SOUTHERN UNIFORM WINTER WHEAT SCAB NURSERY

2009 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, 2009

This Report is available on the Web at;
http://scabusa.org/research_var.html#nusery

TABLE OF CONTENTS

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^{o}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 x 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 x 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 μL 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 21days 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 μL 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

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/FUTAI8944//PIONEER 26R61*	Harrison	2007-08
11	LA01162D-131-8	*LA422/CIM1FHBN#5//PIONEER 26R61*	Harrison	2007-08
12	LA01162D-136-8	*LA422/CIM1FHBN#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 / NC96BGTA6 SIB // NATCHEZ*	Murphy	2007-08
16	AR 99254-7-1	*P86300RB1-4-3-2-104 / NC97BGTAB9*	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/FUTAI8944//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 / NC96BGTA6 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 MO	RANK	S'BURY MD	RANK	B'BURG VA	RANK	URBANA IL	RANK	KINSTON NC	RANK	LEX'TON KY	RANK	BAY AR	RANK	B'KTON IN	RANK	MEAN ALL LOC.	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 AR	RANK	F'VILLE AR	RANK	COL'BIA MO	RANK	S'BURY MD	RANK	B'BURG VA	RANK	URBANA IL	RANK	KINSTON NC	RANK	LEX'TON KY	RANK	B'KTON IN	RANK	SZEGED[1] HUN	RANK	FUN'LEA[1] ROM	RANK	MEAN 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	

[1]DATA BY INDIVIDUAL ISOLATES ON FOLLOWING PAGES

Severity by Individual Isolates, Szeged, Hungary

	Cultivar/ Designation	*F. culmor.* Isol. 12375	*F. culmor.* Isol. 12551	*F. gramin.* Isol. 12377	*F. gramin.* Isol. 13.5	Mean All Isolates	*RANK*
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	

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

	Cultivar/ Designation	*F. gram.* Isol 96	*F. culm.* Isol 46	Mean	Rank
1	ERNIE	446	320	383	*30*
2	COKER 9835	283	380	331	*19*
3	BESS	177	198	188	*8*
4	JAMESTOWN	125	204	165	*4*
5	AR 97002-2-1	110	626	368	*25*
6	AR99039-5-2	176	517	347	*21*
7	AR 99263-7-1	167	402	284	*17*
8	VA05W-510 101		238	169	*5*
9	B030543	169	525	347	*21*
10	LA01164D-94-2 112		190	151	*3*
11	LA01162D-131-8	203	356	279	*16*
12	LA01162D-136-8 226		254	240	*12*
13	GA 031454-DH7	344	636	490	*36*
14	GA 031307-DH14	590	659	625	*49*
15	NC05-21090	272	471	372	*28*
16	AR 99254-7-1	129	226	178	*7*
17	AR 99054-4-1	392	660	526	*42*
18	AR 99071-7-2	212	331	271	*15*
19	MD02W81-08-6	147	244	196	*9*
20	MD01W255-08-1	362	571	466	*35*
21	M05-1531	247	496	371	*27*
22	B0390207	576	755	666	*54*
23	03M1539#031	598	870	734	*56*
24	03M1599#0007	321	561	441	*32*
25	MH06-2370	367	416	391	*31*
26	ML07*7571	429	335	382	*29*
27	ML07-7758	211	256	233	*11*
28	VA04W-90 397		268	332	*20*
29	VA05W-534	563	746	655	*52*
30	VA06W-575	478	415	446	*33*
31	VA06W-587	387	699	543	*44*
32	VA07W-568	578	689	634	*50*
33	VA07W-607	268	182	225	*10*
34	VA05W-640	378	753	565	*46*
35	LA01141D-98-6-2	500	481	491	*37*
36	LA03187C-2	545	556	550	*45*
37	LA01164D-43-7-B	619	599	609	*48*
38	ARGE97-1048-6	631	845	738	*57*
39	GA 991209-6E33	550	870	710	*55*
40	GA 031454-DH38-7	516	221	369	*26*
41	GA 031454-DH38-8 (11	270	237	253	*14*
42	GA 991109-1-G1	443	574	508	*39*
43	GA 991109-1-G2	590	734	662	*53*
44	ARS03-5358	551	526	538	*43*
45	ARS03-3806	107	175	141	*2*
46	ARS03-4736	151	565	358	*24*
47	ARS04-1249	258	398	328	*18*
48	ARS05-0443	486	537	512	*40*
49	ARS05-0242	538	629	584	*47*
50	ARS05-1044	368	614	491	*37*
51	ARS05-1234	301	402	352	*23*
52	NC05-23015	560	728	644	*51*
53	NC05-20671	440	610	525	*41*
54	NC05-21937	112	125	119	*1*
55	NC06-20288	167	313	240	*12*
56	NC07-23170	332	571	451	*34*
57	NC07-22927	138	199	169	*5*
	Mean	338	467	403	

FHB Index (1-100)

	CULTIVAR/ DESIGNATION	COL'BIA MO	RANK	S'BURY MD	RANK	B'BURG VA	RANK	URBANA IL	RANK	KINSTON NC	RANK	BAY AR	RANK	LEX'TON KY	RANK	B'KTON IN	RANK	MEAN ALL LOC.	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	RANK	% URBANA IL	RANK	% BAY AR	RANK	% F'VILLE AR	RANK	% KINSTON NC	RANK	% S'BURY MD	RANK	% LEX'TON KY	RANK	% B'KTON IN	RANK	SZEGED[1] HUN	RANK	% FUN'LEA ROM	RANK	% MEAN All LOCS	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	RANK	COL'BIA MO	RANK	URBANA IL	RANK	LEX'TON KY	RANK	S'BURY MD	RANK	B'KTON IN	RANK	MEAN ALL LOC.	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	RANK	Grain Yield Loss SZEGED HUN	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 SEVERITY %	VA SEVERITY %	MEAN SEVERITY %	RANK	AR TYPE 1 # flor	AR TYPE 2 AUDPC	AR FDK %	AR SHRIVELED %	AR 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	Fhb1	Wuh-1 2DL	Ning N5AS	Ernie 3BSc	Ernie 5AS	Ernie 2B	Ernie 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 NC	LEX'TON KY	S'BURY MD	COL'BIA MO	SZEGED HUN	FUN'LEA ROM	MEAN ALL LOC.	*RANK*
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 (11	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	LEAF RUST (0-9) KINSTON NC	LEAF RUST (0-9) B'BURG VA	STAG NODOR. (0-9) B'BURG VA	5/8/2009 STAG NODOR. % KIBLER AR	5/18/2009 STAG NODOR. % KIBLER AR	FHB Rating 0-9 BAY 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)[1]

	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

[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	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

[1] 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*	*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	RANK	FHB Severity	RANK	FHB Index	RANK	FDK	RANK	ISK	RANK	DON	RANK	G'hse # Florets	Heading Date	Plant Height	*Fhb1* 3BS
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	