*McCormick/Dominator*	Marshall	2011-12
12	ARS09-446	*FL89250/WX02ARS130*	Marshall	2011-12
13	ARS09-513	*GA931233-1-5/PI434658*	Marshall	2011-12
14	ARS09-595	*KS2055/NC96BGTD3*	Marshall	2011-12
15	ARS09-643	*LA95283CA78-1-2-B/TAM303*	Marshall	2011-12
16	ARS09-724	*AR800-1-3-1/WX03ARS0011*	Marshall	2011-12
17	GA 051173W-S11	*Truman /AGS 2010*	Johnson	2011-12
18	GA 051207-S19	*AGS 2000/SC996284//IN 981359C1*	Johnson	2011-12
19	GA 051207-S21	*AGS 2000/SC996284//IN 981359C1*	Johnson	2011-12
20	GA 051173-S25	*Truman /AGS 2010*	Johnson	2011-12
21	GA 051173-S18	*Truman /AGS 2010*	Johnson	2011-12
22	GAMD08-27-E9-S13	*SS 8641//McCormick 82/Ning 7840*	Johnson	2011-12
23	GAMD08-27-E9-S14	*SS 8641//McCormick 82/Ning 7840*	Johnson	2011-12
24	GAMD08-27-E9-S15	*SS 8641//McCormick 82/Ning 7840*	Johnson	2011-12
25	LA'04039C-14-8	*AGS 2060/ARLA97-1047-4-2*	Milus/Harrison	2011-12
26	LA'04039C-10-6	*AGS 2060/ARLA97-1047-4-2*	Milus/Harrison	2011-12
27	LA05102C-1-2	*LA96140BUA70-2/JAMESTOWN*	Milus/Harrison	2011-12
28	LA05102C-8-8	*LA96140BUA70-2/JAMESTOWN*	Milus/Harrison	2011-12
29	LA05079D-55	*(LA04153)GA971127-14-6-6/LA841,F1//ARLA97-1033-3-5(Freedom/Catbird)*	Harrison	2011-12
30	LA05079F-P01	*(LA04153)GA971127-14-6-6/LA841,F1//ARLA97-1033-3-5(Freedom/Catbird)*	Harrison	2011-12
31	LA05079F-P03	*(LA04153)GA971127-14-6-6/LA841,F1//ARLA97-1033-3-5(Freedom/Catbird)*	Harrison	2011-12
32	LA05145D-12	*JAMESTOWN/LA97113UC-124 - USED IN MAP STUDY*	Harrison	2011-12
33	LA05145D-24	*JAMESTOWN/LA97113UC-124 - USED IN MAP STUDY*	Harrison	2011-12
34	MD03W61-11-2(11PW#108)	*25R42/Chesapeake*	Costa	2011-12
35	MD03W61-11-3(11PW#109)	*25R42/Chesapeake*	Costa	2011-12
36	UX0066-4-79(11PW#183)	*Neuse*2/VA01W-476//SS8641*	Costa	2011-12
37	MD08-22-1-6-4(11PW#189)	*Ning7840*3/McCormick*	Costa	2011-12
38	MD08-26-H2-23(11CVM-3)	*Ning7840*3/McCormick//SS8641*	Costa	2011-12
39	MH07-7483	*M95-2994-1/P 25R57*	Fogleman	2011-12
40	M09-9826#	*COKER 9511/M03-3002*	Fogleman	2011-12
41	NC08-23323	*B960164 / NC94-7197 // McCormick*	Murphy	2011-12
42	NC08-23324	*B960164 / NC94-7197 // McCormick*	Murphy	2011-12
43	NC09-22422 (Fhb1)	*NC00-15332 / VA01-476 // Dominion*	Murphy	2011-12
44	NC09-20986 (Fhb1)	*NC00-15332 / VA01-476 // Dominion*	Murphy	2011-12
45	NC8355-4 (Fhb1)	*Oglethorpe / NC03-11465*	Murphy	2011-12
46	NC8452-2	*VA05W-500 / NC-Neuse*	Murphy	2011-12
47	VA09W-52	*GF921221E16 / McCormick"S" // VA99W-200*	Griffey	2011-12
48	VA09W-73	*SS 520 (VA96W-158) / VA99W-188 // TRIBUTE*	Griffey	2011-12
49	VA09W-75	*SS 520 (VA96W-158) / VA99W-188 // TRIBUTE*	Griffey	2011-12
50	VA10W-42	*JAMESTOWN / M99*3098 (TX85-264/VA88-52-69)*	Griffey	2011-12
51	VA10W-140	*VA01W-210 / SS 520 (VA96W-158) // TRIBUTE*	Griffey	2011-12

FHB Incidence (1-100)

	CULTIVAR/ DESIGNATION	KINSTON NC	S'BURY MD	B'BURG VA	LEX'TON KY	GRIFFIN GA	COL'BIA MO	MEAN ALL LOC.	RANK
1	ERNIE	29	15	0	30	13	78	27	6
2	COKER 9835	88	85	53	70	72	85	75	51
3	BESS	17	25	13	25	4	28	18	1
4	JAMESTOWN	40	20	28	40	6	93	38	19
5	NC09-21916	29	18	10	45	4	70	29	9
6	VA08W-613	45	35	15	40	24	88	41	28
7	M08-8036#	14	60	25	45	.	80	39	20
8	IL02-18228	5	25	15	25	.	55	19	2
9	ARS07-1214	52	80	93	90	2	97	69	50
10	ARS09-173	67	25	25	30	19	80	41	28
11	ARS09-367	.	70	68	75	2	99	62	49
12	ARS09-446	.	55	30	55	27	99	52	46
13	ARS09-513	60	40	13	70	37	92	52	46
14	ARS09-595	53	45	25	60	13	97	49	42
15	ARS09-643	.	35	18	50	5	95	39	20
16	ARS09-724	43	35	25	45	3	83	39	20
17	GA 051173W-S11	30	40	13	35	4	78	33	13
18	GA 051207-S19	33	35	38	50	3	90	41	28
19	GA 051207-S21	28	30	30	55	6	88	39	20
20	GA 051173-S25	52	50	13	65	20	95	49	42
21	GA 051173-S18	20	20	15	50	10	78	32	11
22	GAMD08-27-E9-S13	45	15	35	65	,	75	41	28
23	GAMD08-27-E9-S14	30	40	40	50	,	73	41	28
24	GAMD08-27-E9-S15	34	20	25	65	,	83	39	20
25	LA'04039C-14-8	.	15	8	60	4	97	36	16
26	LA'04039C-10-6	.	20	43	30	2	85	35	14
27	LA05102C-1-2	.	10	8	50	4	70	27	6
28	LA05102C-8-8	.	13	15	40	4	75	28	8
29	LA05079D-55	.	75	18	55	8	92	48	41
30	LA05079F-P01	60	65	18	40	8	85	46	39
31	LA05079F-P03	33	25	43	55	8	88	42	36
32	LA05145D-12	43	75	23	60	6	90	49	42
33	LA05145D-24	56	40	65	65	22	88	56	48
34	MD03W61-11-2	35	15	23	60	9	93	39	20
35	MD03W61-11-3	29	45	18	60	27	78	43	37
36	UX0066-4-79	20	20	53	50	20	63	37	17
37	MD08-22-1-6-4	7	10	28	35	,	60	22	3
38	MD08-26-H2-23	23	25	18	35	8	76	31	10
39	MH07-7483	22	75	48	70	2	88	51	45
40	M09-9826#	48	15	30	40	2	78	35	14
41	NC08-23323	47	30	28	35	7	85	39	20
42	NC08-23324	42	40	50	60	2	80	46	39
43	NC09-22422 (Fhb1)	40	13	8	40	2	88	32	11
44	NC09-20986 (Fhb1)	14	25	5	35	12	63	26	4
45	NC8355-4 (Fhb1)	18	8	15	40	2	73	26	4
46	NC8452-2	18	40	50	55	.	73	41	28
47	VA09W-52	48	40	25	40	21	90	44	38
48	VA09W-73	20	35	40	40	.	97	40	27
49	VA09W-75	30	15	23	60	6	90	37	17
50	VA10W-42	9	45	47	50	.	85	41	28
51	VA10W-140	19	65	20	30	26	88	41	28
	Mean	35	36	28	49	12	82	41	
	LSD (0.05)	24	27	22	33	.	.	26	
	CV%	34.0	37.2	39.6	33.0	.	.	32.2	

FHB Severity (1-100)

	CULTIVAR/ DESIGNATION	F'VILLE AR	RANK	N'PORT AR	RANK	S'BURY MD	RANK	B'BURG VA	RANK	COL'BIA MO	RANK	K'STON NC	RANK	LEX'TON KY	RANK	SZEGED[1] HUN	RANK	FUN'LEA[1] ROM	RANK	MEAN ALL LOC.	RANK
1	ERNIE	2	11	7	18	8	3	0	1	16	19	14	14	9	2	12	18	51	25	8	6
2	COKER 9835	63	46	57	48	50	47	10	48	38	43	63	42	50	49	25	51	64	29	44	49
3	BESS	3	13	0	1	10	13	1	2	3	1	14	14	8	1	17	43	53	26	7	2
4	JAMESTOWN	0	1	6	17	8	3	3	26	20	27	15	20	19	17	16	37	92	34	11	14
5	NC09-21916	7	21	7	18	20	25	1	2	13	15	24	28	23	27	14	28	100	39	14	24
6	VA08W-613	11	29	10	23	10	13	1	2	10	9	9	6	10	3	14	28	45	21	9	7
7	M08-8036#	7	21	4	11	25	28	3	26	12	10	11	10	20	21	14	28	100	39	12	17
8	IL02-18228	6	18	1	3	8	3	1	2	6	2	7	1	13	6	15	33	100	39	7	2
9	ARS07-1214	75	48	3	8	65	51	22	51	79	51	33	34	64	50	16	37	69	31	45	50
10	ARS09-173	37	43	23	40	15	20	4	35	27	37	45	40	10	4	12	18	100	39	22	40
11	ARS09-367	73	47	22	39	60	50	15	49	76	50	.	.	68	51	21	50	46	23	49	51
12	ARS09-446	32	41	27	42	35	37	4	35	53	49	.	.	25	31	13	22	91	33	28	44
13	ARS09-513	43	45	28	44	35	37	1	2	23	30	65	43	18	13	19	47	95	37	29	48
14	ARS09-595	37	43	30	45	50	47	3	26	47	46	14	14	21	25	19	47	100	39	28	44
15	ARS09-643	23	40	23	40	40	42	2	14	30	38	.	.	29	36	19	47	100	39	24	42
16	ARS09-724	9	26	7	18	20	25	3	26	26	36	30	33	25	29	15	33	100	39	17	28
17	GA 051173W-S11	22	37	10	23	30	34	1	2	17	21	28	31	19	16	15	33	96	38	18	29
18	GA 051207-S19	13	32	18	36	15	20	5	38	35	40	19	25	25	30	13	22	93	36	18	29
19	GA 051207-S21	10	27	17	34	28	33	2	14	30	38	28	31	19	14	12	18	100	39	18	29
20	GA 051173-S25	22	37	20	38	35	37	1	2	52	48	35	35	41	47	18	46	100	39	28	44
21	GA 051173-S18	3	13	12	28	25	28	1	2	12	10	7	1	15	12	16	37	100	39	11	14
22	GAMD08-27-E9-S13	.	.	.	.	15	20	5	38	9	8	12	11	38	45	9	6	92	34	13	22
23	GAMD08-27-E9-S14	.	.	.	.	8	3	4	35	8	6	10	8	30	38	6	2	39	18	9	7
24	GAMD08-27-E9-S15	.	.	.	.	5	1	3	26	12	10	13	13	36	44	10	11	19	1	12	17
25	LA'04039C-14-8	1	7	5	15	8	3	1	2	19	26	.	.	25	32	10	11	45	21	10	10
26	LA'04039C-10-6	1	7	4	11	15	20	5	38	16	19	.	.	15	11	9	6	61	28	10	10
27	LA05102C-1-2	0	1	3	8	8	3	1	2	15	17	.	.	40	46	7	3	44	20	11	14
28	LA05102C-8-8	0	1	1	3	8	3	2	14	12	10	.	.	19	15	3	1	25	4	7	2
29	LA05079D-55	3	13	10	23	50	47	2	14	51	47	.	.	31	41	13	22	26	6	24	42
30	LA05079F-P01	7	21	8	22	40	42	2	14	41	44	25	30	27	34	12	18	68	30	20	35
31	LA05079F-P03	11	29	15	30	25	28	5	38	25	33	12	11	24	28	9	6	32	15	16	27
32	LA05145D-12	12	31	27	42	40	42	2	14	25	33	24	28	29	37	7	3	82	32	21	38
33	LA05145D-24	32	41	4	11	35	37	18	50	45	45	35	35	48	48	9	6	28	8	28	44
34	MD03W61-11-2	5	17	10	23	15	20	3	26	24	31	60	41	31	40	8	5	21	2	20	35
35	MD03W61-11-3	6	18	5	15	25	28	2	14	20	27	17	23	29	35	11	15	30	12	14	24
36	UX0066-4-79	0	1	12	28	13	17	6	44	8	6	9	6	31	42	14	28	30	12	12	17
37	MD08-22-1-6-4	0	1	0	1	5	1	2	14	6	2	7	1	19	19	9	6	24	3	6	1
38	MD08-26-H2-23	0	1	3	8	10	13	2	14	14	16	16	22	21	22	13	22	34	17	10	10
39	MH07-7483	17	34	1	3	45	46	6	44	35	40	18	24	35	43	17	43	32	15	21	38
40	M09-9826#	8	25	17	34	13	17	3	26	17	21	14	14	14	9	11	15	28	8	12	17
41	NC08-23323	6	18	35	47	30	34	3	26	15	17	35	35	21	24	16	37	100	39	20	35
42	NC08-23324	10	27	30	45	10	13	7	47	17	21	40	38	12	5	16	37	100	39	18	29
43	NC09-22422 (Fhb1)	1	7	1	3	13	17	1	2	12	10	23	27	13	7	15	33	46	23	10	10
44	NC09-20986 (Fhb1)	1	7	2	7	8	3	1	2	7	4	7	1	15	10	13	22	27	7	7	2
45	NC8355-4 (Fhb1)	2	11	10	23	8	3	2	14	18	24	8	5	19	18	10	11	28	8	9	7
46	NC8452-2	7	21	4	11	20	25	6	44	7	4	14	14	25	33	11	15	29	11	12	17
47	VA09W-52	20	36	18	36	35	37	2	14	21	29	15	20	23	26	13	22	25	4	18	29
48	VA09W-73	18	35	15	30	25	28	5	38	35	40	40	38	30	39	14	28	54	27	23	41
49	VA09W-75	15	33	15	30	8	3	2	14	25	33	10	8	21	23	16	37	31	14	14	24
50	VA10W-42	3	13	7	18	30	34	5	38	18	24	14	14	19	20	10	11	39	18	13	22
51	VA10W-140	22	37	15	30	40	42	3	26	24	31	22	26	14	8	17	43	100	39	19	34
	Mean	15		13		23		4		24		22		25		13		61		17	
	LSD (0.05)	10		8		17		3		.		19		18		5		.		19	
	CV%	.		.		36.0		41.2		.		44.0		36.0		.		.		56.5	

[1]DATA BY INDIVIDUAL ISOLATES ON FOLLOWING PAGES

Severity by Individual Isolates, Szeged, Hungary

	Cultivar/ Designation	*F. culm.* Isol Fc 12375	*F. gram.* Isol 12377/ 1	*F. gram.* Isol 13.05	*F. gram.* Isol Fg12377/2	Mean	Rank
1	ERNIE	10	17	8	14	12	*18*
2	COKER 9835	40	25	19	15	25	*51*
3	BESS	26	18	12	13	17	*43*
4	JAMESTOWN	21	19	11	15	16	*37*
5	NC09-21916	18	14	11	14	14	*28*
6	VA08W-613	20	18	9	9	14	*28*
7	M08-8036#	14	16	15	11	14	*28*
8	IL02-18228	17	17	14	12	15	*33*
9	ARS07-1214	25	16	10	14	16	*37*
10	ARS09-173	7	13	15	13	12	*18*
11	ARS09-367	33	23	12	17	21	*50*
12	ARS09-446	27	12	5	8	13	*22*
13	ARS09-513	23	22	13	17	19	*47*
14	ARS09-595	28	19	15	14	19	*47*
15	ARS09-643	30	21	14	11	19	*47*
16	ARS09-724	21	16	13	11	15	*33*
17	GA 051173W-S11	23	18	9	10	15	*33*
18	GA 051207-S19	25	13	5	9	13	*22*
19	GA 051207-S21	22	11	6	8	12	*18*
20	GA 051173-S25	28	16	18	10	18	*46*
21	GA 051173-S18	26	15	12	12	16	*37*
22	GAMD08-27-E9-S13	13	9	5	8	9	*6*
23	GAMD08-27-E9-S14	7	7	5	5	6	*2*
24	GAMD08-27-E9-S15	13	9	8	8	10	*11*
25	LA'04039C-14-8	13	13	6	6	10	*11*
26	LA'04039C-10-6	14	9	5	8	9	*6*
27	LA05102C-1-2	11	7	4	6	7	*3*
28	LA05102C-8-8	5	3	3	3	3	*1*
29	LA05079D-55	24	13	7	10	13	*22*
30	LA05079F-P01	25	10	7	6	12	*18*
31	LA05079F-P03	16	9	4	8	9	*6*
32	LA05145D-12	5	14	4	6	7	*3*
33	LA05145D-24	19	10	4	2	9	*6*
34	MD03W61-11-2	12	8	8	6	8	*5*
35	MD03W61-11-3	18	11	9	6	11	*15*
36	UX0066-4-79	17	15	13	11	14	*28*
37	MD08-22-1-6-4	10	13	8	6	9	*6*
38	MD08-26-H2-23	16	17	9	10	13	*22*
39	MH07-7483	26	18	11	12	17	*43*
40	M09-9826#	18	13	7	7	11	*15*
41	NC08-23323	25	17	10	13	16	*37*
42	NC08-23324	21	21	12	12	16	*37*
43	NC09-22422 (Fhb1)	21	15	15	8	15	*33*
44	NC09-20986 (Fhb1)	14	16	10	12	13	*22*
45	NC8355-4 (Fhb1)	5	12	12	9	10	*11*
46	NC8452-2	21	8	6	8	11	*15*
47	VA09W-52	23	12	10	8	13	*22*
48	VA09W-73	26	11	8	9	14	*28*
49	VA09W-75	21	16	12	16	16	*37*
50	VA10W-42	13	11	7	7	10	*11*
51	VA10W-140	19	15	16	17	17	*43*
	Mean	19	14	10	10	13	
	LSD(0.05)	.	.	.	.	5	

Head Severity Expressed as Area Under the Disease Progress Curve (AUDPC) 20 Days Post Inoculation Fundulea, Romania.

	Cultivar/ Designation	*F. gram. Isol 96* *15-ADON*	*F. culm. Isol 46* *3-ADON*	Mean	*Rank*
1	ERNIE	420	394	407	*24*
2	COKER 9835	630	633	631	*32*
3	BESS	415	426	420	*26*
4	JAMESTOWN	719	659	689	*37*
5	NC09-21916	767	806	787	*49*
6	VA08W-613	317	445	381	*23*
7	M08-8036#	718	730	724	*40*
8	IL02-18228	705	714	709	*39*
9	ARS07-1214	480	614	547	*29*
10	ARS09-173	728	821	775	*47*
11	ARS09-367	407	420	413	*25*
12	ARS09-446	741	756	749	*44*
13	ARS09-513	635	695	665	*34*
14	ARS09-595	758	837	798	*51*
15	ARS09-643	714	867	790	*50*
16	ARS09-724	792	706	749	*44*
17	GA 051173W-S11	622	744	683	*35*
18	GA 051207-S19	727	787	757	*46*
19	GA 051207-S21	789	776	783	*48*
20	GA 051173-S25	744	727	736	*42*
21	GA 051173-S18	695	671	683	*35*
22	GAMD08-27-E9-S13	537	600	569	*31*
23	GAMD08-27-E9-S14	304	346	325	*17*
24	GAMD08-27-E9-S15	199	150	174	*1*
25	LA'04039C-14-8	243	464	354	*19*
26	LA'04039C-10-6	273	700	487	*28*
27	LA05102C-1-2	354	404	379	*22*
28	LA05102C-8-8	261	347	304	*15*
29	LA05079D-55	306	239	273	*6*
30	LA05079F-P01	572	549	561	*30*
31	LA05079F-P03	354	357	355	*20*
32	LA05145D-12	732	563	647	*33*
33	LA05145D-24	278	307	293	*12*
34	MD03W61-11-2(11PW#108)	200	298	249	*4*
35	MD03W61-11-3(11PW#109)	330	268	299	*13*
36	UX0066-4-79(11PW#183)	290	264	277	*9*
37	MD08-22-1-6-4(11PW#189)	253	174	214	*2*
38	MD08-26-H2-23(11CVM-3)	282	277	279	*10*
39	MH07-7483	255	365	310	*16*
40	M09-9826#	235	312	273	*6*
41	NC08-23323	718	738	728	*41*
42	NC08-23324	703	700	701	*38*
43	NC09-22422 (Fhb1)	381	359	370	*21*
44	NC09-20986 (Fhb1)	205	241	223	*3*
45	NC8355-4 (Fhb1)	267	236	252	*5*
46	NC8452-2	289	308	299	*13*
47	VA09W-52	243	305	274	*8*
48	VA09W-73	506	358	432	*27*
49	VA09W-75	267	309	288	*11*
50	VA10W-42	426	230	328	*18*
51	VA10W-140	714	759	737	*43*
	Mean	480	505	493	
	LSD (0.05)	.	.	52	

FHB Index (1-100)

	CULTIVAR/ DESIGNATION	S'BURY MD	RANK	B'BURG VA	RANK	LEX'TON KY	RANK	K'STON NC	RANK	COL'BIA MO	RANK	MEAN ALL LOC.	RANK
1	ERNIE	1	1	0	1	3	2	5	18	12	18	4	5
2	COKER 9835	43	49	5	48	35	49	54	43	36	44	35	49
3	BESS	3	14	0	1	2	1	2	8	1	1	2	1
4	JAMESTOWN	2	9	1	21	8	17	6	23	19	28	7	17
5	NC09-21916	4	19	0	1	10	22	4	13	9	9	5	8
6	VA08W-613	4	19	0	1	4	5	4	13	9	9	4	5
7	M08-8036#	16	40	1	21	9	20	1	3	9	9	7	17
8	IL02-18228	2	9	0	1	3	2	0	1	4	2	2	1
9	ARS07-1214	52	51	20	51	58	51	17	35	77	51	45	50
10	ARS09-173	5	24	1	21	3	2	31	41	21	31	12	35
11	ARS09-367	46	50	10	49	51	50	.	.	76	50	45	50
12	ARS09-446	20	42	1	21	14	33	.	.	53	49	22	45
13	ARS09-513	14	35	0	1	13	30	39	42	22	32	18	41
14	ARS09-595	22	43	1	21	13	30	7	24	47	46	18	41
15	ARS09-643	14	35	0	1	14	33	.	.	28	39	14	39
16	ARS09-724	9	30	1	21	11	25	13	33	22	32	11	33
17	GA 051173W-S11	13	34	0	1	7	11	10	31	13	19	9	25
18	GA 051207-S19	6	26	2	37	12	27	8	28	32	41	12	35
19	GA 051207-S21	7	28	1	21	10	22	7	24	27	38	10	28
20	GA 051173-S25	17	41	0	1	27	47	18	38	50	48	22	45
21	GA 051173-S18	5	24	0	1	8	17	1	3	9	9	5	8
22	GAMD08-27-E9-S13	3	14	2	37	25	45	5	18	7	8	8	21
23	GAMD08-27-E9-S14	4	19	2	37	15	36	3	10	6	6	6	13
24	GAMD08-27-E9-S15	1	1	1	21	23	44	5	18	10	14	8	21
25	LA'04039C-14-8	1	1	0	1	15	36	.	.	18	27	8	21
26	LA'04039C-10-6	4	19	3	43	5	7	.	.	13	19	6	13
27	LA05102C-1-2	1	1	0	1	20	43	.	.	11	16	7	17
28	LA05102C-8-8	1	1	0	1	7	11	.	.	9	9	4	5
29	LA05079D-55	38	48	0	1	17	39	.	.	48	47	25	48
30	LA05079F-P01	28	45	0	1	11	25	15	34	34	43	18	41
31	LA05079F-P03	6	26	2	37	13	30	4	13	22	32	10	28
32	LA05145D-12	30	46	1	21	17	39	11	32	22	32	16	40
33	LA05145D-24	14	35	12	50	31	48	20	39	39	45	23	47
34	MD03W61-11-2	3	14	1	21	19	42	21	40	23	37	13	37
35	MD03W61-11-3	12	33	0	1	17	39	5	18	16	25	10	28
36	UX0066-4-79	3	14	3	43	16	38	2	8	6	6	6	13
37	MD08-22-1-6-4	1	1	1	21	7	11	0	1	4	2	2	1
38	MD08-26-H2-23	3	14	0	1	7	11	4	13	11	16	5	8
39	MH07-7483	34	47	3	43	25	45	4	13	30	40	19	44
40	M09-9826#	2	9	1	21	6	10	7	24	13	19	6	13
41	NC08-23323	9	30	1	21	7	11	17	35	13	19	10	28
42	NC08-23324	4	19	4	47	7	11	17	35	14	24	9	25
43	NC09-22422 (Fhb1)	2	9	0	1	5	7	9	30	10	14	5	8
44	NC09-20986 (Fhb1)	2	9	0	1	5	7	1	3	5	4	3	4
45	NC8355-4 (Fhb1)	1	1	0	1	8	17	1	3	13	19	5	8
46	NC8452-2	8	29	3	43	14	33	3	10	5	4	7	17
47	VA09W-52	14	35	1	21	9	20	7	24	19	28	10	28
48	VA09W-73	9	30	2	37	12	27	8	28	34	42	13	37
49	VA09W-75	1	1	1	21	12	27	3	10	22	32	8	21
50	VA10W-42	14	35	2	37	10	22	1	3	16	25	9	25
51	VA10W-140	26	44	1	21	4	5	5	18	20	30	11	33
	Mean	11		2		25		9		21		12	
	LSD (0.05)	14		2		18		11		.		16	
	CV%	63.1		57.0		34.9		61.0		.		71.4	

Percent Fusarium Damaged Kernels

	Cultivar/ Designation	F'VILLE AR	RANK	N'PORT AR	RANK	K'STON NC	RANK	COL'BIA MO	RANK	S'BURY MD	RANK	SZEGED HUN	RANK	LEX'TON KY	RANK	MEAN All LOCS	RANK
1	ERNIE	1	2	11	23	2	4	14	8	11	31	0	1	6	22	7	12
2	COKER 9835	32	45	67	48	23	43	59	48	23	47	27	49	21	50	36	49
3	BESS	2	6	4	7	3	10	9	3	8	20	0	1	4	9	4	2
4	JAMESTOWN	2	6	8	14	5	23	16	11	5	6	0	1	5	16	6	9
5	NC09-21916	3	12	5	8	4	17	12	4	5	6	0	1	4	9	5	5
6	VA08W-613	9	32	9	18	2	4	16	11	6	11	0	1	3	3	6	9
7	M08-8036#	3	12	2	5	1	1	6	2	16	43	0	1	8	32	5	5
8	IL02-18228	3	12	1	1	1	1	4	1	4	4	0	1	3	3	2	1
9	ARS07-1214	50	48	50	46	32	44	51	44	35	50	35	50	17	47	38	50
10	ARS09-173	7	30	17	34	11	36	34	35	5	6	0	1	5	16	11	29
11	ARS09-367	45	46	60	47	39	45	59	48	50	51	42	51	19	49	45	51
12	ARS09-446	14	39	20	40	.	.	68	50	10	27	7	42	12	42	21	45
13	ARS09-513	29	44	28	44	14	39	72	51	16	43	0	1	10	40	24	47
14	ARS09-595	28	43	27	43	3	10	56	47	4	4	2	30	10	40	18	43
15	ARS09-643	4	21	18	3	.	.	48	43	10	27	5	37	7	30	15	40
16	ARS09-724	4	21	10	20	4	17	16	11	10	27	0	1	8	32	7	12
17	GA 051173W-S11	9	32	6	10	18	40	24	22	13	34	7	42	5	16	12	33
18	GA 051207-S19	2	6	12	26	8	30	52	46	7	17	4	34	6	22	13	35
19	GA 051207-S21	3	12	12	26	8	30	15	9	6	11	4	34	4	9	7	12
20	GA 051173-S25	22	41	22	42	5	23	47	41	20	46	24	48	22	51	23	46
21	GA 051173-S18	2	6	5	8	3	10	41	38	10	27	2	30	5	16	10	25
22	GAMD08-27-E9-S13	.	.	.	.	3	10	32	32	8	20	0	1	6	22	10	25
23	GAMD08-27-E9-S14	.	.	.	.	8	30	16	11	14	38	0	1	4	9	8	18
24	GAMD08-27-E9-S15	.	.	.	.	6	26	29	27	9	24	0	1	3	3	9	21
25	LA'04039C-14-8	1	4	6	10	.	.	15	9	6	11	0	1	7	30	5	5
26	LA'04039C-10-6	1	3	8	14	.	.	28	26	5	6	0	1	6	22	7	12
27	LA05102C-1-2	1	1	1	1	.	.	24	22	3	2	0	1	3	3	4	2
28	LA05102C-8-8	1	4	1	1	.	.	23	21	2	1	0	1	4	9	4	2
29	LA05079D-55	3	12	16	31	3	10	51	44	13	34	11	44	12	42	16	42
30	LA05079F-P01	2	6	12	26	13	38	47	41	23	47	4	34	8	32	15	40
31	LA05079F-P03	9	32	17	34	12	37	29	27	11	31	6	41	13	44	14	38
32	LA05145D-12	7	30	18	37	6	26	41	38	15	40	3	32	9	37	14	38
33	LA05145D-24	47	47	40	45	19	42	32	32	13	34	5	37	17	47	25	48
34	MD03W61-11-2	6	28	11	23	9	33	38	36	8	20	0	1	14	45	12	33
35	MD03W61-11-3	2	6	8	14	5	23	21	19	8	20	0	1	8	32	8	18
36	UX0066-4-79	5	26	10	20	2	4	26	24	15	40	0	1	6	22	9	21
37	MD08-22-1-6-4	3	12	1	1	1	1	39	37	6	11	0	1	1	1	7	12
38	MD08-26-H2-23	5	26	3	6	7	29	19	18	7	17	1	27	2	2	6	9
39	MH07-7483	22	41	19	39	4	17	29	27	29	49	18	46	16	46	20	44
40	M09-9826#	4	21	20	40	10	35	45	40	6	11	0	1	6	22	13	35
41	NC08-23323	3	12	12	26	3	10	17	15	7	17	3	32	9	37	8	18
42	NC08-23324	3	12	16	31	9	33	27	25	13	34	5	37	5	16	11	29
43	NC09-22422 (Fhb1)	12	37	8	14	4	17	32	32	6	11	0	1	3	3	9	21
44	NC09-20986 (Fhb1)	4	21	9	18	2	4	21	19	9	24	0	1	4	9	7	12
45	NC8355-4 (Fhb1)	11	35	13	30	2	4	31	31	9	24	0	1	5	16	10	25
46	NC8452-2	21	40	6	10	3	10	13	7	18	45	5	37	8	32	11	29
47	VA09W-52	12	37	17	34	18	40	18	16	5	6	17	45	6	22	13	35
48	VA09W-73	11	35	11	23	4	17	12	4	14	38	20	47	6	22	11	29
49	VA09W-75	3	12	6	10	4	17	12	4	3	2	1	27	3	3	5	5
50	VA10W-42	4	21	10	20	6	26	18	16	12	33	0	1	9	37	9	21
51	VA10W-140	6	28	16	31	2	4	30	30	15	40	1	27	4	9	10	25
	Mean	10		15		8		30		11		5		8		12	
	LSD (0.05)	8		9		8		.		14		.		8		15	
	CV%	.		.		52.8		.		59.4		.		49.2		59.9	

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

	CULTIVAR/ DESIGNATION	K'STON NC	RANK	COL'BIA MO	RANK	S'BURY MD	RANK	LEX'TON KY	RANK	MEAN ALL LOC.	RANK
1	ERNIE	14	14	33	9	11	10	14	3	15	3
2	COKER 9835	54	43	48	36	50	49	44	49	49	49
3	BESS	10	9	12	1	14	19	11	1	12	1
4	JAMESTOWN	18	21	39	18	10	7	20	15	22	14
5	NC09-21916	17	18	31	8	13	15	22	20	21	10
6	VA08W-613	17	18	35	12	16	21	16	6	21	10
7	M08-8036#	8	4	25	3	32	42	23	21	22	14
8	IL02-18228	4	1	18	2	11	10	13	2	12	1
9	ARS07-1214	38	40	70	48	57	50	53	51	55	50
10	ARS09-173	38	40	45	33	14	19	14	3	28	35
11	ARS09-367	.	.	75	50	59	51	50	50	59	51
12	ARS09-446	.	.	76	51	31	41	29	37	43	46
13	ARS09-513	43	42	69	46	29	39	30	39	43	46
14	ARS09-595	21	28	71	49	30	40	28	34	37	41
15	ARS09-643	.	.	60	45	27	36	27	31	35	39
16	ARS09-724	23	31	39	18	21	29	24	24	27	27
17	GA 051173W-S11	25	32	37	14	26	35	18	11	27	27
18	GA 051207-S19	19	24	54	42	18	23	25	27	29	36
19	GA 051207-S21	20	25	44	30	19	25	24	24	27	27
20	GA 051173-S25	28	35	57	43	34	43	41	47	40	45
21	GA 051173-S18	9	6	44	30	18	23	21	17	23	18
22	GAMD08-27-E9-S13	18	21	40	24	12	13	33	44	26	26
23	GAMD08-27-E9-S14	15	16	28	6	20	26	26	29	22	14
24	GAMD08-27-E9-S15	17	18	37	14	11	10	31	42	24	22
25	LA'04039C-14-8	.	.	39	18	9	6	28	34	23	18
26	LA'04039C-10-6	.	.	43	29	13	15	16	6	21	10
27	LA05102C-1-2	.	.	35	12	6	1	28	34	21	10
28	LA05102C-8-8	.	.	38	17	7	2	19	14	19	6
29	LA05079D-55	.	.	69	46	43	47	31	42	45	48
30	LA05079F-P01	30	37	58	44	41	46	23	21	38	43
31	LA05079F-P03	18	21	42	28	20	26	29	37	27	27
32	LA05145D-12	22	29	52	41	40	45	30	39	36	40
33	LA05145D-24	35	39	49	38	28	38	41	47	38	43
34	MD03W61-11-2	32	38	49	38	12	13	33	44	32	38
35	MD03W61-11-3	16	17	39	18	24	31	30	39	27	27
36	UX0066-4-79	9	6	25	3	16	21	27	31	19	6
37	MD08-22-1-6-4	4	1	39	18	7	2	17	8	17	5
38	MD08-26-H2-23	14	14	34	10	13	15	18	11	20	9
39	MH07-7483	13	11	48	36	48	48	38	46	37	41
40	M09-9826#	22	29	49	38	10	7	18	11	25	23
41	NC08-23323	26	33	34	10	21	29	21	17	25	23
42	NC08-23324	28	35	37	14	20	26	24	24	27	27
43	NC09-22422 (Fhb1)	20	25	44	30	10	7	17	8	23	18
44	NC09-20986 (Fhb1)	7	3	26	5	13	15	17	8	16	4
45	NC8355-4 (Fhb1)	8	4	40	24	8	4	20	15	19	6
46	NC8452-2	11	10	30	7	25	34	27	31	23	18
47	VA09W-52	26	33	46	35	24	31	21	17	29	36
48	VA09W-73	20	25	40	24	24	31	23	21	27	27
49	VA09W-75	13	11	41	27	8	4	26	29	22	14
50	VA10W-42	9	6	39	18	27	36	25	27	25	23
51	VA10W-140	13	11	45	33	37	44	14	3	27	27
	Mean	20		43		22		25		28	
	LSD (0.05)	.		.		14		.		15	
	CV%	.		.		32.1		.		27.6	

SEED CHARACTERISTICS and GRAIN YIELD

	Cultivar/ Designation	Grain Yield (gr) F'VILLE AR	Grain Yield (gr) NEWPORT AR	Grain Yield (gr) MEAN ALL LOC.	RANK	Seed Weight Inocul / Control % FUND"LEA ROM	RANK	Grain Weight gr. S'BURY MD
1	ERNIE	487	299	393	34	36	41	4.7
2	COKER 9835	230	87	158	48	14	51	3.0
3	BESS	591	379	485	21	78	16	3.4
4	JAMESTOWN	612	491	552	10	54	31	4.0
5	NC09-21916	431	428	430	31	42	39	3.2
6	VA08W-613	569	442	505	19	68	22	3.9
7	M08-8036#	613	370	492	20	57	28	3.0
8	IL02-18228	414	459	437	30	50	33	3.5
9	ARS07-1214	315	114	214	47	57	28	2.5
10	ARS09-173	458	476	467	24	33	45	3.7
11	ARS09-367	322	114	218	46	75	18	2.9
12	ARS09-446	507	320	414	33	31	49	4.5
13	ARS09-513	284	213	248	45	32	47	3.4
14	ARS09-595	353	336	345	40	33	45	3.6
15	ARS09-643	631	493	562	8	52	32	4.1
16	ARS09-724	657	532	595	3	42	39	3.1
17	GA 051173W-S11	358	417	388	35	32	47	2.8
18	GA 051207-S19	518	421	470	23	46	36	4.3
19	GA 051207-S21	538	431	485	22	26	50	4.1
20	GA 051173-S25	489	445	467	25	36	41	3.4
21	GA 051173-S18	411	517	464	26	60	25	3.4
22	GAMD08-27-E9-S13	.	.	.	.	92	10	2.5
23	GAMD08-27-E9-S14	.	.	.	.	59	26	2.5
24	GAMD08-27-E9-S15	.	.	.	.	98	7	2.5
25	LA'04039C-14-8	582	335	459	28	86	12	3.9
26	LA'04039C-10-6	665	418	541	11	43	38	4.2
27	LA05102C-1-2	638	526	582	4	100	1	3.3
28	LA05102C-8-8	645	688	667	1	75	18	3.9
29	LA05079D-55	586	522	554	9	58	27	3.2
30	LA05079F-P01	629	517	573	7	63	24	3.4
31	LA05079F-P03	499	548	523	15	67	23	3.8
32	LA05145D-12	549	494	522	17	36	41	3.3
33	LA05145D-24	401	209	305	42	100	1	3.8
34	MD03W61-11-2	647	501	574	6	71	21	3.4
35	MD03W61-11-3	666	527	597	2	83	14	3.5
36	UX0066-4-79	417	290	354	37	49	34	3.3
37	MD08-22-1-6-4	473	152	313	41	96	9	2.6
38	MD08-26-H2-23	422	453	438	29	47	35	2.8
39	MH07-7483	580	482	531	13	83	14	3.0
40	M09-9826#	616	241	429	32	100	1	3.8
41	NC08-23323	557	137	347	39	46	36	3.6
42	NC08-23324	509	78	294	43	78	16	3.4
43	NC09-22422 (Fhb1)	584	465	524	14	92	10	3.9
44	NC09-20986 (Fhb1)	594	451	523	16	100	1	4.0
45	NC8355-4 (Fhb1)	467	307	387	36	72	20	3.7
46	NC8452-2	394	303	349	38	97	8	2.9
47	VA09W-52	504	422	463	27	100	1	4.3
48	VA09W-73	584	483	534	12	56	30	3.7
49	VA09W-75	593	447	520	18	100	1	3.9
50	VA10W-42	668	484	576	5	84	13	3.4
51	VA10W-140	359	155	257	44	34	44	3.4
	Mean	513	384	455		63		3.5
	LSD (0.05)	92	58	47		.		0.7
	CV%	.	.	18.4		.		9.8

DON
(ppm)

	Cultivar/ Designation	B'BURG VA	RANK	LEX'TON KY	RANK	KINSTON NC	RANK	F'VILLE AR	RANK	NEWPORT AR	RANK	MEAN ALL LOC.	RANK
1	ERNIE	2	25	8	19	7	17	1	4	7	24	5	17
2	COKER 9835	3	42	17	44	39	42	9	46	33	46	20	48
3	BESS	2	25	5	4	5	11	2	21	3	7	3	3
4	JAMESTOWN	1	4	8	19	3	4	1	4	4	10	3	3
5	NC09-21916	1	4	6	10	3	4	1	4	2	4	3	3
6	VA08W-613	1	4	5	4	4	8	2	21	6	21	4	10
7	M08-8036#	1	4	6	10	17	32	1	4	2	4	6	23
8	IL02-18228	1	4	3	1	6	14	1	4	1	1	2	1
9	ARS07-1214	13	51	31	50	37	40	24	48	38	48	29	51
10	ARS09-173	1	4	14	41	10	23	3	34	20	45	10	40
11	ARS09-367	9	50	38	51	31	39	21	47	36	47	27	50
12	ARS09-446	2	25	20	48	.	.	7	43	14	42	12	43
13	ARS09-513	2	25	12	37	13	28	4	37	14	42	9	36
14	ARS09-595	1	4	8	19	4	8	6	41	9	33	6	23
15	ARS09-643	1	4	20	48	.	.	5	39	13	38	12	43
16	ARS09-724	2	25	9	27	38	41	2	21	5	14	11	42
17	GA 051173W-S11	3	42	11	33	96	44	7	43	13	38	26	49
18	GA 051207-S19	2	25	9	27	16	30	2	21	8	29	7	29
19	GA 051207-S21	2	25	7	16	24	36	2	21	8	29	9	36
20	GA 051173-S25	2	25	13	40	8	19	6	41	13	38	9	36
21	GA 051173-S18	1	4	9	27	3	4	2	21	3	7	4	10
22	GAMD08-27-E9-S13	2	25	6	10	7	17	.		.	.	4	10
23	GAMD08-27-E9-S14	3	42	6	10	10	23	.		.	.	5	17
24	GAMD08-27-E9-S15	2	25	6	10	8	19	.		.	.	4	10
25	LA'04039C-14-8	1	4	7	16	.	.	0	1	3	7	5	17
26	LA'04039C-10-6	1	4	11	33	.	.	1	4	5	14	6	23
27	LA05102C-1-2	0	1	4	2	.	.	0	1	1	1	3	3
28	LA05102C-8-8	1	4	5	4	.	.	0	1	1	1	4	10
29	LA05079D-55	1	4	16	42	.	.	1	4	9	33	9	36
30	LA05079F-P01	2	25	10	30	8	19	1	4	6	21	5	17
31	LA05079F-P03	5	48	17	44	8	19	2	21	8	29	8	34
32	LA05145D-12	1	4	12	37	4	8	2	21	12	36	6	23
33	LA05145D-24	4	46	19	47	18	33	8	45	14	42	13	46
34	MD03W61-11-2(11PW#108)	1	4	16	42	6	14	2	21	7	24	7	29
35	MD03W61-11-3(11PW#109)	2	25	10	30	24	36	1	4	6	21	8	34
36	UX0066-4-79(11PW#183)	2	25	8	19	3	4	1	4	7	24	4	10
37	MD08-22-1-6-4(11PW#189)	1	4	5	4	2	1	1	4	2	4	2	1
38	MD08-26-H2-23(11CVM-3)	1	4	5	4	5	11	1	4	4	10	3	3
39	MH07-7483	5	48	18	46	24	36	5	39	11	35	12	43
40	M09-9826#	1	4	8	19	16	30	1	4	5	14	6	23
41	NC08-23323	2	25	11	33	21	35	2	21	12	36	10	40
42	NC08-23324	4	46	8	19	61	43	2	21	13	38	17	47
43	NC09-22422 (Fhb1)	1	4	4	2	10	23	1	4	4	10	4	10
44	NC09-20986 (Fhb1)	0	1	5	4	2	1	1	4	5	14	3	3
45	NC8355-4 (Fhb1)	0	1	8	19	2	1	1	4	7	24	3	3
46	NC8452-2	2	25	12	37	5	11	4	37	5	14	6	23
47	VA09W-52	1	4	7	16	6	14	3	34	8	29	5	17
48	VA09W-73	2	25	10	30	14	29	3	34	7	24	7	29
49	VA09W-75	1	4	8	19	20	34	1	4	4	10	7	29
50	VA10W-42	3	42	11	33	11	27	2	21	5	14	7	29
51	VA10W-140	2	25	6	10	10	23	2	21	5	14	5	17
	Mean	2		9		15		3		9		8	
	LSD (0.05)	.		8		20		8		2		15	
	CV%	.		41.0		67.8		54.0		36.0		96.1	

Greenhouse Screening

	Cultivar/ Designation	MO SEVERITY	RANK
1	ERNIE	23	14
2	COKER 9835	63	51
3	BESS	20	6
4	JAMESTOWN	33	33
5	NC09-21916	29	26
6	VA08W-613	28	22
7	M08-8036#	39	44
8	IL02-18228	24	15
9	ARS07-1214	42	46
10	ARS09-173	47	50
11	ARS09-367	47	49
12	ARS09-446	33	31
13	ARS09-513	32	30
14	ARS09-595	28	23
15	ARS09-643	33	34
16	ARS09-724	27	20
17	GA 051173W-S11	23	13
18	GA 051207-S19	34	37
19	GA 051207-S21	26	18
20	GA 051173-S25	29	25
21	GA 051173-S18	21	10
22	GAMD08-27-E9-S13	18	4
23	GAMD08-27-E9-S14	10	2
24	GAMD08-27-E9-S15	9	1
25	LA'04039C-14-8	23	12
26	LA'04039C-10-6	19	5
27	LA05102C-1-2	29	24
28	LA05102C-8-8	45	48
29	LA05079D-55	26	19
30	LA05079F-P01	30	29
31	LA05079F-P03	29	27
32	LA05145D-12	44	47
33	LA05145D-24	41	45
34	MD03W61-11-2	26	17
35	MD03W61-11-3	20	9
36	UX0066-4-79	38	41
37	MD08-22-1-6-4	33	35
38	MD08-26-H2-23	38	40
39	MH07-7483	20	8
40	M09-9826#	20	7
41	NC08-23323	25	16
42	NC08-23324	22	11
43	NC09-22422 (Fhb1)	35	38
44	NC09-20986 (Fhb1)	30	28
45	NC8355-4 (Fhb1)	34	36
46	NC8452-2	16	3
47	VA09W-52	33	32
48	VA09W-73	36	39
49	VA09W-75	39	43
50	VA10W-42	27	21
51	VA10W-140	39	42
Mean		30	

SSR Analyses of Regions Associated with FHB Resistance and Other Pertinent Loci

	DESIGNATION	Rht-B1b	Rht-D1b	Rht8	Ppd-D1a	vrn-A1	Lr34/Yr18	Lr37/Yr17	Sr36	Sr24/Lr24	Sr2	Lr9	Qyr.uga-2AS	Fhb1	Fhb 5A ERNIE
1	ERNIE	het	no	no	het	het	no	no	yes	no	no	no	no	no	yes
2	COKER 9835	no	yes	no	yes	vrn-A1b	no	no	yes	no	no	yes	no	no	no
3	BESS	yes	no	no	no	vrn-A1b	no	no	no	no	no	no	no	no	no
4	JAMESTOWN	no	yes	no	yes	vrn-A1a	no	no	no	no	no	no	no	no	no
5	NC09-21916	no	yes	no	yes	vrn-A1b	no	no	no	no	no	no	no	no	no
6	VA08W-613	no	yes	no	yes	vrn-A1a	no	no	no	no	no	yes	no	no	no
7	M08-8036#	no	no	no	yes	vrn-A1b	no	no	yes	no	no	yes	no	no	no
8	IL02-18228	yes	het	no	no	vrn-A1b	no	no	no	no	no	no	no	no	no
9	ARS07-1214	yes	no	no	no	vrn-A1b	no	no	no	yes	no	no	no	no	no
10	ARS09-173	yes	no	no	yes	vrn-A1b	no	yes	no	no	no	no	no	no	no
11	ARS09-367	yes	no	no	no	vrn-A1b	no	no	no	yes	no	no	no	no	no
12	ARS09-446	no	no	no	no	vrn-A1b	no	no	yes	no	no	no	no	no	no
13	ARS09-513	no	no	het	yes	vrn-A1b	no	no	het	no	no	no	no	no	no
14	ARS09-595	no	no	no	yes	vrn-A1a	no	no	yes	no	no	no	no	no	no
15	ARS09-643	no	yes	no	yes	vrn-A1b	no	het	no	no	no	no	no	no	no
16	ARS09-724	yes	no	no	yes	vrn-A1b	no	yes	no	no	no	no	no	no	no
17	GA 051173W-S11	no	yes	no	het	vrn-A1b	no	yes	no	no	no	no	no	no	no
18	GA 051207-S19	no	yes	no	yes	vrn-A1b	no	yes	no	no	no	no	no	no	no
19	GA 051207-S21	no	yes	no	yes	vrn-A1b	no	yes		no	no	no	no	no	no
20	GA 051173-S25	yes	no	no	yes	vrn-A1b	no	yes	no	no	no	no	no	no	no
21	GA 051173-S18	no	yes	no	yes	vrn-A1b	no	yes	no	no	no	no	no	no	no
22	GAMD08-27-E9-S13	no	yes	no	no	vrn-A1b	no	het	no	no	no	no	no	yes	no
23	GAMD08-27-E9-S14	no	yes	no	no	vrn-A1b	no	yes	no	no	no	no	no	yes	no
24	GAMD08-27-E9-S15	no	yes	no	no	vrn-A1b	no	het	no	no	no	no	no	yes	no
25	LA'04039C-14-8	no	no	no	het	vrn-A1b	no	no	yes	no	no	yes	no	no	no
26	LA'04039C-10-6	no	no	no	het	vrn-A1b	no	no	yes	yes	no	no	yes	no	no
27	LA05102C-1-2	no	no	no	yes	het	no	no	yes	no	no	no	yes	no	no
28	LA05102C-8-8	no	no	no	yes	vrn-A1b	no	no	yes	no	no	no	no	no	no
29	LA05079D-55	yes	no	no	no	vrn-A1b	no	no	no	no	no	no	no	no	no
30	LA05079F-P01	yes	no	no	no	vrn-A1b	no	no	no	no	no	yes	no	no	no
31	LA05079F-P03	yes	no	no	het	vrn-A1b	no	no	yes	no	no	yes	no	no	no
32	LA05145D-12	no	yes	no	yes	vrn-A1a	no	no	yes	no	no	no	no	no	no
33	LA05145D-24	no	yes	no	yes	vrn-A1a	no	no	no	no	no	yes	no	no	no
34	MD03W61-11-2	no	yes		yes	vrn-A1b	no	no	no	no	no	no	no	no	
35	MD03W61-11-3	no	yes	no	yes	vrn-A1b	no	no	yes	no	no	no	no	no	no
36	UX0066-4-79	no	yes	no	yes	vrn-A1b	no	no	yes	no	no	no	yes		het
37	MD08-22-1-6-4	no	yes	no	no	vrn-A1b	no	no	no	yes	no	no	no	yes	no
38	MD08-26-H2-23	no	yes	no	yes	vrn-A1b	no	yes	no	yes	no	no	no	yes	no
39	MH07-7483	yes	no	no	yes	vrn-A1b	no	no	no	no	no	no	no	no	no
40	M09-9826#	yes	no	no	het	vrn-A1b	no	no	yes	no	no	yes	no	no	no
41	NC08-23323	no	yes	no	yes	vrn-A1b	no	no	no	no	no	yes	no	no	no
42	NC08-23324	no	yes	no	het	vrn-A1b	no	no	no	no	no	yes	no	no	no
43	NC09-22422 (Fhb1)	het	no	no	het	vrn-A1b	no	yes	no	no	no	no	no	yes	no
44	NC09-20986 (Fhb1)	yes	no	no	het	vrn-A1b	no	yes	no	no	no	no	no	yes	no
45	NC8355-4 (Fhb1)	no	yes	no	yes	vrn-A1a	no	no	yes	no	no	no	no	yes	no
46	NC8452-2	no	yes	no	yes	vrn-A1b	no	no	het	yes	no	yes	het	no	het
47	VA09W-52	no	yes	no	yes	vrn-A1a	no	no	no	no	no	no	no	no	no
48	VA09W-73	no	het	no	no	vrn-A1b	no	no	no	no	no	yes	no	no	no
49	VA09W-75	no	yes	no	het	vrn-A1b	no	no	no	no	no	yes	no	no	no
50	VA10W-42	yes	no	no	yes	vrn-A1b	no	no	no	no	no	no	no	no	no
51	VA10W-140	no	yes	no	yes	vrn-A1b	no	no	no	no	no	yes	no	no	no

SSR Analyses of Regions Associated with FHB Resistance and Other Pertinent Loci

	DESIGNATION	Fhb Ernie 3Bc	Fhb 5A Ning7840	Fhb 2DL-Wuhan1/W14	1RS:1AL	1RS:1BL	H13	H9	Bdv2/3	Sbm1	Bx7 over-expressing	Glu-A1	Glu-D1	TaSus2-2B
1	ERNIE		no	no	no	no	no	no	no	no	no	Ax1 or null	het	yes
2	COKER 9835	yes	no	no	no	no	no	no	no	yes	no	Ax2*	2+12	yes
3	BESS	no	no	no	no	no	no	no	no	yes	no	Ax1 or null	2+12	no
4	JAMESTOWN	no	no	no	no	no	no	no	no	yes	no	Ax2*	2+12	no
5	NC09-21916	no	no	no	no	no	no	no	no	yes	no	Ax2*	5+10	no
6	VA08W-613	no	no	no	no	no	no	no	no	yes	no	Ax2*	2+12	no
7	M08-8036#	no	no	no	no	no	no	no	no	yes	no	Ax2*	2+12	yes
8	IL02-18228	no	no	no	no	no	no	no	no	yes	no	Ax1 or null	5+10	no
9	ARS07-1214	no	no	no	no	no	no	no	no	yes	no	Ax1 or null	2+12	no
10	ARS09-173	no	no	no	no	no	het	no	no	yes	no	Ax2*	2+12	no
11	ARS09-367	no	no	no	no	no	no	no	no	yes	no	Ax1 or null	2+12	no
12	ARS09-446	no	no	no	no	no	no	no	no	no	no	Ax2*	5+10	yes
13	ARS09-513	no	no	no	no	no	no	no	no	no	no	Ax1 or null	2+12	het
14	ARS09-595	no	no	no	no	no	no	no	no	yes	no	Ax2*	5+10	yes
15	ARS09-643	no	no	no	yes	no	no	no	no	yes	het	Ax2*	2+12	no
16	ARS09-724	no	no	no	no	no	no	no	no	no	no	Ax1 or null	2+12	no
17	GA 051173W-S11	no	no	no	no	no	yes	no	no	yes	no	het	2+12	no
18	GA 051207-S19	no	no	no	no	no	no	yes	no	yes	no	Ax2*	5+10	no
19	GA 051207-S21	no	no	no	het	no	no	yes	no	yes	no	Ax2*	5+10	no
20	GA 051173-S25	no	no	no	no	no	yes	no	no	yes	no	Ax1 or null	2+12	no
21	GA 051173-S18	no	no	no	no	no	yes	no	no	yes	no	Ax1 or null	2+12	no
22	GAMD08-27-E9-S13	no	yes	no	yes	no	no	no	no	yes	no	Ax2*	2+12	no
23	GAMD08-27-E9-S14	no	yes	no	yes	no	no	no	no	yes	no	Ax2*	2+12	no
24	GAMD08-27-E9-S15	no	yes	no	yes	no	no	no	no	yes	no	Ax2*	2+12	no
25	LA'04039C-14-8	no	no	no	no	yes	no	no	no	no	no	Ax2*	5+10	yes
26	LA'04039C-10-6	no	no	no	no	yes	no	no	no	no	no	Ax2*	5+10	yes
27	LA05102C-1-2	no	no	no	no	no	no	no	no	yes	no	Ax2*	2+12	yes
28	LA05102C-8-8	no	no	no	no	no	no	no	no	yes	no	Ax2*	2+12	yes
29	LA05079D-55	no	no	no	no	no	no	no	no	yes	no	Ax1 or null	2+12	no
30	LA05079F-P01	no	no	no	no	no	no	no	no	yes	no	Ax1 or null	2+12	no
31	LA05079F-P03	no	no	no	no	no	no	no	no	het	yes	Ax2*	5+10	yes
32	LA05145D-12	no		no	no	yes	no	no	no	yes	het	Ax2*	5+10	yes
33	LA05145D-24	no	no	no	no	no	no	no	no	yes	no	Ax2*	2+12	no
34	MD03W61-11-2	no		no	no	no	no	no		yes	no	Ax2*	2+12	het
35	MD03W61-11-3		no	no	no	no	no	no	no	yes	no	Ax2*	2+12	yes
36	UX0066-4-79	no	no	no	no	no	no	no	no	yes	no	Ax2*	2+12	yes
37	MD08-22-1-6-4	no	yes	no	yes	no	no	no	no	yes	no	Ax2*	2+12	no
38	MD08-26-H2-23	no	het	no	no	no	no	no	no	yes	no	Ax2*	2+12	no
39	MH07-7483	no	no	no	no	yes	no	no	no	yes	no	Ax1 or null	het	no
40	M09-9826#	no	no	no	no	no	no	no	no	yes	no	Ax2*	het	yes
41	NC08-23323	het?	no	no	het	no	no	no	no	yes	no	Ax1 or null	2+12	no
42	NC08-23324	no	no	no	yes	no	no	no	no	yes	no	Ax1 or null	2+12	no
43	NC09-22422 (Fhb1)	no	no	no	no	no	yes	no	no	yes	no	Ax2*	nknow	no
44	NC09-20986 (Fhb1)	no	no	no	no	no	het	no	no	yes	no	Ax2*	het	no
45	NC8355-4 (Fhb1)	no	no	no	no	no	no	no	no	yes	no	Ax1 or null	5+10	yes
46	NC8452-2	no	no	no	het	no	no	no	no	yes	no	Ax2*	2+12	het
47	VA09W-52	no	no	no	het	no	no	no	no	yes	no	Ax1 or null	2+12	no
48	VA09W-73	no	no	no	no	no	no	no	no	no	no	Ax2*	2+12	no
49	VA09W-75	no	no	no	yes	no	no	no	no	no	no	Ax2*	2+12	no
50	VA10W-42	no	no	no		no	no	no	no	yes	no	Ax2*	2+12	no
51	VA10W-140	no	no	no	no	no	no	no	no	no	no	Ax2*	5+10	no

Heading Date (Julian Days*)

		K'STON NC	WARSAW VA	S'BURY MD	LEX'TON KY	COL'BIA MO	MEAN ALL LOC.	RANK
1	ERNIE	85	123	109	108	117	108	9
2	COKER 9835	80	123	111	112	123	110	19
3	BESS	96	123	113	110	123	113	38
4	JAMESTOWN	82	121	106	106	118	106	3
5	NC09-21916	94	123	112	114	121	113	38
6	VA08W-613	84	121	110	108	118	108	9
7	M08-8036#	92	123	110	110	121	111	26
8	IL02-18228	102	129	112	113	123	116	43
9	ARS07-1214	100	129	112	116	123	116	43
10	ARS09-173	85	118	105	106	117	106	3
11	ARS09-367	97	126	110	109	123	113	38
12	ARS09-446	.	123	102	107	121	108	9
13	ARS09-513	91	123	107	109	121	110	19
14	ARS09-595	83	121	102	105	123	107	6
15	ARS09-643	.	118	102	107	117	106	3
16	ARS09-724	92	123	108	108	121	110	19
17	GA 051173W-S11	96	123	111	110	123	112	33
18	GA 051207-S19	90	123	109	110	123	111	26
19	GA 051207-S21	89	123	108	112	121	110	19
20	GA 051173-S25	88	126	109	116	123	112	33
21	GA 051173-S18	86	118	102	102	117	105	1
22	GAMD08-27-E9-S13	106	129	117	121	131	121	49
23	GAMD08-27-E9-S14	107	129	118	122	131	121	49
24	GAMD08-27-E9-S15	105	129	118	120	131	121	49
25	LA'04039C-14-8	.	123	102	104	121	107	6
26	LA'04039C-10-6	.	121	107	110	123	110	19
27	LA05102C-1-2	.	121	101	103	118	105	1
28	LA05102C-8-8	.	123	104	107	121	108	9
29	LA05079D-55	.	123	105	107	123	109	17
30	LA05079F-P01	82	123	107	108	123	108	9
31	LA05079F-P03	81	126	107	111	123	110	19
32	LA05145D-12	81	123	105	106	118	107	6
33	LA05145D-24	96	129	113	117	123	116	43
34	MD03W61-11-2	90	121	107	113	123	111	26
35	MD03W61-11-3	92	123	110	113	121	112	33
36	UX0066-4-79	85	126	109	112	123	111	26
37	MD08-22-1-6-4	105	129	115	117	123	118	48
38	MD08-26-H2-23	90	123	111	107	123	111	26
39	MH07-7483	100	129	114	115	123	116	43
40	M09-9826#	82	123	108	106	123	108	9
41	NC08-23323	90	123	109	109	123	111	26
42	NC08-23324	93	123	111	108	123	112	33
43	NC09-22422 (Fhb1)	91	123	109	110	121	111	26
44	NC09-20986 (Fhb1)	88	123	108	109	121	110	19
45	NC8355-4 (Fhb1)	82	123	103	107	123	108	9
46	NC8452-2	99	129	115	115	123	116	43
47	VA09W-52	84	123	108	109	123	109	17
48	VA09W-73	96	123	113	111	123	113	38
49	VA09W-75	83	121	108	108	121	108	9
50	VA10W-42	90	129	111	108	123	112	33
51	VA10W-140	97	123	113	109	123	113	38
	Mean	91	124	109	110	122	112	
	LSD (0.05)	4	5	3	5	.	6	
	CV%	2.0	4.0	1.4	12.2	.	2.5	

*Days after December 31, 2011

Plant Height (in)

	CULTIVAR/ DESIGNATION	K'STON NC	S'BURY MD	LEX'TON KY	FUN'LEA ROM	SZEGED HUN	MEAN ALL LOC.	RANK
1	ERNIE	38	31	30	23	31	31	10
2	COKER 9835	34	32	32	25	29	30	3
3	BESS	42	34	34	29	35	35	39
4	JAMESTOWN	35	30	30	25	33	31	10
5	NC09-21916	40	36	34	27	35	35	39
6	VA08W-613	37	31	34	25	33	32	18
7	M08-8036#	41	33	32	25	33	33	22
8	IL02-18228	44	36	33	33	38	37	47
9	ARS07-1214	41	33	31	27	33	33	22
10	ARS09-173	34	31	28	25	33	30	3
11	ARS09-367	38	31	32	22	33	31	10
12	ARS09-446	.	32	32	31	38	34	30
13	ARS09-513	38	33	31	27	35	33	22
14	ARS09-595	34	33	31	31	40	34	30
15	ARS09-643	.	31	30	25	33	24	1
16	ARS09-724	40	33	37	33	40	37	47
17	GA 051173W-S11	46	38	39	38	40	40	51
18	GA 051207-S19	37	34	36	29	35	34	30
19	GA 051207-S21	37	35	36	31	35	35	39
20	GA 051173-S25	39	36	30	31	33	34	30
21	GA 051173-S18	37	29	27	27	31	30	3
22	GAMD08-27-E9-S13	40	36	36	29	35	35	39
23	GAMD08-27-E9-S14	40	34	33	27	35	34	30
24	GAMD08-27-E9-S15	41	36	33	21	38	34	30
25	LA'04039C-14-8	.	30	30	25	38	31	10
26	LA'04039C-10-6	.	32	34	35	40	36	44
27	LA05102C-1-2	.	32	33	31	44	36	44
28	LA05102C-8-8	.	34	34	31	46	37	47
29	LA05079D-55	.	30	31	27	38	32	18
30	LA05079F-P01	35	34	31	29	38	33	22
31	LA05079F-P03	33	30	28	21	35	29	2
32	LA05145D-12	34	32	30	23	33	30	3
33	LA05145D-24	44	40	38	33	42	39	50
34	MD03W61-11-2(11PW	36	32	29	25	31	30	3
35	MD03W61-11-3(11PW	39	34	33	25	31	32	18
36	UX0066-4-79(11PW#1	39	35	31	23	29	31	10
37	MD08-22-1-6-4(11PW#	40	34	33	29	31	34	30
38	MD08-26-H2-23(11CV	39	37	36	27	35	35	39
39	MH07-7483	42	36	36	31	38	36	44
40	M09-9826#	34	30	32	22	35	30	3
41	NC08-23323	37	32	31	28	33	32	18
42	NC08-23324	36	34	33	28	33	33	22
43	NC09-22422 (Fhb1)	36	30	32	23	33	31	10
44	NC09-20986 (Fhb1)	38	32	33	21	33	31	10
45	NC8355-4 (Fhb1)	30	33	31	21	33	30	3
46	NC8452-2	40	31	32	28	33	33	22
47	VA09W-52	33	34	33	21	35	31	10
48	VA09W-73	37	35	35	25	33	33	22
49	VA09W-75	38	33	37	27	33	34	30
50	VA10W-42	42	35	38	21	35	34	30
51	VA10W-140	40	34	32	25	35	33	22
	Mean	37	33	32	27	35	33	
	LSD (0.05)	4	4	.	.	.	6	
	CV%	5.0	6.0	.	.	.	10.0	

Leaf Disease Ratings

	CULTIVAR/ DESIGNATION	Stripe Rust % F'VILLE AR	Stripe Rust % N'PORT AR	Stagon. nodorum % F'VILLE AR
1	ERNIE	30	68	7
2	COKER 9835	50	78	15
3	BESS	0	17	30
4	JAMESTOWN	0	0	15
5	NC09-21916	0	12	2
6	VA08W-613	0	37	2
7	M08-8036#	0	37	2
8	IL02-18228	0	7	15
9	ARS07-1214	30	43	15
10	ARS09-173	2	1	15
11	ARS09-367	50	48	30
12	ARS09-446	2	25	30
13	ARS09-513	0	68	15
14	ARS09-595	0	57	7
15	ARS09-643	0	0	15
16	ARS09-724	15	1	7
17	GA 051173W-S11	30	2	15
18	GA 051207-S19	30	15	15
19	GA 051207-S21	30	12	15
20	GA 051173-S25	0	0	15
21	GA 051173-S18	0	1	7
22	GAMD08-27-E9-S13	7	20	2
23	GAMD08-27-E9-S14	15	1	2
24	GAMD08-27-E9-S15	15	15	7
25	LA'04039C-14-8	0	57	2
26	LA'04039C-10-6	0	25	2
27	LA05102C-1-2	0	1	7
28	LA05102C-8-8	0	1	30
29	LA05079D-55	0	0	15
30	LA05079F-P01	0	0	15
31	LA05079F-P03	0	0	15
32	LA05145D-12	0	2	15
33	LA05145D-24	15	70	7
34	MD03W61-11-2	2	0	7
35	MD03W61-11-3	0	0	2
36	UX0066-4-79	7	57	15
37	MD08-22-1-6-4	7	80	2
38	MD08-26-H2-23	30	12	15
39	MH07-7483	0	0	30
40	M09-9826#	0	78	7
41	NC08-23323	0	89	7
42	NC08-23324	0	94	7
43	NC09-22422 (Fhb1)	0	20	7
44	NC09-20986 (Fhb1)	2	10	7
45	NC8355-4 (Fhb1)	0	6	7
46	NC8452-2	30	11	7
47	VA09W-52	0	7	30
48	VA09W-73	0	0	7
49	VA09W-75	0	3	2
50	VA10W-42	0	0	2
51	VA10W-140	70	71	15
	Mean	9	25	11

Hessian Fly Screening
(Resistant - Susceptible Plants)[1]

	CULTIVAR/ DESIGNATION	Biotype B	Biotype C	Biotype D	Biotype O	Biotype L
1	ERNIE	0-21	all S	0-16	0-15	0-15
2	COKER 9835	0-19	all S	0-18	0-18	0-13
3	BESS	6-15	all S	0-17	0-21	0-14
4	JAMESTOWN	18-0	16-0	17-0	0-15	0-16
5	NC09-21916	10-7	all S	0-8	0-6	0-3
6	VA08W-613	0-23	all S	0-16	0-20	0-18
7	M08-8036#	17-3	all S	0-15	0-16	0-20
8	IL02-18228	17-4	all S	0-15	0-17	0-16
9	ARS07-1214	0-19	all S	0-16	0-18	0-16
10	ARS09-173	21-0	19-0	20-0	18-0	21-0
11	ARS09-367	0-19	12-6	0-17	0-16	0-17
12	ARS09-446	0-20	all S	0-20	0-17	0-14
13	ARS09-513	0-20	all S	0-17	16-3	0-14
14	ARS09-595	0-16	all S	0-17	0-17	0-17
15	ARS09-643	0-16	all S	0-12	0-14	0-15
16	ARS09-724	0-23	all S	0-14	0-19	0-14
17	GA 051173W-S11	19-0	16-0	16-0	17-0	15-3
18	GA 051207-S19	18-0	all S	15-0	17-0	14-0
19	GA 051207-S21	18-0	all S	16-1	16-2	17-0
20	GA 051173-S25	17-0	20-0	16-0	16-0	13-2
21	GA 051173-S18	15-0	20-0	17-0	18-0	22-0
22	GAMD08-27-E9-S13	0-16	all S	0-19	0-17	0-13
23	GAMD08-27-E9-S14	0-20	all S	0-15	0-17	0-18
24	GAMD08-27-E9-S15	0-23	all S	0-16	0-18	0-16
25	LA'04039C-14-8	18-0	18-0	18-0	0-17	0-16
26	LA'04039C-10-6	21-0	17-0	17-0	0-19	0-17
27	LA05102C-1-2	21-0	17-0	21-0	20-0	0-15
28	LA05102C-8-8	19-1	18-1	23-0	0-18	0-16
29	LA05079D-55	0-20	all S	0-16	0-14	0-18
30	LA05079F-P01	0-21	all S	0-16	0-15	0-16
31	LA05079F-P03	0-20	all S	0-15	0-16	0-16
32	LA05145D-12	20-0	17-1	18-0	17-0	0-17
33	LA05145D-24	0-19	all S	0-16	0-19	0-17
34	MD03W61-11-2	17-3	13-5	15-2	0-17	0-15
35	MD03W61-11-3	18-0	19-1	18-0	0-18	0-17
36	UX0066-4-79	7-10	2-12	14-4	0-19	0-18
37	MD08-22-1-6-4	0-16	all S	0-18	4-12	0-19
38	MD08-26-H2-23	15-5	9-8	18-0	11-4	0-17
39	MH07-7483	0-20	all S	0-20	0-18	0-16
40	M09-9826#	18-2	19-1	18-2	0-18	0-20
41	NC08-23323	0-17	all S	0-15	0-18	0-13
42	NC08-23324	0-17	all S	0-19	0-16	0-20
43	NC09-22422 (Fhb1)	25-0	17-0	18-0	19-0	20-0
44	NC09-20986 (Fhb1)	21-0	20-0	22-0	20-0	16-0
45	NC8355-4 (Fhb1)	12-5	all S	10-5	0-20	0-20
46	NC8452-2	0-19	all S	0-14	0-15	0-16
47	VA09W-52	0-22	all S	0-18	17-2	0-23
48	VA09W-73	0-19	all S	0-21	0-17	0-14
49	VA09W-75	0-17	all S	0-20	0-18	0-17
50	VA10W-42	19-2	14-3	16-1	0-19	0-18
51	VA10W-140	0-22	all S	0-21	0-19	0-18

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

Milling and Baking Quality Scores[1]

	Cultivar/ Designation	MILLING QUALITY SCORE		BAKING QUALITY SCORE		SOFT. EQUIV. SCORE		TEST WT. LB/BU	FLOUR YIELD %		SOFT. EQUIV. %		GRAIN HARD. (0-100)	GRAIN. PROT. %	FLOUR PROT. %	LACTIC ACID SRC(%)		SUCRE. SRC %		COOK. DIA. CM	
1	ERNIE	54	D	47	E	62	C	54.5	64.2		55.3		18.6	13.6	10.3	138.0	s	108.1		17.3	
2	COKER 9835	51	D	49	E	79	B	32.6	63.8		61.4	+	30.1	13.1	9.9	136.5		114.1	q	17.5	
3	BESS	63	C	69	C	56	D	58.1	66.1	+	53.2	q	22.1	11.9	9.0	118.8	w	98.1	+	17.9	
4	JAMESTOWN	54	D	51	D	64	C	57.5	64.4		56.0		35.3	12.7	9.6	147.1	s	108.1		17.5	
5	NC09-21916	71	B	57	D	77	B	57.8	67.8	+	60.7	+	26.7	12.3	9.6	165.1	s	108.4		17.6	
6	VA08W-613	68	C	47	E	63	C	59.0	67.1	+	55.7		21.8	13.3	10.3	138.2	s	108.4		17.3	
7	M08-8036#	62	C	47	E	54	D	58.3	65.8	+	52.5	q	30.5	14.4	10.7	145.4	s	104.3	+	17.2	q
8	IL02-18228	50	D	58	D	52	D	57.5	63.6	q	51.7	q	35.5	12.4	9.7	139.5	s	100.3	+	17.5	
9	ARS07-1214	71	B	6	F	21	F	55.8	67.7	+	40.6	q	30.2	13.3	11.9	140.3	s	112.3	q	15.9	q
10	ARS09-173	80	A	17	F	14	F	59.4	69.6	+	38.1	q	28.2	11.5	11.0	129.2	w	106.4		16.2	q
11	ARS09-367	65	C	9	F	23	F	56.6	66.4	+	41.6	q	30.4	12.5	10.9	145.4	s	113.8	q	16.1	q
12	ARS09-446	87	A	16	F	15	F	57.4	71.0	+	38.7	q	30.7	12.3	12.4	148.4	s	103.8	+	16.0	q
13	ARS09-513	92	A	24	F	25	F	56.2	72.0	+	42.3	q	22.6	12.6	12.4	116.4	w	104.5		16.4	q
14	ARS09-595	70	B	5	F	25	F	56.2	67.6	+	42.1	q	33.8	13.1	13.4	153.5	s	110.6	q	15.7	q
15	ARS09-643	75	B	-20	F	8	F	57.1	68.6	+	36.4	q	32.2	12.1	11.9	147.1	s	122.2	q	15.2	q
16	ARS09-724	74	B	33	F	32	F	57.8	68.4	+	44.5	q	30.1	12.6	11.3	122.2	w	103.9	+	16.7	q
17	GA 051173W-S11	59	D	45	E	47	E	58.0	65.3		49.9	q	19.5	13.1	9.7	129.8	w	105.5		17.2	
18	GA 051207-S19	64	C	50	E	66	C	55.4	66.3	+	56.8		34.4	12.5	10.0	155.9	s	108.1		17.4	
19	GA 051207-S21	66	C	60	D	64	C	57.1	66.7	+	56.1		33.8	12.1	9.7	147.4	s	103.0	+	17.6	
20	GA 051173-S25	38	F	41	E	51	D	55.9	61.2	q	51.2	q	34.7	12.6	10.1	136.1		108.3		17.1	q
21	GA 051173-S18	57	D	44	E	56	D	56.9	65.0		53.2	q	19.6	14.2	10.6	156.6	s	106.5		17.1	q
22	GAMD08-27-E9-S13	58	D	44	E	51	D	57.4	65.0		51.4	q	36.6	12.7	9.9	142.8	s	106.8		17.2	q
23	GAMD08-27-E9-S14	59	D	44	E	50	E	57.5	65.3		50.9	q	34.3	12.7	10.0	144.3	s	105.8		17.1	q
24	GAMD08-27-E9-S15	66	C	49	E	51	D	57.3	66.6	+	51.5	q	34.9	12.6	9.8	145.9	s	104.3	+	17.3	
25	LA'04039C-14-8	62	C	32	F	58	D	57.3	65.9	+	54.0	q	25.2	13.6	10.3	144.7	s	114.7	q	16.9	q
26	LA'04039C-10-6	66	C	42	E	55	D	57.0	66.7	+	52.8	q	25.6	13.5	9.9	144.8	s	109.0		17.2	q
27	LA05102C-1-2	61	C	58	D	60	D	57.5	65.7	+	54.4		28.8	12.8	9.7	128.9	w	102.9	+	17.6	
28	LA05102C-8-8	69	C	53	D	49	E	58.2	67.3	+	50.7	q	27.4	13.0	10.2	124.0	w	101.3	+	17.4	
29	LA05079D-55	58	D	53	D	72	B	55.2	65.1		59.0	+	22.6	11.5	9.0	136.3		111.6	q	17.7	
30	LA05079F-P01	59	D	64	C	73	B	54.3	65.4		59.4	+	23.7	11.5	8.9	115.9	w	107.3		18.0	+
31	LA05079F-P03	69	C	67	C	69	C	53.8	67.4	+	57.9		26.8	11.7	9.0	124.1	w	103.7	+	18.0	+
32	LA05145D-12	62	C	54	D	64	C	57.9	65.9	+	56.2		36.2	13.1	10.2	138.2	s	105.3		17.5	
33	LA05145D-24	61	C	74	B	71	B	55.2	65.6	+	58.6	+	25.7	12.2	9.0	122.6	w	100.4	+	18.2	+
34	MD03W61-11-2	61	C	54	D	64	C	57.6	65.7	+	56.2		33.0	12.6	9.9	152.5	s	105.4		17.5	
35	MD03W61-11-3	60	C	57	D	59	D	57.2	65.6	+	54.3	q	30.7	13.0	10.3	147.2	s	101.7	+	17.5	
36	UX0066-4-79	64	C	56	D	47	E	31.1	66.3	+	49.8	q	27.9	13.0	10.5	130.0	w	97.8	+	17.4	
37	MD08-22-1-6-4	68	C	72	B	59	D	59.5	67.1	+	54.4	q	29.1	12.1	9.4	128.2	w	96.1	+	18.0	+
38	MD08-26-H2-23	58	D	60	D	54	D	58.1	65.1		52.5	q	33.1	12.6	9.5	141.4	s	100.2	+	17.6	
39	MH07-7483	64	C	72	B	71	B	56.1	66.4	+	58.3		30.2	12.1	9.1	120.6	w	100.9	+	18.1	+
40	M09-9826#	64	C	49	E	48	E	56.3	66.4	+	50.3	q	22.9	13.5	10.2	159.6	s	101.4	+	17.2	q
41	NC08-23323	60	C	34	F	57	D	56.4	65.5		53.5	q	30.9	12.8	10.3	149.7	s	112.8	q	17.0	q
42	NC08-23324	68	C	42	E	58	D	56.9	67.0	+	54.0	q	28.4	12.6	9.9	141.1	s	110.6	q	17.2	
43	NC09-22422 (Fhb1)	44	E	38	F	61	C	58.2	62.3	q	54.8		30.8	13.7	11.1	168.5	s	109.8		16.9	q
44	NC09-20986 (Fhb1)	41	E	24	F	60	C	57.5	61.7	q	54.7		30.1	14.0	11.2	166.6	s	117.1	q	16.6	q
45	NC8355-4 (Fhb1)	66	C	63	C	68	C	56.7	66.8	+	57.3		25.7	13.0	9.8	153.8	s	102.2	+	17.7	
46	NC8452-2	61	C	61	C	62	C	33.0	65.7	+	55.2		29.3	11.8	9.4	137.8	s	102.6	+	17.7	
47	VA09W-52	64	C	50	D	64	C	57.7	66.2	+	56.1		24.6	13.3	9.5	136.9		109.0		17.5	
48	VA09W-73	67	C	81	A	68	C	57.2	67.0	+	57.3		31.7	11.5	8.8	124.5	w	95.9	+	18.3	+
49	VA09W-75	68	C	74	B	71	B	58.5	67.1	+	58.5		23.4	11.0	8.2	132.5	w	101.6	+	18.2	+
50	VA10W-42	75	B	61	C	55	D	58.6	68.6	+	52.9	q	23.9	12.7	9.6	127.5	w	100.3	+	17.7	
51	VA10W-140	77	B	67	C	55	D	60.2	68.9	+	52.8	q	23.4	12.1	9.3	143.5	s	96.9	+	17.7	
	Mean	64		47		54		55.7	66.3		52.5		28.6	12.7	10.1	139.8		105.8		17.3	

Footnotes:

'q' - questionable quality. Marked on lines greater than a standard deviation from the mean of the checks in a unpreferred level.

'+' - Above average quality marked on lines with greater than a standard deviation away from mean of the checks in a preferred level.

's' - strong gluten. Greater than one standard deviation more than the mean of checks.

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

Means Across Locations 2011-12

	Cultivar/ Designation	FHB Incidence	RANK	FHB Severity	RANK	FHB Index	RANK	FDK	RANK	ISK	RANK	DON	RANK
1	ERNIE	27	6	8	6	4	5	7	12	15	3	5	17
2	COKER 9835	75	51	44	49	35	49	36	49	49	49	20	48
3	BESS	18	1	7	2	2	1	4	2	12	1	3	3
4	JAMESTOWN	38	19	11	14	7	17	6	9	22	14	3	3
5	NC09-21916	29	9	14	24	5	8	5	5	21	10	3	3
6	VA08W-613	41	28	9	7	4	5	6	9	21	10	4	10
7	M08-8036#	39	20	12	17	7	17	5	5	22	14	6	23
8	IL02-18228	19	2	7	2	2	1	2	1	12	1	2	1
9	ARS07-1214	69	50	45	50	45	50	38	50	55	50	29	51
10	ARS09-173	41	28	22	40	12	35	11	29	28	35	10	40
11	ARS09-367	62	49	49	51	45	50	45	51	59	51	27	50
12	ARS09-446	52	46	28	44	22	45	21	45	43	46	12	43
13	ARS09-513	52	46	29	48	18	41	24	47	43	46	9	36
14	ARS09-595	49	42	28	44	18	41	18	43	37	41	6	23
15	ARS09-643	39	20	24	42	14	39	15	40	35	39	12	43
16	ARS09-724	39	20	17	28	11	33	7	12	27	27	11	42
17	GA 051173W-S11	33	13	18	29	9	25	12	33	27	27	26	49
18	GA 051207-S19	41	28	18	29	12	35	13	35	29	36	7	29
19	GA 051207-S21	39	20	18	29	10	28	7	12	27	27	9	36
20	GA 051173-S25	49	42	28	44	22	45	23	46	40	45	9	36
21	GA 051173-S18	32	11	11	14	5	8	10	25	23	18	4	10
22	GAMD08-27-E9-S13	41	28	13	22	8	21	10	25	26	26	4	10
23	GAMD08-27-E9-S14	41	28	9	7	6	13	8	18	22	14	5	17
24	GAMD08-27-E9-S15	39	20	12	17	8	21	9	21	24	22	4	10
25	LA'04039C-14-8	36	16	10	10	8	21	5	5	23	18	5	17
26	LA'04039C-10-6	35	14	10	10	6	13	7	12	21	10	6	23
27	LA05102C-1-2	27	6	11	14	7	17	4	2	21	10	3	3
28	LA05102C-8-8	28	8	7	2	4	5	4	2	19	6	4	10
29	LA05079D-55	48	41	24	42	25	48	16	42	45	48	9	36
30	LA05079F-P01	46	39	20	35	18	41	15	40	38	43	5	17
31	LA05079F-P03	42	36	16	27	10	28	14	38	27	27	8	34
32	LA05145D-12	49	42	21	38	16	40	14	38	36	40	6	23
33	LA05145D-24	56	48	28	44	23	47	25	48	38	43	13	46
34	MD03W61-11-2	39	20	20	35	13	37	12	33	32	38	7	29
35	MD03W61-11-3	43	37	14	24	10	28	8	18	27	27	8	34
36	UX0066-4-79	37	17	12	17	6	13	9	21	19	6	4	10
37	MD08-22-1-6-4	22	3	6	1	2	1	7	12	17	5	2	1
38	MD08-26-H2-23	31	10	10	10	5	8	6	9	20	9	3	3
39	MH07-7483	51	45	21	38	19	44	20	44	37	41	12	43
40	M09-9826#	35	14	12	17	6	13	13	35	25	23	6	23
41	NC08-23323	39	20	20	35	10	28	8	18	25	23	10	40
42	NC08-23324	46	39	18	29	9	25	11	29	27	27	17	47
43	NC09-22422 (Fhb1)	32	11	10	10	5	8	9	21	23	18	4	10
44	NC09-20986 (Fhb1)	26	4	7	2	3	4	7	12	16	4	3	3
45	NC8355-4 (Fhb1)	26	4	9	7	5	8	10	25	19	6	3	3
46	NC8452-2	41	28	12	17	7	17	11	29	23	18	6	23
47	VA09W-52	44	38	18	29	10	28	13	35	29	36	5	17
48	VA09W-73	40	27	23	41	13	37	11	29	27	27	7	29
49	VA09W-75	37	17	14	24	8	21	5	5	22	14	7	29
50	VA10W-42	41	28	13	22	9	25	9	21	25	23	7	29
51	VA10W-140	41	28	19	34	11	33	10	25	27	27	5	17
	Mean	41		17		12		12		28		8	
	LSD (0.05)	26		19		16		15		15		15	
	CV%	32.2		56.5		71.4		59.9		27.6		96.1	

Means Across Locations 2011 - 2012

	Cultivar/ Designation	Heading Date	RANK	Plant Height	RANK	Hessian Fly Biotype L	MILLING QUALITY SCORE		BAKING QUALITY SCORE		SOFT. EQUIV. SCORE		Stagon. nodorum % F'VILLE AR	Stripe Rust % N'PORT AR
1	ERNIE	108	9	31	13	0-15	54	D	47	E	62	C	7	68
2	COKER 9835	110	19	30	15	0-13	51	D	49	E	79	B	15	78
3	BESS	113	38	35	43	0-14	63	C	69	C	56	D	30	17
4	JAMESTOWN	106	3	31	8	0-16	54	D	51	D	64	C	15	0
5	NC09-21916	113	38	35	40	0-3	71	B	57	D	77	B	2	12
6	VA08W-613	108	9	32	18	0-18	68	C	47	E	63	C	2	37
7	M08-8036#	111	26	33	28	0-20	62	C	47	E	54	D	2	37
8	IL02-18228	116	43	37	49	0-16	50	D	58	D	52	D	15	7
9	ARS07-1214	116	43	33	30	0-16	71	B	6	F	21	F	15	43
10	ARS09-173	106	3	30	5	21-0	80	A	17	F	14	F	15	1
11	ARS09-367	113	38	31	14	0-17	65	C	9	F	23	F	30	48
12	ARS09-446	108	9	34	32	0-14	87	A	16	F	15	F	30	25
13	ARS09-513	110	19	33	21	0-14	92	A	24	F	25	F	15	68
14	ARS09-595	107	6	34	22	0-17	70	B	5	F	25	F	7	57
15	ARS09-643	106	3	24	1	0-15	75	B	-20	F	8	F	15	0
16	ARS09-724	110	19	37	47	0-14	74	B	33	F	32	F	7	1
17	GA 051173W-S11	112	33	40	51	15-3	59	D	45	E	47	E	15	2
18	GA 051207-S19	111	26	34	38	14-0	64	C	50	E	66	C	15	15
19	GA 051207-S21	110	19	35	44	17-0	66	C	60	D	64	C	15	12
20	GA 051173-S25	112	33	34	37	13-2	38	F	41	E	51	D	15	0
21	GA 051173-S18	105	1	30	9	22-0	57	D	44	E	56	D	7	1
22	GAMD08-27-E9-S13	121	49	35	46	0-13	58	D	44	E	51	D	2	20
23	GAMD08-27-E9-S14	121	49	34	35	0-18	59	D	44	E	50	E	2	1
24	GAMD08-27-E9-S15	121	49	34	25	0-16	66	C	49	E	51	D	7	15
25	LA'04039C-14-8	107	6	31	6	0-16	62	C	32	F	58	D	2	57
26	LA'04039C-10-6	110	19	36	45	0-17	66	C	42	E	55	D	2	25
27	LA05102C-1-2	105	1	36	33	0-15	61	C	58	D	60	D	7	1
28	LA05102C-8-8	108	9	37	42	0-16	69	C	53	D	49	E	30	1
29	LA05079D-55	109	17	32	17	0-18	58	D	53	D	72	B	15	0
30	LA05079F-P01	108	9	33	23	0-16	59	D	64	C	73	B	15	0
31	LA05079F-P03	110	19	29	2	0-16	69	C	67	C	69	C	15	0
32	LA05145D-12	107	6	30	7	0-17	62	C	54	D	64	C	15	2
33	LA05145D-24	116	43	39	50	0-17	61	C	74	B	71	B	7	70
34	MD03W61-11-2	111	26	30	10	0-15	61	C	54	D	64	C	7	0
35	MD03W61-11-3	112	33	32	26	0-17	60	C	57	D	59	D	2	0
36	UX0066-4-79	111	26	31	19	0-18	64	C	56	D	47	E	15	57
37	MD08-22-1-6-4	118	48	34	39	0-19	68	C	72	B	59	D	2	80
38	MD08-26-H2-23	111	26	35	41	0-17	58	D	60	D	54	D	15	12
39	MH07-7483	116	43	36	48	0-16	64	C	72	B	71	B	30	0
40	M09-9826#	108	9	30	4	0-20	64	C	49	E	48	E	7	78
41	NC08-23323	111	26	32	20	0-13	60	C	34	F	57	D	7	89
42	NC08-23324	112	33	33	31	0-20	68	C	42	E	58	D	7	94
43	NC09-22422 (Fhb1)	111	26	31	11	20-0	44	E	38	F	61	C	7	20
44	NC09-20986 (Fhb1)	110	19	31	16	16-0	41	E	24	F	60	C	7	10
45	NC8355-4 (Fhb1)	108	9	30	3	0-20	66	C	63	C	68	C	7	6
46	NC8452-2	116	43	33	27	0-16	61	C	61	C	62	C	7	11
47	VA09W-52	109	17	31	12	0-23	64	C	50	D	64	C	30	7
48	VA09W-73	113	38	33	29	0-14	67	C	81	A	68	C	7	0
49	VA09W-75	108	9	34	34	0-17	68	C	74	B	71	B	2	3
50	VA10W-42	112	33	34	36	0-18	75	B	61	C	55	D	2	0
51	VA10W-140	113	38	33	24	0-18	77	B	67	C	55	D	15	71
	Mean	112		33		.	64		47		54		11	25
	LSD (0.05)	6		6		.	.	.	.	.	.		.	.
	CV%	2.5		10.0		.	.	.	.	.	.		.	.

Means Across 2011 and 2012

	Cultivar/ Designation	FHB Incidence	RANK	FHB Severity	RANK	FHB Index	RANK	FDK	RANK	ISK	RANK	DON	RANK	Heading Date	Plant Height	Milling Quality	Baking Quality	Soft Equiv.
														days	in	*Score*	*Score*	*Score*
1	ERNIE	37	*3*	16	*4*	9	*4*	12	*4*	25	*3*	7	*6*	116	31	57	59	64
2	COKER 9835	75	*7*	50	*7*	39	*7*	37	*7*	53	*7*	21	*7*	119	30	57	51	81
3	BESS	30	*2*	13	*2*	7	*2*	6	*2*	21	*2*	5	*2*	119	35	64	58	56
4	JAMESTOWN	43	*5*	19	*6*	11	*6*	11	*5*	29	*6*	5	*2*	115	30	57	49	65
5	IL02-18228	26	*1*	12	*1*	4	*1*	4	*1*	17	*1*	3	*1*	120	36	65	58	45
6	M08-8036#	40	*4*	15	*3*	8	*3*	10	*3*	25	*3*	5	*2*	118	33	68	58	56
7	VA08W-613	45	*6*	19	*5*	10	*5*	11	*5*	27	*5*	6	*5*	117	32	54	52	63
	Mean	42		21		12		13		28		7		117	33	60	55	61
	LSD (0.05)	15		8		6		6		8		3		ns	1	ns	ns	10
	CV%	14.6		14.9		21.2		19.4		11.9		16.8		2.2	103.0	20.5	19.8	6.6