

# **SOUTHERN UNIFORM WINTER WHEAT SCAB NURSERY**

## **2009 NURSERY REPORT**

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## LOCATION NOTES

### Bay, Arkansas

- Cooperator: June Hancock, David Hill.  
Agripro-Syngenta Seeds Inc.
- Reps: 2 RCB. Plot size: 2 row x 3'. Seed date: 11/12/07. Harvest date: 5/28/08
- Field inoculation method: corn spawn split applied.
- Precipitation during grain fill: Misted daily.

### Fayetteville and Kibler, Arkansas

- Cooperator: Gene Milus
- University of Arkansas
- Reps: 3 RCB. Plot size: 2 row x 4'.
- Field inoculation method: Colonized corn kernels.
- Precipitation during grain fill: Misted daily.  
Greenhouse inoculation method: Type 1 spray.

### Urbana, Illinois

- Cooperators: Fred Kolb and Eric Brucker.
- University of Illinois
- Reps: 3 RCB. Plot size: 1 row x 3'. Seed date: 9/27/08. Harvest date: 6/26/09
- Field inoculation method: 256 lbs / ac corn spawn split applied on 4/9, and 5/04.
- Precipitation during grain fill: Misted four times per day for 60 minutes each during flowering.

### Lexington, Kentucky

- Cooperators: Nicki Mundell and Dave Van Sanford
- University of Kentucky
- Reps: 2 RCB. Plot size: one 4' row. Seed date: 10/21/08. Harvest date: 6/30/09
- Fertilizer: P, K, according to soil tests, 110 lb N split application
- Field inoculation method: scabby corn
- Precipitation during grain fill: 8.2 in plus mist irrigation.
- Avg temperature during grain fill: 71°F.

### Blacksburg, Virginia

- Cooperators: Carl A. Griffey, Shuyu Liu, Patty Gundrum.
- Virginia Tech
- Reps: 2. Plot size: Two rows Seed date: 09/25/08. Harvest date: 06/26/09
- Field inoculation method: conidial suspension ( $5 \times 10^4$ ). 05/09/2009 and 05/25/2009.
- Greenhouse inoculation method: point inoculation.

### Kinston, North Carolina

- Cooperators: Rene Navarro, Paul Murphy, Christina Cowger
- North Carolina State University
- Reps: 2 RCB. Plot size: 4 rows x 3.5' long. Seed date: 10/25/2008. Harvest date: 6/4/2009.
- Fertilizer: 130 lbs N split application. P and K as per soil test.
- Field Inoculation method: Conidial suspension ( $3 \times 10^4$  spores/ml) sprayed on plots at anthesis. Scabby corn distributed three weeks prior to anthesis.

- Precipitation during grain fill: Misted three times per day for 3 weeks beginning at anthesis.
- Greenhouse: point inoculation with 10  $\mu$ L at 50,000 spores per ml.
- Avg temp. during grain fill: Day 70.4F, night 60.6 F.

#### **Columbia, Missouri**

- Cooperators: Anne L. McKendry and David Tague.
- University of Missouri
- Fertilizer: 40 Fall/80 Spring N.
- Reps: 3 RCB. Plot size: 4 rows x 3', 7" spacing. Seed date: 10/21/08. Harvest date: 7/01/09
- Field inoculation method: The nursery was planted into corn stubble. Each entry was inoculated at 75% anthesis using overhead spray at a rate of 50,000 spores/mL. 10 heads/plot/rep were evaluated. Severity ratings were taken 21 days post-inoculation of each entry. FDK were assessed on a visual scale following threshing using a Vogel thresher with the air closed completely. Grain was hand-cleaned prior to assessing FDK.
- Precipitation during grain fill: Overhead mist irrigation.
- Greenhouse: point inoculation with 10  $\mu$ L at 50,000 spores per ml. Misted 72 hours, rated 21 days after inoculation.

#### **Salisbury, Maryland.**

- Cooperators: Jose Costa, and Aaron Cooper.
- University of Maryland.
- Reps: 2 RCB. Plot size: 1 rows x 4' long. Seed date: 10/13/08. Harvest date: 6/22/09.
- Fertilizer: 110 lbs N.
- Field inoculation method: Scabby corn grain infected with Fusarium scattered three weeks before anthesis.

#### **Brookston, Indiana**

- Cooperator: Barton Fogleman,  
Agripro-Syngenta Seeds Inc.

#### **Crowley, Louisiana.**

- Cooperators: Harrison, Padgett, Growth, Arceneaux, Purvis and Strickland.
- Louisiana State University.  
Test was lost this season

#### **Griffin, Georgia**

- Cooperator: Jerry Johnson.
- University of Georgia.  
Test was lost this season.

#### **Szeged, Hungary.**

- Cooperator: Akos Mesterhazy.
- Cereal Research Institute.
- Fertilizer: NPK
- Field inoculation method: Four separate isolates sprayed on each plot and inoculated heads enclosed in plastic bags.

**Fundulea, Romania.**

- Cooperator: Marianna Ittu.
- National Agricultural Research Development Institute.
- Seed date: 10/22/08. Harvest date: 7/03/09.
- Fertilizer: 110 kg N
- Two replications. Plot size: 150cm x 30cm.
- Field inoculation method: Syringe (point) inoculation at anthesis with two *F. graminearum* and *F. culmorum* isolates. Twenty - 25 heads inoculated per replication per isolate.
- Field scoring: Percent of damaged spikelets at 10 and 20 days post inoculation.
- Precipitation during grain fill: 64 mm (variable for the same period over 43 yrs=67 mm)

**Raleigh, North Carolina**

Cooperator: Gina Brown-Guedira

USDA-ARS Eastern Regional Small Grains Genotyping Lab

- SSR Analyses

**West Lafayette, Indiana**

Cooperator: Sue Cambron

USDA-ARS Crop Production and Pest Control Research Unit:

- Hessian Fly resistance evaluations.

**Wooster, Ohio**

Cooperator: Ed Souza

USDA-ARS Soft Wheat Quality Laboratory

- Milling and Baking Quality evaluations.



**Fusarium Head Blight in a susceptible variety, Crowley Louisiana, Spring 2009.**

**Fusarium Head Blight infected wheat head, Crowley Louisiana, Spring 2009**



**Fusarium Head Blight in a commercial wheat field, Pasquotank County, North Carolina, Spring 2009**

View original, color versions of photographs at:  
[http://www.scabusa.org/research\\_vdhr.html#vdhr-updates](http://www.scabusa.org/research_vdhr.html#vdhr-updates)

# Entry List and Pedigrees, 2009 Nursery

ENTRY NO	CULTIVAR/ DESIGNATION	PEDIGREE	CONTRIBUTOR	IN NURSERY SINCE
1	ERNIE	Pike /3/ Stoddard / Blueboy // Stoddard D1707	CHECK(RES)	1999-00
2	COKER 9835	CK68-19 // CK61-19*3 / IN4946A4-18-2-10-2 /4/ Bb /3/ CK65-20*5 / W17-TRANS // TIFT /5/ P 2550	CHECK(SUS)	2000-01
3	BESS	MO11769/Madison	CHECK(RES)	2006-07
4	JAMESTOWN	Roane / Pioneer 2691	Check (RES)	2007-08
5	AR 97002-2-1	AR 396-4-2 / Ning 8026	Bacon	2005-06
6	AR99039-5-2	AR 664-21-1 / NC97BGTD7	Bacon	2007-08
7	AR 99263-7-1	P2118B4-2 / Jaypee	Bacon	2007-08
8	VA05W-510	Roane / Pion 2684//OH 552 (P71761A4-31-5- 33/MD55-286-21: FHB-RES),F8	Griffey	2007-08
9	B030543	VA93-54-429/LA85422	Hancock	2007-08
10	LA01164D-94-2	LA422/FUTA18944//PIONEER 26R61	Harrison	2007-08
11	LA01162D-131-8	LA422/CIM1FHB#5//PIONEER 26R61	Harrison	2007-08
12	LA01162D-136-8	LA422/CIM1FHB#5//PIONEER 26R61	Harrison	2007-08
13	GA 031454-DH7	VA01W-461 / USG 3592	Johnson	2007-08
14	GA 031307-DH14	AGS 2000 / VA01W-461	Johnson	2007-08
15	NC05-21090	BURR / NC96BGT A6 SIB // NATCHEZ	Murphy	2007-08
16	AR 99254-7-1	P86300RB1-4-3-2-104 / NC97BG TAB9	Bacon	2008-09
17	AR 99054-4-1	AR679-9-1-2 / Roane	Bacon	2008-09
18	AR 99071-7-2	AR 682-11-1-1 / FFR522W	Bacon	2008-09
19	MD02W81-08-6	Ning7840/Freedom//VA97W533	Costa	2008-09
20	MD01W255-08-1	Roane/MD71-19	Costa	2008-09
21	M05-1531	LA87167-D8-/P92118B4-2	Fogleman	2008-09
22	B0390207	BL931167/Pioneer 2643	Fogleman	2008-09
23	03M1539#031	GIBSON/92226E2-5-3	Fogleman	2008-09
24	03M1599#0007	M99*3038/Pioneer 25R49	Fogleman	2008-09
25	MH06-2370	COOPER/SS550	Fogleman	2008-09
26	ML07*7571	VA98W-586/HONEY	Fogleman	2008-09
27	ML07-7758	COKER 9025/Pioneer 25R57	Fogleman	2008-09
28	VA04W-90	SS 520(96-54-158=FFR555W/ GORE) /PION2552//ROANE (VA93-54-429),F11	Griffey	2008-09
29	VA05W-534	GOLDFIELD (P89118RC1-X-9-3-3-1 =INW9241/P79410D1-3// CLARK) /TRIBUTE//GIBSON (M94-1069),F8 VA06W-575 Roane / Pion 2684//OH 552 (P71761A4-31-5- 33/MD55-286-21: FHB RES),F9	Griffey	2008-09
30	VA06W-575	Roane / Pion 2684//OH 552 (P71761A4-31-5-33/MD55-286-21: FHB-RES),F9	Griffey	2008-10
31	VA06W-587	ROANE//OH 552(P71761A4-31-5-33/MD55-286-21: FHB-RES)/AGS 2000 (UGA89482E7=P2555/ PF94301//FL302),F8	Griffey	2008-09
32	VA07W-568	Roane / Ernie//McCORMICK,F9	Griffey	2008-09
33	VA07W-607	IL89-6489(PIONEER 9021L// ROLAND/IL77-2656: FHB-RES)/ Sisson"S" (VA97W-375=CK9803/FREEDOM)// ERNIE,F8	Griffey	2008-09
34	VA05W-640	RENWOOD 3260*2//W14/RENWOOD 3260/3/RENWOOD 3260,BC3F7	Griffey	2008-09
35	LA01141D-98-6-2	LA841/PI225160//LA841	Harrison	2008-09
36	LA03187C-2	LA97447D-9-2/LA95181BUB6-1	Harrison	2008-09
37	LA01164D-43-7-B	LA422/FUTA18944//PIONEER 26R61	Harrison	2008-09
38	ARGE97-1048-6	Mason//Sha 3/Catbird	Harrison	2008-09
39	GA 991209-6E33	901146 / 96004 // AGS2000	Johnson	2008-09
40	GA 031454-DH38-7	VA01W-461 / USG 3592	Johnson	2008-09
41	GA 031454-DH38-8 (11?)	VA01W-461 / USG 3592	Johnson	2008-09
42	GA 991109-1-G1	ERNIE / PION 2684 // 901146-4E-15	Johnson	2008-09
43	GA 991109-1-G2	ERNIE / PION 2684 // 901146-4E-15	Johnson	2008-09
44	ARS03-5358	Pat/TX98D2106	Marshall	2008-09
45	ARS03-3806	X94-748-2-2/TAM 301	Marshall	2008-09
46	ARS03-4736	KS00U755/TX98D1170	Marshall	2008-09
47	ARS04-1249	Lakin/KS2023-U18	Marshall	2008-09
48	ARS05-0443	Neuse/TX98D2334	Marshall	2008-09
49	ARS05-0242	Coker 9835/RL6042//TX99D4657	Marshall	2008-09
50	ARS05-1044	KS2132-U138/Trego	Marshall	2008-09
51	ARS05-1234	KS2016-U2/Lakin	Marshall	2008-09
52	NC05-23015	BURR / NC96BGT A6 SIB // NATCHEZ	Murphy	2008-09
53	NC05-20671	P92188(SN) / NC95-22365 // ROANE	Murphy	2008-09
54	NC05-21937	SHAAN 85-15 (FHB) / SS 520 // NC-NEUSE	Murphy	2008-09
55	NC06-20288	JACKSON / NC95-25305 // NC96-13965	Murphy	2008-09
56	NC07-23170	NC-Neuse // PI 531193 (JG1) / ROANE	Murphy	2008-09
57	NC07-22927	P2580 / 20 // NC-Neuse	Murphy	2008-09

## FHB Incidence (1-100)

CULTIVAR/ DESIGNATION	COL'BIA	S'BURY	B'BURG	URBANA	KINSTON	LEX'TON	BAY	B'KTON	MEAN
	MO	MD	VA	IL	NC	KY	AR	IN	ALL LOC.
	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK
1 ERNIE	100	23 32	8 1	67 6	35 14	90 29	85	24 30	45 16
2 COKER 9835	100	48 51	68 56	100 57	69 55	100 43	100	36 47	65 57
3 BESS	100	6 8	20 28	70 7	60 49	75 5	85	5 2	40 4
4 JAMESTOWN	100	30 40	20 28	77 13	49 37	75 5	100	4 1	44 9
5 AR 97002-2-1	90	16 25	13 11	72 9	25 4	85 16	100	16 13	41 5
6 AR99039-5-2	100	6 8	28 40	97 50	52 43	100 43	90	22 27	49 36
7 AR 99263-7-1	97	5 3	8 1	87 27	49 37	95 36	100	27 37	46 23
8 VA05W-510	100	23 32	20 28	92 38	31 11	90 29	100	32 43	48 30
9 B030543	100	3 1	18 21	92 38	28 8	100 43	100	29 40	46 23
10 LA01164D-94-2	100	14 21	20 28	87 27	28 8	100 43	100	35 46	48 30
11 LA01162D-131-8	100	20 29	23 34	77 13	39 18	80 13	100	10 4	44 9
12 LA01162D-136-8	100	28 38	33 47	95 47	52 43	75 5	100	21 24	50 38
13 GA 031454-DH7	100	40 48	15 13	90 32	52 43	65 1	100	64 57	53 44
14 GA 031307-DH14	100	43 50	28 40	93 44	49 40	100 43	100	56 55	59 52
15 NC05-21090	100	13 16	28 40	92 38	44 29	90 29	100	31 42	50 38
16 AR 99254-7-1	100	13 16	20 28	80 17	54 47	85 16	90	22 27	46 23
17 AR 99054-4-1	98	5 3	10 6	83 20	45 30	75 5	100	10 4	41 5
18 AR 99071-7-2	100	15 22	15 13	85 23	64 52	85 16	101	28 38	49 36
19 MD02W81-08-6	100	8 12	23 34	75 11	47 32	85 16	100	14 10	44 9
20 MD01W255-08-1	100	18 26	15 13	90 32	48 34	90 29	95	7 3	45 16
21 M05-1531	100	20 29	15 13	77 13	43 25	95 36	100	13 9	45 16
22 B0390207	100	40 48	8 1	85 23	61 50	100 43	100	34 44	54 45
23 03M1539#031	100	30 40	15 13	77 13	43 25	85 16	100	12 7	45 16
24 03M1599#0007	100	35 45	33 47	93 44	63 51	85 16	100	24 30	54 45
25 MH06-2370	100	13 16	8 1	85 23	39 18	95 36	100	11 6	44 9
26 ML07*7571	100	23 32	18 21	80 17	36 16	95 36	100	16 13	46 23
27 ML07-7758	100	4 2	20 28	70 7	47 32	85 16	95	19 22	43 8
28 VA04W-90	98	10 14	45 51	92 38	25 4	95 36	100	16 13	48 30
29 VA05W-534	98	13 16	10 6	63 3	23 2	65 1	100	19 22	37 1
30 VA06W-575	100	35 45	18 21	87 27	43 25	85 16	100	16 13	48 30
31 VA06W-587	100	30 40	18 21	82 19	24 3	75 5	100	22 27	44 9
32 VA07W-568	97	6 8	15 13	85 23	41 24	85 16	100	21 24	44 9
33 VA07W-607	100	6 8	30 44	83 20	20 1	80 13	100	37 49	45 16
34 VA05W-640	100	33 43	15 13	90 32	28 8	75 5	100	28 38	46 23
35 LA01141D-98-6-2	98	33 43	53 53	90 32	72 57	100 43	101	62 56	64 56
36 LA03187C-2	98	23 32	8 1	97 50	25 4	90 29	100	38 51	48 30
37 LA01164D-43-7-B	100	15 22	13 11	62 2	24 3	75 5	100	17 18	38 2
38 ARGE97-1048-6	100	50 52	78 57	98 53	43 25	85 16	100	24 30	60 54
39 GA 991209-6E33	100	75 57	43 50	92 38	53 46	85 16	100	36 47	61 55
40 GA 031454-DH38-7	100	23 32	10 6	90 32	32 12	75 5	100	29 40	45 16
41 GA 031454-DH38-8 (11?)-	100	18 26	10 6	93 44	35 14	85 16	100	24 30	46 23
42 GA 991109-1-G1	100	60 56	48 52	87 27	40 20	80 13	95	21 24	54 45
43 GA 991109-1-G2	100	53 53	25 38	83 20	51 42	100 43	100	48 53	58 50
44 ARS03-5358	100	25 37	23 34	73 10	50 41	85 16	95	53 54	51 40
45 ARS03-3806	98	5 3	18 21	75 11	40 20	70 4	85	18 20	39 3
46 ARS03-4736	100	55 54	30 44	95 47	64 52	95 36	100	26 35	58 50
47 ARS04-1249	100	15 22	15 13	87 27	33 13	100 43	100	16 13	46 23
48 ARS05-0443	100	18 26	18 21	65 4	66 54	100 43	80	12 7	45 16
49 ARS05-0242	98	55 54	18 21	98 53	48 34	100 43	100	24 30	55 48
50 ARS05-1044	100	5 3	25 38	65 4	46 31	65 1	100	46 52	44 9
51 ARS05-1234	100	10 14	30 44	97 50	40 20	100 43	90	17 18	48 30
52 NC05-23015	100	35 45	23 34	92 38	48 34	100 43	100	14 10	51 40
53 NC05-20671	100	8 12	38 49	90 32	49 37	95 36	100	34 44	52 43
54 NC05-21937	100	28 38	65 55	98 53	56 48	100 43	100	26 35	59 52
55 NC06-20288	100	20 31	58 54	98 53	37 17	90 29	100	37 49	55 48
56 NC07-23170	100	13 16	28 40	95 47	69 55	90 29	95	15 12	51 40
57 NC07-22927	100	5 3	10 6	50 1	40 20	100 43	100	18 20	41 5

Mean	100	23	24	83	44	88	98	25	48
LSD (0.05)	.	23.1	23.8	14.7	27	2.7	.	16.5	21
CV%	.	50.2	49.4	10.9	30.3	13.9	7.7	36.7	22



## FHB Severity ( 1-100)

CULTIVAR/ DESIGNATION	BAY		F'VILLE		COL'BIA		S'BURY		B'BURG		URBANA		KINSTON		LEX'TON		B'KTON		SZEGED <sup>1</sup>		FUN'LEA <sup>1</sup>		MEAN	
	AR	RANK	AR	RANK	MO	RANK	MD	RANK	VA	RANK	IL	RANK	NC	RANK	KY	RANK	IN	HUN	RANK	ROM	RANK	ALL	LOC.	RANK
1 ERNIE	25	8	12	4	25	2	8	22	13	6	45	23	9	3	50	34	22	28	3	2	55	26	23	4
2 COKER 9835	27	12	47	53	76	57	38	53	63	56	89	57	65	55	98	57	16	17	46	57	45	19	55	56
3 BESS	13	1	6	2	21	1	3	6	25	38	43	16	15	15	29	4	6	2	20	29	23	8	19	1
4 JAMESTOWN	29	22	17	14	47	27	17	40	33	45	37	8	25	25	42	15	5	1	23	38	22	6	27	13
5 AR 97002-2-1	28	17	13	8	35	10	8	22	18	14	29	4	3	1	42	15	25	35	3	2	61	31	24	5
6 AR99039-5-2	21	2	27	36	49	33	3	6	20	23	60	44	35	43	84	52	15	11	25	44	47	20	35	32
7 AR 99263-7-1	30	24	13	8	25	2	2	1	8	1	29	5	25	25	62	46	18	20	7	5	40	17	24	5
8 VA05W-510	25	8	23	30	48	30	13	36	18	14	43	16	26	29	43	17	22	28	13	12	19	4	26	10
9 B030543	37	40	20	22	38	13	2	1	20	23	37	8	12	9	49	31	19	23	15	15	49	22	27	13
10 LA01164D-94-2	34	34	22	25	47	27	6	18	28	41	44	22	9	3	52	37	27	37	21	35	17	3	28	18
11 LA01162D-131-8	29	22	23	30	51	37	10	29	18	14	43	16	23	21	47	25	12	6	5	4	39	16	27	13
12 LA01162D-136-8	51	52	32	40	69	56	15	37	28	41	43	16	31	34	54	39	15	11	25	44	30	11	36	35
13 GA 031454-DH7	72	57	33	42	55	45	25	46	20	23	60	44	11	6	45	23	41	53	21	35	80	39	42	48
14 GA 031307-DH14	31	28	47	53	52	40	33	50	23	32	62	46	38	46	43	17	31	41	29	52	100	55	44	50
15 NC05-21090	39	41	23	30	50	35	7	20	38	48	45	23	34	42	53	38	22	28	16	17	58	29	35	32
16 AR 99254-7-1	34	34	20	22	50	35	4	12	18	14	35	6	33	37	48	28	15	11	11	8	22	6	26	10
17 AR 99054-4-1	40	43	57	57	34	9	2	1	20	23	58	38	30	32	21	1	11	4	20	29	82	41	34	28
18 AR 99071-7-2	48	50	38	48	58	51	9	26	8	1	63	47	23	21	35	10	18	20	12	9	31	12	31	25
19 MD02W81-08-6	27	12	33	42	52	40	3	6	23	32	46	26	37	45	50	34	19	23	15	15	24	9	30	22
20 MD01W255-08-1	35	36	22	25	38	13	9	26	20	23	51	31	32	35	51	36	15	11	20	29	72	35	33	26
21 M05-1531	40	43	18	18	38	13	5	15	15	9	41	12	24	24	38	12	11	4	20	29	52	24	27	13
22 B0390207	36	39	42	50	45	25	25	46	8	1	59	41	40	50	55	42	31	41	23	38	96	50	42	48
23 03M1539#031	47	49	22	29	51	37	15	37	18	14	43	16	16	16	39	13	14	9	25	44	88	47	34	28
24 03M1599#0007	48	50	47	53	68	54	23	44	43	51	58	38	55	52	55	42	38	51	24	42	66	32	48	52
25 MH06-2370	27	12	23	30	40	18	8	22	18	14	40	11	25	25	48	28	17	18	20	29	59	30	30	22
26 ML07*7571	30	24	17	14	36	11	10	29	15	9	28	3	14	13	49	31	12	6	17	20	55	26	25	7
27 ML07-7758	28	17	17	14	27	4	2	1	15	9	59	41	12	9	33	8	24	33	2	1	29	10	22	2
28 VA04W-90	42	46	22	25	40	18	12	35	38	48	54	35	18	18	63	48	17	18	17	20	48	21	34	28
29 VA05W-534	28	17	18	18	38	13	5	15	13	6	35	6	11	6	33	8	6	3	17	20	96	50	27	13
30 VA06W-575	31	28	28	38	53	43	25	46	25	38	46	26	23	21	67	49	14	9	18	27	67	33	36	35
31 VA06W-587	24	6	15	13	43	23	18	41	20	23	51	31	16	16	36	11	18	20	17	20	74	38	30	22
32 VA07W-568	35	36	13	8	31	5	3	6	23	32	39	10	11	6	31	5	19	23	8	6	99	53	28	18
33 VA07W-607	22	3	17	14	40	18	3	6	28	41	42	14	8	2	47	25	42	54	20	29	35	15	28	18
34 VA05W-640	27	12	27	36	49	33	25	46	20	23	67	52	26	29	44	22	15	11	26	48	82	41	37	39
35 LA01141D-98-6-2	28	17	25	34	60	52	24	45	45	53	54	35	78	57	92	54	48	56	30	53	72	35	51	54
36 LA03187C-2	71	56	37	46	57	48	18	41	20	23	69	54	33	37	54	39	37	49	16	17	87	46	45	51
37 LA01164D-43-7-B	27	12	20	22	45	25	10	29	10	4	63	47	25	25	31	5	12	6	24	42	96	50	33	26
38 ARGE97-1048-6	31	28	40	49	51	37	40	54	65	57	64	49	63	54	39	13	29	39	26	48	100	55	50	53
39 GA 991209-6E33	33	32	32	40	55	45	63	57	55	54	71	55	45	51	43	17	45	55	35	56	100	55	52	55
40 GA 031454-DH38-7	40	43	12	4	36	11	10	29	10	4	45	23	19	19	43	17	37	49	12	9	56	28	29	21
41 GA 031454-DH38-8 (11?)	24	6	12	4	43	23	8	22	18	14	44	21	12	9	47	25	38	51	12	9	32	13	26	10
42 GA 991109-1-G1	30	24	13	8	47	27	43	56	35	48	42	14	32	35	54	39	22	28	34	55	84	45	40	43
43 GA 991109-1-G2	26	10	19	21	55	45	40	54	23	32	53	34	33	37	49	31	34	46	8	6	99	53	40	43
44 ARS03-5358	22	3	43	51	69	55	10	29	28	41	66	50	39	49	48	28	29	40	21	35	81	40	41	45
45 ARS03-3806	22	3	12	4	31	5	2	1	15	9	51	31	12	9	23	2	35	47	16	17	16	2	22	2
46 ARS03-4736	26	10	25	34	48	30	33	50	23	32	48	29	33	37	58	45	32	43	17	20	50	23	36	35
47 ARS04-1249	54	53	10	3	38	13	7	20	13	6	57	37	29	31	69	50	35	47	19	28	43	18	34	28
48 ARS05-0443	28	17	43	51	57	48	9	26	18	14	47	28	58	53	31	5	25	35	25	44	82	41	38	41
49 ARS05-0242	57	55	52	56	63	53	35	52	23	32	78	56	68	56	90	53	28	38	31	54	91	48	56	57
50 ARS05-1044	30	24	18	18	32	8	4	12	18	14	23	2	14	13	23	2	32	43	17	20	69	34	25	7
51 ARS05-1234	39	41	3	11	52	40	6	18	33	45	66	50	30	32	95	56	49	57	26	48	52	24	41	45
52 NC05-23015	33	32	22	25	42	21	19	43	25	38	41	12	33	37	62	46	24	33	17	20	94	49	37	39
53 NC05-20671	35	36	37	46	53	43	4	12	30	45	49	30	38	46	56	44	15	11	23	38	82	41	38	41
54 NC05-21937	43	47	33	42	57	48	10	29	60	55	58	38	38	46	93	55	21	27	23	38	14	1	41	45
55 NC06-20288	44	48	33	42	42	21	15	37	43	51	59	41	35	43	43	17	32	43	13	12	33	14	36	35
56 NC07-23170	31	28	28	38	48	30	5	15	20	23	68	53	19	19	45	23	19	23	26	48	73	37	35	32
57 NC07-22927	56	54	13	8	31	5	3	6	15	9	18	1	10	5	70	51	22	28	14	14	19	4	25	7

Mean	35	8.0	46	14	24	49	28	51	24	19	59	34
LSD (0.05)		17	.	18	19	16	25	3	23	.	.	25
CV%	40.1	.	.	63.1	39.8	19.7	43.8	29.4	32.5	.	.	37.1

<sup>1</sup>DATA BY INDIVIDUAL ISOLATES ON FOLLOWING PAGES

## Severity by Individual Isolates, Szeged, Hungary

Cultivar/ Designation	<i>F. culmor.</i>		<i>F. gramin.</i>		Mean All Isolates	RANK
	Isol. 12375	Isol. 12551	Isol. 12377	Isol. 13.5		
1 ERNIE	0.3	0.0	0.0	11.9	3.0	2
2 COKER 9835	58.8	35.6	1.5	87.5	45.8	57
3 BESS	36.0	1.7	0.0	40.8	19.6	29
4 JAMESTOWN	28.7	2.5	1.0	58.3	22.6	38
5 AR 97002-2-1	3.4	0.0	0.0	9.2	3.1	3
6 AR99039-5-2	27.0	7.0	0.6	66.3	25.2	47
7 AR 99263-7-1	3.8	0.0	0.0	25.8	7.4	5
8 VA05W-510	23.3	0.0	0.0	42.7	12.8	12
9 B030543	22.2	0.5	0.0	35.8	14.6	15
10 LA01164D-94-2	34.2	0.0	0.0	50.0	21.0	36
11 LA01162D-131-8	2.5	0.0	0.0	18.8	5.3	4
12 LA01162D-136-8	27.4	2.6	0.0	68.8	24.7	44
13 GA 031454-DH7	32.5	1.0	0.0	50.0	20.9	35
14 GA 031307-DH14	27.3	15.0	7.5	65.0	28.7	52
15 NC05-21090	11.5	4.7	0.0	46.7	15.7	17
16 AR 99254-7-1	9.5	2.0	0.7	30.0	10.5	8
17 AR 99054-4-1	32.5	1.0	0.0	48.1	20.4	34
18 AR 99071-7-2	12.0	0.7	0.0	36.9	12.4	11
19 MD02W81-08-6	14.3	6.7	0.0	38.7	14.9	16
20 MD01W255-08-1	27.3	0.0	0.0	53.3	20.2	32
21 M05-1531	30.5	0.0	0.0	50.0	20.1	36
22 B0390207	23.5	0.0	0.0	70.0	23.4	41
23 03M1539#031	39.5	0.0	0.0	60.8	25.1	46
24 03M1599#0007	36.8	2.5	0.0	57.5	24.2	43
25 MH06-2370	27.1	4.0	0.0	49.3	20.1	30
26 ML07*7571	24.2	0.0	0.0	43.0	16.8	21
27 ML07-7758	3.3	0.0	0.0	4.2	1.9	1
28 VA04W-90	20.0	3.0	0.3	44.2	16.9	22
29 VA05W-534	26.8	0.3	0.0	40.8	17.0	23
30 VA06W-575	22.2	0.8	1.0	49.2	18.3	27
31 VA06W-587	16.8	0.0	3.3	48.3	17.1	25
32 VA07W-568	7.7	0.8	0.0	24.3	8.2	7
33 VA07W-607	24.1	3.5	3.8	50.0	20.3	33
34 VA05W-640	27.2	0.0	3.3	75.0	26.4	50
35 LA01141D-98-6-2	38.8	2.1	0.0	80.0	30.2	53
36 LA03187C-2	13.5	0.7	0.0	50.0	16.0	18
37 LA01164D-43-7-B	38.3	0.0	0.0	56.7	23.8	42
38 ARGE97-1048-6	36.7	0.0	5.5	63.3	26.4	50
39 GA 991209-6E33	56.7	0.0	0.0	81.7	34.6	56
40 GA 031454-DH38-7	12.3	0.0	0.0	36.7	12.3	10
41 GA 031454-DH38-8 (11?)-	12.0	0.0	0.0	35.0	11.8	9
42 GA 991109-1-G1	53.3	0.7	0.0	83.3	34.3	55
43 GA 991109-1-G2	6.3	0.0	0.0	25.0	7.8	6
44 ARS03-5358	37.5	1.9	0.0	46.3	21.4	37
45 ARS03-3806	30.0	0.0	0.0	35.0	16.3	19
46 ARS03-4736	25.0	0.0	0.0	41.7	16.7	20
47 ARS04-1249	23.3	0.3	1.3	49.4	18.5	28
48 ARS05-0443	33.3	0.0	0.0	66.3	24.9	45
49 ARS05-0242	43.9	5.4	0.0	73.8	30.8	54
50 ARS05-1044	17.5	2.5	0.0	49.2	17.3	26
51 ARS05-1234	43.8	0.0	0.0	59.2	25.8	48
52 NC05-23015	28.7	1.7	0.0	37.5	17.0	23
53 NC05-20671	25.0	5.3	5.0	55.8	22.8	40
54 NC05-21937	28.4	0.9	0.0	61.3	22.6	38
55 NC06-20288	14.7	0.0	0.0	39.2	13.5	13
56 NC07-23170	40.8	0.0	0.0	63.3	26.0	49
57 NC07-22927	23.0	0.0	0.0	32.0	13.8	14
Mean	25.4	2.1	0.6	48.6	19.1	
LSD (0.05)					2.4	



## FHB Index (1-100)

CULTIVAR/ DESIGNATION	COL'BIA		S'BURY		B'BURG		URBANA		KINSTON		BAY		LEX'TON		B'KTON		MEAN	
	MO	MD	VA	IL	NC	AR	KY	IN	ALL LOC.	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK
	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK
1 ERNIE	25	2 15	1 1	30 9	3 5	23 6	45 33	5 26	17 6									
2 COKER 9835	76 43	11 50	44 56	89 57	45 56	27 12	98 57	6 33	50 57									
3 BESS	21	1 2	5 31	31 11	9 23	11 1	22 4	0 1	12 1									
4 JAMESTOWN	47 13	5 37	8 41	28 8	12 29	29 22	31 12	0 1	20 14									
5 AR 97002-2-1	33	2 15	3 14	21 3	1 1	28 19	36 18	4 21	16 5									
6 AR99039-5-2	49 19	1 2	5 31	59 49	18 43	20 2	84 52	3 13	30 45									
7 AR 99263-7-1	24	1 2	1 1	25 6	12 29	30 26	59 47	5 26	19 10									
8 VA05W-510	48 16	4 32	4 22	39 24	8 21	25 9	38 21	7 37	22 22									
9 B030543	38 1	0 1	4 22	34 15	3 5	37 41	49 40	6 33	21 18									
10 LA01164D-94-2	47 13	2 15	6 35	38 21	2 2	34 35	52 42	9 43	24 28									
11 LA01162D-131-8	51 23	4 32	4 22	33 13	9 23	29 22	38 21	1 3	21 18									
12 LA01162D-136-8	69 41	5 37	10 44	41 28	16 40	51 52	40 25	3 13	29 42									
13 GA 031454-DH7	55 31	9 49	3 14	54 43	6 14	72 57	29 10	26 56	32 48									
14 GA 031307-DH14	52 26	11 50	9 43	58 47	18 43	31 29	43 31	17 55	30 45									
15 NC05-21090	50 21	2 15	10 44	42 30	15 37	39 42	48 38	7 37	27 35									
16 AR 99254-7-1	50 21	1 2	4 22	26 7	18 43	32 32	41 29	3 13	22 22									
17 AR 99054-4-1	33	1 2	2 9	49 38	13 33	40 43	15 2	1 3	19 10									
18 AR 99071-7-2	58 37	3 24	1 1	54 43	14 36	48 50	29 10	5 26	27 35									
19 MD02W81-08-6	52 26	1 2	7 39	35 17	17 42	27 12	42 30	3 13	23 25									
20 MD01W255-08-1	38 1	3 24	4 22	46 35	15 37	34 35	46 34	1 3	23 25									
21 M05-1531	38	2 15	3 14	31 11	10 25	40 43	36 18	1 3	20 14									
22 B0390207	45 11	8 45	1 1	51 42	24 50	36 39	55 44	11 46	29 42									
23 03M1539#031	51 23	5 37	3 14	35 17	7 19	47 49	33 15	2 8	23 25									
24 03M1599#0007	68 40	8 45	13 49	54 43	34 54	48 50	47 37	9 43	35 50									
25 MH06-2370	40 4	3 24	1 1	34 15	10 25	27 12	46 34	2 8	20 14									
26 ML07*7571	36	3 24	3 14	23 5	5 12	30 26	46 34	2 8	18 9									
27 ML07-7758	27	1 2	4 22	42 30	6 14	27 12	28 9	5 26	17 6									
28 VA04W-90	40 4	4 32	19 50	50 40	4 7	42 46	60 48	3 13	28 38									
29 VA05W-534	37	2 15	1 1	22 4	2 2	28 19	22 4	1 3	14 2									
30 VA06W-575	53 29	8 45	5 31	40 26	10 25	31 29	57 46	2 8	26 31									
31 VA06W-587	43 9	6 41	4 22	42 30	4 7	24 7	27 8	4 21	19 10									
32 VA07W-568	30	1 2	3 14	33 13	4 7	35 37	26 7	4 21	17 6									
33 VA07W-607	40 4	1 2	10 44	35 17	2 2	22 5	38 21	16 52	20 14									
34 VA05W-640	49 19	8 45	3 14	61 50	7 19	27 12	33 15	4 21	24 28									
35 LA01141D-98-6-2	60 38	7 44	24 52	49 38	56 57	28 19	92 54	30 57	43 55									
36 LA03187C-2	56 34	6 41	2 9	66 55	8 21	71 56	48 38	14 49	34 49									
37 LA01164D-43-7-B	45 11	4 32	1 1	39 24	6 14	27 12	23 6	2 8	19 10									
38 ARGE97-1048-6	51 23	14 54	52 57	63 51	27 52	31 29	33 15	7 37	35 50									
39 GA 991209-6E33	55 31	21 57	28 53	65 53	24 50	33 33	36 18	16 52	35 50									
40 GA 031454-DH38-7	36	3 24	1 1	40 26	6 14	40 43	32 14	11 46	21 18									
41 GA 031454-DH38-8 (11?)	43 9	3 24	2 9	41 28	4 7	24 7	40 25	9 43	21 18									
42 GA 991109-1-G1	47 13	14 54	19 50	36 20	12 29	29 22	43 31	5 26	26 31									
43 GA 991109-1-G2	55 31	14 54	6 35	43 33	16 40	26 10	49 40	16 52	28 38									
44 ARS03-5358	69 41	4 32	7 39	48 37	20 47	20 2	40 25	15 50	28 38									
45 ARS03-3806	31	1 2	3 14	38 21	5 12	21 4	16 3	6 33	15 3									
46 ARS03-4736	48 16	12 53	8 41	46 35	21 48	26 10	55 44	8 41	28 38									
47 ARS04-1249	38 1	2 15	2 9	50 40	10 25	54 53	69 50	6 33	29 42									
48 ARS05-0443	57 25	3 24	4 22	30 9	38 55	27 12	31 12	3 13	24 28									
49 ARS05-0242	62 39	11 50	4 22	77 56	32 53	57 55	90 53	7 37	43 55									
50 ARS05-1044	32	1 2	5 31	15 2	6 14	30 26	15 1	15 50	15 3									
51 ARS05-1234	52 26	2 15	10 44	64 52	12 29	36 39	95 56	8 41	35 50									
52 NC05-23015	42 7	6 41	6 35	38 21	15 37	33 33	62 49	3 13	26 31									
53 NC05-20671	53 29	1 2	11 48	44 34	18 43	35 37	53 43	5 26	27 35									
54 NC05-21937	57 35	3 24	41 55	57 46	21 48	43 47	93 55	5 26	40 54									
55 NC06-20288	42 7	5 37	31 54	58 47	13 33	44 48	39 24	12 48	30 45									
56 NC07-23170	48 16	2 15	6 35	65 53	13 33	29 22	40 25	3 13	26 31									
57 NC07-22927	31	1 2	2 9	9 1	4 7	56 54	70 51	4 21	22 22									

Mean	46	5	8	42	14	34	46	6.8	25
LSD (0.05)	.	5.8	17.4	15.4	15.0	.	1.4	5.9	20
CV%	.	61.1	104.2	22.1	54.8	41.8	31.2	55.8	40.8

## Percent Fusarium Damaged Kernels

Cultivar/ Designation	% COL'BIA MO		% URBANA IL		% BAY AR		% F'VILLE AR		% KINSTON NC		% S'BURY MD		% LEX'TON KY		% B'KTON IN		% SZEGED <sup>1</sup> HUN		% FUN'LEA ROM		% MEAN ALL LOCS	
	RANK		RANK		RANK		RANK		RANK		RANK		RANK		RANK		RANK		RANK		RANK	
1 ERNIE	20	2	35	17	40	48	3	9	8	2	6	33	16	17	20	25	7	10	29	3	17	2
2 COKER 9835	90	57	90	57	8	4	20	51	88	56	11	49	48	57	22	29	25	52	48	14	45	54
3 BESS	20	2	23	2	10	8	2	1	20	15	2	1	11	5	10	6	7	10	33	7	14	1
4 JAMESTOWN	60	33	27	6	33	43	2	1	28	23	5	24	16	17	6	2	15	29	31	5	22	12
5 AR 97002-2-1	60	33	27	6	21	24	3	9	11	5	3	9	21	34	18	24	4	3	38	9	21	8
6 AR99039-5-2	75	44	42	28	35	44	27	55	50	49	5	24	28	50	16	17	25	52	78	30	38	47
7 AR 99263-7-1	50	24	23	2	6	1	5	20	30	25	3	9	21	34	16	17	12	26	55	19	22	12
8 VA05W-510	40	13	32	13	20	21	4	17	7	1	7	36	22	39	20	25	7	10	62	21	22	12
9 B030543	20	2	28	10	27	36	4	17	12	6	2	1	18	22	14	10	7	10	84	33	22	12
10 LA01164D-94-2	40	13	30	11	6	1	8	39	12	6	2	1	27	46	20	25	21	44	31	5	20	5
11 LA01162D-131-8	60	33	23	2	27	36	4	17	23	18	6	33	22	39	4	1	3	2	86	38	26	22
12 LA01162D-136-8	75	44	40	23	17	17	7	31	38	35	11	49	27	46	16	17	16	33	44	11	29	29
13 GA 031454-DH7	80	53	53	39	11	13	5	20	40	40	5	24	18	22	34	44	21	44	100	49	37	45
14 GA 031307-DH14	50	24	67	49	10	8	8	39	55	52	8	39	15	14	32	40	18	37	100	49	36	42
15 NC05-21090	20	2	53	40	10	8	7	31	38	35	5	24	25	44	26	37	11	25	100	49	29	29
16 AR 99254-7-1	25	8	32	13	8	4	13	49	28	23	4	16	21	34	24	34	6	6	29	3	19	3
17 AR 99054-4-1	25	8	40	23	8	4	7	31	33	28	4	16	7	1	6	2	6	6	100	49	24	17
18 AR 99071-7-2	75	44	70	50	8	4	12	46	19	14	12	51	16	17	36	50	13	27	77	29	34	39
19 MD02W81-08-6	60	33	50	34	55	52	6	26	48	47	4	16	38	54	16	17	7	10	75	27	36	42
20 MD01W255-08-1	40	13	50	34	20	21	8	39	38	35	2	1	18	22	14	10	15	29	100	49	30	31
21 M05-1531	40	13	37	19	10	8	3	9	40	40	4	16	16	17	14	10	20	42	84	33	27	23
22 B0390207	50	24	48	33	24	32	10	44	25	20	19	54	27	46	14	10	22	48	99	48	34	39
23 03M1539#031	40	13	27	6	28	39	2	1	25	20	3	9	11	5	8	4	9	20	95	44	25	19
24 03M1599#0007	75	44	70	50	54	51	9	43	78	54	7	36	23	41	22	29	18	37	95	44	45	54
25 MH06-2370	40	13	43	29	.	.	3	9	33	28	3	9	20	31	8	4	22	48	85	35	28	26
26 ML07*7571	25	8	33	16	12	14	7	31	15	10	5	24	14	12	26	37	15	29	60	20	21	8
27 ML07-7758	60	33	33	16	19	19	3	9	20	15	4	16	11	5	10	6	2	1	44	11	21	8
28 VA04W-90	40	13	40	23	65	53	5	20	10	3	2	1	13	11	14	10	6	6	54	18	25	19
29 VA05W-534	25	8	27	6	21	24	3	9	18	12	2	1	8	2	12	9	5	4	78	30	20	5
30 VA06W-575	60	33	40	23	25	34	5	20	13	9	9	44	24	43	10	6	10	24	76	28	27	23
31 VA06W-587	25	8	35	17	20	21	3	9	12	6	2	1	12	9	24	34	6	6	53	16	19	3
32 VA07W-568	20	2	37	19	.	.	2	1	15	10	2	1	8	2	22	29	5	4	95	43	22	12
33 VA07W-607	20	2	38	22	22	27	2	1	10	3	5	24	11	5	30	39	8	17	53	16	20	5
34 VA05W-640	50	24	60	45	50	50	7	31	23	18	8	39	34	53	34	44	23	50	100	49	39	48
35 LA01141D-98-6-2	80	53	53	40	7	3	2	1	85	55	10	47	47	56	62	57	24	51	85	35	45	54
36 LA03187C-2	75	44	70	50	.	.	15	50	43	44	8	39	29	51	34	44	16	33	97	47	42	51
37 LA01164D-43-7-B	40	13	32	13	37	47	5	20	35	32	10	47	20	31	20	25	27	54	100	49	32	34
38 ARGE97-1048-6	50	24	73	55	36	46	12	46	45	45	22	56	9	4	34	44	31	55	100	49	41	49
39 GA 991209-6E33	75	44	70	50	21	24	10	44	45	45	31	57	18	22	32	40	38	57	89	41	43	52
40 GA 031454-DH38-7	40	13	47	32	19	19	2	1	20	15	4	16	14	12	16	17	9	20	68	23	24	17
41 GA 031454-DH38-8 (1)	60	33	50	34	40	48	2	1	33	28	3	9	21	34	16	17	8	17	50	15	28	26
42 GA 991109-1-G1	10	1	53	40	30	41	3	9	40	40	19	54	15	14	14	10	32	56	67	22	28	26
43 GA 991109-1-G2	50	24	57	43	28	39	6	26	30	25	7	36	12	9	34	44	7	10	87	39	32	34
44 ARS03-5358	75	44	63	48	22	27	27	55	50	49	8	39	33	52	38	53	9	20	88	40	41	49
45 ARS03-3806	50	24	30	11	15	16	6	26	38	35	3	9	16	17	24	34	8	17	22	2	21	8
46 ARS03-4736	50	24	60	45	32	42	6	26	30	25	14	52	15	14	50	56	18	37	94	42	37	45
47 ARS04-1249	80	53	50	34	22	27	25	54	48	47	5	24	19	29	36	50	18	37	39	10	34	39
48 ARS05-0443	60	33	43	29	75	54	40	57	74	53	5	24	27	46	22	29	20	42	95	44	46	57
49 ARS05-0242	60	33	83	56	23	30	22	52	90	57	9	44	41	55	22	29	16	33	68	23	43	52
50 ARS05-1044	40	13	37	19	27	36	7	31	18	12	6	33	18	22	38	53	13	27	100	49	30	31
51 ARS05-1234	60	33	58	44	35	44	23	52	35	32	8	39	18	22	32	40	15	29	73	26	36	42
52 NC05-23015	50	24	40	23	24	32	6	26	25	20	9	44	18	22	32	40	9	20	85	35	30	31
53 NC05-20671	60	33	43	29	26	35	7	31	33	28	4	16	23	41	36	50	18	37	81	32	33	37
54 NC05-21937	75	44	70	50	17	17	5	20	53	51	14	52	21	34	34	44	21	44	15	1	32	34
55 NC06-20288	75	44	60	45	10	8	7	31	40	40	5	24	26	45	44	55	21	44	45	13	33	37
56 NC07-23170	40	13	52	38	12	14	12	46	35	32	3	9	19	29	14	10	17	36	69	25	27	23
57 NC07-22927	80	53	18	1	23	30	8	39	38	35	4	16	20	31	16	17	7	10	34	8	25	19

Mean	51	45	24	8	34	7	20	23	14	71	30
LSD (0.05)	.	16	.	6	20	8	.	10	.	.	26
CV%	.	22.1	.	.	29.4	58.7	.	24.0	.	.	44.9

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

CULTIVAR/ DESIGNATION	KINSTON NC		COL'BIA MO		URBANA IL		LEX'TON KY		S'BURY MD		B'KTON IN		MEAN ALL LOC.	
	RANK		RANK		RANK		RANK		RANK		RANK		RANK	
1 ERNIE	16	4	46	2	48	12	48	22	11	28	22	27	39	17
2 COKER 9835	75	56	89	57	93	57	78	57	30	51	24	29	65	56
3 BESS	31	22	44	1	43	5	36	5	3	2	7	2	29	2
4 JAMESTOWN	33	25	68	36	45	7	41	11	16	40	5	1	30	3
5 AR 97002-2-1	13	2	61	25	41	3	46	18	8	20	20	21	36	8
6 AR99039-5-2	46	47	75	47	64	39	66	52	5	9	18	17	49	40
7 AR 99263-7-1	34	27	56	13	44	6	55	43	3	2	20	21	40	20
8 VA05W-510 20		9	60	21	53	21	49	26	13	35	24	29	42	26
9 B030543	17	6	49	5	50	13	52	37	2	1	20	21	41	22
10 LA01164D-94-2 15		3	60	21	51	17	56	46	7	17	27	38	45	33
11 LA01162D-131-8	27	17	69	37	45	7	47	21	11	28	8	3	33	4
12 LA01162D-136-8 40		42	81	55	57	28	50	31	17	41	17	14	41	22
13 GA 031454-DH7	35	30	79	52	66	42	40	8	22	48	45	56	50	43
14 GA 031307-DH14	48	50	65	30	73	49	49	26	26	49	39	53	54	51
15 NC05-21090	38	37	53	10	62	35	53	40	8	20	26	35	47	36
16 AR 99254-7-1	37	34	55	12	47	10	48	22	6	14	21	25	39	17
17 AR 99054-4-1	35	30	49	5	58	29	32	1	4	6	9	4	33	4
18 AR 99071-7-2	33	25	77	50	73	49	42	14	12	31	28	41	48	38
19 MD02W81-08-6	44	46	69	37	56	25	56	46	5	9	16	11	43	29
20 MD01W255-08-1	39	40	57	15	62	35	49	26	8	20	12	6	41	22
21 M05-1531	36	33	57	15	50	13	46	18	9	25	13	9	36	8
22 B0390207	40	42	64	29	63	37	57	49	27	50	25	33	48	38
23 03M1539#031	28	19	61	25	47	10	42	14	15	37	11	5	33	4
24 03M1599#0007	66	53	80	53	73	49	51	34	20	43	27	38	51	46
25 MH06-2370	32	24	58	19	55	24	51	34	7	17	12	6	39	17
26 ML07*7571	21	10	51	8	46	9	49	26	12	31	19	19	38	14
27 ML07-7758	26	16	62	27	52	19	40	8	3	2	17	14	36	8
28 VA04W-90 17		7	57	15	60	32	52	37	7	17	16	11	43	29
29 VA05W-534	17	6	51	8	40	2	33	2	6	14	12	6	28	1
30 VA06W-575	25	13	70	39	56	25	55	43	21	46	13	9	41	22
31 VA06W-587	16	4	53	10	54	23	38	6	15	37	22	27	38	14
32 VA07W-568	21	10	46	2	52	19	38	6	4	6	21	25	37	12
33 VA07W-607	12	1	50	7	53	21	43	16	5	9	36	47	44	31
34 VA05W-640	25	13	65	30	71	46	49	26	20	43	27	38	49	40
35 LA01141D-98-6-2	79	57	80	53	65	41	76	56	21	46	58	57	66	57
36 LA03187C-2	34	27	76	48	78	54	55	43	15	37	36	47	56	52
37 LA01164D-43-7-B	29	20	60	21	50	13	40	8	12	31	17	14	36	8
38 ARGE97-1048-6	50	52	65	30	78	54	41	11	36	55	30	44	49	40
39 GA 991209-6E33	47	48	76	48	77	53	45	17	53	57	37	49	53	48
40 GA 031454-DH38-7	23	12	57	15	59	30	41	11	11	28	26	35	42	26
41 GA 031454-DH38-8 (11	27	17	67	34	61	34	48	22	9	25	25	33	45	33
42 GA 991109-1-G1	37	34	48	4	60	32	46	18	38	56	19	19	42	26
43 GA 991109-1-G2	37	34	67	34	64	39	50	31	31	52	38	51	50	43
44 ARS03-5358	47	48	81	55	67	43	53	40	14	36	40	55	53	48
45 ARS03-3806	31	22	59	20	50	13	34	4	3	2	26	35	37	12
46 ARS03-4736	41	45	65	30	67	43	52	37	32	54	37	49	52	47
47 ARS04-1249	38	37	73	46	63	37	58	50	8	20	30	44	50	43
48 ARS05-0443	66	53	71	42	51	17	50	31	10	27	20	21	40	20
49 ARS05-0242	71	55	72	44	86	56	73	55	31	52	24	29	61	55
50 ARS05-1044	25	13	56	13	41	3	33	2	5	9	39	53	38	14
51 ARS05-1234	35	30	70	39	72	48	66	52	8	20	33	46	57	54
52 NC05-23015	34	27	62	27	56	25	56	46	20	43	24	29	45	33
53 NC05-20671	39	40	70	39	59	30	54	42	5	9	29	43	47	36
54 NC05-21937	49	51	77	50	75	52	66	52	17	41	28	41	56	52
55 NC06-20288	38	37	72	44	71	46	51	34	12	31	38	51	53	48
56 NC07-23170	40	42	60	21	70	45	48	22	6	14	16	11	44	31
57 NC07-22927	30	21	71	42	28	1	59	51	4	6	18	17	35	7
Mean	35		64		58		50		17		24		44	
LSD (0.05)	.		.		11		.		7		13		17	
CV%	.		.		11.4		.		21.4		34.2		19.3	

# SEED CHARACTERISTICS and GRAIN YIELD

Cultivar/ Designation	100 GR. WT. S'BURY MD	Grain Yield bu/ac COL'BIA MO		Grain Yield Loss SZEGED HUN	
			RANK		RANK
1 ERNIE	4	49.6	15	4.6	10
2 COKER 9835	3	18.3	55	25.8	56
3 BESS	3	69.0	3	4.4	9
4 JAMESTOWN	3	35.2	41	6.7	20
5 AR 97002-2-1	3	31.1	47	6.1	17
6 AR99039-5-2	3	38.6	34	19.3	50
7 AR 99263-7-1	3	73.1	2	14.2	41
8 VA05W-510 3		36.6	36	0.5	3
9 B030543	3	60.8	6	3.8	7
10 LA01164D-94-2 4		40.0	33	25.5	55
11 LA01162D-131-8	3	27.9	51	9.0	26
12 LA01162D-136-8 3		14.4	57	6.4	19
13 GA 031454-DH7	4	31.8	46	16.6	45
14 GA 031307-DH14	4	28.1	50	8.5	25
15 NC05-21090	4	58.5	8	7.1	21
16 AR 99254-7-1	3	44.8	25	5.9	14
17 AR 99054-4-1	3	53.2	13	10.7	28
18 AR 99071-7-2	3	53.5	12	12.3	36
19 MD02W81-08-6	3	41.8	28	0.0	1
20 MD01W255-08-1	4	56.7	9	12.4	37
21 M05-1531	4	44.1	27	10.8	29
22 B0390207	4	48.4	17	12.9	39
23 03M1539#031	4	47.5	20	6.2	18
24 03M1599#0007	3	33.4	44	14.2	41
25 MH06-2370	3	64.4	5	7.6	23
26 ML07*7571	3	45.0	23	1.4	6
27 ML07-7758	3	84.8	1	12.9	39
28 VA04W-90 4		37.0	35	4.4	8
29 VA05W-534	4	45.0	23	0.0	1
30 VA06W-575	3	22.8	53	12.0	33
31 VA06W-587	4	48.0	18	7.8	24
32 VA07W-568	4	35.6	39	9.0	26
33 VA07W-607	4	65.8	4	12.1	34
34 VA05W-640	3	54.4	11	0.8	4
35 LA01141D-98-6-2	3	17.6	56	23.3	54
36 LA03187C-2	4	29.2	48	12.1	34
37 LA01164D-43-7-B	3	34.5	42	17.5	46
38 ARGE97-1048-6	3	35.6	39	17.6	47
39 GA 991209-6E33	3	34.3	43	26.5	57
40 GA 031454-DH38-7	4	36.6	36	1.3	5
41 GA 031454-DH38-8 (11	4	49.6	15	5.9	14
42 GA 991109-1-G1	3	56.2	10	14.8	43
43 GA 991109-1-G2	3	36.6	36	6.0	16
44 ARS03-5358	3	27.9	51	20.0	51
45 ARS03-3806	3	60.5	7	5.4	13
46 ARS03-4736	3	40.2	32	21.4	52
47 ARS04-1249	4	45.5	22	11.6	32
48 ARS05-0443	4	44.3	26	4.8	11
49 ARS05-0242	4	19.6	54	22.3	53
50 ARS05-1044	4	50.9	14	11.2	31
51 ARS05-1234	3	40.9	30	18.6	49
52 NC05-23015	3	41.8	28	7.4	22
53 NC05-20671	3	40.4	31	12.6	38
54 NC05-21937	4	33.4	44	17.6	47
55 NC06-20288	3	47.7	19	5.1	12
56 NC07-23170	4	45.7	21	14.9	44
57 NC07-22927	3	29.2	48	11.1	30

Mean	3	42.8	10.9
LSD (0.05)	0.3	.	.
CV%	5.0	.	.

## DON (ppm)

Cultivar/ Designation	DON B'BURG VA		DON KINSTON NC		DON F'VILLE AR		DON BAY AR		DON S'BURY MD		DON LEX'TON KY		MEAN ALL LOC.	
	RANK		RANK		RANK		RANK		RANK		RANK		RANK	
1 ERNIE	4	42	4	4	4	16	23	51	1	2	49	48	14	35
2 COKER 9835	3	32	27	49	7	36	17	36	6	47	42	46	17	46
3 BESS	2	19	17	38	2	4	10	8	0	1	28	13	10	13
4 JAMESTOWN	2	19	9	17	3	6	6	3	2	17	29	16	8	4
5 AR 97002-2-1	1	1	2	1	1	1	5	1	1	2	21	2	5	1
6 AR99039-5-2	4	42	18	42	17	53	26	53	1	2	38	37	17	46
7 AR 99263-7-1	3	32	13	29	6	30	17	36	1	2	32	25	12	24
8 VA05W-510 1		1	4	4	5	21	11	10	3	31	34	29	10	13
9 B030543	2	19	3	3	3	6	5	1	1	2	23	3	6	2
10 LA01164D-94-2 3		32	4	4	3	6	11	10	2	17	36	33	10	13
11 LA01162D-131-8	1	1	5	8	5	21	11	10	2	17	38	37	10	13
12 LA01162D-136-8 1		1	11	25	4	16	11	10	4	39	41	42	12	24
13 GA 031454-DH7	4	42	18	42	6	30	14	26	2	17	25	6	12	24
14 GA 031307-DH14	1	1	30	51	8	44	13	21	6	47	41	42	17	46
15 NC05-21090	4	42	12	26	7	36	9	7	2	17	52	52	14	35
16 AR 99254-7-1	4	42	17	38	11	47	19	41	2	17	59	57	18	49
17 AR 99054-4-1	5	50	19	45	14	49	19	41	4	39	31	23	15	40
18 AR 99071-7-2	5	50	15	33	9	45	20	43	5	43	41	42	16	42
19 MD02W81-08-6	1	1	14	31	7	36	13	21	2	17	34	29	12	24
20 MD01W255-08-1	3	32	17	38	6	30	12	20	1	2	33	26	12	24
21 M05-1531	1	1	15	33	5	21	13	21	3	31	23	3	10	13
22 B0390207	1	1	10	23	7	36	12	19	7	51	40	40	13	33
23 03M1539#031	1	1	10	23	6	30	25	52	2	17	29	16	12	24
24 03M1599#0007	1	1	33	52	5	21	18	39	3	31	35	32	16	42
25 MH06-2370	1	1	12	26	4	16	11	10	1	2	29	16	10	13
26 ML07*7571	3	32	7	14	5	21	15	30	3	31	37	36	12	24
27 ML07-7758	1	1	9	17	3	6	18	39	1	2	14	1	8	4
28 VA04W-90 1		1	5	8	5	21	11	10	1	2	28	13	8	4
29 VA05W-534	1	1	6	12	3	6	17	36	1	2	25	6	9	9
30 VA06W-575	2	19	7	14	3	6	16	33	5	43	34	29	11	22
31 VA06W-587	2	19	5	8	3	6	7	4	1	2	27	9	8	4
32 VA07W-568	2	19	5	8	3	6	10	8	1	2	23	3	7	3
33 VA07W-607	2	19	7	14	3	6	7	4	2	17	27	9	8	4
34 VA05W-640	4	42	4	4	3	6	27	54	2	17	33	26	12	24
35 LA01141D-98-6-2	1	1	18	42	4	16	11	10	4	39	53	55	15	40
36 LA03187C-2	4	42	12	26	7	36	13	21	3	31	42	46	13	33
37 LA01164D-43-7-B	2	19	9	17	2	4	22	50	5	43	27	9	11	22
38 ARGE97-1048-6	2	19	19	45	11	47	21	47	17	57	50	49	20	51
39 GA 991209-6E33	1	1	21	47	7	36	21	47	13	55	36	33	16	42
40 GA 031454-DH38-7	3	32	6	12	1	1	13	21	2	17	28	13	9	9
41 GA 031454-DH38-8 (11'	2	19	9	17	1	1	16	33	1	2	29	16	10	13
42 GA 991109-1-G1	1	1	13	29	4	16	14	26	13	55	40	40	14	35
43 GA 991109-1-G2	3	32	15	33	5	21	16	33	4	39	29	16	12	24
44 ARS03-5358	7	51	51	56	21	54	20	43	11	54	57	56	28	57
45 ARS03-3806	1	1	9	17	6	30	14	26	1	2	25	6	9	9
46 ARS03-4736	1	1	33	52	14	49	15	30	6	47	36	33	18	49
47 ARS04-1249	2	19	27	49	26	55	32	57	3	31	52	52	24	55
48 ARS05-0443	1	1	36	55	26	55	28	55	5	43	33	26	21	53
49 ARS05-0242	2	19	35	54	16	52	20	43	6	47	51	50	22	54
50 ARS05-1044	2	19	24	48	15	51	21	47	8	52	52	52	20	51
51 ARS05-1234	3	32	51	56	27	57	30	56	3	31	31	23	24	55
52 NC05-23015	4	42	14	31	6	30	14	26	3	31	41	42	14	35
53 NC05-20671	1	1	9	17	5	21	11	10	1	2	27	9	9	9
54 NC05-21937	3	32	17	38	7	36	11	10	9	53	51	50	16	42
55 NC06-20288	1	1	15	33	5	21	8	6	2	17	29	16	10	13
56 NC07-23170	1	1	15	33	10	46	15	30	2	17	39	39	14	35
57 NC07-22927	3	32	2	1	7	36	20	43	2	17	29	16	10	13

Mean	2	15	7	15	3.6	35	13
LSD (0.05)	.	10.5	3.5	.	4.0	.	11.5
CV%	.	44.4	.	.	55.0	.	44.6



## Greenhouse Screening

Cultivar/ Designation	MO	VA	MEAN	AR		AR	AR	AR	AR
	SEVERITY %	SEVERITY %	SEVERITY %	RANK	TYPE 1 # flor	TYPE 2 AUDPC	FDK %	SHRIVELED %	DON ppm
1 ERNIE	7	24	16	11	2	72	0	0	<0.05
2 COKER 9835	100	85	93	57	11	955	50	50	.
3 BESS	12	10	11	5	2	57	0	0	0
4 JAMESTOWN	28	22	25	23	12	355	0	10	1
5 AR 97002-2-1	6	8	7	2	1	33	0	0	1
6 AR99039-5-2	30	51	41	40	25	796	0	30	.
7 AR 99263-7-1	14	53	33	33	9	330	8	8	4
8 VA05W-510 32		35	33	33	7	338	4	4	3
9 B030543	35	76	56	48	9	477	1	15	3
10 LA01164D-94-2 15		6	10	3	4	239	0	2	3
11 LA01162D-131-8	11	12	12	6	5	277	0	2	3
12 LA01162D-136-8 8		21	15	10	18	648	8	4	3
13 GA 031454-DH7	24	100	62	50	1	215	20	6	9
14 GA 031307-DH14	15	66	41	40	9	432	6	30	4
15 NC05-21090	17	10	13	7	22	861	25	6	12
16 AR 99254-7-1	15	19	17	12	2	153	0	4	3
17 AR 99054-4-1	43	86	65	52	7	404	10	4	14
18 AR 99071-7-2	14	5	10	3	20	592	20	40	7
19 MD02W81-08-6	18	16	17	12	15	385	4	15	3
20 MD01W255-08-1	20	62	41	40	11	548	8	10	4
21 M05-1531	16	31	23	21	9	275	4	8	5
22 B0390207	59	100	80	54	3	339	1	25	2
23 03M1539#031	26	39	32	31	6	373	2	20	4
24 03M1599#0007	58	92	75	53	10	728	40	20	13
25 MH06-2370	39	67	53	46	9	624	8	30	11
26 ML07*7571	22	33	28	29	3	194	2	2	4
27 ML07-7758	32	16	24	22	1	50	1	4	2
28 VA04W-90 45		9	27	26	6	220	0	4	2
29 VA05W-534	24	16	20	16	8	271	6	2	3
30 VA06W-575	53	30	42	43	3	155	0	10	3
31 VA06W-587	24	30	27	26	1	168	2	4	4
32 VA07W-568	36	5	21	18	1	56	2	1	1
33 VA07W-607	33	7	20	16	12	414	10	2	5
34 VA05W-640	80	88	84	56	4	563	60	5	28
35 LA01141D-98-6-2	48	30	39	39	1	230	15	1	6
36 LA03187C-2	64	60	62	50	4	254	30	30	12
37 LA01164D-43-7-B	64	23	43	44	3	259	4	1	2
38 ARGE97-1048-6	83	80	81	55	3	341	20	4	13
39 GA 991209-6E33	67	32	49	45	1	337	15	20	5
40 GA 031454-DH38-7	20	9	14	8	6	274	10	20	8
41 GA 031454-DH38-8 (11'	6	5	5	1	5	280	8	15	6
42 GA 991109-1-G1	21	53	37	36	1	161	4	2	4
43 GA 991109-1-G2	41	9	25	23	0	67	0	1	3
44 ARS03-5358	38	7	22	19	9	678	40	10	24
45 ARS03-3806	21	7	14	8	2	83	4	2	4
46 ARS03-4736	33	32	33	33	9	386	10	0	3
47 ARS04-1249	31	14	22	19	16	550	20	4	17
48 ARS05-0443	47	64	55	47	12	638	30	40	17
49 ARS05-0242	44	79	61	49	10	588	6	6	5
50 ARS05-1044	17	17	17	12	5	298	8	0	11
51 ARS05-1234	23	27	25	23	14	508	15	8	8
52 NC05-23015	43	11	27	26	20	652	8	20	10
53 NC05-20671	28	48	38	37	7	428	6	6	2
54 NC05-21937	30	47	38	37	29	723	40	10	27
55 NC06-20288	34	31	32	31	7	462	30	10	11
56 NC07-23170	23	37	30	30	17	493	30	10	9
57 NC07-22927	16	19	18	15	7	346	4	6	3
Mean	33	36	34		8	379	12	11	7
LSD (0.05)	.	.	.		9	285	.	.	.
CV%	.	.	.		.	.	.	.	.

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

CULTIVAR/  
 DESIGNATION                      Wuh-1 Ning    Ernie    Ernie    Ernie    Ernie  
    Fhb1    2DL    N5AS    3BSc    5AS    2B    4B    H13    H9    1RS tran    Lr34/Yr18

1	ERNIE	no	no	no	yes	yes	?	no	no	no		no
2	COKER 9835	no	no	no	no	no	yes	no	no	no		no
3	BESS	no	no	no	?	no	no	no	no	no		no
4	JAMESTOWN	no	no	no	het?	no	het	no	no	no		no
5	AR 97002-2-1	no	no	?	no	no	yes	no	no	no		no
6	AR99039-5-2	no	no	no	yes?	no	no	no	no	no		no
7	AR 99263-7-1	no	no	no	no	no	no	no	no	no		no
8	VA05W-510	no	no	no	no	no	yes	no	no	no		no
9	B030543	no	no	no	no	no	yes	no	no	no		no
10	LA01164D-94-2	yes	no	yes	no	no	yes	no	no	no		no
11	LA01162D-131-8	yes	no	no	no	no	no	no	no	no		no
12	LA01162D-136-8	yes	no	yes	no	no	yes	no	no	no		no
13	GA 031454-DH7	no	no	no	no	no	no	no	no	no		no
14	GA 031307-DH14	no	no	no	?	no	yes	no	no	no	1RS:1BL	no
15	NC05-21090	no	no	no	yes?	no	yes	no	no	no		no
16	AR 99254-7-1	no	no	no	no	yes?	no	no	no	no		no
17	AR 99054-4-1	no	no	no	no	no	?	no	no	no		no
18	AR 99071-7-2	no	no	no	no	no	no	no	no	no		no
19	MD02W81-08-6	no	no	no	?	no	yes	no	no	no	1RS:1BL	no
20	MD01W255-08-1	no	no	no	no	no	no	no	no	no	1RS:1AL	no
21	M05-1531	no	no	no	yes	yes?	no	no	no	no	1RS:1BL	no
22	B0390207	no	no	no	no	no	no	no	no	no		no
23	03M1539#031	no	no	no	yes?	no	no	no	no	no		no
24	03M1599#0007	no	no	no	het	het?	no	no	no	no		no
25	MH06-2370	no	no	no	no	no	no	no	no	no	1RS:1BL	no
26	ML07*7571	no	no	no	no	no	no	no	no	no		no
27	ML07-7758	het	no	no	no	no	no	no	no	no	1RS:1BL	no
28	VA04W-90	no	no	no	yes?	no	no	no	no	no		no
29	VA05W-534	no	no	no	yes?	no	no	no	no	no	1RS:1AL	no
30	VA06W-575	no	no	no	no	no	yes	no	no	no		no
31	VA06W-587	no	no	no	no	no	no	no	no	no		no
32	VA07W-568	no	no	no	no	yes	no	no	no	no		no
33	VA07W-607	no	no	no	no	no	yes	no	no	no		no
34	VA05W-640	no	no	no	no	no	yes	no	no	no		no
35	LA01141D-98-6-2	yes	no	no	no	no	no	no	no	no		yes
36	LA03187C-2	no	yes	no	no	no	no	no	no	no		no
37	LA01164D-43-7-B	no	no	yes	no	no	no	no	no	no	1RS:1BL	no
38	ARGE97-1048-6	no	no	no	no	no	?	no	no	no	1RS:1BL	no
39	GA 991209-6E33	no	no	no	no	no	no	no	no	no	1RS:1BL	no
40	GA 031454-DH38-7	no	no	no	no	no	?	no	no	no		no
41	GA 031454-DH38-8 (11?)	no	no	no	no	no	?	no	no	no		no
42	GA 991109-1-G1	no	no	no	no	no		no	no	no		no
43	GA 991109-1-G2	no	no	no	no	no	no	no	no	no		no
44	ARS03-5358	no	no	no	no	no	yes	no	no	no		no
45	ARS03-3806	no	no	no	no	no	no	no	no	no	1RS:1AL	no
46	ARS03-4736	no	no	no	no	no	no	no	no	no	1RS:1AL	no
47	ARS04-1249	no	no	no	no	no	no	no	no	no	1RS:1AL	no
48	ARS05-0443	no	no	no	no	no	no	no	no	no	1RS:1BL	no
49	ARS05-0242	no	no	no	no	no	yes	no	no	no		no
50	ARS05-1044	no	no	no	no	no	no	no	no	no	1RS:1AL	het
51	ARS05-1234	no	no	no	no	no	no	no	no	no		no
52	NC05-23015	no	no	no	yes?	yes?	no	no	no	no		no
53	NC05-20671	no	no	no	no	het	yes	no	no	no		no
54	NC05-21937	yes	no	no	no	no	yes	no	no	no		no
55	NC06-20288	no	no	no	no	no	yes	no	no	no		no
56	NC07-23170	no	no	no	no	yes?	yes	no	no	no		no
57	NC07-22927	het	no	?	no	het	yes	no	no	no		het

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

CULTIVAR/ DESIGNATION	Lr24/Sr24	Sr36	Lr37/Yr17/Sr28	BVD2/3	Rht1	Rht2	Rht8	Ppd-D1a	Bx7 OE	Glu-D1
1 ERNIE	no	yes	no	no	yes	no	no	no	no	2+12
2 COKER 9835	no	yes	no	no	no	yes	no	yes	no	2+12
3 BESS	no	no	no	no	yes	no	no	no	no	2+12
4 JAMESTOWN	no	no	no	no	no	yes	no	yes	no	2+12
5 AR 97002-2-1	no	yes	no	no	yes	no	no	no	no	2+12
6 AR99039-5-2	no	no	no	no	no	yes	no	no	no	2+12
7 AR 99263-7-1	no	no	no	no	yes	no	no	het	no	2+12
8 VA05W-510	no	yes	no	no	no	yes	no	yes	no	2+12
9 B030543	no	yes	no	no	no	yes	no	yes	no	2+12
10 LA01164D-94-2	no	yes	no	no	no	yes	no	no	yes	2+12
11 LA01162D-131-8	no	no	yes	no	no	yes	no	yes	yes	2+12
12 LA01162D-136-8	no	yes	yes	no	no	yes	no	no	yes	2+12
13 GA 031454-DH7	no	no	no	no	no	no	no	yes	no	2+12
14 GA 031307-DH14	no	no	no	no	no	yes	no	yes	het	het
15 NC05-21090	no	yes	no	no	no	yes	no	yes	no	2+12
16 AR 99254-7-1	no	yes	no	no	no	no	no	no	no	5+10
17 AR 99054-4-1	no	no	no	no	no	no	no	no	no	2+12
18 AR 99071-7-2	yes	no	no	no	no	yes	no	yes	no	2+12
19 MD02W81-08-6	no	yes	no	no	yes	no	no	no	no	2+12
20 MD01W255-08-1	no	no	no	no	no	yes	no	no	no	2+12
21 M05-1531	no	no	no	no	yes	no	no	no	no	het
22 B0390207	no	no	no	no	no	yes	no	yes	no	2+12
23 03M1539#031	no	no	no	no	yes	no	no	yes	no	2+12
24 03M1599#0007	no	no	no	no	yes	no	no	het	no	2+12
25 MH06-2370	no	no	no	no	yes	no	no	yes	no	2+12
26 ML07*7571	no	no	no	no	yes	no	no	no	no	2+12
27 ML07-7758	no	no	no	no	yes	no	no	no	no	5+10
28 VA04W-90	no	no	no	no	no	yes	no	yes	no	2+12
29 VA05W-534	no	no	no	no	yes	no	no	no	no	2+12
30 VA06W-575	no	yes	no	no	no	yes	no	het	no	het
31 VA06W-587	no	no	no	no	no	yes	no	yes	no	2+12
32 VA07W-568	no	no	no	no	no	yes	no	no	no	2+12
33 VA07W-607	yes	no	no	no	no	yes	no	no	no	het
34 VA05W-640	no	het	no	no	no	yes	het	yes	no	het
35 LA01141D-98-6-2	no	no	yes	no	no	yes	no	yes	yes	2+12
36 LA03187C-2	no	no	yes	no	no	yes	no	yes	yes	2+12
37 LA01164D-43-7-B	no	no	no	no	no	yes	no	yes	yes	2+12
38 ARGE97-1048-6	no	no	no	no	no	yes	no	no	no	5+10
39 GA 991209-6E33	no	no	no	no	no	yes	yes	no	no	5+10
40 GA 031454-DH38-7	no	no	no	no	no	yes	no	yes	no	2+12
41 GA 031454-DH38-8 (11?)	no	no	no	no	no	yes	no	yes	no	2+12
42 GA 991109-1-G1	no	no	no	no	yes	no	no	no	no	het
43 GA 991109-1-G2	no	no	no	no	yes	no	yes	no	no	2+12
44 ARS03-5358	no	yes	no	no	no	no	no	no	no	5+10
45 ARS03-3806	no	no	no	no	yes	no	no	no	no	2+12
46 ARS03-4736	no	no	no	no	yes	no	no	no	no	2+12
47 ARS04-1249	no	no	no	no	yes	no	no	no	no	5+10
48 ARS05-0443	no	no	yes	no	yes	no	no	no	no	5+10
49 ARS05-0242	no	yes	no	no	no	yes	no	no	no	2+12
50 ARS05-1044	no	no	no	no	yes	no	no	no	no	2+12
51 ARS05-1234	no	no	yes	no	yes	no	no	no	no	2+12
52 NC05-23015	no	yes	yes	no	no	yes	no	yes	no	2+12
53 NC05-20671	yes	yes	no	no	no	yes	no	yes	no	het
54 NC05-21937	no	yes	no	no	no	yes	no	no	no	2+12
55 NC06-20288	no	yes	yes	no	no	yes	no	no	no	2+12
56 NC07-23170	no	yes	no	no	no	yes	no	no	no	2+12
57 NC07-22927	no	yes	no	no	no	yes	no	no	no	het

## Heading Date (Julian Days\*)

	URBANA IL	COL'BIA MO	B'KTON IN	B'BURG VA	S'BURY MD	LEX'TON KY	BAY AR	FUN'LEA ROM	SZEGED HUN	MEAN ALL LOC.	RANK
1 ERNIE	136	140	141	124	124	131	112	128	125	129	3
2 COKER 9835	141	142	145	127	125	137	117	135	129	133	47
3 BESS	137	141	140	126	125	132	116	133	128	131	27
4 JAMESTOWN	135	140	139	124	123	128	111	129	127	128	1
5 AR 97002-2-1	136	141	142	125	123	130	111	131	125	129	3
6 AR99039-5-2	141	147	147	129	126	140	120	136	130	135	56
7 AR 99263-7-1	142	142	145	128	124	135	118	133	129	133	47
8 VA05W-510 137		142	141	125	123	131	112	131	128	130	11
9 B030543	139	141	142	128	124	131	115	132	126	131	27
10 LA01164D-94-2 141		142	145	125	123	135	114	133	128	132	37
11 LA01162D-131-8	138	141	141	125	125	132	113	131	126	130	11
12 LA01162D-136-8 141		144	146	127	123	132	115	133	129	132	37
13 GA 031454-DH7	140	141	145	126	124	131	115	130	128	131	27
14 GA 031307-DH14	138	141	143	125	124	129	111	128	127	129	3
15 NC05-21090	140	141	142	126	122	131	115	131	129	131	27
16 AR 99254-7-1	141	144	144	128	125	134	120	134	131	133	47
17 AR 99054-4-1	141	142	142	129	124	134	117	133	130	132	37
18 AR 99071-7-2	140	142	143	128	123	133	115	135	131	132	37
19 MD02W81-08-6	139	147	145	126	125	132	115	133	130	132	37
20 MD01W255-08-1	140	141	146	128	124	132	117	132	128	132	37
21 M05-1531	137	141	140	127	124	129	112	131	127	130	11
22 B0390207	136	138	139	124	124	130	112	128	127	129	3
23 03M1539#031	137	140	141	128	122	130	115	131	127	130	11
24 03M1599#0007	135	141	140	126	122	130	113	131	127	129	3
25 MH06-2370	137	140	142	127	124	131	115	131	128	130	11
26 ML07*7571	138	142	140	126	124	133	114	131	128	131	27
27 ML07-7758	138	141	141	126	123	129	114	134	128	130	11
28 VA04W-90 139		141	142	126	126	130	113	131	127	130	11
29 VA05W-534	136	142	140	125	124	129	113	130	127	129	3
30 VA06W-575	137	141	139	125	125	131	112	130	127	130	11
31 VA06W-587	135	138	142	125	122	127	112	129	128	129	3
32 VA07W-568	138	140	143	126	125	132	114	131	125	130	11
33 VA07W-607	137	140	143	126	123	131	115	131	127	130	11
34 VA05W-640	136	140	147	125	122	131	114	129	127	130	11
35 LA01141D-98-6-2	138	146	148	127	125	135	113	130	127	132	37
36 LA03187C-2	142	142	146	129	124	133	113	132	129	132	37
37 LA01164D-43-7-B	139	141	144	126	123	130	112	131	129	130	11
38 ARGE97-1048-6	140	141	141	126	125	131	114	130	126	130	11
39 GA 991209-6E33	136	141	145	124	123	129	112	129	126	129	3
40 GA 031454-DH38-7	139	141	146	127	123	135	113	131	129	131	27
41 GA 031454-DH38-8 (11	140	141	141	128	124	134	112	131	129	131	27
42 GA 991109-1-G1	137	139	139	125	122	128	111	129	125	128	1
43 GA 991109-1-G2	137	141	147	125	127	128	111	128	125	130	11
44 ARS03-5358	145	147	145	129	123	135	118	134	132	134	53
45 ARS03-3806	139	141	140	128	122	134	116	134	130	132	37
46 ARS03-4736	138	141	146	126	126	130	115	131	128	131	27
47 ARS04-1249	142	147	145	129	123	138	120	134	130	134	53
48 ARS05-0443	140	142	143	128	123	134	120	133	130	133	47
49 ARS05-0242	142	142	142	128	125	137	115	133	130	133	47
50 ARS05-1044	136	141	146	126	125	128	116	129	126	130	11
51 ARS05-1234	141	144	142	129	124	140	124	133	128	134	53
52 NC05-23015	139	141	142	126	123	131	115	129	128	130	11
53 NC05-20671	137	141	146	127	122	132	115	131	130	131	27
54 NC05-21937	141	144	145	128	123	136	114	135	129	133	47
55 NC06-20288	140	141	145	126	123	132	114	132	127	131	27
56 NC07-23170	142	142	144	128	122	130	116	133	129	132	37
57 NC07-22927	143	147	145	132	125	142	121	134	130	135	57

Mean	139	142	143	126	124	132	114	131	128	131
LSD (0.05)	2	.	3.7	1.2	4.3	0.3	2.0	.	.	3
CV%	5.9	.	2.0	0.46	1.7	1.1	0.8	.	.	1.3

\*Days after December 31, 2008

## Plant Height (in)

CULTIVAR/ DESIGNATION	KINSTON	LEX'TON	S'BURY	COL'BIA	SZEGED	FUN'LEA	MEAN	RANK
	NC	KY	MD	MO	HUN	ROM	ALL LOC.	
1 ERNIE	33	35	32	31	35	31	34	7
2 COKER 9835	33	34	31	30	38	33	33	2
3 BESS	35	38	35	34	42	38	37	38
4 JAMESTOWN	33	34	32	30	38	33	33	2
5 AR 97002-2-1	34	36	33	31	38	38	35	18
6 AR99039-5-2	32	38	33	34	38	31	35	18
7 AR 99263-7-1	39	40	38	37	44	42	40	53
8 VA05W-510	34	36	33	31	40	35	35	18
9 B030543	35	36	33	32	40	31	36	26
10 LA01164D-94-2	34	36	34	31	42	29	36	26
11 LA01162D-131-8	35	38	35	33	44	46	37	38
12 LA01162D-136-8	33	36	34	30	40	42	34	7
13 GA 031454-DH7	39	40	38	36	50	48	41	56
14 GA 031307-DH14	34	35	34	28	40	38	34	7
15 NC05-21090	35	35	35	30	35	40	34	7
16 AR 99254-7-1	36	43	38	36	42	42	39	49
17 AR 99054-4-1	35	41	37	37	46	48	40	53
18 AR 99071-7-2	36	38	36	33	44	38	38	45
19 MD02W81-08-6	36	38	34	33	44	38	38	45
20 MD01W255-08-1	35	37	36	32	42	42	36	26
21 M05-1531	36	37	35	34	40	44	37	38
22 B0390207	34	37	34	32	40	42	36	26
23 03M1539#031	35	37	36	33	40	40	36	26
24 03M1599#0007	34	37	34	31	40	38	35	18
25 MH06-2370	36	36	35	32	42	42	36	26
26 ML07*7571	35	36	35	31	42	40	36	26
27 ML07-7758	40	39	38	37	46	42	40	53
28 VA04W-90	35	36	36	35	40	35	37	38
29 VA05W-534	37	35	37	33	40	42	36	26
30 VA06W-575	34	33	31	30	35	31	33	2
31 VA06W-587	38	36	36	30	40	38	36	26
32 VA07W-568	35	36	35	34	38	42	36	26
33 VA07W-607	35	34	35	31	40	40	35	18
34 VA05W-640	35	34	33	32	40	40	35	18
35 LA01141D-98-6-2	30	36	31	30	38	38	33	2
36 LA03187C-2	37	38	37	34	44	42	38	45
37 LA01164D-43-7-B	38	39	38	35	44	38	39	49
38 ARGE97-1048-6	36	37	35	34	40	40	37	38
39 GA 991209-6E33	37	37	34	33	42	35	37	38
40 GA 031454-DH38-7	35	36	33	30	38	33	34	7
41 GA 031454-DH38-8 (1)	35	36	34	32	38	40	35	18
42 GA 991109-1-G1	34	34	34	30	42	42	35	18
43 GA 991109-1-G2	35	36	34	34	40	42	36	26
44 ARS03-5358	39	43	40	41	50	46	43	57
45 ARS03-3806	33	39	34	35	42	31	37	38
46 ARS03-4736	37	38	36	37	42	35	38	45
47 ARS04-1249	36	39	30	34	38	31	36	26
48 ARS05-0443	33	35	34	31	35	33	34	7
49 ARS05-0242	31	34	33	34	35	25	34	7
50 ARS05-1044	39	39	36	35	44	35	39	49
51 ARS05-1234	38	40	34	38	42	35	39	49
52 NC05-23015	33	33	33	30	38	29	33	2
53 NC05-20671	31	34	31	30	33	29	32	1
54 NC05-21937	34	35	35	30	38	31	34	7
55 NC06-20288	35	33	33	32	35	29	34	7
56 NC07-23170	31	35	35	33	38	33	34	7
57 NC07-22927	32	37	34	31	38	38	34	7

Mean	35	36	34	33	40	37	36
LSD (0.05)	3	0.3	2.5	.	.	.	3
CV%	4.9	4	3.7	.	.	.	4

# Winterkill

Winter  
Kill (0-9)  
B'STON  
IN

1 ERNIE	3
2 COKER 9835	4
3 BESS	3
4 JAMESTOWN	3
5 AR 97002-2-1	5
6 AR99039-5-2	2
7 AR 99263-7-1	3
8 VA05W-510 3	
9 B030543	2
10 LA01164D-94-2 5	
11 LA01162D-131-8	4
12 LA01162D-136-8 5	
13 GA 031454-DH7	4
14 GA 031307-DH14	7
15 NC05-21090	5
16 AR 99254-7-1	3
17 AR 99054-4-1	2
18 AR 99071-7-2	2
19 MD02W81-08-6	4
20 MD01W255-08-1	3
21 M05-1531	3
22 B0390207	3
23 03M1539#031	4
24 03M1599#0007	3
25 MH06-2370	2
26 ML07*7571	2
27 ML07-7758	3
28 VA04W-90 3	
29 VA05W-534	6
30 VA06W-575	7
31 VA06W-587	6
32 VA07W-568	7
33 VA07W-607	5
34 VA05W-640	6
35 LA01141D-98-6-2	4
36 LA03187C-2	8
37 LA01164D-43-7-B	5
38 ARGE97-1048-6	4
39 GA 991209-6E33	4
40 GA 031454-DH38-7	6
41 GA 031454-DH38-8 (11?)-	4
42 GA 991109-1-G1	3
43 GA 991109-1-G2	4
44 ARS03-5358	3
45 ARS03-3806	3
46 ARS03-4736	4
47 ARS04-1249	3
48 ARS05-0443	3
49 ARS05-0242	4
50 ARS05-1044	3
51 ARS05-1234	4
52 NC05-23015	3
53 NC05-20671	4
54 NC05-21937	4
55 NC06-20288	3
56 NC07-23170	3
57 NC07-22927	4

Mean 3.6  
LSD (0.05) 2.3  
CV% 1.2

## Leaf and Viral Disease Ratings

CULTIVAR/ DESIGNATION	5/8/2009		5/18/2009		FHB Rating 0-9 BAY AR	
	LEAF RUST (0-9)	LEAF RUST (0-9)	STAG NODOR. (0-9)	STAG NODOR. %		STAG NODOR. %
	KINSTON NC	B'BURG VA	B'BURG VA	KIBLER AR		KIBLER AR
1 ERNIE	6	7.5	1	15	43	5
2 COKER 9835	5	4.0	3	20	83	8
3 BESS	6	7.5	3	15	37	5
4 JAMESTOWN	2	4.0	1	15	62	7
5 AR 97002-2-1	1	2.5	3	15	50	6
6 AR99039-5-2	3	6.0	3	12	37	8
7 AR 99263-7-1	3	2.5	5	12	37	6
8 VA05W-510 3		3.0	1	30	88	6
9 B030543	3	4.0	4	25	75	7
10 LA01164D-94-2 1		0.5	4	15	37	7
11 LA01162D-131-8	1	0.5	4	15	57	7
12 LA01162D-136-8 2		0.0	2	15	50	7
13 GA 031454-DH7	2	1.0	3	12	10	8
14 GA 031307-DH14	0	1.5	0	15	32	7
15 NC05-21090	4	3.0	4	15	37	7
16 AR 99254-7-1	1	3.0	2	10	20	6
17 AR 99054-4-1	4	7.0	3	25	37	8
18 AR 99071-7-2	1	1.0	2	7	12	7
19 MD02W81-08-6	4	2.5	6	15	43	8
20 MD01W255-08-1	4	4.5	2	10	20	6
21 M05-1531	4	2.5	4	17	20	6
22 B0390207	3	4.0	1	25	32	8
23 03M1539#031	6	7.5	5	15	37	7
24 03M1599#0007	2	2.0	4	15	50	9
25 MH06-2370	4	6.0	1	12	25	7
26 ML07*7571	7	7.5	1	20	50	8
27 ML07-7758	0	7.5	4	15	37	6
28 VA04W-90 4		6.5	1	25	43	7
29 VA05W-534	1	5.5	2	20	32	5
30 VA06W-575	5	3.5	0	30	80	8
31 VA06W-587	6	6.5	2	15	70	6
32 VA07W-568	4	6.0	1	12	12	6
33 VA07W-607	4	2.5	1	20	30	6
34 VA05W-640	1	7.0	2	50	92	7
35 LA01141D-98-6-2	1	3.0	7	20	83	7
36 LA03187C-2	1	0.5	6	37	50	8
37 LA01164D-43-7-B	0	2.5	2	20	37	6
38 ARGE97-1048-6	1	4.0	2	15	50	8
39 GA 991209-6E33	2	2.0	2	15	43	8
40 GA 031454-DH38-7	1	0.0	1	15	37	5
41 GA 031454-DH38-8 (11?)	1	1.5	2	12	30	6
42 GA 991109-1-G1	1	5.5	2	20	50	7
43 GA 991109-1-G2	2	7.5	1	15	57	7
44 ARS03-5358	2	0.0	5	12	25	7
45 ARS03-3806	2	7.0	6	15	25	6
46 ARS03-4736	2	4.0	5	15	20	7
47 ARS04-1249	1	1.0	4	12	25	7
48 ARS05-0443	4	2.5	3	15	30	8
49 ARS05-0242	1	5.0	7	25	43	9
50 ARS05-1044	1	3.0	3	12	15	6
51 ARS05-1234	0	4.0	4	12	25	7
52 NC05-23015	4	0.5	2	15	37	7
53 NC05-20671	1	5.5	4	25	83	7
54 NC05-21937	0	2.5	5	32	70	7
55 NC06-20288	1	2.5	2	25	70	7
56 NC07-23170	3	5.0	4	25	70	6
57 NC07-22927	0	2.5	4	15	37	5
Mean	2.2	4	3	18	44	7
LSD (0.05)	3	3.6	3	13	28	1.5
CV%	62.2	48.5	55.2	.	.	11.2

## Hessian Fly Screening (Resistant - Susceptible Plants)<sup>1</sup>

CULTIVAR/ DESIGNATION	Biotype C	Biotype D	Biotype O	Biotype L
1 ERNIE	0-11	0-14	0-15	0-19
2 COKER 9835	12-0	0-16	16-0	0-16
3 BESS	0-10	0-15	0-17	0-17
4 JAMESTOWN	12-0	14-0	13-0	0-15
5 AR 97002-2-1	4-2	0-13	0-16	0-16
6 AR99039-5-2	0-13	0-13	0-15	0-19
7 AR 99263-7-1	0-12	0-14	17-2	0-19
8 VA05W-510 13-1		0-16	0-16	0-16
9 B030543	0-15	0-15	0-17	0-22
10 LA01164D-94-2 0-14		0-15	0-17	0-19
11 LA01162D-131-8	0-11	0-15	12-1	0-20
12 LA01162D-136-8 0-5		0-12	0-18	0-14
13 GA 031454-DH7	0-13	0-16	0-17	0-17
14 GA 031307-DH14	0-11	0-12	0-12	0-18
15 NC05-21090	0-10	0-11	0-16	0-16
16 AR 99254-7-1	0-12	0-17	0-12	0-17
17 AR 99054-4-1	4-12	0-15	0-18	0-17
18 AR 99071-7-2	8-5	0-16	0-12	0-18
19 MD02W81-08-6	11-3	0-15	0-14	0-16
20 MD01W255-08-1	0-16	0-16	0-14	0-16
21 M05-1531	13-0	13-0	0-16	0-18
22 B0390207	0-12	0-15	0-15	0-16
23 03M1539#031	0-10	0-13	0-12	0-15
24 03M1599#0007	0-12	0-13	0-16	0-18
25 MH06-2370	0-11	0-11	0-15	0-16
26 ML07*7571	0-12	0-15	0-16	0-18
27 ML07-7758	0-12	0-15	0-18	0-16
28 VA04W-90 0-11		0-16	0-15	0-21
29 VA05W-534	0-13	0-17	0-18	0-16
30 VA06W-575	17-0	0-16	0-16	0-19
31 VA06W-587	0-14	0-15	0-15	0-19
32 VA07W-568	1-11	0-14	0-17	0-19
33 VA07W-607	1-12	0-14	12-4	0-17
34 VA05W-640	0-10	0-16	0-15	0-18
35 LA01141D-98-6-2	0-12	0-18	0-16	0-18
36 LA03187C-2	0-12	0-17	0-15	0-19
37 LA01164D-43-7-B	0-10	0-17	0-13	0-19
38 ARGE97-1048-6	0-11	0-15	0-14	0-17
39 GA 991209-6E33	0-10	0-16	15-3	0-15
40 GA 031454-DH38-7	0-11	0-17	0-16	0-14
41 GA 031454-DH38-8 (11	0-14	0-14	0-18	0-15
42 GA 991109-1-G1	0-12	0-14	11-3	0-14
43 GA 991109-1-G2	0-14	0-16	0-12	0-18
44 ARS03-5358	0-10	11-2	16-3	0-15
45 ARS03-3806	0-10	0-16	0-16	0-14
46 ARS03-4736	0-11	15-0	17-0	0-12
47 ARS04-1249	0-9	0-14	0-11	0-16
48 ARS05-0443	0-12	0-14	0-16	0-14
49 ARS05-0242	0-13	9-9	11-4	0-17
50 ARS05-1044	0-14	0-16	0-17	0-18
51 ARS05-1234	0-14	0-16	0-13	0-16
52 NC05-23015	0-14	18-0	12-5	0-16
53 NC05-20671	6-10	14-3	0-14	0-15
54 NC05-21937	3-15	13-0	12-5	0-14
55 NC06-20288	0-12	17-0	13-4	0-17
56 NC07-23170	0-16	19-0	4-9	0-15
57 NC07-22927	0-13	0-17	0-18	0-18

<sup>1</sup> Sue Cambron, USDA-ARS, Dept Entomology, Purdue Univ.



# Milling and Baking Quality Scores<sup>1</sup>

Cultivar/ Designation	MILLING QUALITY SCORE		BAKING QUALITY SCORE		SOFT. EQUIV. SCORE		TEST WT. LB/BU	ADJ. YIELD %	SOFT. EQUIV. %	FLOUR PROT. %	LACTIC ACID SRC	SUCRE. SRC %
1 ERNIE (M&B STANDARD)	55	D	76	B	76	B	66.7	66.7	54.8	8.8	85.9	86.4
2 COKER 9835	61	C	70	C	104	A	67.9	67.9	64.8	8.7	99.2	96.3
3 BESS	59	D	66	C	89	A	67.5	67.5	59.3	9.1	88.0	93.3
4 JAMESTOWN	66	C	64	C	85	A	68.9	68.9	57.8	8.6	107.0	94.3
5 AR 97002-2-1	64	C	89	A	87	A	68.6	68.6	58.6	8.6	83.7	84.0
6 AR99039-5-2	55	D	69	C	95	A	66.8	66.8	61.6	9.1	96.0	93.7
7 AR 99263-7-1	60	C	77	B	88	A	67.9	67.9	59.2	9.3	102.6	87.9
8 VA05W-510 66		C	82	A	85	A	69.0	69.0	57.9	8.6	99.1	86.2
9 B030543	72	B	84	A	84	A	70.1	70.1	57.6	8.1	92.8	86.4
10 LA01164D-94-2 83		A	70	B	75	B	72.2	72.2	54.5	9.4	80.9	87.5
11 LA01162D-131-8	76	B	83	A	73	B	71.0	71.0	53.6	9.2	89.3	81.8
12 LA01162D-136-8 81		A	64	C	73	B	71.9	71.9	53.9	9.6	80.6	89.3
13 GA 031454-DH7	80	B	68	C	68	C	71.7	71.7	52.2	10.2	86.1	85.1
14 GA 031307-DH14	67	C	60	C	66	C	69.1	69.1	51.2	9.7	93.9	88.8
15 NC05-21090	58	D	62	C	87	A	67.4	67.4	58.7	9.9	109.7	93.0
16 AR 99254-7-1	77	B	71	B	75	B	71.1	71.1	54.3	9.9	96.4	85.9
17 AR 99054-4-1	65	C	68	C	89	A	68.8	68.8	59.3	9.6	84.2	91.3
18 AR 99071-7-2	54	D	53	D	96	A	66.5	66.5	61.8	9.5	109.6	99.5
19 MD02W81-08-6	53	D	63	C	85	A	66.3	66.3	58.2	9.9	80.8	92.2
20 MD01W255-08-1	66	C	57	D	79	B	69.0	69.0	55.8	9.9	88.6	92.9
21 M05-1531	65	C	66	C	91	A	68.8	68.8	60.0	9.2	91.9	93.8
22 B0390207	55	D	32	F	81	A	66.8	66.8	56.5	9.9	89.5	104.0
23 03M1539#031	76	B	87	A	119	A	71.0	71.0	69.7	8.5	113.9	92.8
24 03M1599#0007	72	B	82	A	101	A	70.1	70.1	63.5	8.3	105.9	90.9
25 MH06-2370	52	D	47	E	94	A	66.1	66.1	61.3	8.6	94.7	103.6
26 ML07*7571	64	C	76	B	106	A	68.5	68.5	65.2	8.8	101.5	93.9
27 ML07-7758	51	D	58	D	75	B	65.9	65.9	54.6	8.9	85.4	93.6
28 VA04W-90 60		C	59	D	85	A	67.8	67.8	58.2	9.5	106.7	94.7
29 VA05W-534	65	C	73	B	88	A	68.8	68.8	59.0	9.2	94.9	89.7
30 VA06W-575	65	C	70	B	81	A	68.7	68.7	56.4	9.3	92.6	88.9
31 VA06W-587	65	C	78	B	85	A	68.7	68.7	58.0	8.6	94.4	88.0
32 VA07W-568	65	C	71	B	83	A	68.8	68.8	57.4	8.3	88.6	91.3
33 VA07W-607	66	C	73	B	84	A	69.0	69.0	57.8	9.0	98.9	89.2
34 VA05W-640	62	C	58	D	80	A	68.1	68.1	56.3	9.5	118.2	93.5
35 LA01141D-98-6-2	69	C	65	C	87	A	69.6	69.6	58.8	9.5	95.6	92.5
36 LA03187C-2	57	D	52	D	90	A	67.1	67.1	59.9	9.2	113.1	99.5
37 LA01164D-43-7-B	43	E	35	F	49	E	64.3	64.3	45.3	10.9	92.5	92.9
38 ARGE97-1048-6	73	B	59	D	78	B	70.4	70.4	55.6	10.0	85.3	91.6
39 GA 991209-6E33	77	B	68	C	79	B	71.1	71.1	55.9	8.8	84.7	90.5
40 GA 031454-DH38-7	66	C	60	C	70	B	68.9	68.9	52.8	10.0	90.3	89.2
41 GA 031454-DH38-8 (11?)	62	C	53	D	68	C	68.1	68.1	52.1	10.5	90.5	90.6
42 GA 991109-1-G1	64	C	66	C	77	B	68.5	68.5	55.1	8.1	100.7	92.3
43 GA 991109-1-G2	62	C	60	D	77	B	68.2	68.2	55.3	8.4	104.5	94.6
44 ARS03-5358	68	C	57	D	95	A	69.3	69.3	61.6	10.8	120.3	95.3
45 ARS03-3806	63	C	25	F	39	F	68.3	68.3	42.1	10.4	93.7	96.0
46 ARS03-4736	70	C	15	F	33	F	69.7	69.7	40.0	10.4	114.7	98.8
47 ARS04-1249	75	B	20	F	41	E	70.7	70.7	42.5	10.9	107.5	97.4
48 ARS05-0443	55	D	7	F	108	A	66.7	66.7	66.1	9.6	125.3	122.1
49 ARS05-0242	83	A	23	F	36	F	72.3	72.3	41.0	10.3	96.7	96.3
50 ARS05-1044	72	B	22	F	34	F	70.2	70.2	40.1	10.1	107.5	96.9
51 ARS05-1234	75	B	20	F	49	E	70.6	70.6	45.3	11.0	117.5	99.4
52 NC05-23015	70	B	63	C	79	B	69.8	69.8	55.9	9.6	102.5	91.0
53 NC05-20671	63	C	67	C	87	A	68.4	68.4	58.7	9.4	91.4	91.7
54 NC05-21937	77	B	53	D	27	F	71.2	71.2	37.7	10.0	75.7	81.9
55 NC06-20288	89	A	79	B	95	A	73.6	73.6	61.6	9.9	94.4	87.4
56 NC07-23170	74	B	59	D	72	B	70.5	70.5	53.4	10.3	93.2	89.6
57 NC07-22927	67	C	72	B	79	B	69.2	69.2	56.0	9.8	91.6	87.0
Mean	66		60		78		69.0	69.0	55.6	9.5	96.9	92.4

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

## Means Across Locations 2008-09

Cultivar/ Designation	FHB Incidence		FHB Severity		FHB Index		FDK		ISK		DON		G'hse # Florets		Heading Date		Plant Height		Fhb1
	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	RANK	3BS
1 ERNIE	45	16	23	4	17	6	17	2	39	17	14	35	2	10	129	3	34	7	no
2 COKER 9835	65	57	55	56	50	57	45	54	65	56	17	46	11	43	133	47	33	2	no
3 BESS	40	4	19	1	12	1	14	1	29	2	10	13	2	10	131	27	37	38	no
4 JAMESTOWN	44	9	27	13	20	14	22	12	30	3	8	4	12	45	128	1	33	2	no
5 AR 97002-2-1	41	5	24	5	16	5	21	8	36	8	5	1	1	2	129	3	35	18	no
6 AR99039-5-2	49	36	35	32	30	45	38	47	49	40	17	46	25	56	135	56	35	18	no
7 AR 99263-7-1	46	23	24	5	19	10	22	12	40	20	12	24	9	34	133	47	40	53	no
8 VA05W-510	48	30	26	10	22	22	22	12	42	26	10	13	7	28	130	11	35	18	no
9 B030543	46	23	27	13	21	18	22	12	41	22	6	2	9	34	131	27	36	26	no
10 LA01164D-94-2	48	30	28	18	24	28	20	5	45	33	10	13	4	19	132	37	36	26	yes
11 LA01162D-131-8	44	9	27	13	21	18	26	22	33	4	10	13	5	22	130	11	37	38	yes
12 LA01162D-136-8	50	38	36	35	29	42	29	29	41	22	12	24	18	52	132	37	34	7	yes
13 GA 031454-DH7	53	44	42	48	32	48	37	45	50	43	12	24	1	2	131	27	41	56	no
14 GA 031307-DH14	59	52	44	50	30	45	36	42	54	51	17	46	9	34	129	3	34	7	no
15 NC05-21090	50	38	35	32	27	35	29	29	47	36	14	35	22	55	131	27	34	7	no
16 AR 99254-7-1	46	23	26	10	22	22	19	3	39	17	18	49	2	10	133	47	39	49	no
17 AR 99054-4-1	41	5	34	28	19	10	24	17	33	4	15	40	7	28	132	37	40	53	no
18 AR 99071-7-2	49	36	31	25	27	35	34	39	48	38	16	42	20	53	132	37	38	45	no
19 MD02W81-08-6	44	9	30	22	23	25	36	42	43	29	12	24	15	49	132	37	38	45	no
20 MD01W255-08-1	45	16	33	26	23	25	30	31	41	22	12	24	11	43	132	37	36	26	no
21 M05-1531	45	16	27	13	20	14	27	23	36	8	10	13	9	34	130	11	37	38	no
22 B0390207	54	45	42	48	29	42	34	39	48	38	13	33	3	14	129	3	36	26	no
23 03M1539#031	45	16	34	28	23	25	25	19	33	4	12	24	6	25	130	11	36	26	no
24 03M1599#0007	54	45	48	52	35	50	45	54	51	46	16	42	10	41	129	3	35	18	no
25 MH06-2370	44	9	30	22	20	14	28	26	39	17	10	13	9	34	130	11	36	26	no
26 ML07*7571	46	23	25	7	18	9	21	8	38	14	12	24	3	14	131	27	36	26	no
27 ML07-7758	43	8	22	2	17	6	21	8	36	8	8	4	1	2	130	11	40	53	het
28 VA04W-90	48	30	34	28	28	38	25	19	43	29	8	4	6	25	130	11	37	38	no
29 VA05W-534	37	1	27	13	14	2	20	5	28	1	9	9	8	33	129	3	36	26	no
30 VA06W-575	48	30	36	35	26	31	27	23	41	22	11	22	3	14	130	11	33	2	no
31 VA06W-587	44	9	30	22	19	10	19	3	38	14	8	4	1	2	129	3	36	26	no
32 VA07W-568	44	9	28	18	17	6	22	12	37	12	7	3	1	2	130	11	36	26	no
33 VA07W-607	45	16	28	18	20	14	20	5	44	31	8	4	12	45	130	11	35	18	no
34 VA05W-640	46	23	37	39	24	28	39	48	49	40	12	24	4	19	130	11	35	18	no
35 LA01141D-98-6-2	64	56	51	54	43	55	45	54	66	57	15	40	1	2	132	37	33	2	yes
36 LA03187C-2	48	30	45	51	34	49	42	51	56	52	13	33	4	19	132	37	38	45	no
37 LA01164D-43-7-B	38	2	33	26	19	10	32	34	36	8	11	22	3	14	130	11	39	49	no
38 ARGE97-1048-6	60	54	50	53	35	50	41	49	49	40	20	51	3	14	130	11	37	38	no
39 GA 991209-6E33	61	55	52	55	35	50	43	52	53	48	16	42	1	2	129	3	37	38	no
40 GA 031454-DH38-7	45	16	29	21	21	18	24	17	42	26	9	9	6	25	131	27	34	7	no
41 GA 031454-DH38-8 (11)	46	23	26	10	21	18	28	26	45	33	10	13	5	22	131	27	35	18	no
42 GA 991109-1-G1	54	45	40	43	26	31	28	26	42	26	14	35	1	2	128	1	35	18	no
43 GA 991109-1-G2	58	50	40	43	28	38	32	34	50	43	12	24	0	1	130	11	36	26	no
44 ARS03-5358	51	40	41	45	28	38	41	49	53	48	28	57	9	34	134	53	43	57	no
45 ARS03-3806	39	3	22	2	15	3	21	8	37	12	9	9	2	10	132	37	37	38	no
46 ARS03-4736	58	50	36	35	28	38	37	45	52	47	18	49	9	34	131	27	38	45	no
47 ARS04-1249	46	23	34	28	29	42	34	39	50	43	24	55	16	50	134	53	36	26	no
48 ARS05-0443	45	16	38	41	24	28	46	57	40	20	21	53	12	45	133	47	34	7	no
49 ARS05-0242	55	48	56	57	43	55	43	52	61	55	22	54	10	41	133	47	34	7	no
50 ARS05-1044	44	9	25	7	15	3	30	31	38	14	20	51	5	22	130	11	39	49	no
51 ARS05-1234	48	30	41	45	35	50	36	42	57	54	24	55	14	48	134	53	39	49	no
52 NC05-23015	51	40	37	39	26	31	30	31	45	33	14	35	20	53	130	11	33	2	no
53 NC05-20671	52	43	38	41	27	35	33	37	47	36	9	9	7	28	131	27	32	1	no
54 NC05-21937	59	52	41	45	40	54	32	34	56	52	16	42	29	57	133	47	34	7	yes
55 NC06-20288	55	48	36	35	30	45	33	37	53	48	10	13	7	28	131	27	34	7	no
56 NC07-23170	51	40	35	32	26	31	27	23	44	31	14	35	17	51	132	37	34	7	no
57 NC07-22927	41	5	25	7	22	22	25	19	35	7	10	13	7	28	135	57	34	7	het

Mean	48	34	25	30	44	13	34	131	36
LSD (0.05)	21	25	20	26	17	12	35	3	3
CV%	22.0	37.1	40.8	44.9	19.3	44.6	50.7	1.3	4.0

## Correlations Between Traits Over Locations

	SEVERITY	INDEX	FDK	ISK	DON	G'HOUSE TYPE 2	HEADING DATE	PLANT HEIGHT
INCIDENCE	0.81	0.86	0.66	0.83	0.41	0.46	ns	ns
SEVERITY		0.91	0.86	0.81	0.54	0.68	ns	ns
INDEX			0.79	0.90	0.51	0.55	0.29*	ns
FDK				0.78	0.64	0.60	0.27*	ns
ISK					0.53	0.44	0.30*	ns
VOMITOXIN (DON)						ns	0.48	0.25*
G'HOUSE TYPE 2							ns	ns
HEADING DATE								ns

## Means Across 2008 and 2009

	Cultivar/ Designation	FHB Incidence		FHB Severity		FHB Index		FDK		ISK		DON		G'hse # Florets	Heading Date	Plant Height	Fhb1 3BS
			RANK		RANK		RANK		RANK		RANK		RANK				
1	ERNIE	49	2	24	2	16	2	17	2	33	2	10	9	2	123	34	No
2	COKER 9835	71	13	63	13	52	13	51	13	64	13	17	13	11	127	33	No
3	BESS	40	1	23	1	13	1	15	1	26	1	8	4	2	127	36	No
4	JAMESTOWN	54	8	28	5	21	5	20	4	33	2	7	3	8	122	33	No
5	AR97002-2-1	50	3	26	4	17	3	24	7	35	5	6	2	1	124	34	No
6	AR99263-7-1	50	3	24	2	18	4	23	6	36	7	10	7	6	128	40	No
7	B030543	51	6	30	8	22	7	19	3	35	5	5	1	7	127	35	No
8	GA031307-DH14	65	12	41	12	31	12	34	12	51	12	16	12	7	125	34	No
9	LA01162D-131-8	52	7	28	5	21	5	24	7	33	2	9	6	3	124	37	Yes
10	LA01162D-136-8	56	10	35	11	26	11	29	10	38	9	12	10	11	126	35	Yes
11	LA01164D-94-2	50	3	30	8	25	9	24	7	38	9	10	7	4	126	37	Yes
12	NC05-21090	56	10	33	10	25	9	30	11	40	11	12	10	12	127	34	No
13	VA05W-510	54	8	29	7	22	7	21	5	36	7	8	4	5	125	35	No
	Mean	54		32		24		25		38		10		6	125	35	
	LSD (0.05)	11		8		4		8		11		4		ns	ns	2	
	CV%	11		13		9		15		15		23		78	4	3	