SOUTHERN UNIFORM WINTER WHEAT SCAB NURSERY

2010 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'.
- Field inoculation method Scabby corn kernels.
- Precipitation during grain fill: Misted daily. Plus rains almost daily from mid-April with considerable natural infection in regular plots..

Fayetteville, 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: Heads spray-inoculated at flowering, bagged, and incubated in a growth chamber at 23C. Bags removed after 48 hr. Blighted florets counted at 5, 14 and 21 days and converted to percentage of florets blighted. Percentage at 5 days is a measure of type I. AUDPC from 5 to 21 days is a measure of type II.

Urbana, Illinois

- Cooperators: Fred Kolb and Eric Brucker.
- University of Illinois
- Reps: 3 RCB. Plot size: 1 row x 3'.
- Field inoculation method: corn spawn.
- 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: 10/20/09. Harvest date: 6/30/10
- Fertilizer: P, K, according to soil tests, 110 lb N split application
- Field inoculation method: scabby corn
- Precipitation during grain fill: 8.3 in plus mist irrigation.
- Avg temperature during grain fill: 73^{o}F.

Blacksburg, Virginia

- Cooperators: Carl A. Griffey, Shuyu Liu, Patty Gundrum.
- Virginia Tech
- Reps: 2. Plot size: Two rows 4’ long.
- Field inoculation method: conidial suspension (5×10^{4}). Multiple sprays.
- Due to the low temperature and humidity at critical infection time, the overall infection is low at Blacksburg this year, especially for those late lines.
- 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: 10/21/2009. Harvest date: 6/7/2010.
- 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 73 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.
- Field inoculation method: The nursery was planted into corn stubble. Each entry was inoculated at 75% anthesis using overhead spray at a rate of 70,000 spores/ml. 10 heads/plot/rep were evaluated. Severity ratings were taken 18 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 μL at 50,000 spores per ml. Misted 72 hours, rated 21 days after inoculation.
- Stands were surprisingly good, however, the spring and summer were again extremely wet and natural infection may have confounded some results.

Salisbury, Maryland.

- Cooperators: Jose Costa, and Aaron Cooper.
- University of Maryland.
- Reps: 2 RCB. Plot size: 1 rows x 4' long.
- 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.

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 Inoculated Nursery, Ben Hur Farm, Baton Rouge, LA. May 10 2010.

Fusarium Head Blight Infected Wheat Spike, Ben Hur Farm, Baton Rouge, LA. May 10 2010.

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

Entry List and Pedigrees, 2010 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	LA01164D-94-2	*LA422/FUTAI8944//PIONEER 26R61*	Harrison	2007-08
6	03M1539#031	*GIBSON/92226E2-5-3*	Fogleman	2008-09
7	AR 99054-4-1	*AR679-9-1-2 / Roane*	Bacon	2008-09
8	ARS03-4736	*KS00U755/TAM 303 (=WX02ARS113-9)*	Marshall	2008-09
9	ARS05-1234	*KS2016-U2/Lakin (=WX03ARS1080-19)*	Marshall	2008-09
10	LA01141D-98-6-2	*LA841/PI225160//LA841*	Harrison	2008-09
11	03M1539#019	*Gibson/92226E2-5-3*	Fogleman	2009-10
12	AR99092-4-1	*AR837-4-1-1/P86300RB1-4-3-2-104*	Bacon	2009-10
13	AR99102-4-1	*Pat/P92118B4-2*	Bacon	2009-10
14	AR99160-1-1-B	*Ernie//PI590277/Ernie*	Bacon	2009-10
15	AR99264-8-1	*P92118B4-2/Saluda*	Bacon	2009-10
16	AR99311-12-1	*Roane/Coker 9704*	Bacon	2009-10
17	ARGE97-1042-4-5-20	*Mason / Catbird*	Milus	2009-10
18	ARGE97-1047-4-2-9	*P2684/N7840//Parula/Veery#6*	Milus	2009-10
19	ARGE97-1048-3-6-7	*Mason/SHA3/Catbird*	Milus	2009-10
20	ARS04-1267	*KS98HW151-6/KS01HW101(01-6101) (=KS2135-U54)*	Marshall	2009-10
21	ARS05-0005	*TX85-264*2/TTCC512*	Marshall	2009-10
22	ARS05-0043	*TAM 303*2/TTCC365*	Marshall	2009-10
23	ARS05-0277	*WX98D011-U38/TX99D4657*	Marshall	2009-10
24	ARS07 0095	*AR93005-6-5/MO002021*	Marshall	2009-10
25	ARS07-0203	*FL9547/NC00-14622*	Marshall	2009-10
26	GA031188-O15	*VA476 / AGS 2485*	Johnson	2009-10
27	GA031188-O16	*VA476 / AGS 2485*	Johnson	2009-10
28	GA031188-O17	*VA476 / AGS 2485*	Johnson	2009-10
29	GA041243-LE36	*VA461 / AGS2000 // GA96229-3E39*	Johnson	2009-10
30	GA041260-Q19	*McCormick / *2 GA951216-2E26*	Johnson	2009-10
31	GA041271-PL49	*McCormick / GA951216-2E26 // GA96229-3E39*	Johnson	2009-10
32	GA041271-Q23	*McCormick / GA951216-2E26 // GA96229-3E39*	Johnson	2009-10
33	GA041271-Q24	*McCormick / GA951216-2E26 // GA96229-3E39*	Johnson	2009-10
34	LA01141D-98-6-3	*LA841/PI225160//LA841*	Harrison	2009-10
35	LA02058E63	*LA94242D4-2(VA92-54-104/MOREY SIB)/AM-CIM-FHB6(MILAN/SHA7)*	Harrison	2009-10
36	LA02058E97	*LA94242D4-2/AM-CIM-FHB6(MILAN/SHA7)*	Harrison	2009-10
37	LA03130E68	*2(FL302/KS93WGRC32)*	Harrison	2009-10
38	LA03186E2	*1/SWM16395//PIO2684)*	Harrison	2009-10
39	LA04142C-P5	*AR857-1-1(MADISON/YMI 6)/LA841*	Harrison	2009-10
40	M08*8005#	*Branson/M99*3098*	Fogleman	2009-10
41	MD01W233-07-1	*McCormick/Choptank*	Costa	2009-10
42	MD02W135-08-9	*Sisson/McCormick*	Costa	2009-10
43	MD03W61-09-1	*P25R42/Chesapeake*	Costa	2009-10
44	MD03W91-09-7	*P25R42/Tribute*	Costa	2009-10
45	NC07-21036	*NC96-13155 / ROANE // Tribute*	Murphy	2009-10
46	NC07-23081	*IL94-1909 / ROANE // NC96-13965*	Murphy	2009-10
47	NC07-23126	*CIM1FHBN#5 / NC96-14629 // TRIBUTE*	Murphy	2009-10
48	NC07-23771	*NC96-13965 / I164-1-127 // NC96-13155*	Murphy	2009-10
49	NC07-24445	*USG 3209 / NC98-26541*	Murphy	2009-10
50	VA06W-580	*Roane / Pion 2684//OH 552 (P71761A4-31-5-33/MD55-286-21: FHB-RES),F9*	Griffey	2009-10
51	VA07W-569	*ROANE / ERNIE// McCORMICK,F10*	Griffey	2009-10
52	VA08W-622	*FREEDOM / NEUSE"S" (NC96-13374)// VA98W-688[Roane"S" (91-54-219)// FFR555W/GORE],F9*	Griffey	2009-10
53	VA08W-630	*OH 552(P71761A4-31-5-33/MD55-286-21: FHB-RES)/SS550 (VA96W-247= CK9803/FREEDOM)//RC STRATE*	Griffey	2009-10
54	VA08W-653	*COKER 9474(FHB-RES)/ NEUSE"S" (NC96-13374),F8*	Griffey	2009-10
55	VA08W-709	*ERNIE / AGS2000 // TRIBUTE,F7*	Griffey	2009-10
56	VA09W-641	*ERNIE/ NC96-13374(SCAB RES) //McCORMICK,F8*	Griffey	2009-10
57	VA09W-654	*VA98W-749[GA821066-1-7-2-1 (GA73054//STACY/AL"S")//CK9803/ FREEDOM]/IL96-3073(SCAB RES) //97*	Griffey	2009-10
58	W1104	*Hopewell/M94-1107*	Fogleman	2009-10

FHB Incidence (1-100)

	CULTIVAR/ DESIGNATION	COL'BIA MO	S'BURY MD	B'BURG VA	URBANA IL	B'KTON IN	LEX'TON KY	BAY AR	GRIFFiN GA	MEAN ALL LOC.	RANK
1	ERNIE	93	.	10	97	6	50	35	15	39	*1*
2	COKER 9835	100	20	15	100	60	85	100	41	63	*51*
3	BESS	71	10	10	93	3	50	95	19	43	*3*
4	JAMESTOWN	98	20	13	95	3	75	80	21	47	*6*
5	LA01164D-94-2	95	25	10	95	14	80	100	18	54	*31*
6	03M1539#031	100	25	18	98	10	75	100	23	57	*39*
7	AR 99054-4-1	98	30	13	98	10	90	75	13	52	*22*
8	ARS03-4736	100	20	15	98	16	100	90	5	55	*32*
9	ARS05-1234	100	20	13	98	14	65	85	10	49	*9*
10	LA01141D-98-6-2	98	45	18	100	20	95	100	31	61	*48*
11	03M1539#019	100	15	8	100	18	75	100	14	53	*29*
12	AR99092-4-1	88	25	8	95	20	65	100	7	51	*17*
13	AR99102-4-1	97	10	10	100	28	90	90	9	53	*29*
14	AR99160-1-1-B	92	50	8	93	15	45	95	2	47	*6*
15	AR99264-8-1	100	5	8	92	38	95	95	17	56	*35*
16	AR99311-12-1	100	33	18	98	28	95	90	23	58	*42*
17	ARGE97-1042-4-5-20	92	25	5	93	2	35	50	5	39	*1*
18	ARGE97-1047-4-2-9	90	45	5	70	3	60	50	9	45	*4*
19	ARGE97-1048-3-6-7	97	50	8	97	4	75	100	5	52	*22*
20	ARS04-1267	95	40	20	95	6	35	95	11	49	*9*
21	ARS05-0005	100	15	23	100	50	95	85	6	58	*42*
22	ARS05-0043	100	25	13	98	20	70	75	13	50	*13*
23	ARS05-0277	100	50	20	100	53	80	100	7	64	*53*
24	ARS07 0095	98	35	23	95	45	90	100	7	62	*50*
25	ARS07-0203	100	10	28	100	45	95	95	8	59	*45*
26	GA031188-O15	100	35	20	100	78	100	95	26	69	*58*
27	GA031188-O16	100	55	8	100	63	100	100	16	65	*55*
28	GA031188-O17	100	40	10	98	65	85	100	29	65	*55*
29	GA041243-LE36	98	20	15	97	43	90	100	61	64	*53*
30	GA041260-Q19	98	30	15	100	35	80	100	54	59	*45*
31	GA041271-PL49	100	25	23	87	55	100	90	18	61	*48*
32	GA041271-Q23	100	35	18	100	80	100	55	36	63	*51*
33	GA041271-Q24	100	23	23	95	80	100	90	29	67	*57*
34	LA01141D-98-6-3	98	25	15	100	28	100	100	30	59	*45*
35	LA02058E63	93	30	10	98	23	65	80	8	49	*9*
36	LA02058E97	100	45	8	98	20	80	100	18	58	*42*
37	LA03130E68	98	30	8	97	38	60	85	14	51	*17*
38	LA03186E2	100	45	15	100	38	90	70	15	56	*35*
39	LA04142C-P5	100	35	13	93	38	85	100	15	57	*39*
40	M08*8005#	98	45	13	90	5	65	100	11	52	*22*
41	MD01W233-07-1	100	10	10	100	13	100	100	11	55	*32*
42	MD02W135-08-9	95	20	10	97	20	80	90	17	52	*22*
43	MD03W61-09-1	100	15	13	100	4	100	75	8	50	*13*
44	MD03W91-09-7	100	35	8	97	2	50	55	8	45	*4*
45	NC07-21036	100	5	10	97	10	95	90	8	51	*17*
46	NC07-23081	100	8	10	95	4	55	95	28	50	*13*
47	NC07-23126	100	15	10	93	8	80	75	25	50	*13*
48	NC07-23771	100	20	10	98	20	50	100	32	51	*17*
49	NC07-24445	100	15	13	97	25	100	85	14	55	*32*
50	VA06W-580	100	35	15	93	4	60	80	16	51	*17*
51	VA07W-569	100	5	13	97	13	70	95	17	52	*22*
52	VA08W-622	98	43	5	95	23	75	95	23	56	*35*
53	VA08W-630	100	10	18	100	15	90	100	30	57	*39*
54	VA08W-653	100	10	8	100	8	100	100	35	56	*35*
55	VA08W-709	97	0	10	93	13	70	100	10	48	*8*
56	VA09W-641	95	35	10	87	5	85	95	16	52	*22*
57	VA09W-654	100	0	5	95	20	100	95	18	52	*22*
58	W1104	97	3	5	100	5	80	95	10	49	*9*
	Mean	98	25	12	96	24	79	89	18	54	
	LSD (0.05)	.	29.7	8.8	5.5	.	21	.	.	24	
	CV%	.	59.6	42.3	4.2	.	22.9	.	.	22.4	

FHB Severity (1-100)

	CULTIVAR/ DESIGNATION	BAY AR	RANK	F'VILLE (1) AR	RANK	F'VILLE (2) 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	FUN'LEA[1] ROM	RANK	MEAN ALL LOC.	RANK
1	ERNIE	5	1	23	19	25	13	22	6	.	.	10	4	22	1	46	47	30	11	3	5	36	9	20	4
2	COKER 9835	44	58	75	52	75	53	72	55	18	47	25	49	75	52	40	41	88	54	38	47	81	38	57	53
3	BESS	19	22	17	5	22	10	23	7	5	9	10	4	47	31	25	11	19	2	5	9	60	21	23	8
4	JAMESTOWN	12	6	18	8	30	25	27	14	13	37	28	54	35	8	17	3	31	13	5	9	28	7	22	5
5	LA01164D-94-2	32	47	25	22	28	21	32	26	10	26	13	23	38	16	48	48	64	40	18	30	66	24	34	37
6	03M1539#031	34	52	20	11	37	35	42	42	10	26	13	23	68	47	39	39	28	9	28	42	20	5	31	26
7	AR 99054-4-1	9	5	30	31	28	21	32	26	10	26	13	23	59	40	17	3	60	35	35	45	68	27	33	34
8	ARS03-4736	22	29	30	31	37	35	33	29	30	57	10	4	35	8	50	52	35	16	3	5	68	27	32	31
9	ARS05-1234	18	17	20	11	32	28	46	45	15	43	20	44	63	43	39	39	62	38	4	7	84	39	37	40
10	LA01141D-98-6-2	32	47	40	44	42	46	44	43	20	49	18	40	50	32	43	43	87	53	13	23	51	15	40	43
11	03M1539#019	18	17	30	31	40	41	34	32	13	37	20	44	52	35	25	11	46	25	11	21	66	24	32	31
12	AR99092-4-1	24	35	27	24	30	25	23	7	8	16	10	4	45	27	25	11	30	11	10	17	71	32	27	13
13	AR99102-4-1	18	17	32	36	33	31	49	50	8	16	15	31	69	49	36	34	65	41	13	23	100	50	40	43
14	AR99160-1-1-B	21	27	25	22	18	4	17	3	13	37	10	4	50	32	20	6	28	9	13	23	97	46	28	17
15	AR99264-8-1	21	27	35	41	27	17	26	11	5	9	13	23	40	17	20	6	61	37	25	39	68	27	31	26
16	AR99311-12-1	16	15	45	48	40	41	38	38	18	47	18	40	55	36	30	20	54	31	18	30	36	9	33	34
17	ARGE97-1042-4-5-2	5	1	23	19	13	1	16	2	10	26	10	4	36	11	25	11	15	1	5	9	29	8	17	1
18	ARGE97-1047-4-2-9	6	3	12	1	15	2	17	3	8	16	10	4	23	2	58	56	24	6	1	1	16	3	17	1
19	ARGE97-1048-3-6-7	22	29	12	1	15	2	33	29	15	43	10	4	36	11	48	48	27	8	2	2	70	31	26	11
20	ARS04-1267	18	17	17	5	20	7	33	29	13	37	23	49	40	17	34	31	23	5	11	21	95	43	30	22
21	ARS05-0005	19	22	42	46	42	46	48	48	10	26	20	44	79	54	58	56	84	50	23	35	100	50	48	48
22	ARS05-0043	15	12	22	16	27	17	39	39	3	3	13	23	45	27	36	34	43	24	10	17	48	14	27	13
23	ARS05-0277	34	52	42	46	43	48	44	43	25	53	15	31	85	58	45	45	79	46	53	51	100	50	51	49
24	ARS07 0095	34	52	47	49	38	37	70	54	25	53	20	44	51	34	25	11	48	29	35	45	99	48	45	47
25	ARS07-0203	25	37	60	50	60	50	56	51	10	26	25	49	74	50	33	27	78	45	60	52	100	50	53	50
26	GA031188-O15	30	45	92	58	83	55	63	52	20	49	25	49	77	53	53	54	81	49	80	58	96	44	64	55
27	GA031188-O16	28	41	75	52	85	57	76	56	20	49	40	56	68	47	50	52	89	56	70	55	100	50	64	55
28	GA031188-O17	41	57	78	54	87	58	83	57	15	43	50	58	74	50	48	48	80	48	73	57	98	47	66	58
29	GA041243-LE36	26	39	33	38	40	41	48	48	10	26	15	31	37	13	27	17	62	38	30	43	61	23	35	39
30	GA041260-Q19	33	49	70	51	68	51	46	45	20	49	25	49	84	57	53	54	67	43	50	50	100	50	56	52
31	GA041271-PL49	34	52	82	56	77	54	34	32	25	53	20	44	60	41	45	45	79	46	63	53	96	44	56	51
32	GA041271-Q23	14	9	88	57	83	55	91	58	25	53	38	55	80	55	38	36	99	58	65	54	100	50	65	57
33	GA041271-Q24	19	22	78	54	72	52	65	53	13	37	45	57	63	43	65	58	84	50	70	55	100	50	61	54
34	LA01141D-98-6-3	33	49	38	43	30	25	46	45	10	26	10	4	56	37	33	27	92	57	13	23	54	17	38	41
35	LA02058E63	19	22	33	38	32	28	29	18	8	16	13	23	57	38	38	36	22	4	25	39	99	49	34	37
36	LA02058E97	23	32	35	41	33	31	34	32	10	26	18	40	62	42	48	48	60	35	20	34	100	50	40	43
37	LA03130E68	15	12	18	8	27	17	32	26	13	37	8	1	37	13	12	1	26	7	38	47	18	4	22	5
38	LA03186E2	12	6	27	24	25	13	39	39	10	26	15	31	81	56	40	41	86	52	30	43	60	21	39	42
39	LA04142C-P5	23	32	27	24	18	4	30	22	10	26	13	23	41	22	14	2	77	44	40	49	47	12	31	26
40	M08*8005#	24	35	20	11	20	7	26	11	8	16	15	31	40	17	33	27	31	13	13	23	84	39	28	17
41	MD01W233-07-1	25	37	22	16	23	11	34	32	3	3	10	4	40	17	29	19	65	41	18	30	88	41	32	31
42	MD02W135-08-9	16	15	30	31	40	41	34	32	8	16	10	4	42	23	38	36	38	19	18	30	72	33	31	26
43	MD03W61-09-1	8	4	18	8	38	37	14	1	8	16	8	1	34	6	20	6	47	28	4	7	14	2	19	3
44	MD03W91-09-7	14	9	17	5	20	7	25	10	8	16	8	1	37	13	35	32	37	18	2	2	40	11	22	5
45	NC07-21036	13	8	23	19	33	31	28	16	3	3	15	31	46	29	25	11	56	32	9	15	80	37	30	22
46	NC07-23081	31	46	22	16	28	21	28	16	5	9	15	31	40	17	35	32	42	22	2	2	12	1	24	10
47	NC07-23126	14	9	30	31	40	41	29	18	5	9	10	4	35	8	24	10	38	19	25	39	55	18	28	17
48	NC07-23771	33	49	28	27	38	37	30	22	5	9	10	4	67	46	30	20	21	3	14	28	89	42	33	34
49	NC07-24445	29	44	40	44	48	49	41	41	3	3	18	40	65	45	31	25	88	54	15	29	76	35	41	46
50	VA06W-580	19	22	13	3	23	11	27	14	15	43	10	4	32	4	44	44	35	16	6	12	66	24	26	11
51	VA07W-569	23	32	28	27	32	28	26	11	5	9	13	23	44	25	30	20	42	22	23	35	69	30	30	22
52	VA08W-622	22	29	20	11	25	13	31	25	8	16	10	4	32	4	18	5	57	33	23	35	56	19	27	13
53	VA08W-630	36	56	20	11	27	17	29	18	3	3	15	31	44	25	23	9	59	34	10	17	72	33	31	26
54	VA08W-653	28	41	28	27	25	13	36	37	5	9	10	4	42	23	32	26	46	25	6	12	47	12	28	17
55	VA08W-709	28	41	32	36	38	37	30	22	0	1	10	4	25	3	30	20	40	21	9	15	52	16	27	13
56	VA09W-641	18	17	28	27	28	21	23	7	8	16	15	31	34	6	30	20	31	13	10	17	24	6	23	8
57	VA09W-654	15	12	15	4	18	4	20	5	0	1	10	4	58	39	28	18	46	25	23	35	78	36	28	17
58	W1104	26	39	33	38	35	34	29	18	3	3	10	4	46	29	33	27	49	30	8	14	57	20	30	22
	Mean	22		35		37		37		11		16		50.3		33		53		23		68		35	
	LSD (0.05)	.		14		12		16		13		14		17		21		27		.		.		24	
	CV%	.		.		.		31.6		61.4		50.0		24.9		32.1		43.3		.		.		35.4	

[1]DATA BY INDIVIDUAL ISOLATES ON FOLLOWING PAGES

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	218	233	225	*8*
2	COKER 9835	852	846	849	*56*
3	BESS	537	444	491	*23*
4	JAMESTOWN	151	235	193	*7*
5	LA01164D-94-2	495	539	517	*25*
6	03M1539#031	179	206	192	*6*
7	AR 99054-4-1	470	611	540	*28*
8	ARS03-4736	526	500	513	*24*
9	ARS05-1234	598	637	618	*37*
10	LA01141D-98-6-2	297	361	329	*14*
11	03M1539#019	406	512	459	*21*
12	AR99092-4-1	670	758	714	*46*
13	AR99102-4-1	753	777	765	*50*
14	AR99160-1-1-B	615	583	599	*32*
15	AR99264-8-1	613	516	564	*31*
16	AR99311-12-1	193	276	235	*10*
17	ARGE97-1042-4-5-20	233	218	226	*9*
18	ARGE97-1047-4-2-9	132	142	137	*2*
19	ARGE97-1048-3-6-7	386	416	401	*18*
20	ARS04-1267	818	743	781	*53*
21	ARS05-0005	649	635	642	*40*
22	ARS05-0043	131	475	303	*11*
23	ARS05-0277	667	696	681	*44*
24	ARS07 0095	726	784	755	*48*
25	ARS07-0203	612	608	610	*35*
26	GA031188-O15	797	738	767	*51*
27	GA031188-O16	977	963	970	*58*
28	GA031188-O17	928	1000	964	*57*
29	GA041243-LE36	432	349	390	*17*
30	GA041260-Q19	735	789	762	*49*
31	GA041271-PL49	833	857	845	*55*
32	GA041271-Q23	747	860	803	*54*
33	GA041271-Q24	774	777	775	*52*
34	LA01141D-98-6-3	418	288	353	*15*
35	LA02058E63	641	707	674	*43*
36	LA02058E97	625	606	615	*36*
37	LA03130E68	147	142	145	*3*
38	LA03186E2	458	495	476	*22*
39	LA04142C-P5	174	444	309	*13*
40	M08*8005#	506	544	525	*26*
41	MD01W233-07-1	568	802	685	*45*
42	MD02W135-08-9	566	511	538	*27*
43	MD03W61-09-1	158	158	158	*4*
44	MD03W91-09-7	327	278	303	*11*
45	NC07-21036	624	624	624	*38*
46	NC07-23081	84	117	100	*1*
47	NC07-23126	540	679	609	*34*
48	NC07-23771	601	694	647	*41*
49	NC07-24445	659	455	557	*29*
50	VA06W-580	643	621	632	*39*
51	VA07W-569	489	716	602	*33*
52	VA08W-622	403	440	422	*19*
53	VA08W-630	688	639	664	*42*
54	VA08W-653	428	312	370	*16*
55	VA08W-709	356	489	423	*20*
56	VA09W-641	171	173	172	*5*
57	VA09W-654	736	769	753	*47*
58	W1104	621	500	561	*30*
Mean		513	539	526	

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	20	6	.	.	1	1	21	2	17	38	8	1	15	7	0.2	9	9	1
2	COKER 9835	72	55	4	34	4	46	75	52	19	42	44	58	75	48	23	50	39	53
3	BESS	17	5	1	4	1	1	43	26	8	8	20	19	10	3	0.1	3	12	3
4	JAMESTOWN	27	14	3	22	3	40	33	7	4	2	15	6	23	16	0.1	3	13	4
5	LA01164D-94-2	31	25	3	22	1	1	36	15	26	51	32	44	52	35	2.4	27	23	34
6	03M1539#031	42	42	3	22	2	25	68	47	23	47	34	52	21	14	2.8	30	24	38
7	AR 99054-4-1	32	29	3	22	2	25	58	41	4	2	13	5	54	37	3.5	34	21	30
8	ARS03-4736	33	32	6	44	2	25	35	11	24	49	25	36	35	24	0.5	12	20	29
9	ARS05-1234	46	47	3	22	3	40	62	44	16	33	21	21	40	27	0.5	12	24	38
10	LA01141D-98-6-2	43	43	10	53	3	40	50	34	20	43	32	44	83	53	2.5	28	30	44
11	03M1539#019	34	33	2	16	1	1	52	35	11	14	18	12	35	24	1.9	21	19	23
12	AR99092-4-1	21	8	2	16	1	1	42	24	13	21	24	33	19	11	2.0	24	15	9
13	AR99102-4-1	47	48	1	4	2	25	69	49	17	38	19	16	59	42	3.4	32	27	42
14	AR99160-1-1-B	16	3	5	38	1	1	47	32	5	5	22	24	12	5	1.9	21	14	6
15	AR99264-8-1	26	12	1	4	1	1	37	18	12	19	22	24	58	41	9.4	42	21	30
16	AR99311-12-1	38	38	6	44	3	40	55	37	11	14	18	12	51	34	4.8	39	23	34
17	ARGE97-1042-4-5-20	15	2	3	22	1	1	34	9	10	11	9	2	5	1	0.1	3	10	2
18	ARGE97-1047-4-2-9	16	3	3	22	1	1	16	1	41	57	11	3	15	7	0.0	1	13	4
19	ARGE97-1048-3-6-7	31	25	8	49	1	1	35	11	13	21	22	24	20	12	0.1	3	16	16
20	ARS04-1267	31	25	5	38	5	50	38	19	16	33	19	16	8	2	0.6	16	15	9
21	ARS05-0005	48	50	3	22	5	50	79	54	26	51	21	21	79	50	11.3	43	34	49
22	ARS05-0043	39	39	1	4	2	25	44	28	13	21	17	9	30	20	2.0	24	19	23
23	ARS05-0277	44	44	12	55	4	46	85	58	33	55	34	52	63	43	27.6	52	38	52
24	ARS07 0095	69	54	9	51	5	50	48	33	11	14	34	52	43	28	15.8	48	29	43
25	ARS07-0203	56	51	2	16	7	56	74	51	16	33	26	38	74	47	27.0	51	35	51
26	GA031188-O15	63	52	7	49	5	50	77	53	38	56	32	44	81	52	62.0	58	45	57
27	GA031188-O16	76	56	11	54	4	46	68	47	23	47	28	41	89	56	43.8	54	43	54
28	GA031188-O17	83	57	6	44	5	50	73	50	26	51	41	57	68	46	47.1	55	44	56
29	GA041243-LE36	47	48	2	16	2	25	35	11	16	33	26	38	56	40	12.8	45	25	40
30	GA041260-Q19	45	45	6	44	4	46	84	57	9	9	33	48	54	37	17.5	49	31	47
31	GA041271-PL49	34	33	6	44	5	50	52	35	21	46	37	56	79	50	34.4	53	34	49
32	GA041271-Q23	91	58	9	51	8	57	80	55	17	38	22	24	99	58	52.0	56	47	58
33	GA041271-Q24	65	53	4	34	10	58	60	42	42	58	20	19	84	54	56.0	57	43	54
34	LA01141D-98-6-3	45	45	3	22	2	25	56	39	11	14	33	48	92	57	3.4	32	30	44
35	LA02058E63	27	14	2	16	1	1	56	39	13	21	23	29	14	6	5.6	41	18	18
36	LA02058E97	34	33	5	38	1	1	61	43	27	54	23	29	48	33	4.0	37	25	40
37	LA03130E68	32	29	5	38	1	1	36	15	3	1	17	9	16	9	14.1	46	15	9
38	LA03186E2	39	40	5	38	3	40	81	56	11	14	17	9	77	49	11.3	43	30	44
39	LA04142C-P5	30	23	4	34	2	25	39	20	5	5	23	29	65	44	15.0	47	23	34
40	M08*8005#	25	10	3	22	2	25	36	15	13	21	24	33	20	12	0.6	16	15	9
41	MD01W233-07-1	34	33	1	4	1	1	40	22	15	31	25	36	65	44	2.2	26	23	34
42	MD02W135-08-9	32	29	1	4	1	1	41	23	16	33	18	12	30	20	3.5	34	18	18
43	MD03W61-09-1	14	1	1	4	1	1	34	9	7	7	11	3	47	32	0.1	3	14	6
44	MD03W91-09-7	25	10	3	22	1	1	35	11	20	43	21	21	18	10	0.0	2	15	9
45	NC07-21036	28	17	0.3	2	2	25	44	28	13	21	15	6	53	36	0.9	18	19	23
46	NC07-23081	28	17	0.4	3	2	25	39	20	20	43	32	44	23	16	0.1	3	18	18
47	NC07-23126	29	22	1	4	1	1	33	7	4	2	18	12	30	20	1.9	21	15	9
48	NC07-23771	30	23	2	16	1	1	66	46	10	11	33	48	11	4	2.7	29	19	23
49	NC07-24445	41	41	1	4	2	25	63	45	15	31	33	48	88	55	3.8	36	31	47
50	VA06W-580	27	14	5	38	2	25	30	4	25	50	22	24	21	14	0.2	9	16	16
51	VA07W-569	26	12	1	4	2	25	43	26	18	41	24	33	30	20	2.8	30	18	18
52	VA08W-622	31	25	4	34	1	1	30	4	9	9	23	29	43	28	5.1	40	18	18
53	VA08W-630	29	20	1	4	3	40	44	28	13	21	36	55	54	37	1.5	20	22	33
54	VA08W-653	36	37	1	4	1	1	42	24	14	29	28	41	46	30	0.5	12	21	30
55	VA08W-709	29	20	.	.	1	1	24	3	12	19	28	41	28	19	1.1	19	15	9
56	VA09W-641	21	8	3	22	2	25	30	4	13	21	19	16	27	18	0.5	12	14	6
57	VA09W-654	20	6	.	.	1	1	55	37	10	11	16	8	46	30	4.5	38	19	23
58	W1104	28	17	0.1	1	1	1	46	31	14	29	27	40	39	26	0.4	11	19	23
	Mean	37		3		2		49		16		24		45		10		23	
	LSD (0.05)	16.3		5.0		3.2		16.8		13		.		30		.		22	
	CV%	32.7		75.4		80		25.5		39.0		.		56.7		.		48.6	

Percent Fusarium Damaged Kernels

	Cultivar/ Designation	COL'BIA MO	RANK	URBANA IL	RANK	BAY AR	RANK	F'VILLE (1) AR	RANK	F'VILLE (2) AR	RANK	KINSTON NC	RANK	S'BURY MD	RANK	LEX'TON KY	RANK	B'KTON IN	RANK	FUN'LEA ROM	RANK	MEAN All LOCS	RANK
1	ERNIE	40	19	40	7	13	8	13	21	25	13	3	4	.	.	15	35	14	20	43	9	20	10
2	COKER 9835	90	50	88	50	22	32	32	52	75	53	53	51	3.5	52	21	43	26	39	87	45	45	48
3	BESS	5	1	17	1	10	4	7	7	22	10	15	31	0.3	10	9	14	7	8	42	9	12	1
4	JAMESTOWN	20	8	40	7	7	1	11	16	30	25	7	15	0.3	10	9	14	9	10	28	6	16	5
5	LA01164D-94-2	60	31	55	22	47	55	17	31	28	21	11	23	0.3	10	11	23	14	20	47	15	30	29
6	03M1539#031	5	1	33	3	22	32	10	13	37	35	5	8	0.8	29	5	1	7	8	37	8	16	5
7	AR 99054-4-1	40	19	60	26	19	23	19	37	28	21	13	27	1.5	42	14	32	19	31	75	36	30	29
8	ARS03-4736	40	19	50	17	16	15	24	45	37	35	17	36	2.0	44	7	5	18	29	63	28	28	26
9	ARS05-1234	40	19	67	36	58	56	18	32	32	28	73	56	1.0	34	8	9	21	34	89	47	36	40
10	LA01141D-98-6-2	95	53	82	43	20	24	19	37	42	46	14	29	1.0	34	42	52	53	51	75	36	46	50
11	03M1539#019	50	26	63	30	15	14	16	28	40	41	11	23	0.5	18	17	39	10	14	82	41	30	29
12	AR99092-4-1	20	8	70	38	30	47	10	13	30	25	29	45	2.0	44	7	5	24	36	45	13	26	21
13	AR99102-4-1	80	46	80	41	22	32	23	42	33	31	19	38	0.0	1	28	45	12	16	97	49	41	45
14	AR99160-1-1-B	5	1	50	17	18	22	12	18	18	4	28	43	2.5	48	8	9	17	26	85	43	23	16
15	AR99264-8-1	20	8	30	2	30	47	8	12	27	17	3	4	0.5	18	5	1	17	26	54	22	19	7
16	AR99311-12-1	60	31	43	13	27	43	18	32	40	41	10	20	1.0	34	11	23	12	16	43	9	26	21
17	ARGE97-1042-4-5-20	20	8	60	26	61	57	5	3	13	1	15	31	0.0	1	6	4	11	15	48	17	25	18
18	ARGE97-1047-4-2-9	20	8	40	7	22	32	3	2	15	2	10	20	0.5	18	12	27	2	2	6	1	13	3
19	ARGE97-1048-3-6-7	75	42	63	30	13	8	2	1	15	2	4	6	1.3	40	7	5	3	3	83	42	29	27
20	ARS04-1267	10	5	57	23	23	38	10	13	20	7	8	16	0.5	18	8	9	9	10	100	54	26	21
21	ARS05-0005	80	46	87	48	21	31	31	51	42	46	55	52	2.3	47	14	32	28	42	99	51	45	48
22	ARS05-0043	60	31	73	39	37	54	26	47	27	17	35	46	1.0	34	13	31	18	29	50	19	35	38
23	ARS05-0277	40	19	63	30	25	41	18	32	43	48	8	16	1.0	34	22	44	30	43	80	39	34	37
24	ARS07 0095	25	17	77	40	16	15	21	40	38	37	55	52	2.5	48	15	35	55	52	76	38	35	38
25	ARS07-0203	95	53	80	41	20	24	25	46	60	50	60	54	1.3	40	36	50	17	26	91	48	44	46
26	GA031188-O15	95	53	94	52	29	45	35	53	83	55	23	41	0.8	29	56	57	99	58	100	54	63	58
27	GA031188-O16	97	58	93	51	17	19	28	49	85	57	28	43	0.0	1	43	53	51	50	87	46	51	52
28	GA031188-O17	90	50	94	52	34	52	39	54	87	58	40	47	2.8	50	48	54	55	52	100	54	56	53
29	GA041243-LE36	80	46	85	46	33	51	30	50	40	41	50	49	3.5	52	33	49	37	46	56	27	44	46
30	GA041260-Q19	95	53	95	56	16	15	46	55	68	51	60	54	8.8	57	29	46	76	56	99	51	58	55
31	GA041271-PL49	75	42	94	52	.	.	60	58	77	54	97	58	7.8	56	49	55	73	55	85	43	62	57
32	GA041271-Q23	95	53	96	57	13	8	58	57	83	55	43	48	3.8	54	38	51	88	57	97	49	61	56
33	GA041271-Q24	75	42	96	57	35	53	48	56	72	52	95	57	0.5	18	55	56	38	47	100	54	57	54
34	LA01141D-98-6-3	90	50	85	46	22	32	23	42	30	25	50	49	0.3	10	64	58	58	54	52	21	47	51
35	LA02058E63	50	26	87	48	32	50	22	41	32	28	16	33	2.0	44	9	14	20	33	100	54	38	42
36	LA02058E97	50	26	82	43	24	39	18	32	33	31	13	27	0.5	18	31	48	31	45	99	51	40	43
37	LA03130E68	40	19	53	21	28	44	14	25	27	17	10	20	2.8	50	18	40	19	31	27	5	24	17
38	LA03186E2	80	46	83	45	20	24	16	28	25	13	11	23	0.5	18	15	35	48	49	73	35	40	43
39	LA04142C-P5	20	8	94	52	12	6	23	42	18	4	6	10	1.8	43	30	47	27	41	64	30	33	36
40	M08*8005#	10	5	37	6	9	2	6	5	20	7	5	8	0.3	10	12	27	3	3	80	39	19	7
41	MD01W233-07-1	60	31	60	26	20	24	11	16	23	11	20	39	1.0	34	9	14	21	34	68	32	29	27
42	MD02W135-08-9	40	19	43	13	11	5	7	7	40	41	8	16	0.5	18	14	32	14	20	72	34	25	18
43	MD03W61-09-1	10	5	58	25	9	2	18	32	38	37	12	26	0.5	18	5	1	3	3	10	2	15	4
44	MD03W91-09-7	5	1	40	7	17	19	7	7	20	7	2	1	0.0	1	10	20	1	1	18	4	12	1
45	NC07-21036	75	42	40	7	14	12	12	18	33	31	25	42	0.0	1	12	57	4	7	51	20	26	21
46	NC07-23081	60	31	63	30	16	15	7	7	28	21	16	33	0.8	29	10	20	13	18	13	3	21	11
47	NC07-23126	50	26	57	23	24	39	12	18	40	41	6	10	0.1	9	9	14	15	23	49	18	26	21
48	NC07-23771	60	31	67	36	20	24	19	37	38	37	4	6	6.3	55	9	14	40	48	71	33	36	40
49	NC07-24445	60	31	62	29	17	19	13	21	48	49	6	10	0.0	1	19	41	15	23	63	28	30	29
50	VA06W-580	25	17	35	5	13	8	6	5	23	11	6	10	0.3	10	12	57	3	3	55	25	19	7
51	VA07W-569	60	31	63	30	20	24	13	21	32	28	2	1	0.3	10	7	5	16	25	66	31	30	29
52	VA08W-622	20	8	50	17	20	24	16	28	25	13	18	37	0.0	1	11	23	9	10	43	9	21	11
53	VA08W-630	60	31	45	16	30	47	15	26	27	17	16	33	0.8	29	19	41	30	43	54	22	31	34
54	VA08W-653	50	26	50	17	12	6	15	26	25	13	9	19	0.3	10	15	35	13	18	45	13	25	18
55	VA08W-709	20	8	33	3	22	32	13	21	38	37	2	1	0.5	18	8	9	26	39	55	25	22	13
56	VA09W-641	60	31	40	7	14	12	7	7	28	21	6	10	0.8	29	8	9	25	37	36	7	22	13
57	VA09W-654	20	8	43	13	29	45	5	3	18	4	21	40	0.0	1	10	20	25	37	54	22	22	13
58	W1104	60	31	63	30	26	42	27	48	35	34	14	29	0.5	18	11	23	9	10	47	15	31	34
	Mean	51		62		21		19		37		22		1		19		25		64		32	
	LSD (0.05)	.		13		20		9		8		.		4.3		17		.		17		27	
	CV%	.		15		50.6		.		.		.		165.1		78.9		.		.		42.9	

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	26	17	50	18	52	4	30	6	0.00	1	8	13	25	3
2	COKER 9835	47	52	87	54	88	51	60	47	0.52	44	40	49	55	49
3	BESS	23	9	30	1	49	2	24	3	0.04	19	5	6	22	1
4	JAMESTOWN	14	1	46	12	55	9	35	17	0.11	29	6	7	28	9
5	LA01164D-94-2	34	38	62	32	62	18	48	31	0.04	19	15	20	37	27
6	03M1539#031	32	32	45	11	63	19	33	11	0.14	32	14	18	31	13
7	AR 99054-4-1	21	6	55	19	71	33	51	37	0.11	29	21	35	40	37
8	ARS03-4736	36	41	56	22	60	14	43	25	1.15	51	13	17	35	21
9	ARS05-1234	53	55	60	27	75	39	41	23	0.22	36	14	18	38	31
10	LA01141D-98-6-2	32	32	81	51	78	41	71	52	1.08	50	31	42	52	46
11	03M1539#019	25	14	60	27	71	33	43	25	0.08	25	12	16	37	27
12	AR99092-4-1	34	38	41	7	70	32	31	10	0.28	38	19	33	32	14
13	AR99102-4-1	32	32	76	46	83	48	58	43	0.00	1	17	25	47	43
14	AR99160-1-1-B	24	12	35	2	63	19	25	4	0.90	49	15	20	28	9
15	AR99264-8-1	23	9	46	12	52	4	49	33	0.02	16	26	39	34	17
16	AR99311-12-1	25	14	65	39	63	19	49	33	0.55	45	18	31	39	34
17	ARGE97-1042-4-5-20	26	17	40	5	63	19	17	1	0.00	1	7	8	25	3
18	ARGE97-1047-4-2-9	41	46	40	5	44	1	30	6	0.12	31	2	1	23	2
19	ARGE97-1048-3-6-7	23	9	69	43	65	27	33	11	0.63	46	3	3	34	17
20	ARS04-1267	27	20	42	9	63	19	21	2	0.18	33	9	14	27	6
21	ARS05-0005	51	54	77	48	88	51	59	44	0.65	47	33	43	52	46
22	ARS05-0043	36	41	66	40	72	35	39	21	0.18	33	16	23	39	34
23	ARS05-0277	39	43	59	24	81	43	57	42	0.86	48	43	50	48	44
24	ARS07 0095	54	56	60	27	74	37	47	30	1.62	54	46	51	46	42
25	ARS07-0203	48	53	85	53	84	49	66	50	0.29	39	38	47	55	49
26	GA031188-O15	43	49	87	54	91	56	77	56	0.40	40	87	58	68	57
27	GA031188-O16	39	43	92	57	88	51	74	53	0.00	1	60	53	63	55
28	GA031188-O17	46	50	91	56	89	55	69	51	1.58	53	63	55	63	55
29	GA041243-LE36	39	43	76	46	74	37	59	44	0.50	43	36	46	49	45
30	GA041260-Q19	46	50	81	51	93	58	56	41	3.78	58	56	52	58	52
31	GA041271-PL49	67	57	70	44	81	43	74	53	3.35	57	64	56	59	53
32	GA041271-Q23	42	48	95	58	92	57	75	55	3.24	56	79	57	69	58
33	GA041271-Q24	76	58	80	50	86	50	77	56	0.01	14	60	53	61	54
34	LA01141D-98-6-3	41	46	79	49	81	43	83	58	0.05	21	35	45	56	51
35	LA02058E63	28	26	57	23	81	43	30	6	0.43	42	22	36	38	31
36	LA02058E97	33	36	60	27	81	43	54	40	0.22	36	24	38	44	39
37	LA03130E68	15	2	55	19	61	15	33	11	1.98	55	30	41	36	23
38	LA03186E2	26	17	74	45	88	51	59	44	0.18	33	39	48	52	46
39	LA04142C-P5	16	3	47	15	80	42	61	48	0.40	40	34	44	44	39
40	M08*8005#	25	14	41	7	54	8	33	11	0.05	21	7	8	27	6
41	MD01W233-07-1	33	36	64	38	66	28	53	38	0.00	1	17	25	40	37
42	MD02W135-08-9	27	20	55	19	59	12	41	23	0.05	21	17	25	34	17
43	MD03W61-09-1	21	6	38	3	64	26	46	29	0.07	24	3	3	30	11
44	MD03W91-09-7	28	26	39	4	56	10	30	6	0.00	1	2	1	25	3
45	NC07-21036	30	29	68	42	59	12	50	35	0.00	1	7	8	37	27
46	NC07-23081	34	38	62	32	66	28	33	11	0.01	14	7	8	34	17
47	NC07-23126	20	4	59	24	61	15	39	21	0.10	28	16	23	35	21
48	NC07-23771	20	4	63	36	76	40	25	4	1.51	52	26	39	38	31
49	NC07-24445	27	20	66	40	73	36	64	49	0.00	1	18	31	44	39
50	VA06W-580	32	32	48	17	52	4	33	11	0.09	27	4	5	27	6
51	VA07W-569	30	29	62	32	68	28	37	19	0.02	16	17	25	37	27
52	VA08W-622	27	20	47	15	58	11	44	28	0.00	1	17	25	33	15
53	VA08W-630	27	20	63	36	61	15	53	38	0.02	16	19	33	39	34
54	VA08W-653	30	29	61	31	63	19	50	35	0.00	1	9	14	36	23
55	VA08W-709	22	8	46	12	49	2	36	18	0.00	1	17	25	30	11
56	VA09W-641	24	12	59	24	52	4	38	20	0.08	25	15	20	33	15
57	VA09W-654	27	20	44	10	63	19	48	31	0.00	1	23	37	36	23
58	W1104	29	28	62	32	69	31	43	25	0.00	1	7	8	36	23
	Mean	32		61		69		47		0.5		24		41	
	LSD (0.05)	14		.		8		19		2		.		19	
	CV%	22.0		.		9		33.9		231.9		.		23.7	

SEED CHARACTERISTICS and Grain Yield

	Cultivar/ Designation	1000 GR. WT. S'BURY MD	Grain Yield (gr) F'VILLE AR
1	ERNIE	39	311
2	COKER 9835	39	87
3	BESS	42	306
4	JAMESTOWN	43	299
5	LA01164D-94-2	49	262
6	03M1539#031	42	291
7	AR 99054-4-1	44	223
8	ARS03-4736	51	233
9	ARS05-1234	42	185
10	LA01141D-98-6-2	47	237
11	03M1539#019	47	198
12	AR99092-4-1	41	219
13	AR99102-4-1	45	278
14	AR99160-1-1-B	48	296
15	AR99264-8-1	47	212
16	AR99311-12-1	42	256
17	ARGE97-1042-4-5-20	39	350
18	ARGE97-1047-4-2-9	48	290
19	ARGE97-1048-3-6-7	43	239
20	ARS04-1267	45	237
21	ARS05-0005	48	188
22	ARS05-0043	49	216
23	ARS05-0277	43	165
24	ARS07 0095	44	136
25	ARS07-0203	40	148
26	GA031188-O15	46	134
27	GA031188-O16	42	143
28	GA031188-O17	49	124
29	GA041243-LE36	44	167
30	GA041260-Q19	40	69
31	GA041271-PL49	43	28
32	GA041271-Q23	45	57
33	GA041271-Q24	52	55
34	LA01141D-98-6-3	48	188
35	LA02058E63	47	207
36	LA02058E97	50	183
37	LA03130E68	45	289
38	LA03186E2	40	231
39	LA04142C-P5	42	249
40	M08*8005#	40	260
41	MD01W233-07-1	40	181
42	MD02W135-08-9	46	185
43	MD03W61-09-1	47	311
44	MD03W91-09-7	43	355
45	NC07-21036	42	216
46	NC07-23081	40	303
47	NC07-23126	42	232
48	NC07-23771	41	178
49	NC07-24445	47	205
50	VA06W-580	42	325
51	VA07W-569	50	261
52	VA08W-622	46	257
53	VA08W-630	43	218
54	VA08W-653	38	185
55	VA08W-709	43	241
56	VA09W-641	50	285
57	VA09W-654	39	210
58	W1104	49	230
	Mean	44	218
	LSD (0.05)	7	65
	CV%	7	.

DON (ppm)

	Cultivar/ Designation	DON URBANA IL	RANK	DON KINSTON NC	RANK	DON F'VILLE AR	RANK	DON BAY AR	RANK	DON S'BURY MD	RANK	DON LEX'TON KY	RANK	MEAN ALL LOC.	RANK
1	ERNIE	9	27	2	10	25	23	2	6	0.5	14	17	15	9	11
2	COKER 9835	11	36	8	44	38	48	5	21	3.0	51	49	58	19	47
3	BESS	6	7	5	33	22	13	.	.	0.8	30	21	24	10	16
4	JAMESTOWN	5	3	1	3	26	25	3	12	0.3	5	12	2	8	5
5	LA01164D-94-2	6	7	4	23	22	13	11	41	0.4	8	22	28	11	21
6	03M1539#031	10	31	2	10	34	44	7	30	0.9	32	47	57	17	44
7	AR 99054-4-1	25	55	15	51	38	48	25	54	1.3	40	31	46	22	53
8	ARS03-4736	13	41	10	49	40	51	16	48	3.0	51	24	36	18	46
9	ARS05-1234	23	53	51	57	33	39	50	56	1.7	43	22	28	30	57
10	LA01141D-98-6-2	17	47	3	14	32	36	14	45	0.7	25	22	28	15	41
11	03M1539#019	10	31	6	37	33	39	8	33	0.6	17	16	10	12	28
12	AR99092-4-1	8	24	15	51	25	23	21	53	1.4	41	18	18	15	41
13	AR99102-4-1	11	36	6	37	27	29	7	30	0.6	17	25	37	13	34
14	AR99160-1-1-B	36	58	27	56	26	25	37	55	9.8	58	39	52	29	56
15	AR99264-8-1	14	42	6	37	23	13	14	45	1.8	44	27	40	14	38
16	AR99311-12-1	5	3	3	14	21	11	5	21	0.6	17	13	4	8	5
17	ARGE97-1042-4-5-20	4	1	4	23	12	1	8	33	0.5	14	22	28	8	5
18	ARGE97-1047-4-2-9	4	1	1	3	12	1	5	21	0.6	17	19	19	7	2
19	ARGE97-1048-3-6-7	5	3	1	3	12	2	6	26	1.1	36	13	4	6	1
20	ARS04-1267	17	47	3	14	29	32	12	43	0.9	32	22	28	14	38
21	ARS05-0005	7	17	6	37	23	13	11	41	1.2	38	21	24	11	21
22	ARS05-0043	7	17	5	33	28	30	5	21	0.4	8	21	24	11	21
23	ARS05-0277	15	45	5	33	36	46	7	30	2.3	48	38	51	17	44
24	ARS07 0095	14	42	21	55	36	46	16	48	2.2	47	29	45	20	50
25	ARS07-0203	9	27	7	42	32	36	8	33	0.9	32	15	7	12	28
26	GA031188-O15	33	57	7	42	49	55	10	39	0.5	14	28	41	21	51
27	GA031188-O16	22	51	9	48	44	52	6	26	1.1	36	33	48	19	47
28	GA031188-O17	23	53	5	33	48	53	9	36	1.4	41	28	41	19	47
29	GA041243-LE36	6	7	12	50	33	39	4	16	2.7	50	13	4	12	28
30	GA041260-Q19	18	49	8	44	53	56	16	48	4.2	54	29	43	21	51
31	GA041271-PL49	26	56	73	58	73	58	.	.	6.5	57	42	55	43	58
32	GA041271-Q23	21	50	17	54	60	57	20	52	5.4	56	43	56	28	55
33	GA041271-Q24	22	51	16	53	48	53	14	45	1.8	44	39	52	23	54
34	LA01141D-98-6-3	11	36	4	23	35	45	3	12	0.4	8	26	39	13	34
35	LA02058E63	10	31	5	32	31	34	2	6	2.0	46	17	15	11	21
36	LA02058E97	8	24	2	10	32	36	2	6	1.2	38	33	48	13	34
37	LA03130E68	11	36	3	14	19	8	1	1	4.5	55	39	52	13	34
38	LA03186E2	10	31	3	14	33	39	12	43	0.6	17	15	7	12	28
39	LA04142C-P5	15	45	0.2	1	23	13	2	6	0.7	25	31	46	12	28
40	M08*8005#	6	7	1	3	20	9	1	1	0.6	17	20	21	8	5
41	MD01W233-07-1	10	31	4	23	22	13	3	12	0.9	32	16	10	9	11
42	MD02W135-08-9	7	17	3	14	28	30	1	1	0.4	8	16	10	9	11
43	MD03W61-09-1	6	7	8	44	24	20	2	6	0.3	5	17	15	10	16
44	MD03W91-09-7	7	17	1	3	18	6	1	1	0.3	5	23	35	8	5
45	NC07-21036	6	7	4	23	30	33	6	26	0.2	3	12	2	10	16
46	NC07-23081	9	27	1	3	24	20	1	1	2.4	49	20	21	10	16
47	NC07-23126	6	7	3	14	21	11	4	16	0.0	1	35	50	11	21
48	NC07-23771	6	7	2	10	33	39	4	16	3.4	53	15	7	11	21
49	NC07-24445	9	27	0.2	1	24	20	5	21	0.2	3	22	28	10	16
50	VA06W-580	6	7	6	37	20	9	4	16	0.4	8	20	21	9	11
51	VA07W-569	11	36	4	23	23	13	9	36	0.7	25	21	24	11	21
52	VA08W-622	7	17	3	14	18	6	3	12	0.1	2	16	10	8	5
53	VA08W-630	8	24	4	23	26	25	10	39	0.7	25	25	37	12	28
54	VA08W-653	7	17	8	44	31	34	16	48	0.6	17	22	28	14	38
55	VA08W-709	6	7	3	14	26	25	4	16	0.6	17	16	10	9	11
56	VA09W-641	5	3	1	3	17	5	2	6	0.4	8	19	19	7	2
57	VA09W-654	7	17	4	23	16	4	6	26	0.8	30	10	1	7	2
58	W1104	14	42	4	23	39	50	9	36	0.7	25	29	43	16	43
	Mean	11.3		8		30		9		1.4		24		14	
	LSD (0.05)	4		10		9		.		.		.		13	
	CV%	18.9		69		.		.		.		.		48.7	

Greenhouse Screening

	Cultivar/ Designation	NC SEVERITY %	MO SEVERITY %	VA SEVERITY %	MEAN SEVERITY %	RANK	NC SEVERITY # florets	MO SEVERITY # florets	Mean # florets
1	ERNIE	5	19	26	16	*14*	1	2	1.5
2	COKER 9835	61	63	79	68	*54*	9	8	8.5
3	BESS	8	4	8	7	*1*	2	1	1.1
4	JAMESTOWN	5	27	21	18	*19*	1	3	2.1
5	LA01164D-94-2	40	10	19	23	*29*	6	1	3.7
6	03M1539#031	24	37	34	32	*37*	4	5	4.4
7	AR 99054-4-1	10	45	43	33	*40*	2	7	4.8
8	ARS03-4736	14	10	29	18	*18*	3	1	1.8
9	ARS05-1234	4	11	35	17	*15*	1	2	1.4
10	LA01141D-98-6-2	14	37	13	21	*26*	2	4	2.8
11	03M1539#019	13	35	22	23	*30*	3	6	4.2
12	AR99092-4-1	6	18	18	14	*10*	1	3	2.1
13	AR99102-4-1	68	38	36	47	*47*	10	5	7.4
14	AR99160-1-1-B	7	6	17	10	*5*	1	1	1.1
15	AR99264-8-1	11	25	18	18	*20*	2	*3*	*2.5*
16	AR99311-12-1	15	36	11	20	*25*	3	4	3.5
17	ARGE97-1042-4-5-20	14	19	12	15	*11*	3	2	2.6
18	ARGE97-1047-4-2-9	5	11	11	9	*3*	1	1	0.9
19	ARGE97-1048-3-6-7	10	14	47	23	*31*	2	2	1.7
20	ARS04-1267	6	19	15	14	*7*	1	2	1.4
21	ARS05-0005	4	39	100	48	*48*	1	6	3.1
22	ARS05-0043	6	10	39	18	*21*	1	1	1.2
23	ARS05-0277	82	32	73	62	*53*	14	4	8.6
24	ARS07 0095	14	31	58	35	*41*	3	5	3.7
25	ARS07-0203	20	43	57	40	*44*	4	7	5.5
26	GA031188-O15	100	65	100	88	*58*	14	8	10.8
27	GA031188-O16	58	64	83	68	*55*	7	7	6.9
28	GA031188-O17	74	57	100	77	*56*	9	7	7.8
29	GA041243-LE36	44	33	74	50	*49*	7	4	5.7
30	GA041260-Q19	25	51	100	59	*52*	4	5	4.7
31	GA041271-PL49	33	27	57	39	*43*	8	5	6.5
32	GA041271-Q23	96	56	82	78	*57*	20	8	13.9
33	GA041271-Q24	83	51	37	57	*51*	16	7	11.4
34	LA01141D-98-6-3	14	45	57	39	*42*	2	5	3.7
35	LA02058E63	46	13	8	23	*28*	6	1	3.9
36	LA02058E97	19	31	44	31	*36*	3	4	3.0
37	LA03130E68	7	13	22	14	*9*	1	*2*	*1.2*
38	LA03186E2	11	8	39	19	*24*	2	1	1.9
39	LA04142C-P5	59	38	36	44	*46*	9	5	7.0
40	M08*8005#	26	44	23	31	*35*	5	7	5.9
41	MD01W233-07-1	15	24	36	25	*33*	2	4	3.0
42	MD02W135-08-9	10	26	44	27	*34*	2	5	3.5
43	MD03W61-09-1	6	15	20	14	*8*	1	2	1.4
44	MD03W91-09-7	7	12	6	9	*2*	1	2	1.4
45	NC07-21036	5	12	35	17	*17*	1	2	1.3
46	NC07-23081	6	15	35	19	*22*	1	2	1.4
47	NC07-23126	7	42	75	41	*45*	1	5	3.1
48	NC07-23771	8	14	53	25	*32*	1	2	1.5
49	NC07-24445	71	64	22	52	*50*	9	7	8.0
50	VA06W-580	25	29	43	33	*39*	3	3	3.1
51	VA07W-569	14	16	28	19	*23*	2	3	2.4
52	VA08W-622	15	40	41	32	*38*	3	5	3.7
53	VA08W-630	8	8	12	10	*4*	1	2	1.5
54	VA08W-653	9	7	31	16	*13*	1	1	1.2
55	VA08W-709	19	16	10	15	*12*	3	2	2.5
56	VA09W-641	18	6	15	13	*6*	3	1	1.9
57	VA09W-654	5	4	56	21	*27*	1	1	0.6
58	W1104	20	17	15	17	*16*	3	3	2.9
	Mean	25	28	39	31		4	3.7	3.8
	LSD (0.05)	.	.	.	29.0		.	.	.
	CV%	.	.	.	43.2		.	.	.

ARKANSAS GREENHOUSE SCREENING

	CULTIVAR/ DESIGNATION	Type1 % FHB Day 5	*Type 1 RANK*	Type 2 AUDPC	*Type 2 RANK*	Gr. Wt / Head grams	*Weight Rank*	DON ppm	*DON Rank*	*Rank Sum*	*Rank Overall*
1	ERNIE	24	*17*	502	*8*	0.54	*14*	15	*22*	*61*	*12*
2	COKER 9835	58	*58*	1369	*55*	0.01	*57*	146	*50*	*220*	*56*
3	BESS	18	*10*	398	*4*	0.98	*1*	7	*7*	*22*	*3*
4	JAMESTOWN	15	*5*	396	*3*	0.67	*5*	19	*32*	*45*	*7*
5	LA01164D-94-2	26	*24*	749	*19*	0.23	*36*	31	*38*	*117*	*30*
6	03M1539#031	39	*41*	965	*39*	0.40	*21*	10	*13*	*114*	*26*
7	AR 99054-4-1	33	*35*	984	*41*	0.32	*28*	10	*15*	*119*	*33*
8	ARS03-4736	37	*40*	757	*20*	0.30	*30*	16	*29*	*119*	*34*
9	ARS05-1234	31	*34*	847	*29*	0.21	*40*	16	*30*	*133*	*37*
10	LA01141D-98-6-2	26	*25*	981	*40*	0.11	*46*	24	*35*	*146*	*41*
11	03M1539#019	50	*51*	1105	*46*	0.01	*56*	123	*49*	*202*	*51*
12	AR99092-4-1	31	*33*	841	*28*	0.38	*24*	11	*18*	*103*	*23*
13	AR99102-4-1	52	*54*	1141	*47*	0.22	*37*	25	*36*	*174*	*46*
14	AR99160-1-1-B	24	*18*	544	*13*	0.66	*7*	30	*37*	*75*	*17*
15	AR99264-8-1	40	*42*	863	*31*	0.27	*32*	22	*34*	*139*	*39*
16	AR99311-12-1	21	*13*	528	*11*	0.67	*4*	15	*26*	*54*	*10*
17	ARGE97-1042-4-5-20	44	*49*	872	*32*	0.46	*18*	3	*1*	*100*	*22*
18	ARGE97-1047-4-2-9	14	*4*	514	*9*	0.59	*11*	9	*12*	*36*	*5*
19	ARGE97-1048-3-6-7	41	*44*	996	*42*	0.24	*34*	17	*31*	*151*	*43*
20	ARS04-1267	30	*32*	805	*25*	0.35	*26*	15	*27*	*110*	*25*
21	ARS05-0005	27	*27*	832	*27*	0.27	*31*	21	*33*	*118*	*31*
22	ARS05-0043	10	*2*	325	*2*	0.67	*6*	8	*8*	*18*	*2*
23	ARS05-0277	47	*50*	1013	*43*	0.11	*45*	6	*6*	*144*	*40*
24	ARS07 0095	41	*45*	1027	*44*	0.33	*27*	33	*40*	*156*	*45*
25	ARS07-0203	36	*39*	1207	*48*	0.02	*53*	116	*47*	*187*	*47*
26	GA031188-O15	55	*55*	1396	*58*	0.00	*58*	871	*58*	*229*	*58*
27	GA031188-O16	34	*36*	1208	*49*	0.03	*51*	252	*54*	*190*	*49*
28	GA031188-O17	51	*53*	1381	*56*	0.01	*55*	178	*51*	*215*	*55*
29	GA041243-LE36	57	*57*	1314	*53*	0.09	*47*	122	*48*	*205*	*53*
30	GA041260-Q19	57	*56*	1383	*57*	0.02	*54*	523	*56*	*223*	*57*
31	GA041271-PL49	42	*47*	1267	*52*	0.06	*49*	258	*55*	*203*	*52*
32	GA041271-Q23	40	*43*	1325	*54*	0.03	*52*	605	*57*	*206*	*54*
33	GA041271-Q24	25	*21*	1104	*45*	0.22	*38*	112	*46*	*150*	*42*
34	LA01141D-98-6-3	34	*37*	1218	*50*	0.06	*50*	244	*53*	*190*	*48*
35	LA02058E63	15	*6*	911	*36*	0.24	*33*	86	*45*	*120*	*35*
36	LA02058E97	42	*48*	1234	*51*	0.08	*48*	184	*52*	*199*	*50*
37	LA03130E68	28	*28*	579	*16*	0.60	*10*	11	*17*	*71*	*16*
38	LA03186E2	29	*29*	856	*30*	0.44	*20*	15	*24*	*103*	*24*
39	LA04142C-P5	12	*3*	484	*7*	0.49	*17*	36	*41*	*68*	*14*
40	M08*8005#	17	*9*	467	*5*	0.56	*12*	15	*25*	*51*	*9*
41	MD01W233-07-1	29	*30*	910	*35*	0.15	*42*	85	*44*	*151*	*44*
42	MD02W135-08-9	42	*46*	931	*38*	0.23	*35*	12	*19*	*138*	*38*
43	MD03W61-09-1	25	*19*	533	*12*	0.56	*13*	10	*14*	*58*	*11*
44	MD03W91-09-7	29	*31*	801	*24*	0.50	*16*	15	*21*	*92*	*19*
45	NC07-21036	25	*22*	614	*17*	0.39	*23*	10	*16*	*78*	*18*
46	NC07-23081	21	*14*	519	*10*	0.51	*15*	9	*11*	*50*	*8*
47	NC07-23126	16	*7*	801	*23*	0.17	*41*	54	*43*	*114*	*29*
48	NC07-23771	25	*20*	776	*22*	0.14	*44*	16	*28*	*114*	*27*
49	NC07-24445	20	*11*	905	*34*	0.15	*43*	31	*39*	*127*	*36*
50	VA06W-580	16	*8*	769	*21*	0.31	*29*	8	*9*	*67*	*13*
51	VA07W-569	20	*12*	475	*6*	0.64	*8*	4	*2*	*28*	*4*
52	VA08W-622	50	*52*	930	*37*	0.38	*25*	6	*5*	*119*	*32*
53	VA08W-630	26	*26*	815	*26*	0.40	*22*	14	*20*	*94*	*21*
54	VA08W-653	34	*38*	873	*33*	0.45	*19*	5	*4*	*94*	*20*
55	VA08W-709	21	*15*	644	*18*	0.21	*39*	40	*42*	*114*	*28*
56	VA09W-641	6	*1*	152	*1*	0.80	*2*	5	*3*	*7*	*1*
57	VA09W-654	22	*16*	553	*14*	0.70	*3*	9	*10*	*43*	*6*
58	W1104	26	*23*	578	*15*	0.61	*9*	15	*23*	*70*	*15*
	Mean	31		849		0.33		79			

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

	CULTIVAR/ DESIGNATION	*Fhb1*	Wuh-1 *2DL*	Ning *5AS*	*Ernie 3BSc*	*Ernie 5AS*	*H9*	*H13*	*1RS tran*	*Lr34/Yr18*	*Lr24/Sr24*
1	ERNIE	.	.	.	*yes*	*yes*	.	.	.	.	.
2	COKER 9835	.	.	.	.	.	.	.	.	.	.
3	BESS	.	.	.	.	.	.	.	.	.	.
4	JAMESTOWN	.	.	.	.	.	.	.	.	.	.
5	LA01164D-94-2	*yes*	.	.	.	.	.	.	.	.	.
6	03M1539#031	.		.	.	.	*yes*	.	.	.	.
7	AR 99054-4-1	.	.	.	.	.	.	.	.	.	.
8	ARS03-4736	.	.	.	.	.	.	.	1RS:1AL	.	.
9	ARS05-1234	.	.	.	.	.	.	.	.	.	.
10	LA01141D-98-6-2	.	.	.	.	.	.	.	.	*yes*	.
11	03M1539#019	.	.	.	.	.	*yes*	.	1RS:1BL	.	.
12	AR99092-4-1	.	.	.	.	.	.	.	.	.	.
13	AR99102-4-1	.	.	.	.	.	.	.	.	.	.
14	AR99160-1-1-B	.	.	.	*yes*	.	.	.	.	.	.
15	AR99264-8-1	.	.	.	.	.	.	.	.	.	.
16	AR99311-12-1	.	.	.	.	.	.	.	.	.	.
17	ARGE97-1042-4-5-20	.	.	.	.	.	.	.	1RS:1BL	.	.
18	ARGE97-1047-4-2-9	*het?*	.	.	.	.	.	.	1RS:1BL	.	.
19	ARGE97-1048-3-6-7	.	*yes*	.	.	.	.	.	.	.	.
20	ARS04-1267	.	.	.	.	.	.	.	1RS:1AL	.	.
21	ARS05-0005	.	.	.	.	.	.	.	.	.	*yes*
22	ARS05-0043	.	.	.	.	.	.	.	.	.	*yes*
23	ARS05-0277	.	.	.	.	.	.	.	1RS:1AL	.	.
24	ARS07 0095	.	.	.	.	*het*	.	.	1RS:1AL	.	*yes*
25	ARS07-0203	.	.	.	.	.	.	.	.	.	.
26	GA031188-O15	.	.	.	.	.	.	.	.	.	.
27	GA031188-O16	.	.	.	.	.	.	.	.	.	.
28	GA031188-O17	.	.	.	.	.	.	.	.	.	.
29	GA041243-LE36	.	.	.	.	.	.	*yes*	.	.	.
30	GA041260-Q19	.	.	.	.	.	.	.	.	.	.
31	GA041271-PL49	.	.	.	.	.	.	.	.	.	.
32	GA041271-Q23	.	.	.	.	.	.	.	.	.	.
33	GA041271-Q24	.	.	.	.	.	.	.	.	.	.
34	LA01141D-98-6-3	.	.	.	.	.	.	.	.	*yes*	.
35	LA02058E63	*yes*	*yes*	.	*het?*	.	.	.	1RS:1BL	.	.
36	LA02058E97	*yes*	*yes*	.	.	.	.	.	1RS:1BL	.	.
37	LA03130E68	.	.	.	.	.	.	.	.	*yes*	.
38	LA03186E2	.	*yes*	.	.	.	.	.	.	.	.
39	LA04142C-P5	.	.	.	.	.	.	.	.	.	.
40	M08*8005#	.	.	.	.	.	.	.	.	.	.
41	MD01W233-07-1	.	.	.	.	.	.	.	1RS:1AL	.	*yes*
42	MD02W135-08-9	.	.	.	.	.	.	.	1RS:1BL, 1RS:1AL	.	.
43	MD03W61-09-1	*?*	.	.	.	.	.	.	1RS:1BL	.	.
44	MD03W91-09-7	.	.	.	.	.	.	.	1RS:1AL	.	.
45	NC07-21036	.	.	.	.	.	.	.	1RS:1AL	.	*yes*
46	NC07-23081	.	.	.	.	.	*yes*	.	1RS:1AL	.	.
47	NC07-23126	.	.	.	.	.	.	.	1RS:1AL	.	*yes*
48	NC07-23771	.	.	.	.	.	.	.	.	.	.
49	NC07-24445	.	.	.	*yes*	.	.	.	.	.	.
50	VA06W-580	.	.	.	.	.	.	.	.	.	.
51	VA07W-569	.	.	.	*yes?*	.	.	.	1RS:1AL	.	.
52	VA08W-622	.	.	.	.	.	.	.	non-1RS	.	.
53	VA08W-630	.	.	.	.	.	.	.	1RS:1AL	.	.
54	VA08W-653	.	.	.	.	.	*yes*	.		.	.
55	VA08W-709	.	.	.	.	.	.	.	1RS:1BL, 1RS:1AL	.	*yes*
56	VA09W-641	.	.	.	.	*yes*	.	.	1RS:1AL	.	.
57	VA09W-654	.	.	.	.	.	.	.	.	.	.
58	W1104	.	.	.	.	yes	.	.	1RS:1BL	.	.

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

	CULTIVAR/ DESIGNATION	Sr2	Sr36	Lr37/Yr17/ Sr28	BVD2/3	Rht-B1b (Rht1)	Rht-D1b (Rht2)	Rht8	Ppd-D1a Insen.	Bx7 OE	Glu-D1	Glu-A1
1	ERNIE	.	het	.	.	yes	.	.	.	.	2+12	Ax1 or null
2	COKER 9835	.	yes	.	.	.	yes	.	yes	.	2+12	Ax2*
3	BESS	.	.	.	.	yes	.	.	het	.	2+12	Ax1 or null
4	JAMESTOWN	.	.	.	.	.	Negative	.	yes	.	2+12	Ax2*
5	LA01164D-94-2	.	het	yes	.	.	yes	.	.	yes	2+12	het
6	03M1539#031	.	.	.	.	yes	het	.	yes	.	2+12	het
7	AR 99054-4-1	.	.	.	.	.	.	.	.	.	2+12	Ax2*
8	ARS03-4736	.	.	.	.	yes	.	.	nd	.	2+12	Ax2*
9	ARS05-1234	.	.	yes	.	yes	.	.	.	.	2+12	Ax1 or null
10	LA01141D-98-6-2	.	.	yes	.	.	yes	.	yes	het	2+12	Ax2*
11	03M1539#019	.	.	yes	.	yes	.	.	.	.	2+12	Ax2*
12	AR99092-4-1	.	.	.	.	.	.	.	yes	.	2+12	Ax2*
13	AR99102-4-1	.	.	.	.	het	.	het	yes	.	5+10	Ax1 or null
14	AR99160-1-1-B	.	.	.	.	.	.	.	.	.	2+12	Ax1 or null
15	AR99264-8-1	.	.	.	.	.	.	.	yes	.	2+12	Ax2*
16	AR99311-12-1	.	.	.	.	.	yes	.	yes	.	2+12	Ax2*
17	ARGE97-1042-4-5-20	.	.	.	.	yes	.	.	.	.	2+12	Ax2*
18	ARGE97-1047-4-2-9	.	.	.	.	het	.	.	yes	.	het?	Ax2*
19	ARGE97-1048-3-6-7	.	.	.	.	yes	.	.	yes	.	2+12	Ax1 or null
20	ARS04-1267	.	.	yes	.	yes	.	.	.	.	5+10	Ax2*
21	ARS05-0005	.	.	.	.	yes	.	.	yes	.	2+12	Ax2*
22	ARS05-0043	.	.	.	.	yes	.	.	yes	.	2+12	Ax1 or null
23	ARS05-0277	.	het	.	.	yes	.	.	.	.	5+10	Ax2*
24	ARS07 0095	.	.	.	.	Unknown	Unknown	.	.	.	5+10	het
25	ARS07-0203	.	yes	yes	.	.	yes	.	yes	.	2+12	Ax1 or null
26	GA031188-O15	.	.	yes	.	.	yes	.	yes	.	2+12	Ax2*
27	GA031188-O16	.	.	yes	.	.	yes	.	yes	.	2+12	Ax2*
28	GA031188-O17	.	.	yes	.	.	yes	.	yes	.	2+12	Ax2*
29	GA041243-LE36	.	.	yes	.	yes	.	.	yes	.	2+12	Ax1 or null
30	GA041260-Q19	.	.	yes	.	.	yes	.	yes	.	2+12	Ax1 or null
31	GA041271-PL49	.	.	yes	.	.	yes	.	.	.	5+10	Ax2*
32	GA041271-Q23	.	.	yes	.	Unknown	Unknown	.	.	.	5+10	Ax2*
33	GA041271-Q24	.	.	yes	.	.	yes	.	.	.	5+10	Ax2*
34	LA01141D-98-6-3	.	.	yes	.	.	yes	.	yes	.	2+12	Ax2*
35	LA02058E63	.	.	yes	.	.	yes	yes	yes	.	het?	Ax1 or null
36	LA02058E97	.	.	yes	.	.	yes	yes	yes	.	het	Ax1 or null
37	LA03130E68	.	yes	.	.	yes	.	.	yes	.	2+12	Ax2*
38	LA03186E2	.	.	.	.	yes	.	.	.	.	2+12	Ax1 or null
39	LA04142C-P5	.	.	.	.	.	.	.	.	.	2+12	Ax2*
40	M08*8005#	.	.	.	.	yes	Unknown	.	yes	.	5+10	Ax2*
41	MD01W233-07-1	.	.	.	.	.	yes	.	.	.	2+12	Ax2*
42	MD02W135-08-9	.	.	.	.	.	yes	.	.	.	2+12	Ax2*
43	MD03W61-09-1	.	.	.	.	.	yes	.	yes	.	2+12	Ax1 or null
44	MD03W91-09-7	.	yes	.	.	.	het	.	yes	.	5+10	Ax2*
45	NC07-21036	.	.	.	.	.	yes	.	.	.	2+12	Ax2*
46	NC07-23081	.	yes	.	.	yes	.	.	yes	.	2+12	Ax2*
47	NC07-23126	.	yes	.	.	yes	.	.	.	.	5+10	Ax2*
48	NC07-23771	.	yes	.	.	.	Unknown	.	.	.	2+12	Ax1 or null
49	NC07-24445	.	yes	.	.	.	yes	yes	yes	.	5+10	Ax1 or null
50	VA06W-580	.	yes	.	.	.	yes	.	yes	.	2+12	Ax2*
51	VA07W-569	.	.	.	.	.	yes	.	.	.	2+12	Ax2*
52	VA08W-622	.	yes	.	.	.	.	.	.	.	2+12	Ax1 or null
53	VA08W-630	.	.	.	.	.	yes	.	.	.	2+12	Ax2*
54	VA08W-653	.	het	.	.	.	yes	.	.	.	2+12	Ax1 or null
55	VA08W-709	.	.	.	.	.	yes	.	.	.	het?	Ax2*
56	VA09W-641	.	.	.	.	.	yes	.	.	.	2+12	het
57	VA09W-654	.	.	.	.	.	.	.	.	.	5+10	Ax1 or null
58	W1104	.	.	.	.	yes	.	.	yes	yes	2+12	Ax2*

Heading Date (Julian Days*)

	URBANA IL	COL'BIA MO	S'BURY MD	LEX'TON KY	BAY AR	FUN'LEA ROM	MEAN ALL LOC.	RANK
1 ERNIE	126	141	120	128	115	131	127	6
2 COKER 9835	130	144	122	132	118	132	130	41
3 BESS	128	144	122	126	118	133	129	28
4 JAMESTOWN	125	140	120	124	110	132	125	2
5 LA01164D-94-2	130	144	121	130	118	133	129	28
6 03M1539#031	128	140	121	127	117	132	128	11
7 AR 99054-4-1	133	144	122	131	120	134	131	49
8 ARS03-4736	127	144	121	126	117	132	128	11
9 ARS05-1234	133	146	125	133	122	133	132	57
10 LA01141D-98-6-2	131	144	121	130	118	132	129	28
11 03M1539#019	131	143	121	128	118	133	129	28
12 AR99092-4-1	131	144	123	130	120	133	130	41
13 AR99102-4-1	130	144	121	131	117	134	130	41
14 AR99160-1-1-B	132	145	123	131	121	134	131	49
15 AR99264-8-1	129	144	123	131	118	135	130	41
16 AR99311-12-1	129	143	121	128	116	133	128	11
17 ARGE97-1042-4-5-20	128	140	126	127	117	132	128	11
18 ARGE97-1047-4-2-9	126	141	119	126	116	130	126	3
19 ARGE97-1048-3-6-7	129	139	120	127	116	130	127	6
20 ARS04-1267	126	144	120	129	116	134	128	11
21 ARS05-0005	131	143	122	130	117	133	129	28
22 ARS05-0043	128	140	121	128	117	132	128	11
23 ARS05-0277	128	144	122	131	118	134	129	28
24 ARS07 0095	132	145	122	132	120	134	131	49
25 ARS07-0203	131	144	125	132	120	136	131	49
26 GA031188-O15	129	142	120	129	116	132	128	11
27 GA031188-O16	129	143	121	129	115	132	128	11
28 GA031188-O17	129	144	121	129	115	133	129	28
29 GA041243-LE36	127	143	120	129	116	131	128	11
30 GA041260-Q19	130	144	120	129	118	134	129	28
31 GA041271-PL49	139	147	126	142	123	139	136	58
32 GA041271-Q23	130	145	123	133	120	136	131	49
33 GA041271-Q24	131	145	122	133	119	136	131	49
34 LA01141D-98-6-3	129	144	120	129	117	132	128	11
35 LA02058E63	129	141	120	126	115	132	127	6
36 LA02058E97	130	142	121	128	117	132	128	11
37 LA03130E68	123	143	118	125	108	129	124	1
38 LA03186E2	131	144	122	130	118	134	130	41
39 LA04142C-P5	130	144	118	129	115	132	128	11
40 M08*8005#	126	140	119	127	114	131	126	3
41 MD01W233-07-1	132	144	122	135	119	135	131	49
42 MD02W135-08-9	129	144	120	129	117	134	129	28
43 MD03W61-09-1	129	141	121	128	116	132	128	11
44 MD03W91-09-7	128	142	120	126	116	132	127	6
45 NC07-21036	133	143	122	131	119	134	130	41
46 NC07-23081	127	143	121	128	116	133	128	11
47 NC07-23126	128	144	121	130	117	133	129	28
48 NC07-23771	131	144	121	127	117	135	129	28
49 NC07-24445	126	141	120	129	116	132	127	6
50 VA06W-580	128	142	120	128	115	132	128	11
51 VA07W-569	129	144	121	131	118	133	129	28
52 VA08W-622	126	144	120	131	116	132	128	11
53 VA08W-630	129	144	121	130	117	132	129	28
54 VA08W-653	132	145	121	130	118	133	130	41
55 VA08W-709	127	143	120	127	117	134	128	11
56 VA09W-641	125	140	118	125	113	133	126	3
57 VA09W-654	131	146	125	136	123	126	131	49
58 W1104	131	144	122	130	117	135	130	41
Mean	129	143	121	129	117	133	129	
LSD (0.05)	.	.	2.3	3	.	.	3	
CV%	.	.	1.0	2.2	.	.	1.1	

*Days after December 31, 2009

Plant Height (in)

	CULTIVAR/ DESIGNATION	LEX'TON KY	S'BURY MD	FUN'LEA ROM	MEAN ALL LOC.	*RANK*
1	ERNIE	27	30	43	33	*20*
2	COKER 9835	31	30	35	32	*13*
3	BESS	32	32	40	35	*33*
4	JAMESTOWN	28	29	38	31	*9*
5	LA01164D-94-2	35	33	44	37	*50*
6	03M1539#031	31	31	46	36	*43*
7	AR 99054-4-1	35	34	48	39	*55*
8	ARS03-4736	32	36	40	36	*45*
9	ARS05-1234	35	33	40	36	*41*
10	LA01141D-98-6-2	31	29	35	32	*11*
11	03M1539#019	31	33	44	36	*46*
12	AR99092-4-1	35	39	53	42	*58*
13	AR99102-4-1	32	30	46	36	*44*
14	AR99160-1-1-B	36	36	54	42	*57*
15	AR99264-8-1	37	36	52	42	*56*
16	AR99311-12-1	27	30	38	32	*10*
17	ARGE97-1042-4-5-20	32	33	40	35	*34*
18	ARGE97-1047-4-2-9	34	33	46	38	*51*
19	ARGE97-1048-3-6-7	32	36	46	38	*53*
20	ARS04-1267	32	32	36	33	*23*
21	ARS05-0005	31	33	38	34	*28*
22	ARS05-0043	31	33	38	34	*27*
23	ARS05-0277	29	31	35	32	*12*
24	ARS07 0095	29	33	41	34	*29*
25	ARS07-0203	30	31	38	33	*16*
26	GA031188-O15	32	34	44	36	*49*
27	GA031188-O16	30	34	39	34	*31*
28	GA031188-O17	30	31	40	34	*24*
29	GA041243-LE36	30	34	43	36	*40*
30	GA041260-Q19	30	29	39	33	*17*
31	GA041271-PL49	36	36	42	38	*52*
32	GA041271-Q23	34	36	40	36	*48*
33	GA041271-Q24	33	34	41	36	*47*
34	LA01141D-98-6-3	30	30	40	33	*22*
35	LA02058E63	32	32	35	33	*19*
36	LA02058E97	33	35	38	35	*38*
37	LA03130E68	31	33	42	35	*36*
38	LA03186E2	35	35	46	38	*54*
39	LA04142C-P5	33	33	42	36	*42*
40	M08*8005#	30	31	43	34	*30*
41	MD01W233-07-1	28	31	35	31	*8*
42	MD02W135-08-9	29	32	28	30	*4*
43	MD03W61-09-1	30	30	42	34	*26*
44	MD03W91-09-7	32	30	45	35	*37*
45	NC07-21036	29	28	33	30	*5*
46	NC07-23081	30	31	38	33	*18*
47	NC07-23126	29	32	36	32	*15*
48	NC07-23771	28	31	38	32	*14*
49	NC07-24445	28	30	35	31	*7*
50	VA06W-580	27	29	29	28	*2*
51	VA07W-569	33	32	42	36	*39*
52	VA08W-622	30	30	43	34	*32*
53	VA08W-630	28	27	33	29	*3*
54	VA08W-653	27	25	29	27	*1*
55	VA08W-709	29	33	40	34	*25*
56	VA09W-641	29	33	38	33	*21*
57	VA09W-654	34	30	42	35	*35*
58	W1104	28	27	38	31	*6*
	Mean	31	32	40	34	
	LSD (0.05)	3	4.8	.	5	
	CV%	8.4	7.5	.	7.2	

Leaf and Viral Disease Ratings

	CULTIVAR/ DESIGNATION	J 148 LEAF RUST (0-9) FUN'LEA ROM	J 157 LEAF RUST (0-9) FUN'LEA ROM	POWDERY MILDEW (0-9) FUN'LEA ROM	Stripe Rust (0-9) FUN'LEA ROM	Stripe Rust (0-9) F'VILLE (1) AR	Stripe Rust (0-9) F'VILLE (2) AR	Stem Rust % F'VILLE AR	Stem Rust *If. Type* 0 - 4 F'VILLE AR	Spindle Streak 0-9 BAY AR	FHB Rating 0-9 BAY AR
1	ERNIE	3	6.0	2	0	63	15	2	1	4.0	4
2	COKER 9835	2	2.0	1	MSS	54	63	0	0	5.0	5
3	BESS	4	5.0	3	0	1	0	2	2	4.5	5
4	JAMESTOWN	0	1-2	1	0	0	0	2	1	4.5	5
5	LA01164D-94-2	0	1.0	2	TR	23	43	0	0	5.5	6
6	03M1539#031	2	2.0	3	MS	7	6	70	3	5.5	6
7	AR 99054-4-1	3	9.0	2	0	1	0	15	3	2.5	3
8	ARS03-4736	2	2.0	2-3	MSS	1	1	7	2	2.0	2
9	ARS05-1234	0	TR R-MR	3	0	3	57	0	0	2.0	2
10	LA01141D-98-6-2	0	3-4	2	0	2	0	30	3	7.5	8
11	03M1539#019	0	4.0	3	0	10	68	2	1	6.5	7
12	AR99092-4-1	3	TR MR	1	0	0	2	2	1	5.0	5
13	AR99102-4-1	0	1-2	2-3	0	1	5	0	0	3.5	4
14	AR99160-1-1-B	0	2.0	1	0	0	0	2	1	6.0	6
15	AR99264-8-1	0	1-2	1	0	0	0	30	3	4.5	5
16	AR99311-12-1	0	TR	2	0	0	0	2	1	4.5	5
17	ARGE97-1042-4-5-20	0	TR	1	0	0	0	2	1	7.5	8
18	ARGE97-1047-4-2-9	0	TR	2	0	1	0	0	0	6.0	6
19	ARGE97-1048-3-6-7	0	TR	3	MS	3	1	7	1	6.5	7
20	ARS04-1267	0	TR	1	0	0	0	2	1	2.0	2
21	ARS05-0005	0	TR	0	0	1	0	2	1	4.5	5
22	ARS05-0043	0	TR	1	0	0	0	7	1	4.0	4
23	ARS05-0277	0	TR	1	0	1	0	0	0	4.5	5
24	ARS07 0095	0	TR	2	MS	1	0	2	1	3.0	3
25	ARS07-0203	0	TR	1	0	0	0	2	1	4.5	5
26	GA031188-O15	0	TR MR	1	0	1	0	0	0	2.5	3
27	GA031188-O16	0	TR	1	0	1	0	0	0	3.0	3
28	GA031188-O17	0	TR	1	0	1	0	0	0	3.0	3
29	GA041243-LE36	0	TR MR	2	TR MR-MS	1	0	0	0	5.0	5
30	GA041260-Q19	0	TR	1	0	10	0	0	0	6.5	7
31	GA041271-PL49	0	TR MR	0	0	15	11	0	0	5.5	6
32	GA041271-Q23	0	TR	0	0	49	29	7	2	4.5	5
33	GA041271-Q24	0	TR	1	0	45	36	2	2	5.0	5
34	LA01141D-98-6-3	2	2.0	2	0	1	0	15	3	7.5	8
35	LA02058E63	3	3.0	3	MS	2	1	0	0	5.5	6
36	LA02058E97	0	4.0	7	MS	17	1	0	0	5.5	6
37	LA03130E68	3	4.0	1	0	11	0	0	0	4.0	4
38	LA03186E2	0	TR	2	0	1	1	50	3	3.5	4
39	LA04142C-P5	0	TR	2	0	1	0	2	1	4.0	4
40	M08*8005#	0	TR	3	0	2	0	2	1	4.0	4
41	MD01W233-07-1	0	0.0	1	0	6	1	15	2	3.5	4
42	MD02W135-08-9	3	7.0	1	VS	80	75	7	1	2.0	2
43	MD03W61-09-1	2	3.0	1	S	8	13	2	1	2.5	3
44	MD03W91-09-7	2	3.0	1	MS	0	0	0	0	6.5	7
45	NC07-21036	0	2.0	2	MSS	1	0	7	1	5.0	5
46	NC07-23081	1-2	TR	0	MSS	21	63	2	1	5.0	5
47	NC07-23126	2	TR	1	S	6	5	0	0	5.5	6
48	NC07-23771	0	TR	1	S	16	1	0	0	6.0	6
49	NC07-24445	0	TR	1	0	1	0	0	0	5.0	5
50	VA06W-580	2	TR	0	MSS	0	2	0	0	4.5	5
51	VA07W-569	2	7.0	2	S	0	1	30	3	5.0	5
52	VA08W-622	2	TR	1	MSS	10	17	2	1	5.0	5
53	VA08W-630	0	TR MR	2	S	17	19	30	3	4.0	4
54	VA08W-653	0	TR	1	S	0	0	30	3	6.0	6
55	VA08W-709	0	.	4-5	MSS	5	0	15	2	5.0	5
56	VA09W-641	1	TR	1-2	S	37	24	7	1	5.5	6
57	VA09W-654	2	3.0	2	MS	11	0	30	3	2.5	2.5
58	W1104	2	2	3	2	0	0	7	2	3.0	3
	Mean									4.6	5
	LSD (0.05)									1.3	.
	CV%									15.8	.

Hessian Fly Screening

(Resistant - Susceptible Plants)[1]

	CULTIVAR/ DESIGNATION	Biotype B	Biotype L
1	ERNIE	0-15	0-14
2	COKER 9835	0-16	0-15
3	BESS	0-14	0-19
4	JAMESTOWN	8-0	0-12
5	LA01164D-94-2	0-15	0-16
6	03M1539#031	19-0	15-4
7	AR 99054-4-1	16-1	0-14
8	ARS03-4736	11-3	11-5
9	ARS05-1234	0-15	0-19
10	LA01141D-98-6-2	0-14	0-13
11	03M1539#019	14-0	14-0
12	AR99092-4-1	0-16	0-16
13	AR99102-4-1	0-14	0-18
14	AR99160-1-1-B	0-15	0-17
15	AR99264-8-1	0-13	0-12
16	AR99311-12-1	17-0	0-14
17	ARGE97-1042-4-5-20	0-16	0-16
18	ARGE97-1047-4-2-9	0-19	0-18
19	ARGE97-1048-3-6-7	0-13	0-16
20	ARS04-1267	0-17	0-15
21	ARS05-0005	0-19	0-14
22	ARS05-0043	0-18	0-17
23	ARS05-0277	0-16	0-15
24	ARS07 0095	0-14	0-14
25	ARS07-0203	14-3	0-17
26	GA031188-O15	0-12	0-15
27	GA031188-O16	0-14	0-14
28	GA031188-O17	0-15	0-15
29	GA041243-LE36	18-0	16-0
30	GA041260-Q19	0-17	0-19
31	GA041271-PL49	0-18	0-16
32	GA041271-Q23	0-19	0-19
33	GA041271-Q24	0-17	0-17
34	LA01141D-98-6-3	0-16	0-17
35	LA02058E63	0-17	0-17
36	LA02058E97	0-14	0-19
37	LA03130E68	0-14	0-18
38	LA03186E2	0-16	0-17
39	LA04142C-P5	4-14	0-15
40	M08*8005#	19-0	0-17
41	MD01W233-07-1	0-11	0-12
42	MD02W135-08-9	0-12	0-14
43	MD03W61-09-1	0-15	0-17
44	MD03W91-09-7	0-14	0-17
45	NC07-21036	18-0	16-0
46	NC07-23081	0-18	0-18
47	NC07-23126	0-14	0-17
48	NC07-23771	2-14	0-18
49	NC07-24445	13-1	0-19
50	VA06W-580	0-17	0-17
51	VA07W-569	15-2	0-16
52	VA08W-622	0-17	0-17
53	VA08W-630	0-14	0-16
54	VA08W-653	16-0	16-0
55	VA08W-709	0-11	0-18
56	VA09W-641	0-15	0-20
57	VA09W-654	0-18	0-15
58	W1104	0-17	0-17

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

Milling and Baking Quality Scores[1]

	Cultivar/ Designation	MILLING QUALITY SCORE		BAKING QUALITY SCORE		SOFT. EQUIV. SCORE		TEST WT. LB/BU	FLOUR YIELD %	SOFT. EQUIV. %	GRAIN HARD. (0-100)	GRAIN. PROT. %	FLOUR PROT. %	LACTIC ACID SRC(%)	SUCRE. SRC %	COOK. DIA. CM
1	ERNIE	56	D	51	D	60	C	57.7	66.9	57.0	14.2	12.1	9.5	103.8	97.0	17.6
2	COKER 9835	64	C	65	C	80	B	58.3	68.7	66.4	17.9	10.2	8.1	85.0	98.2	17.9
3	BESS	66	C	61	C	66	C	58.5	69.2	59.8	13.3	10.1	8.2	96.8	96.3	17.7
4	JAMESTOWN	62	C	52	D	64	C	60.7	68.3	58.7	23.6	11.2	8.9	107.6	98.6	17.5
5	LA01164D-94-2	74	B	53	D	49	E	56.8	70.9	51.9	17.4	12.9	10.4	82.5	91.7	17.6
6	03M1539#031	73	B	88	A	81	A	56.3	70.8	67.2	11.0	9.4	7.4	103.8	88.8	18.5
7	AR 99054-4-1	67	C	55	D	57	D	58.5	69.5	55.8	14.4	11.7	9.4	81.3	95.0	17.6
8	ARS03-4736	62	C	25	F	24	F	62.4	68.2	39.5	26.1	11.8	10.0	123.9	99.4	16.6
9	ARS05-1234	70	C	43	E	38	F	58.7	70.0	46.3	20.1	12.0	10.4	123.3	93.4	17.2
10	LA01141D-98-6-2	72	B	65	C	68	C	57.7	70.7	60.6	14.9	10.1	8.0	88.3	94.9	17.8
11	03M1539#019	62	C	75	B	78	B	57.7	68.3	65.8	24.1	10.3	7.8	80.7	93.7	18.1
12	AR99092-4-1	59	D	61	C	54	D	61.0	67.7	54.2	30.2	12.3	9.9	82.5	90.1	17.8
13	AR99102-4-1	67	C	50	E	49	E	58.1	69.5	51.8	18.6	12.2	9.7	107.0	94.7	17.4
14	AR99160-1-1-B	79	B	68	C	43	E	59.2	72.2	48.9	19.5	11.3	9.7	82.9	84.0	17.9
15	AR99264-8-1	69	C	70	B	68	C	58.8	69.9	60.7	19.5	10.3	8.6	108.5	91.5	18.0
16	AR99311-12-1	63	C	55	D	64	C	59.4	68.6	58.7	22.5	12.2	9.7	100.3	95.7	17.7
17	ARGE97-1042-4-5-20	59	D	35	F	23	F	58.2	67.5	39.2	24.2	12.6	11.7	92.9	91.0	17.0
18	ARGE97-1047-4-2-9	63	C	52	D	19	F	59.4	68.4	37.1	23.1	11.6	10.1	90.4	84.9	17.3
19	ARGE97-1048-3-6-7	52	D	38	F	44	E	59.8	66.0	49.5	25.2	12.6	10.3	81.9	97.6	17.2
20	ARS04-1267	62	C	25	F	15	F	61.9	68.2	35.3	26.6	12.5	11.7	113.0	93.8	16.7
21	ARS05-0005	57	D	44	E	30	F	59.5	67.1	42.5	18.2	11.4	9.0	123.1	93.4	17.1
22	ARS05-0043	57	D	43	E	31	F	57.5	67.0	43.1	25.1	11.9	9.6	107.2	93.1	17.1
23	ARS05-0277	64	C	62	C	54	D	57.6	68.8	53.9	20.9	10.3	8.0	89.0	92.8	17.6
24	ARS07 0095	66	C	64	C	62	C	58.8	69.2	57.9	18.4	11.1	8.8	87.9	92.7	17.8
25	ARS07-0203	76	B	65	C	60	C	58.8	71.6	57.1	22.2	12.5	10.1	99.7	89.6	18.0
26	GA031188-O15	76	B	72	B	57	D	60.5	71.5	55.4	25.0	11.0	9.0	102.3	87.1	18.0
27	GA031188-O16	72	B	64	C	55	D	60.3	70.6	54.7	23.3	11.4	9.0	103.6	90.5	17.8
28	GA031188-O17	73	B	69	C	56	D	59.6	70.9	55.2	24.2	11.6	9.2	107.9	87.8	18.0
29	GA041243-LE36	56	D	58	D	55	D	60.7	66.9	54.6	22.7	11.2	9.3	104.1	92.6	17.7
30	GA041260-Q19	70	B	63	C	63	C	58.8	70.2	58.6	20.6	11.9	9.6	111.1	91.9	17.9
31	GA041271-PL49	66	C	46	E	65	C	58.1	69.2	59.3	27.1	13.2	10.5	123.7	98.9	17.6
32	GA041271-Q23	65	C	44	E	57	D	60.0	68.9	55.4	23.5	12.7	10.3	120.8	98.1	17.4
33	GA041271-Q24	67	C	50	E	55	D	59.7	69.5	54.4	18.7	12.7	10.3	123.4	94.7	17.6
34	LA01141D-98-6-3	71	B	56	D	59	D	59.6	70.4	56.4	12.8	11.4	9.5	110.2	94.4	17.7
35	LA02058E63	67	C	34	F	44	E	60.5	69.4	49.5	31.3	13.1	11.0	102.5	98.2	17.1
36	LA02058E97	69	C	38	F	49	E	60.4	69.9	51.8	27.6	13.1	10.8	115.6	98.2	17.2
37	LA03130E68	69	C	58	D	51	D	60.5	69.9	52.5	17.1	12.4	9.8	107.9	90.7	17.7
38	LA03186E2	66	C	54	D	50	E	60.0	69.2	52.0	19.6	11.6	9.6	109.6	92.7	17.5
39	LA04142C-P5	62	C	51	D	54	D	58.7	68.2	54.0	22.4	11.8	9.4	90.9	95.7	17.5
40	M08*8005#	69	C	77	B	65	C	59.0	69.9	59.6	17.8	11.3	9.1	102.4	86.6	18.2
41	MD01W233-07-1	65	C	60	C	61	C	59.6	69.0	57.3	23.8	12.4	10.0	100.2	91.9	17.8
42	MD02W135-08-9	51	D	49	E	73	B	59.1	65.8	63.2	25.2	10.9	8.5	96.0	103.4	17.5
43	MD03W61-09-1	55	D	47	E	55	D	60.4	66.6	54.6	27.7	13.1	10.6	98.7	95.7	17.5
44	MD03W91-09-7	54	D	46	E	46	E	60.1	66.5	50.1	22.5	12.8	10.2	100.6	94.8	17.3
45	NC07-21036	63	C	56	D	62	C	61.0	68.6	58.1	17.9	10.5	8.5	103.0	97.1	17.6
46	NC07-23081	53	D	41	E	46	E	58.9	66.1	50.5	32.4	11.2	8.7	91.0	99.7	17.1
47	NC07-23126	58	D	49	E	56	D	60.7	67.3	55.1	23.5	11.2	8.8	111.9	98.2	17.4
48	NC07-23771	63	C	59	D	53	D	59.9	68.5	53.8	24.6	12.1	10.1	104.6	90.5	17.7
49	NC07-24445	62	C	59	D	56	D	58.8	68.2	55.1	19.7	11.3	9.1	112.1	93.2	17.7
50	VA06W-580	66	C	61	C	59	D	60.3	69.2	56.7	22.9	10.7	8.8	84.3	93.5	17.7
51	VA07W-569	57	D	51	D	59	D	61.0	67.2	56.6	29.2	10.4	8.4	97.2	98.9	17.4
52	VA08W-622	70	C	68	C	58	D	61.0	70.0	55.9	23.3	10.9	9.0	87.6	89.3	17.9
53	VA08W-630	64	C	62	C	68	C	60.0	68.7	60.9	20.9	11.3	9.2	108.2	94.4	17.9
54	VA08W-653	55	D	59	D	69	C	58.6	66.7	61.3	19.8	12.0	9.3	109.0	96.1	17.8
55	VA08W-709	62	C	79	B	72	B	60.4	68.3	62.5	19.6	10.5	8.2	94.7	89.1	18.2
56	VA09W-641	61	C	54	D	60	D	59.2	67.9	56.9	23.9	11.4	9.0	112.1	96.3	17.6
57	VA09W-654	66	C	51	D	65	C	57.6	69.2	59.3	19.5	11.7	9.3	105.1	98.8	17.6
58	W1104	59	D	84	A	65	C	56.4	67.7	59.2	21.0	9.7	7.6	71.9	86.0	18.2
	Mean	64		56		55		59.3	68.8	54.6	21.8	11.6	9.4	101.2	93.7	17.6

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

Means Across Locations 2009-10

	Cultivar/ Designation	FHB Incidence	RANK	FHB Severity	RANK	FHB Index	RANK	FDK	RANK	ISK	RANK	G'hse Severity	RANK	DON	RANK
1	ERNIE	39	1	20	4	9	1	18	12	25	3	16	14	9	11
2	COKER 9835	63	51	57	53	39	53	40	48	55	49	68	54	19	47
3	BESS	43	3	23	8	12	3	8	1	22	1	7	1	10	16
4	JAMESTOWN	47	6	22	5	13	4	14	5	28	9	18	19	8	5
5	LA01164D-94-2	54	31	34	37	23	34	28	33	37	27	23	29	11	21
6	03M1539#031	57	39	31	26	24	38	13	4	31	13	32	37	17	44
7	AR 99054-4-1	52	22	33	34	21	30	24	25	40	37	33	40	22	53
8	ARS03-4736	55	32	32	31	20	29	24	25	35	21	18	18	18	46
9	ARS05-1234	49	9	37	40	24	38	30	38	38	31	17	15	30	57
10	LA01141D-98-6-2	61	48	40	43	30	44	42	49	52	46	21	26	15	41
11	03M1539#019	53	29	32	31	19	23	24	25	37	27	23	30	12	28
12	AR99092-4-1	51	17	27	13	15	9	23	23	32	14	14	10	15	41
13	AR99102-4-1	53	29	40	43	27	42	34	44	47	43	47	47	13	34
14	AR99160-1-1-B	47	6	28	17	14	6	15	8	28	9	10	5	29	56
15	AR99264-8-1	56	35	31	26	21	30	15	8	34	17	18	20	14	38
16	AR99311-12-1	58	42	33	34	23	34	24	25	39	34	20	25	8	5
17	ARGE97-1042-4-5-20	39	1	17	1	10	2	22	18	25	3	15	11	8	5
18	ARGE97-1047-4-2-9	45	4	17	1	13	4	14	5	23	2	9	3	7	2
19	ARGE97-1048-3-6-7	52	22	26	11	16	16	22	18	34	17	23	31	6	1
20	ARS04-1267	49	9	30	22	15	9	17	11	27	6	14	7	14	38
21	ARS05-0005	58	42	48	48	34	49	38	46	52	46	48	48	11	21
22	ARS05-0043	50	13	27	13	19	23	33	43	39	34	18	21	11	21
23	ARS05-0277	64	53	51	49	38	52	28	33	48	44	62	53	17	44
24	ARS07 0095	62	50	45	47	29	43	30	38	46	42	35	41	20	50
25	ARS07-0203	59	45	53	50	35	51	38	46	55	49	40	44	12	28
26	GA031188-O15	69	58	64	55	45	57	58	57	68	57	88	58	21	51
27	GA031188-O16	65	55	64	55	43	54	47	52	63	55	68	55	19	47
28	GA031188-O17	65	55	66	58	44	56	51	53	63	55	77	56	19	47
29	GA041243-LE36	64	53	35	39	25	40	42	49	49	45	50	49	12	28
30	GA041260-Q19	59	45	56	52	31	47	53	55	58	52	59	52	21	51
31	GA041271-PL49	61	48	56	51	34	49	59	58	59	53	39	43	43	58
32	GA041271-Q23	63	51	65	57	47	58	56	56	69	58	78	57	28	55
33	GA041271-Q24	67	57	61	54	43	54	52	54	61	54	57	51	23	54
34	LA01141D-98-6-3	59	45	38	41	30	44	46	51	56	51	39	42	13	34
35	LA02058E63	49	9	34	37	18	18	30	38	38	31	23	28	11	21
36	LA02058E97	58	42	40	43	25	40	32	41	44	39	31	36	13	34
37	LA03130E68	51	17	22	5	15	9	24	25	36	23	14	9	13	34
38	LA03186E2	56	35	39	42	30	44	36	45	52	46	19	24	12	28
39	LA04142C-P5	57	39	31	26	23	34	29	36	44	39	44	46	12	28
40	M08*8005#	52	22	28	17	15	9	12	3	27	6	31	35	8	5
41	MD01W233-07-1	55	32	32	31	23	34	25	30	40	37	25	33	9	11
42	MD02W135-08-9	52	22	31	26	18	18	19	16	34	17	27	34	9	11
43	MD03W61-09-1	50	13	19	3	14	6	16	10	30	11	14	8	10	16
44	MD03W91-09-7	45	4	22	5	15	9	11	2	25	3	9	2	8	5
45	NC07-21036	51	17	30	22	19	23	22	18	37	27	17	17	10	16
46	NC07-23081	50	13	24	10	18	18	22	18	34	17	19	22	10	16
47	NC07-23126	50	13	28	17	15	9	23	23	35	21	41	45	11	21
48	NC07-23771	51	17	33	34	19	23	32	41	38	31	25	32	11	21
49	NC07-24445	55	32	41	46	31	47	26	32	44	39	52	50	10	16
50	VA06W-580	51	17	26	11	16	16	14	5	27	6	33	39	9	11
51	VA07W-569	52	22	30	22	18	18	25	30	37	27	19	23	11	21
52	VA08W-622	56	35	27	13	18	18	18	12	33	15	32	38	8	5
53	VA08W-630	57	39	31	26	22	33	28	33	39	34	10	4	12	28
54	VA08W-653	56	35	28	17	21	30	22	18	36	23	16	13	14	38
55	VA08W-709	48	8	27	13	15	9	18	12	30	11	15	12	9	11
56	VA09W-641	52	22	23	8	14	6	21	17	33	15	13	6	7	2
57	VA09W-654	52	22	28	17	19	23	18	12	36	23	21	27	7	2
58	W1104	49	9	30	22	19	23	29	36	36	23	17	16	16	43
	Mean	54		35		23		28		41		31		14	
	LSD (0.05)	23.9		24		22		25		19		29		13	
	CV%	22.4		35.4		48.6		45.5		23.7		43.2		48.7	

Means Across Locations 2009 - 2010

	Cultivar/ Designation	Heading Date	RANK	Plant Height	RANK	Spindle Streak 0-9	Hessian Fly Biotype L	MILLING QUALITY SCORE		BAKING QUALITY SCORE		SOFT. EQUIV. SCORE		Stripe Rust (0-9) F'VILLE (1) AR	Stripe Rust (0-9) F'VILLE (2) AR	Stem Rust % F'VILLE AR
1	ERNIE	127	6	33	20	4.0	0-14	56	D	51	D	60	C	63	15	2
2	COKER 9835	130	41	32	13	5.0	0-15	64	C	65	C	80	B	54	63	0
3	BESS	129	28	35	33	4.5	0-19	66	C	61	C	66	C	1	0	2
4	JAMESTOWN	125	2	31	9	4.5	0-12	62	C	52	D	64	C	0	0	2
5	LA01164D-94-2	129	28	37	50	5.5	0-16	74	B	53	D	49	E	23	43	0
6	03M1539#031	128	11	36	43	5.5	15-4	73	B	88	A	81	A	7	6	70
7	AR 99054-4-1	131	49	39	55	2.5	0-14	67	C	55	D	57	D	1	0	15
8	ARS03-4736	128	11	36	45	2.0	11-5	62	C	25	F	24	F	1	1	7
9	ARS05-1234	132	57	36	41	2.0	0-19	70	C	43	E	38	F	3	57	0
10	LA01141D-98-6-2	129	28	32	11	7.5	0-13	72	B	65	C	68	C	2	0	30
11	03M1539#019	129	28	36	46	6.5	14-0	62	C	75	B	78	B	10	68	2
12	AR99092-4-1	130	41	42	58	5.0	0-16	59	D	61	C	54	D	0	2	2
13	AR99102-4-1	130	41	36	44	3.5	0-18	67	C	50	E	49	E	1	5	0
14	AR99160-1-1-B	131	49	42	57	6.0	0-17	79	B	68	C	43	E	0	0	2
15	AR99264-8-1	130	41	42	56	4.5	0-12	69	C	70	B	68	C	0	0	30
16	AR99311-12-1	128	11	32	10	4.5	0-14	63	C	55	D	64	C	0	0	2
17	ARGE97-1042-4-5-20	128	11	35	34	7.5	0-16	59	D	35	F	23	F	0	0	2
18	ARGE97-1047-4-2-9	126	3	38	51	6.0	0-18	63	C	52	D	19	F	1	0	0
19	ARGE97-1048-3-6-7	127	6	38	53	6.5	0-16	52	D	38	F	44	E	3	1	7
20	ARS04-1267	128	11	33	23	2.0	0-15	62	C	25	F	15	F	0	0	2
21	ARS05-0005	129	28	34	28	4.5	0-14	57	D	44	E	30	F	1	0	2
22	ARS05-0043	128	11	34	27	4.0	0-17	57	D	43	E	31	F	0	0	7
23	ARS05-0277	129	28	32	12	4.5	0-15	64	C	62	C	54	D	1	0	0
24	ARS07 0095	131	49	34	29	3.0	0-14	66	C	64	C	62	C	1	0	2
25	ARS07-0203	131	49	33	16	4.5	0-17	76	B	65	C	60	C	0	0	2
26	GA031188-O15	128	11	36	49	2.5	0-15	76	B	72	B	57	D	1	0	0
27	GA031188-O16	128	11	34	31	3.0	0-14	72	B	64	C	55	D	1	0	0
28	GA031188-O17	129	28	34	24	3.0	0-15	73	B	69	C	56	D	1	0	0
29	GA041243-LE36	128	11	36	40	5.0	16-0	56	D	58	D	55	D	1	0	0
30	GA041260-Q19	129	28	33	17	6.5	0-19	70	B	63	C	63	C	10	0	0
31	GA041271-PL49	136	58	38	52	5.5	0-16	66	C	46	E	65	C	15	11	0
32	GA041271-Q23	131	49	36	48	4.5	0-19	65	C	44	E	57	D	49	29	7
33	GA041271-Q24	131	49	36	47	5.0	0-17	67	C	50	E	55	D	45	36	2
34	LA01141D-98-6-3	128	11	33	22	7.5	0-17	71	B	56	D	59	D	1	0	15
35	LA02058E63	127	6	33	19	5.5	0-17	67	C	34	F	44	E	2	1	0
36	LA02058E97	128	11	35	38	5.5	0-19	69	C	38	F	49	E	17	1	0
37	LA03130E68	124	1	35	36	4.0	0-18	69	C	58	D	51	D	11	0	0
38	LA03186E2	130	41	38	54	3.5	0-17	66	C	54	D	50	E	1	1	50
39	LA04142C-P5	128	11	36	42	4.0	0-15	62	C	51	D	54	D	1	0	2
40	M08*8005#	126	3	34	30	4.0	0-17	69	C	77	B	65	C	2	0	2
41	MD01W233-07-1	131	49	31	8	3.5	0-12	65	C	60	C	61	C	6	1	15
42	MD02W135-08-9	129	28	30	4	2.0	0-14	51	D	49	E	73	B	80	75	7
43	MD03W61-09-1	128	11	34	26	2.5	0-17	55	D	47	E	55	D	8	13	2
44	MD03W91-09-7	127	6	35	37	6.5	0-17	54	D	46	E	46	E	0	0	0
45	NC07-21036	130	41	30	5	5.0	16-0	63	C	56	D	62	C	1	0	7
46	NC07-23081	128	11	33	18	5.0	0-18	53	D	41	E	46	E	21	63	2
47	NC07-23126	129	28	32	15	5.5	0-17	58	D	49	E	56	D	6	5	0
48	NC07-23771	129	28	32	14	6.0	0-18	63	C	59	D	53	D	16	1	0
49	NC07-24445	127	6	31	7	5.0	0-19	62	C	59	D	56	D	1	0	0
50	VA06W-580	128	11	28	2	4.5	0-17	66	C	61	C	59	D	0	2	0
51	VA07W-569	129	28	36	39	5.0	0-16	57	D	51	D	59	D	0	1	30
52	VA08W-622	128	11	34	32	5.0	0-17	70	C	68	C	58	D	10	17	2
53	VA08W-630	129	28	29	3	4.0	0-16	64	C	62	C	68	C	17	19	30
54	VA08W-653	130	41	27	1	6.0	16-0	55	D	59	D	69	C	0	0	30
55	VA08W-709	128	11	34	25	5.0	0-18	62	C	79	B	72	B	5	0	15
56	VA09W-641	126	3	33	21	5.5	0-20	61	C	54	D	60	D	37	24	7
57	VA09W-654	131	49	35	35	2.5	0-15	66	C	51	D	65	C	11	0	30
58	W1104	130	41	31	6	3	0-17	59	D	84	A	65	C	0	0	7
	Mean	129		34		.	.	64		56		55		.	.	54
	LSD (0.05)	3		5		.	.	.		.		.		.	.	13
	CV%	1.1		7.2		.	.	.		.		.		.	.	12

Means Across 2009 and 2010

	Cultivar/ Designation	FHB Incidence	RANK	FHB Severity	RANK	FHB Index	RANK	FDK	RANK	ISK	RANK	DON	RANK	Heading Date	Plant Height	*Fhb1* 3BS
1	ERNIE	42	*2*	21	*1*	13	*2*	17	*2*	32	*3*	12	*4*	128	34	*no*
2	COKER 9835	64	*10*	56	*10*	45	*10*	42	*9*	60	*10*	18	*7*	132	33	*no*
3	BESS	41	*1*	21	*1*	12	*1*	11	*1*	25	*1*	10	*2*	130	36	*no*
4	JAMESTOWN	46	*3*	24	*3*	17	*3*	18	*3*	29	*2*	8	*1*	127	32	*no*
5	LA01164D-94-2	51	*6*	31	*4*	23	*5*	24	*5*	41	*6*	10	*2*	131	37	*yes*
6	03M1539#031	51	*6*	32	*5*	24	*6*	19	*4*	32	*3*	15	*5*	129	36	*no*
7	AR99054-4-1	46	*3*	33	*6*	20	*4*	24	*5*	36	*5*	19	*9*	132	40	*no*
8	ARS03-4736	56	*8*	34	*7*	24	*6*	30	*7*	43	*7*	18	*7*	130	37	*no*
9	ARS05-1234	49	*5*	39	*8*	30	*8*	33	*8*	48	*8*	27	*10*	133	38	*no*
10	LA01141D-98-6-2	63	*9*	45	*9*	37	*9*	43	*10*	59	*9*	15	*5*	131	33	*no*
	Mean	51		34		24		27		41		15		130	35	
	LSD (0.05)	10		8		9		10		13		6		1	2	
	CV%	11		13		9		17		14		17		0.4	3	

Means Across 2008, 2009 and 2010

	Cultivar/ Designation	FHB Incidence	RANK	FHB Severity	RANK	FHB Index	RANK	FDK	RANK	ISK	RANK	DON	RANK	Heading Date	Plant Height	*Fhb1* 3BS
1	ERNIE	41	*1*	23	*2*	13	*1*	12	*1*	25	*1*	9	*2*	127	36	*no*
2	COKER 9835	68	*5*	61	*5*	48	*5*	47	*5*	61	*5*	17	*5*	128	32	*no*
3	BESS	45	*2*	22	*1*	14	*2*	17	*2*	30	*2*	10	*3*	124	33	*no*
4	JAMESTOWN	52	*4*	26	*3*	18	*3*	18	*3*	31	*3*	7	*1*	123	32	*no*
5	LA01164D-94-2	51	*3*	31	*4*	24	*4*	25	*4*	37	*4*	10	*3*	127	37	*no*
	Mean	51		33		23		24		37		10		125	34	
	LSD (0.05)	10		7		6		9		8		3		1	1	
	CV%	10		12		13		20		12		16		0.6	2.3	