

SOUTHERN UNIFORM WINTER WHEAT SCAB NURSERY

2025 NURSERY REPORT

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Location Notes

Champaign, Illinois

Cooperator: Jana Murche
KWS Cereals USA

Clarksville, Maryland

Cooperator: Vijay Tiwari
University of Maryland

College Station, Texas

Cooperator: Shuyu Liu
Texas A&M University

Fayetteville and Newport, Arkansas

Cooperator: Eshan Shakiba
University of Arkansas

Florence, South Carolina

Cooperator: Rick Boyles
Clemson University

Kinston, North Carolina

Cooperator: Nonoy Bandillo
North Carolina State University

Lexington, Kentucky

Cooperator: Dave Van Sanford
University of Kentucky

Plains, Georgia

Cooperator: Mohamed Mergoum
University of Georgia

Raleigh, North Carolina

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

Urbana, Illinois

Cooperator: Jessica Rutkoski
University of Illinois

Warsaw, Virginia

Cooperator Nicholas Santantonio
Virginia Tech

Winnsboro, Louisiana

Cooperator: Noah DeWitt
Louisiana State University

Entry List and Pedigrees 2025

ENTRY	DESIGNATION	PEDIGREE	CONTRIBUTOR	IN NURSERY SINCE
1	ERNIE	<i>Check</i>	CHECK(RES)	1999-00
2	COKER9835	<i>Check</i>	CHECK(SUS)	2000-01
3	BESS	<i>MO11769/Madison</i>	CHECK(RES)	2006-07
4	JAMESTOWN	<i>Roane / Pioneer 2691</i>	CHECK(RES)	2007-08
5	SS8641	<i>881130/2*881582 (formally GA96229-3A4)</i>	CHECK(SUS)	2018-19
6	GA141028-13-3-4-22LE25	<i>GA10338-G1-G1-I1/SH 5550</i>	Mergoum	2023-24
7	GA151450-13-6-9-22LE29	<i>GA141579 (061349-13LE29/041293-11E54) / GA06493-13LE6</i>	Mergoum	2023-24
8	GA16349ID-8-1-5-22LE31	<i>GA15146 (VA 12W-72 / 04417-12E33) / LA 06146E-P04</i>	Mergoum	2023-24
9	GA161058-13-4-6-23E14	<i>151817 (Savoy / 06474-13EE13) / 151304 (07351-14EE5 / 081625-4-6-8)</i>	Mergoum	2023-24
10	GA17371ID-38-6-3-23E23	<i>GA161474 (08250-3-4/GW 2032 (14E19)) / NC11562-30</i>	Mergoum	2023-24
11	GA18117-58NCDH-23E37F	<i>GA17547 (07353-14E19 / MD09W272-8-4-14-8) / 15VDH-FHB-MAS23-17-18LE43</i>	Mergoum	2023-24
12	GA161198-3-1-2-23LE14F	<i>GA14144-G1-G9-G1 / GA061349-13LE29</i>	Mergoum	2023-24
13	GA17389ID-8-2-15-23LE39F	<i>GA16338 (GA061158-14LE11 /ALSEN FHB1, 3BL, 5A, Lr34, Yr18, Rht-B1b) / GA11656-I14-2</i>	Mergoum	2023-24
14	KWS571	<i>KWS140 / P26R41</i>	KWS	2024-25
15	KWS578	<i>MD09W272-8-4-14-6 / VA09MAS1-12-8-4</i>	KWS	2024-25
16	KWS625	<i>KWS283 / 14D10219-110</i>	KWS	2024-25
17	LA15093SB-30-3-3	<i>LW08090D-18 [GA991336-6E9/AGS 2060 (LA9560-C-A-22-1)] / Hilliard</i>	DeWitt	2024-25
18	LAAR15737W-2-1-4-1-3	<i>VA11W-95 / GA061147-23-6-2</i>	DeWitt	2024-25
19	LA16038C-4-3-1	<i>LA03200E-2 // GA03564-12E6 / Hilliard</i>	DeWitt	2024-25
20	LA16196C-14-4-2	<i>Go Wheat 6000 (TX-EL2) / Hilliard</i>	DeWitt	2024-25
21	LATX16D132W-50-3-2	<i>VADH309 / TX14D8142</i>	DeWitt	2024-25
22	LA17176C-52-1	<i>GA081113-EL8 / NC11-22289</i>	DeWitt	2024-25
23	LA19333-NDH31	<i>LA15203-LDH112 [AGS 3000 (LA06146E-P4)/Hilliard] / AGS 4043 (GA15VDH-FHB-MAS23-18LE43)</i>	DeWitt	2024-25

ENTRY	DESIGNATION	PEDIGREE	CONTRIBUTOR	IN NURSERY SINCE
24	LAVT19VDH-FHB-MAS11-10	VA13W-174 / Pioneer W050216N2 // 15VDH-Fhb- MAS25-08	DeWitt	2024-25
25	SC21DH240-70	SCGA17VADH-FHB-MAS1702- 179-6 / TX16DDH579	Boyles	2024-25
26	SC21DH145-68	GA15VDH-FHB-MAS23- 18LE43F / 14VDH-SRW14-150	Boyles	2024-25
27	SCNC19-8-3-14-GP80	UX2060-1-24 / GA071518- 16E39	Boyles	2024-25
28	SCNC22-5247	HILLIARD/ NC14-23372	Boyles	2024-25
29	SCNC22-10569	NC11331-6 / NC13-21213	Boyles	2024-25
30	SC23W517	LA12275DH-24 / LA16253,F1 (MDC07026-F2-19-13-4 / LA06146E-P4)	Boyles	2024-25
31	SC24W067	NC13-23443/W010025T1	Boyles	2024-25
32	SC24W217	SCLA18WF0905/Hilliard	Boyles	2024-25
33	TX24D9373	NC14-20341/AR01040-4-1	Sutton/Melson	2024-25
34	TX24D9571	LA09225C-33-3/TX15D9253	Sutton/Melson	2024-25
35	TX24D9579	LA09225C-33-3/TX15D9253	Sutton/Melson	2024-25
36	TX24D9598	TX18D3289/VADH320	Sutton/Melson	2024-25
37	19MD-1-9-37	HILLIARD/MDC07026-F2-19- 13-3	Tiwari	2024-25
38	FHB-MAS08-11-3	VA13W-174 / Pioneer W050216N2 // 13VTK59-55	Tiwari	2024-25
39	19MD-1-9-8	MD-DH-HILLIARD/MD134-9-8	Tiwari	2024-25
40	19MD16-463-12	GA07169-14LE24 / SS8641 /McCormick*2/Ning7840-12	Tiwari	2024-25
41	MDW-1-9-40	MD-DH-HILLIARD/MD134-40	Tiwari	2024-25
42	FHB-MAS03-29-2	MDW-FHB-MAS03-29-2	Tiwari	2024-25
43	MDW107	MD07W280-12-3 // VA05W- 151 / MD03-69-15 (McCORMICK/25R42)-10-7	Tiwari	2024-25
44	DHMD-23-316	DHMDW17//MD131/MD315- 316	Tiwari	2024-25
45	VA20FHB-18	111301W' (Pioneer W000273A1) / 12V51 (VA05W- 251) // Hilliard (VA11W-108), F8	Santantonio	2024-25
46	18VTK6-3	13VTK429-3 / 13VTK59-148	Santantonio	2024-25

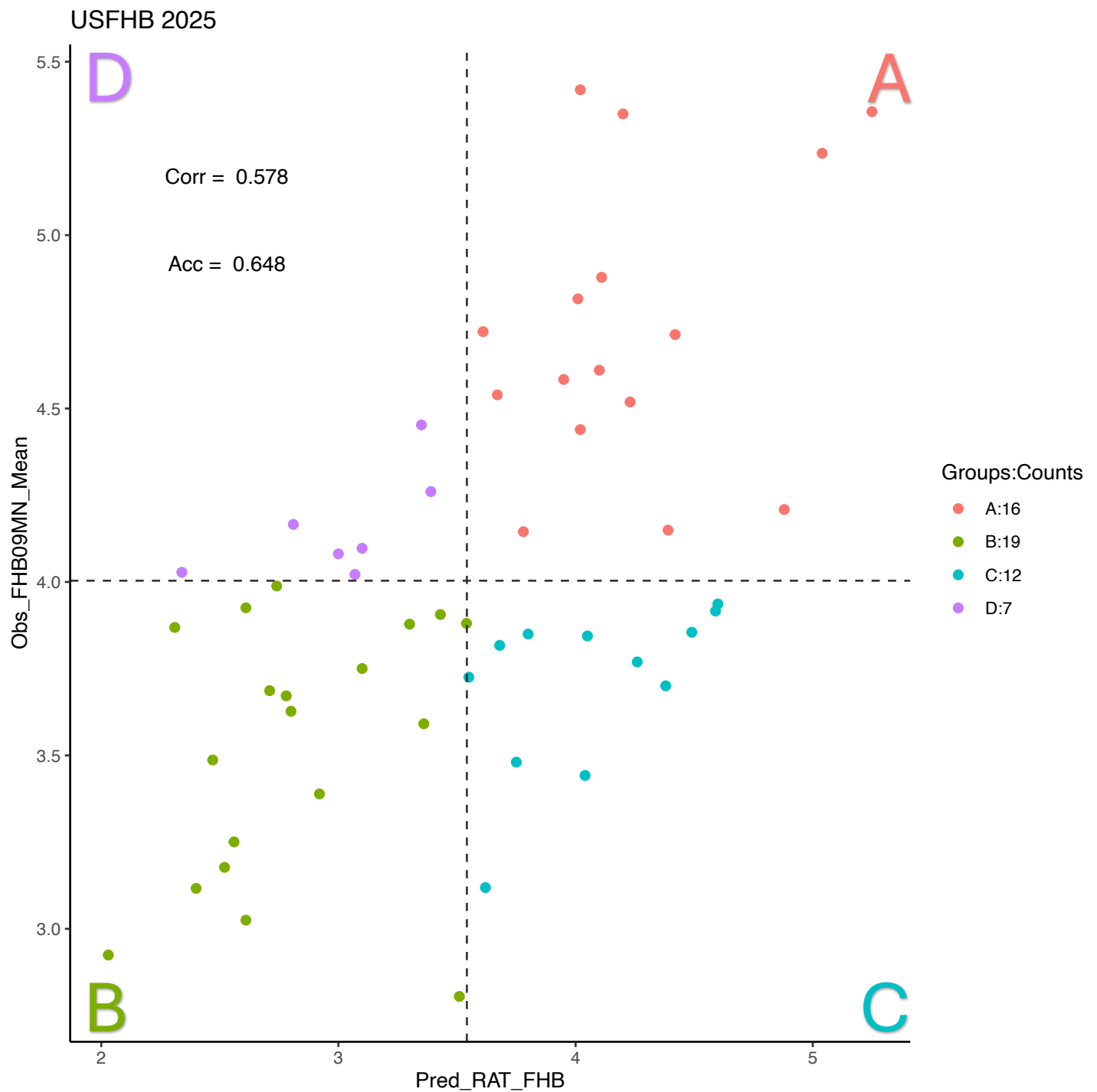
ENTRY	DESIGNATION	PEDIGREE	CONTRIBUTOR	IN NURSERY SINCE
47	VA22W-201	VA14W-59 [VA06W-627 (IL 94-1549 (SCAB-RES) /VA97W-375 (CK9803/Freedom)// Coker 9025 (BL930390))] / [VA06W-256 {McCormick"S" (VA98W-590) / VAN99W-97 [Coker 983//GA-ANDY/VA90-21-20 (79IWWRN67//CK65-20/ATR)] / SR8483 (VA12W-68)	Santantonio	2024-25
48	DH19SRW08-020	VA15W-63 / Liberty 5658	Santantonio	2024-25
49	18VTK9-68	SH 7222 / USG 3118	Santantonio	2024-25
50	VA23W-345	VA09MAS6-122-7-1-4 / TXGA06343-17-3-5-EL2	Santantonio	2024-25
51	VA23W-40	VA14W-59 / SR8483	Santantonio	2024-25
52	VA23W-532	USG 3895/Dyna-Gro 9811 // USG 3118	Santantonio	2024-25
53	NC14757LDH-15	NC11331-6/VA11W-279	Bandillo	2024-25
54	NC20-21971	ARS11-02-11//NC09-20986/NC09-20036	Bandillo	2023-24

Fusarium Head Blight Rating (0 – 9)

ENTRY	DESIGNATION	ARF	ARN	LAW	NCK	SCF	VAW	MEAN ALL LOCS	Rank	GEBV RAT
1	ERNIE	1.0	0.3	6.0	7.9	7.3	1.0	3.9	28	2.6
2	COKER9835	2.5	2.3	9.0	9.1	8.1	1.5	5.4	54	4.0
3	BESS	1.0	0.3	3.5	7.7	5.5	1.5	3.3	7	2.6
4	JAMESTOWN	2.0	2.0	6.5	7.3	4.6	1.5	4.0	31	2.7
5	SS8641	2.5	1.7	7.5	9.2	8.8	2.5	5.4	53	5.3
6	GA141028-13-3-4-22LE25	2.0	2.3	6.0	6.8	8.0	2.5	4.6	46	4.1
7	GA151450-13-6-9-22LE29	3.0	2.7	6.5	8.8	8.0	2.5	5.3	51	5.0
8	GA16349ID-8-1-5-22LE31	2.0	2.0	5.5	8.1	7.2	3.5	4.7	48	4.4
9	GA161058-13-4-6-23E14	1.5	1.0	6.5	7.9	5.2	1.5	3.9	30	4.6
10	GA17371ID-38-6-3-23E23	1.0	0.0	7.5	7.8	4.8	2.0	3.9	22	4.5
11	GA18117-58NCDH-23E37F	1.0	0.3	6.5	9.2	4.5	1.0	3.8	18	3.1
12	GA161198-3-1-2-23LE14F	1.0	0.7	7.5	8.3	6.4	1.0	4.2	37	4.4
13	GA17389ID-8-2-15-23LE39F	1.0	1.0	7.0	7.2	7.2	1.5	4.2	37	3.8
14	KWS571	1.0	1.0	3.0	7.3	3.5	1.0	2.8	1	3.5
15	KWS578	1.0	0.7	4.5	6.1	4.3	1.0	2.9	2	2.0
16	KWS625	1.5	1.3	7.0	7.6	4.8	1.0	3.9	24	2.3
17	LA15093SB-30-3-3	3.0	2.3	5.0	6.8	4.7	1.5	3.9	26	3.5
18	LAAR15737W-2-1-4-1-3	1.0	0.7	8.0	7.7	7.3	2.0	4.5	41	4.0
19	LA16038C-4-3-1	1.0	0.3	6.5	5.2	6.7	2.5	3.7	16	4.4
20	LA16196C-14-4-2	2.0	1.7	6.0	8.3	7.9	3.0	4.8	49	4.0
21	LATX16D132W-50-3-2	3.0	2.7	5.5	8.8	9.1	3.0	5.4	52	4.2
22	LA17176C-52-1	2.0	1.3	6.5	7.7	9.0	1.0	4.6	45	4.0
23	LA19333-NDH31	2.0	1.7	8.0	6.8	5.5	1.0	4.2	38	2.8
24	LAVT19VDH-FHB-MAS11-10	1.0	1.0	6.0	7.4	5.2	1.5	3.7	15	2.7
25	SC21DH240-70	1.0	0.7	6.5	7.8	6.5	1.0	3.9	28	4.6
26	SC21DH145-68	2.0	1.3	4.5	8.8	4.1	1.0	3.6	13	2.8
27	SCNC19-8-3-14-GP80	2.0	2.0	6.5	6.2	8.6	4.0	4.9	50	4.1
28	SCNC22-5247	2.0	2.3	3.0	6.3	3.9	1.5	3.2	6	2.5
29	SCNC22-10569	1.0	1.3	5.0	7.2	3.8	2.5	3.5	10	3.8
30	SC23W517	1.0	1.3	3.5	8.0	5.0	1.5	3.4	8	2.9
31	SC24W067	1.0	0.7	4.0	7.6	6.8	1.5	3.6	12	3.4
32	SC24W217	1.0	1.0	5.0	7.0	7.6	1.5	3.9	22	3.8
33	TX24D9373	2.0	1.3	6.0	8.4	6.0	1.5	4.2	39	4.9
34	TX24D9571	1.5	1.5	6.0	8.7	4.1	1.5	3.9	25	3.3
35	TX24D9579	2.0	1.3	6.5	7.8	5.9	2.0	4.3	40	3.4
36	TX24D9598	1.0	0.7	6.5	7.2	6.6	1.5	3.9	28	3.4
37	19MD-1-9-37	1.5	1.0	6.5	6.3	6.8	2.0	4.0	32	3.1
38	FHB-MAS08-11-3	2.0	1.3	5.0	7.2	7.5	1.5	4.1	35	3.1
39	19MD-1-9-8	2.0	1.0	3.5	7.0	3.2	2.0	3.1	5	2.4
40	19MD16-463-12	3.5	2.0	5.5	8.3	7.5	1.5	4.7	48	3.6
41	MDW-1-9-40	3.0	1.7	5.0	7.9	5.4	1.5	4.1	35	3.0
42	FHB-MAS03-29-2	1.0	1.0	4.5	7.9	5.5	1.0	3.5	11	2.5

ENTRY	DESIGNATION	ARF	ARN	LAW	NCK	SCF	VAW	MEAN ALL LOCS	Rank	GEBV RAT
43	MDW107	2.0	1.3	6.5	8.6	6.7	2.0	4.5	43	4.2
44	DHMD-23-316	0.0	0.0	4.5	8.2	4.4	1.0	3.0	3	2.6
45	VA20FHB-18	1.0	1.7	6.0	8.5	4.9	1.0	3.9	22	4.1
46	18VTK6-3	4.0	2.7	4.5	7.8	6.8	1.0	4.5	42	3.4
47	VA22W-201	3.0	2.7	4.5	7.5	5.0	1.5	4.0	33	2.3
48	DH19SRW08-020	1.0	1.0	5.5	7.8	5.2	1.5	3.7	14	2.8
49	18VTK9-68	1.0	1.3	4.0	6.6	4.8	1.0	3.1	5	3.6
50	VA23W-345	3.0	1.3	3.5	7.4	5.6	1.5	3.7	17	3.6
51	VA23W-40	1.0	0.7	5.5	6.2	6.7	2.5	3.8	19	4.3
52	VA23W-532	2.0	1.3	6.0	8.2	3.9	1.5	3.8	20	3.7
53	NC14757LDH-15	1.0	1.3	3.0	7.4	6.9	1.0	3.4	9	4.0
54	NC20-21971	3.0	2.7	4.5	7.2	7.9	2.0	4.6	44	3.7
	Mean	1.71	1.35	5.60	7.63	6.10	1.67	4.00		
	CV%			31.34	15.58	7.10		23.65		
	LSD(0.05)			3.06				1.08		
	LSD(0.10)				1.93	0.90				
	R-Square			0.25	0.44	0.65		0.90		
	Correl w/ GEBV	0.13	0.13	0.42	0.23	0.54	0.46	0.58		

Observed Mean Rating Versus Predicted Rating



FHB Incidence and Index

ENTRY	DESIGNATION	INC % ILU	INC % TXCS	MEAL ALL LOCS	Rank	INDEX TXCS	Rank
1	ERNIE	-4.9	65.0	30.1	10	52.0	50
2	COKER9835	67.8	80.0	73.9	54	61.5	53
3	BESS	8.5	60.0	34.3	21	33.0	23
4	JAMESTOWN	-1.8	65.0	31.6	15	38.5	31
5	SS8641	58.2	40.0	49.1	49	19.0	8
6	GA141028-13-3-4-22LE25	42.7	75.0	58.9	53	46.5	39
7	GA151450-13-6-9-22LE29	39.8	45.0	42.4	38	16.0	5
8	GA16349ID-8-1-5-22LE31	17.9	70.0	44.0	41	37.0	27
9	GA161058-13-4-6-23E14	26.0	80.0	53.0	51	44.0	37
10	GA17371ID-38-6-3-23E23	7.5	65.0	36.3	26	47.0	41
11	GA18117-58NCDH-23E37F	18.8	42.5	30.7	13	20.1	9
12	GA161198-3-1-2-23LE14F	7.5	17.5	12.5	2	6.1	2
13	GA17389ID-8-2-15-23LE39F	13.7	65.0	39.4	32	24.5	17
14	KWS571	6.8	40.0	23.4	5	18.0	6
15	KWS578	22.5	75.0	48.8	47	56.5	51
16	KWS625	1.0	60.0	30.5	12	39.0	33
17	LA15093SB-30-3-3	18.9	55.0	37.0	28	37.5	28
18	LAAR15737W-2-1-4-1-3	15.8	50.0	32.9	19	22.0	11
19	LA16038C-4-3-1	28.1	60.0	44.1	42	24.0	13
20	LA16196C-14-4-2	33.5	60.0	46.8	45	24.0	13
21	LATX16D132W-50-3-2	42.7	55.0	48.9	48	32.5	22
22	LA17176C-52-1	2.8	60.0	31.4	14	30.0	20
23	LA19333-NDH31	4.0	75.0	39.5	33	46.2	38
24	LAVT19VDH-FHB-MAS11-10	4.2	50.0	27.1	7	21.5	10
25	SC21DH240-70	16.4	47.5	32.0	16	18.1	7
26	SC21DH145-68	2.3	75.0	38.7	30	48.5	42
27	SCNC19-8-3-14-GP80	37.3	75.0	56.2	52	49.5	45
28	SCNC22-5247	5.2	60.0	32.6	18	38.0	29
29	SCNC22-10569	8.4	72.5	40.5	35	51.0	47
30	SC23W517	6.4	42.5	24.5	6	24.1	14
31	SC24W067	1.0	35.0	18.0	3	15.0	4
32	SC24W217	7.0	47.5	27.3	8	33.5	24
33	TX24D9373	25.3	80.0	52.7	50	60.5	52
34	TX24D9571	16.7	65.0	40.9	36	36.0	25
35	TX24D9579	16.3	80.0	48.2	46	52.0	50
36	TX24D9598	8.3	52.5	30.4	11	38.5	31
37	19MD-1-9-37	17.3	60.0	38.7	30	42.0	35
38	FHB-MAS08-11-3	28.5	57.5	43.0	39	36.5	26
39	19MD-1-9-8	4.1	75.0	39.6	34	43.5	36
40	19MD16-463-12	15.1	55.0	35.1	23	31.0	21
41	MDW-1-9-40	13.3	45.0	29.2	9	25.5	18
42	FHB-MAS03-29-2	5.5	65.0	35.3	24	47.0	41
43	MDW107	13.5	75.0	44.3	43	51.0	47

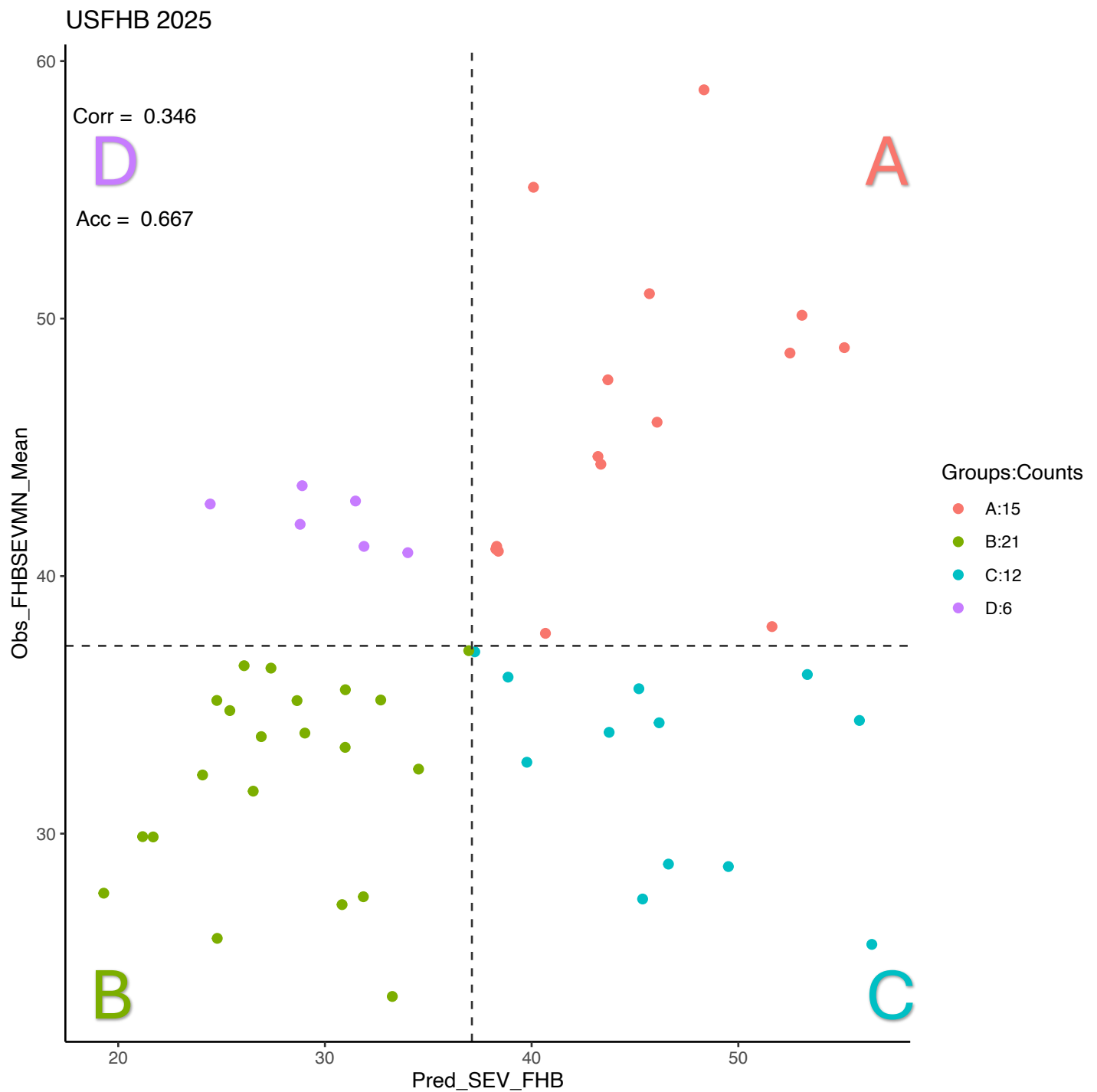
ENTRY	DESIGNATION	INC % ILU	INC % TXCS	MEAL ALL LOCS	Rank	INDEX TXCS	Rank
44	DHMD-23-316	4.7	60.0	32.4	17	49.5	45
45	VA20FHB-18	-3.9	10.0	3.1	1	0.5	1
46	18VTK6-3	9.4	75.0	42.2	37	49.0	43
47	VA22W-201	19.5	50.0	34.8	22	24.2	15
48	DH19SRW08-020	32.7	60.0	46.4	44	42.0	35
49	18VTK9-68	-1.5	80.0	39.3	31	68.5	54
50	VA23W-345	20.7	52.5	36.6	27	30.0	20
51	VA23W-40	5.7	65.0	35.4	25	51.0	47
52	VA23W-532	31.3	35.0	33.2	20	24.5	17
53	NC14757LDH-15	15.3	27.5	21.4	4	12.8	3
54	NC20-21971	22.4	65.0	43.7	40	39.0	33
	Mean	16.41	58.43	37.42		35.71	
	CV%	66.00		39.16			
	LSD(0.05)			29.39			
	LSD(0.10)	18.00					
	R-Square			0.85			

FHB Severity

ENTRY	DESIGNATION	ARF	ARN	ILC	ILU	NCK	TXCS	MEAL ALL LOCS	Rank	GEBV RAT	GEBV SEV
1	ERNIE	20.0	10.0	10.0	9.5	79.2	80.0	34.8	22	2.6	25.4
2	COKER9835	35.0	35.0	70.0	45.8	92.5	75.0	58.9	54	4.0	48.3
3	BESS	15.0	13.3	15.0	13.4	72.5	50.0	29.9	10	2.6	21.7
4	JAMESTOWN	30.0	30.0	6.0	6.6	70.0	60.0	33.8	17	2.7	26.9
5	SS8641	25.0	25.0	70.0	54.1	91.7	35.0	50.1	51	5.3	53.1
6	GA141028-13-3-4-22LE25	47.5	46.7	50.0	50.6	70.8	65.0	55.1	53	4.1	40.1
7	GA151450-13-6-9-22LE29	30.0	30.0	62.5	49.9	85.8	35.0	48.9	50	5.0	55.1
8	GA16349ID-8-1-5-22LE31	35.0	33.3	57.5	45.8	79.2	55.0	51.0	52	4.4	45.7
9	GA161058-13-4-6-23E14	17.5	6.7	47.5	19.9	81.7	55.0	38.1	35	4.6	51.6
10	GA17371ID-38-6-3-23E23	15.0	0.0	40.0	12.9	79.2	70.0	36.2	29	4.5	53.3
11	GA18117-58NCDH-23E37F	17.5	8.3	12.5	9.3	88.3	27.5	27.2	4	3.1	30.8
12	GA161198-3-1-2-23LE14F	17.5	8.3	32.5	10.4	81.7	22.5	28.8	9	4.4	46.6
13	GA17389ID-8-2-15-23LE39F	20.0	10.0	17.5	5.6	71.7	40.0	27.5	5	3.8	45.4
14	KWS571	15.0	8.3	5.0	12.9	70.8	30.0	23.7	1	3.5	33.3
15	KWS578	15.0	0.0	5.0	12.8	58.3	75.0	27.7	7	2.0	19.3
16	KWS625	30.0	28.3	6.0	6.7	75.0	65.0	35.2	24	2.3	24.8
17	LA15093SB-30-3-3	22.5	18.3	17.5	19.2	67.5	50.0	32.5	14	3.5	34.5
18	LAAR15737W-2-1-4-1-3	17.5	20.0	50.0	30.0	74.2	35.0	37.8	34	4.0	40.7
19	LA16038C-4-3-1	15.0	10.0	60.0	34.7	46.7	40.0	34.4	21	4.4	55.9
20	LA16196C-14-4-2	27.5	26.7	57.5	34.4	80.0	40.0	44.4	45	4.0	43.4
21	LATX16D132W-50-3-2	30.0	48.3	42.5	22.4	87.5	55.0	47.6	48	4.2	43.7
22	LA17176C-52-1	27.5	23.3	32.5	7.1	78.3	45.0	35.6	27	4.0	45.2
23	LA19333-NDH31	30.0	28.3	15.0	14.4	68.3	62.5	36.4	30	2.8	27.4
24	LAVT19VDH-FHB-MAS11-10	15.0	13.3	7.5	5.6	71.7	42.5	25.9	3	2.7	24.8
25	SC21DH240-70	15.0	6.7	.	6.0	78.3	22.5	25.7	2	4.6	56.5
26	SC21DH145-68	30.0	23.3	6.0	7.3	87.5	65.0	36.5	31	2.8	26.1
27	SCNC19-8-3-14-GP80	37.5	38.3	55.0	21.7	58.3	65.0	46.0	47	4.1	46.1
28	SCNC22-5247	47.5	50.0	17.5	17.9	59.2	60.0	42.0	41	2.5	28.8
29	SCNC22-10569	32.5	33.3	25.0	6.3	78.3	70.0	40.9	36	3.8	34.0
30	SC23W517	27.5	31.7	12.5	9.9	75.8	32.5	31.7	12	2.9	26.5
31	SC24W067	22.5	20.0	8.5	6.8	67.5	40.0	27.6	6	3.4	31.9
32	SC24W217	30.0	26.7	20.0	3.2	72.5	70.0	37.1	32	3.8	37.3
33	TX24D9373	30.0	30.0	42.5	43.8	70.7	75.0	48.7	49	4.9	52.5
34	TX24D9571	33.0	15.0	30.0	41.4	86.7	55.0	43.5	44	3.3	28.9
35	TX24D9579	32.5	31.7	32.5	20.0	75.8	65.0	42.9	43	3.4	31.5
36	TX24D9598	27.5	23.3	20.0	9.1	65.2	55.0	33.4	16	3.4	31.0

ENTRY	DESIGNATION	ARF	ARN	ILC	ILU	NCK	TXCS	MEAL ALL LOCS	Rank	GEBV RAT	GEBV SEV
37	19MD-1-9-37	27.5	23.3	35.0	12.8	62.5	50.0	35.2	25	3.1	32.7
38	FHB-MAS08-11-3	25.0	21.7	42.5	18.8	73.3	65.0	41.1	38	3.1	38.3
39	19MD-1-9-8	37.5	35.0	45.0	11.8	67.5	60.0	42.8	42	2.4	24.5
40	19MD16-463-12	25.0	25.0	30.0	31.1	80.8	55.0	41.2	40	3.6	38.3
41	MDW-1-9-40	27.5	28.3	17.5	22.3	80.8	40.0	36.1	28	3.0	38.9
42	FHB-MAS03-29-2	15.0	15.0	15.0	7.6	80.8	70.0	33.9	18	2.5	29.0
43	MDW107	10.0	10.0	17.5	17.5	85.8	65.0	34.3	20	4.2	46.2
44	DHMD-23-316	0.0	0.0	15.0	6.8	82.5	75.0	29.9	11	2.6	21.2
45	VA20FHB-18	35.0	35.0	10.0	6.5	80.8	5.0	28.7	8	4.1	49.5
46	18VTK6-3	30.0	30.0	12.5	13.7	62.3	65.0	35.6	26	3.4	31.0
47	VA22W-201	25.0	26.7	17.5	9.5	77.5	37.5	32.3	13	2.3	24.1
48	DH19SRW08-020	20.0	20.0	15.0	13.5	82.5	60.0	35.2	24	2.8	28.7
49	18VTK9-68	30.0	30.0	15.0	16.1	70.8	85.0	41.2	40	3.6	31.9
50	VA23W-345	30.0	30.0	30.0	33.3	72.5	50.0	41.0	37	3.6	38.4
51	VA23W-40	15.0	13.3	32.5	11.1	56.7	75.0	33.9	19	4.3	43.8
52	VA23W-532	20.0	21.7	15.0	20.8	84.2	35.0	32.8	15	3.7	39.8
53	NC14757LDH-15	25.0	23.3	42.5	24.3	72.5	35.0	37.1	33	4.0	37.0
54	NC20-21971	35.0	35.0	45.0	21.2	71.7	60.0	44.7	46	3.7	43.2
	Mean	25.33	22.86	28.52	19.00	74.89	53.19	37.29			
	CV%				44.00	16.62		33.21			
	LSD(0.05)							14.09			
	LSD(0.10)				14.00	20.15					
	R-Square					0.46		0.79			
	Correl w/ GEBV RAT	0.04	0.05	0.69	0.54	0.18	-0.24	0.40			
	Correl w/ GEBV SEV	0.03	0.03	0.71	0.48	0.15	-0.29	0.35			

Observed Mean Severity Versus Predicted Severity

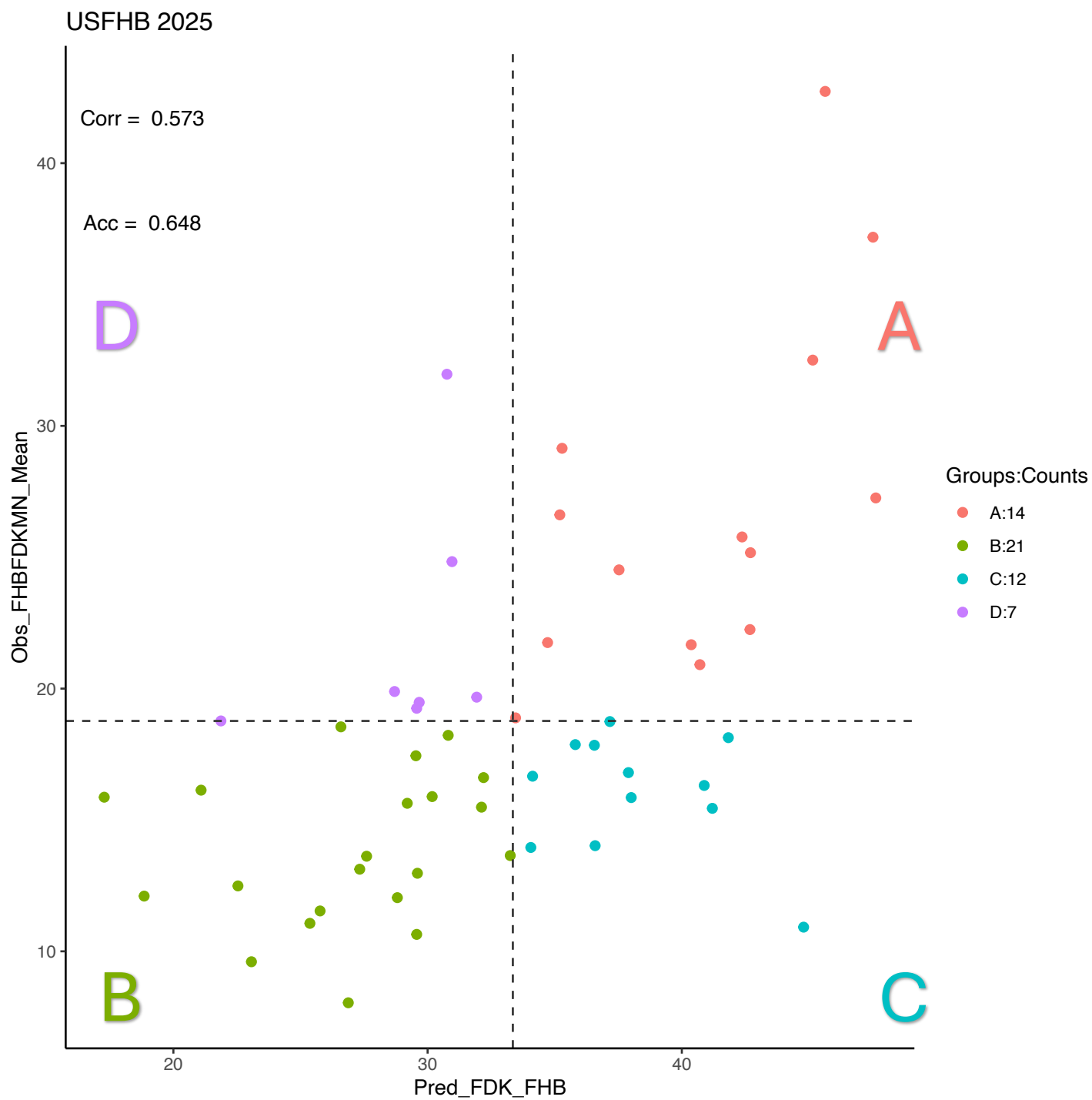


Percent Fusarium Damaged Kernels

ENTRY	DESIGNATION	ARF	GAP	ILU	LAW	NCK	SCF	TXCS	VAW	MEAL ALL LOCS	Rank	FDK GEBV
1	ERNIE	4.0	1.0	-0.2	25.0	6.3	32.3	9.0	22.5	12.5	9	22.5
2	COKER9835	3.9	32.5	100.5	42.5	4.3	36.3	7.5	32.5	32.5	52	45.2
3	BESS	3.7	2.0	27.1	25.0	5.7	43.8	7.2	12.5	15.9	20	17.3
4	JAMESTOWN	4.1	7.5	18.8	7.5	2.0	24.4	7.5	5.0	9.6	2	23.1
5	SS8641	3.6	67.5	62.8	85.0	11.3	79.4	12.2	20.0	42.7	54	45.6
6	GA141028-13-3-4-22LE25	3.3	10.0	89.2	47.5	1.7	55.3	13.7	35.0	32.0	51	30.8
7	GA151450-13-6-9-22LE29	3.4	32.5	79.6	67.5	4.0	75.9	14.6	20.0	37.2	53	47.5
8	GA16349ID-8-1-5-22LE31	3.6	8.5	75.6	35.0	5.3	54.7	15.4	20.0	27.3	49	47.6
9	GA161058-13-4-6-23E14	3.5	25.0	37.3	42.5	1.7	53.0	13.2	20.0	24.5	44	37.5
10	GA17371ID-38-6-3-23E23	4.0	2.0	50.3	37.5	4.7	33.1	6.4	5.0	17.9	29	35.8
11	GA18117-58NCDH-23E37F	3.8	0.0	12.9	5.0	4.3	28.7	4.6	5.0	8.0	1	26.9
12	GA161198-3-1-2-23LE14F	4.3	17.5	29.2	32.5	4.0	51.5	7.1	5.0	18.9	35	33.5
13	GA17389ID-8-2-15-23LE39F	4.0	8.5	36.1	42.5	4.3	27.8	4.5	15.0	17.8	28	36.6
14	KWS571	3.7	1.0	34.7	15.0	6.0	56.0	9.4	22.5	18.5	32	26.6
15	KWS578	3.9	0.0	28.2	52.5	3.7	28.4	4.9	7.5	16.1	22	21.1
16	KWS625	4.3	2.0	21.0	17.5	2.3	24.1	4.8	12.5	11.1	5	25.4
17	LA15093SB-30-3-3	4.2	6.0	53.4	35.0	5.7	20.9	4.8	20.0	18.8	33	37.2
18	LAAR15737W-2-1-4-1-3	4.0	20.0	32.3	32.5	2.3	61.4	8.3	12.5	21.7	41	40.4
19	LA16038C-4-3-1	3.4	8.5	58.3	47.5	2.0	63.5	10.4	12.5	25.8	47	42.4
20	LA16196C-14-4-2	3.5	25.0	24.3	27.5	6.0	39.4	15.2	15.0	19.5	37	29.7
21	LATX16D132W-50-3-2	3.3	8.5	33.7	32.5	8.7	54.6	14.2	22.5	22.3	43	42.7
22	LA17176C-52-1	3.4	1.0	28.9	25.0	2.3	49.0	12.5	5.0	15.9	21	30.2
23	LA19333-NDH31	3.8	1.0	17.2	37.5	6.7	32.2	5.6	5.0	13.6	12	27.6
24	LAVT19VDH-FHB-MAS11-10	4.0	1.0	26.0	30.0	4.0	27.9	7.1	5.0	13.1	11	27.3
25	SC21DH240-70	4.0	50.0	19.7	5.0	4.3	30.1	7.4	10.0	16.3	23	40.9
26	SC21DH145-68	4.3	8.5	37.4	15.0	2.3	17.9	3.9	7.5	12.1	8	18.9
27	SCNC19-8-3-14-GP80	3.5	7.5	51.9	57.5	2.3	73.9	11.5	25.0	29.1	50	35.3
28	SCNC22-5247	3.8	2.0	37.0	25.0	0.7	34.2	25.0	22.5	18.8	34	21.9
29	SCNC22-10569	3.9	2.0	12.8	15.0	6.3	47.7	13.9	10.0	14.0	14	34.1
30	SC23W517	4.1	1.0	28.0	15.0	5.3	33.1	7.6	15.0	13.6	13	33.3
31	SC24W067	3.1	10.0	10.5	20.0	4.0	27.5	9.7	7.5	11.5	6	25.8
32	SC24W217	4.3	1.0	43.6	32.5	6.3	44.3	12.0	10.0	19.3	36	29.6
33	TX24D9373	4.2	21.0	57.6	30.0	6.0	52.3	17.8	12.5	25.2	46	42.7
34	TX24D9571	3.9	55.0	20.9	25.0	4.3	30.4	10.3	7.5	19.7	38	31.9
35	TX24D9579	3.9	13.5	15.3	40.0	3.0	45.2	13.2	25.0	19.9	39	28.7
36	TX24D9598	3.7	6.0	18.2	22.5	2.3	40.3	5.8	5.0	13.0	10	29.6
37	19MD-1-9-37	4.2	8.5	43.9	32.5	3.7	23.6	10.6	12.5	17.4	27	29.5
38	FHB-MAS08-11-3	.	1.0	25.4	17.5	8.0	30.4	5.8	10.0	14.0	15	36.6
39	19MD-1-9-8	.	31.0	57.7	17.5	8.7	37.8	8.7	12.5	24.8	45	31.0
40	19MD16-463-12	3.0	12.5	42.2	30.0	7.0	39.4	4.2	7.5	18.2	31	30.8
41	MDW-1-9-40	4.3	25.0	25.2	15.0	6.3	33.7	8.0	7.5	15.6	18	29.2
42	FHB-MAS03-29-2	1.7	0.0	13.4	10.0	6.3	30.6	13.2	10.0	10.7	3	29.6

ENTRY	DESIGNATION	ARF	GAP	ILU	LAW	NCK	SCF	TXCS	VAW	MEAL ALL LOCS	Rank	FDK GEBV
43	MDW107	1.0	6.0	26.0	30.0	2.3	36.8	8.9	12.5	15.4	16	41.2
44	DHMD-23-316	2.0	2.0	11.2	32.5	2.0	37.0	4.6	5.0	12.0	7	28.8
45	VA20FHB-18	3.0	10.0	32.8	32.5	4.3	44.6	10.3	7.5	18.1	30	41.8
46	18VTK6-3	2.0	1.0	32.0	17.5	9.3	53.4	4.2	15.0	16.8	26	37.9
47	VA22W-201	3.7	2.0	20.4	42.5	6.0	43.3	8.0	7.5	16.7	25	34.1
48	DH19SRW08-020	1.7	40.0	26.5	25.0	2.7	16.1	4.9	10.0	15.9	19	38.0
49	18VTK9-68	1.7	2.0	29.5	37.5	5.0	30.5	12.7	5.0	15.5	17	32.1
50	VA23W-345	2.7	0.0	22.1	15.0	5.0	26.7	10.9	5.0	10.9	4	44.8
51	VA23W-40	2.0	25.0	20.7	30.0	2.0	40.0	5.7	7.5	16.6	24	32.2
52	VA23W-532	4.7	20.0	57.5	65.0	2.0	45.8	10.4	7.5	26.6	48	35.2
53	NC14757LDH-15	1.0	10.0	34.9	42.5	5.0	54.3	7.1	12.5	20.9	40	40.7
54	NC20-21971	2.3	60.0	25.9	22.5	1.3	48.7	5.8	7.5	21.8	42	34.7
	Mean	3.43	13.37	34.77	30.83	4.51	40.80	9.30	12.55	18.77		
	CV%			40.00	60.12	94.17	9.25			58.27		
	LSD(0.05)				29.64					10.75		
	LSD(0.10)			23.00		6.88	6.60					
	R-Square				0.38	0.31	0.88			0.69		
	Correl w/ GEBV	-0.24	0.38	0.49	0.38	0.20	0.48	0.18	0.23	0.57		

Observed Mean FDK vs Predicted FDK

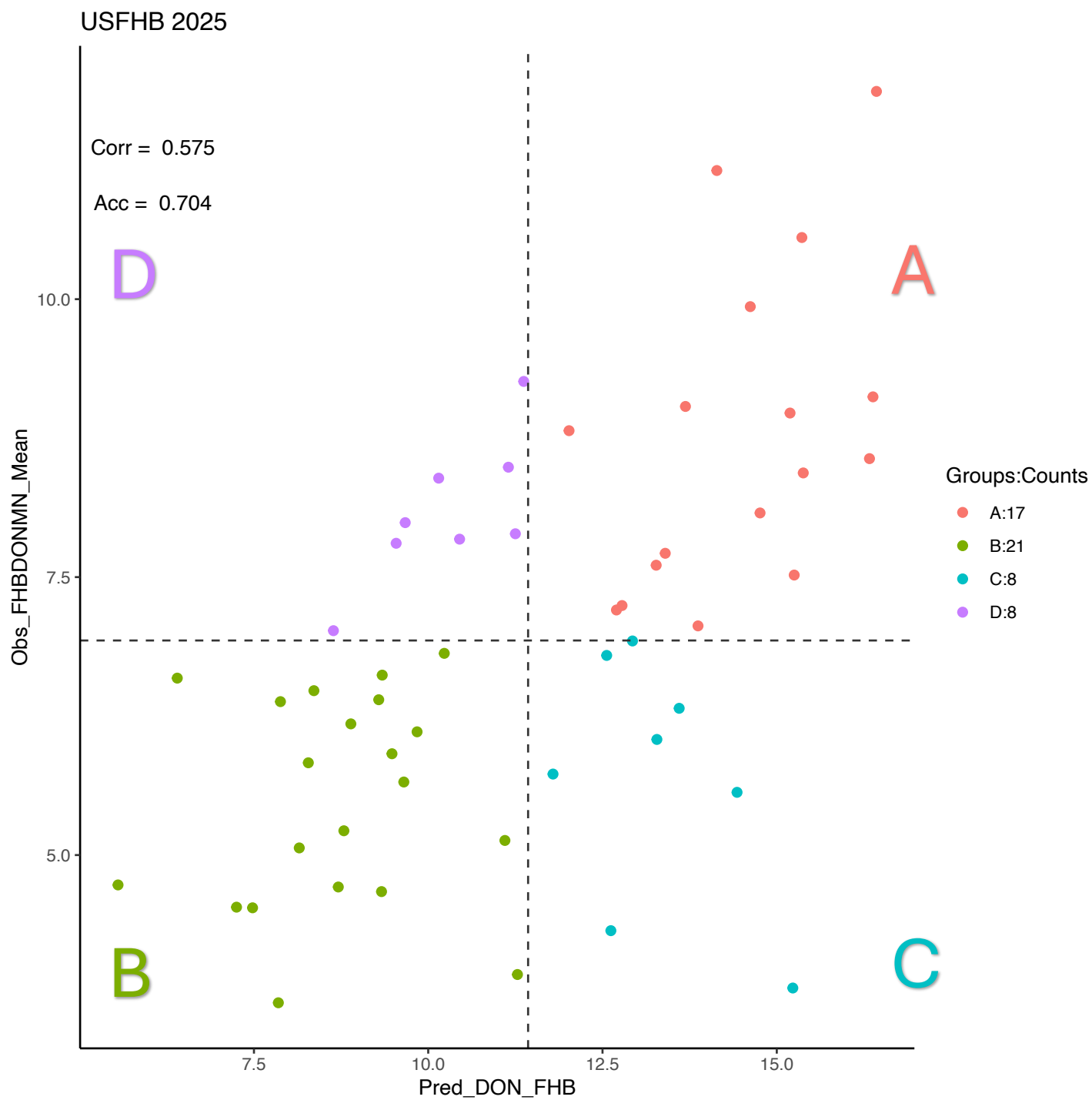


DON (ppm)

ENTRY	DESIGNATION	ARF	KYX	LAW	NCK	SCF	TXCS	VAW	MEAL ALL LOCS	Rank	GEBV DON
1	ERNIE	0.7	12.4	21.0	1.4	4.4	0.3	1.1	5.9	17	9.5
2	COKER9835	0.9	16.6	27.1	1.3	9.2	2.4	6.3	9.1	49	16.4
3	BESS	1.0	9.1	25.9	1.1	4.5	0.5	1.1	6.2	20	8.9
4	JAMESTOWN	1.8	9.2	9.9	0.1	2.9	1.3	0.6	3.7	1	7.9
5	SS8641	0.3	22.6	30.1	0.3	10.9	0.9	4.5	9.9	51	14.6
6	GA141028-13-3-4-22LE25	0.3	20.4	23.6	0.3	8.7	1.0	5.2	8.5	44	11.2
7	GA151450-13-6-9-22LE29	1.9	22.9	38.6	0.4	9.6	4.0	5.7	11.9	54	16.4
8	GA16349ID-8-1-5-22LE31	1.7	20.1	21.4	0.6	9.7	0.9	4.6	8.4	43	15.4
9	GA161058-13-4-6-23E14	1.6	20.9	22.8	0.4	9.4	1.3	3.7	8.6	45	16.3
10	GA17371ID-38-6-3-23E23	3.7	11.8	21.9	0.8	7.2	1.1	2.9	7.1	31	13.9
11	GA18117-58NCDH-23E37F	4.1	14.6	8.7	0.7	1.5	0.6	2.8	4.7	8	8.7
12	GA161198-3-1-2-23LE14F	2.2	15.3	14.8	0.4	4.2	2.2	0.9	5.7	15	11.8
13	GA17389ID-8-2-15-23LE39F	1.1	6.1	15.3	0.7	2.8	0.8	0.6	3.9	3	11.3
14	KWS571	1.0	12.7	23.6	1.1	14.8	0.9	1.1	7.9	39	11.3
15	KWS578	0.5	8.6	29.6	0.6	5.7	0.4	0.8	6.6	25	6.4
16	KWS625	0.8	4.8	17.3	0.8	5.5	0.5	0.6	4.3	4	12.6
17	LA15093SB-30-3-3	1.8	17.2	20.7	3.7	5.4	0.8	3.7	7.6	35	13.3
18	LAAR15737W-2-1-4-1-3	6.0	14.8	20.5	0.0	8.0	1.6	3.0	7.7	36	13.4
19	LA16038C-4-3-1	1.8	16.7	18.8	0.5	6.3	1.2	3.2	6.9	29	12.9
20	LA16196C-14-4-2	4.0	17.0	22.9	1.3	8.5	3.2	4.8	8.8	46	12.0
21	LATX16D132W-50-3-2	1.5	19.1	20.6	0.4	9.7	1.6	3.7	8.1	41	14.8
22	LA17176C-52-1	0.5	20.2	16.3	0.4	3.1	1.4	0.8	6.1	19	9.8
23	LA19333-NDH31	0.4	14.3	22.6	1.8	5.4	1.3	1.8	6.8	27	10.2
24	LAVT19VDH-FHB-MAS11-10	0.7	10.4	16.4	1.5	2.1	0.6	1.5	4.7	9	5.6
25	SC21DH240-70	0.5	8.7	12.5	1.0	2.9	0.2	1.0	3.8	2	15.2
26	SC21DH145-68	0.5	13.2	12.2	0.2	4.5	0.4	0.7	4.5	5	7.5
27	SCNC19-8-3-14-GP80	2.9	19.7	36.1	1.3	12.1	1.3	4.7	11.2	53	14.1
28	SCNC22-5247	1.4	10.1	27.6	0.6	9.6	4.0	1.3	7.8	37	9.5
29	SCNC22-10569	0.3	12.4	15.4	1.3	12.4	1.0	2.0	6.4	23	9.3
30	SC23W517	0.6	16.3	28.2	0.3	7.2	1.1	1.2	7.8	38	10.5
31	SC24W067	1.3	11.8	17.4	0.0	2.7	1.4	0.9	5.1	10	8.2
32	SC24W217	0.8	7.6	19.3	1.9	6.6	3.1	1.5	5.8	16	8.3
33	TX24D9373	3.3	21.3	18.7	0.4	15.2	1.6	2.4	9.0	47	15.2
34	TX24D9571	2.1	10.7	16.8	1.3	4.0	2.3	1.7	5.6	13	14.4
35	TX24D9579	0.7	13.2	21.1	0.5	6.8	1.1	4.2	6.8	28	12.6
36	TX24D9598	1.5	14.2	14.0	0.5	1.6	2.1	1.9	5.1	11	11.1
37	19MD-1-9-37	4.8	9.9	15.9	0.3	2.1	1.7	1.8	5.2	12	8.8
38	FHB-MAS08-11-3	.	13.2	17.8	2.0	5.6	1.3	2.3	7.0	30	8.6
39	19MD-1-9-8	1.1	8.4	28.1	2.6	13.5	1.2	3.8	8.4	42	10.2
40	19MD16-463-12	1.1	7.6	25.8	0.3	7.3	2.0	1.2	6.5	24	8.4
41	MDW-1-9-40	1.3	11.2	10.7	0.4	5.9	1.0	1.2	4.5	6	7.3
42	FHB-MAS03-29-2	1.1	12.4	15.4	1.5	6.2	1.7	1.3	5.7	14	9.7

ENTRY	DESIGNATION	ARF	KYX	LAW	NCK	SCF	TXCS	VAW	MEAL ALL LOCS	Rank	GEBV DON
43	MDW107	1.7	12.7	27.2	0.1	4.8	2.6	1.7	7.3	33	12.8
44	DHMD-23-316	3.0	10.7	21.8	1.0	6.3	1.2	0.6	6.4	22	7.9
45	VA20FHB-18	0.6	13.9	21.1	0.3	2.5	1.4	2.5	6.0	18	13.3
46	18VTK6-3	1.3	14.2	23.2	0.0	12.7	1.2	3.3	8.0	40	9.7
47	VA22W-201	0.8	16.2	29.0	0.7	12.4	3.1	2.6	9.3	50	11.4
48	DH19SRW08-020	3.6	27.6	31.8	0.7	4.4	3.8	2.0	10.6	52	15.4
49	18VTK9-68	1.2	10.0	15.0	0.8	2.2	2.0	1.4	4.7	7	9.3
50	VA23W-345	1.2	13.2	22.5	2.1	9.2	1.9	2.6	7.5	34	15.3
51	VA23W-40	0.7	14.1	18.4	1.0	6.4	1.8	1.8	6.3	21	13.6
52	VA23W-532	2.9	13.5	21.8	0.6	4.1	1.7	1.8	6.6	26	9.3
53	NC14757LDH-15	2.2	11.6	19.6	0.7	12.8	2.4	1.2	7.2	32	12.7
54	NC20-21971	.	13.8	24.7	0.3	11.1	1.8	2.5	9.0	48	13.7
	Mean	1.63	13.91	21.10	0.84	6.94	1.56	2.30	6.93		
	CV%			43.28	155.00	25.80		23.54	43.93		
	LSD(0.05)			11.80					3.20		
	LSD(0.10)				2.10	3.10		1.08			
	R-Square			0.39	0.35	0.67			0.88		
	Correl w/ GEBV	0.17	0.57	0.36	-0.01	0.37	0.27	0.58	0.58		

Observed Mean DON vs Predicted DON



Genotypic Analyses of Regions Associated with FHB Resistance and Other Loci

Table 1: FHB QTL

ENTRY	DESIGNATION	Fhb1	Fhb 3B Massey	Fhb 1B Jamestown	Fhb 2B Bess	Fhb 3B Bess	Fhb 1A Neuse	Fhb 6A Neuse	Fhb7
1	ERNIE	non-Fhb1	Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	ND	Fhb_1A_Neuse	Fhb_6A_Neuse_het	non-Fhb7
2	COKER9835	Fhb1_het	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	ND	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
3	BESS	Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	Fhb_2B_Bess_het	Fhb_3B_Bess	Fhb_1A_Neuse_het	non-Fhb_6A_Neuse	non-Fhb7
4	JAMESTOWN	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
5	SS8641	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
6	GA141028-13-3-4-22LE25	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
7	GA151450-13-6-9-22LE29	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	ND	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
8	GA16349ID-8-1-5-22LE31	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	ND	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	ND	non-Fhb7
9	GA161058-13-4-6-23E14	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
10	GA17371ID-38-6-3-23E23	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	ND	ND	non-Fhb7
11	GA18117-58NCDH-23E37F	Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
12	GA161198-3-1-2-23LE14F	Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	Fhb_6A_Neuse	non-Fhb7
13	GA17389ID-8-2-15-23LE39F	Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown_het	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
14	KWS571	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
15	KWS578	Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
16	KWS625	Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
17	LA15093SB-30-3-3	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
18	LAAR15737W-2-1-4-1-3	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	ND	ND	non-Fhb7
19	LA16038C-4-3-1	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
20	LA16196C-14-4-2	non-Fhb1	Fhb_3B_Massey_het	Fhb_1B_Jamestown_het	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
21	LATX16D132W-50-3-2	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
22	LA17176C-52-1	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
23	LA19333-NDH31	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
24	LAVT19VDH-FHB-MAS11-10	Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	Fhb_6A_Neuse	non-Fhb7
25	SC21DH240-70	Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
26	SC21DH145-68	Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
27	SCNC19-8-3-14-GP80	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
28	SCNC22-5247	Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
29	SCNC22-10569	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
30	SC23W517	Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	Fhb_6A_Neuse_het	non-Fhb7

ENTRY	DESIGNATION	Fhb1	Fhb 3B Massey	Fhb 1B Jamestown	Fhb 2B Bess	Fhb 3B Bess	Fhb 1A Neuse	Fhb 6A Neuse	Fhb7
31	SC24W067	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
32	SC24W217	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown_het	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
33	TX24D9373	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
34	TX24D9571	Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	ND	non-Fhb7
35	TX24D9579	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
36	TX24D9598	Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
37	19MD-1-9-37	Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	Fhb_6A_Neuse	non-Fhb7
38	FHB-MAS08-11-3	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
39	19MD-1-9-8	Fhb1	ND	Fhb_1B_Jamestown	ND	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
40	19MD16-463-12	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	ND	non-Fhb7
41	MDW-1-9-40	Fhb1	Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	Fhb_6A_Neuse	non-Fhb7
42	FHB-MAS03-29-2	Fhb1	Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	Fhb_6A_Neuse	non-Fhb7
43	MDW107	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
44	DHMD-23-316	Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
45	VA20FHB-18	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
46	18VTK6-3	non-Fhb1	Fhb_3B_Massey_het	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
47	VA22W-201	non-Fhb1	Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
48	DH19SRW08-020	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
49	18VTK9-68	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
50	VA23W-345	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	ND	non-Fhb7
51	VA23W-40	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	ND	non-Fhb7
52	VA23W-532	non-Fhb1	non-Fhb_3B_Massey	Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
53	NC14757LDH-15	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7
54	NC20-21971	non-Fhb1	non-Fhb_3B_Massey	non-Fhb_1B_Jamestown	non-Fhb_2B_Bess	non-Fhb_3B_Bess	non-Fhb_1A_Neuse	non-Fhb_6A_Neuse	non-Fhb7

Table 2: Additional Important QTL

ENTR Y	DESIGNATION	Rht-B1	Rht-D1	Lr9	Lr18	Yr17/Lr37/Sr38	Yr4BL_1	Sr36/Pm6	Pm1a	Pm54	H13	H13b	HF_7D
1	ERNIE	Rht-B1b_het	Rht-D1a	non-Lr9	non-Lr18	non-Lr37/Yr17/Sr38	Yr4BL	Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
2	COKER9835	Rht-B1b_het	Rht-D1b	Lr9	non-Lr18	Lr37/Yr17/Sr38_het	non-Yr4BL	Sr36/Pm6	non-Pm1a	Pm54_het	non-H13	non-H13b	non-QHft.nc-7D
3	BESS	Rht-B1b_het	Rht-D1a	non-Lr9	non-Lr18	Lr37/Yr17/Sr38_het	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
4	JAMESTOWN	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38_het	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
5	SS8641	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38_het	non-Yr4BL	non-Sr36/Pm6	Pm1a_het	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
6	GA141028-13-3-4-22LE25	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38	non-Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	H13_het	QHft.nc-7D_het
7	GA151450-13-6-9-22LE29	ND	Rht-D1b	non-Lr9	ND	Lr37/Yr17/Sr38	non-Yr4BL	non-Sr36/Pm6	Pm1a_het	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
8	GA16349ID-8-1-5-22LE31	Rht-B1a	Rht-D1b	non-Lr9	non-Lr18	Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	QHft.nc-7D_het
9	GA161058-13-4-6-23E14	Rht-B1a	Rht-D1b	non-Lr9	non-Lr18	Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	Pm54	H13	H13b	non-QHft.nc-7D
10	GA17371ID-38-6-3-23E23	Rht-B1a	Rht-D1b	non-Lr9	non-Lr18	ND	Yr4BL	non-Sr36/Pm6	non-Pm1a	Pm54	H13	H13b	non-QHft.nc-7D
11	GA18117-58NCDH-23E37F	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38	Yr4BL	Sr36/Pm6	Pm1a	non-Pm54	H13	non-H13b	QHft.nc-7D
12	GA161198-3-1-2-23LE14F	Rht-B1a	Rht-D1b	non-Lr9	non-Lr18	Lr37/Yr17/Sr38	non-Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
13	GA17389ID-8-2-15-23LE39F	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D
14	KWS571	Rht-B1a	Rht-D1b	non-Lr9	non-Lr18	non-Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D
15	KWS578	Rht-B1a	Rht-D1b	non-Lr9	non-Lr18	Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
16	KWS625	Rht-B1b	Rht-D1a	non-Lr9	non-Lr18	non-Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
17	LA15093SB-30-3-3	Rht-B1a	Rht-D1a	Lr9	Lr18	non-Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	Pm54	non-H13	non-H13b	non-QHft.nc-7D
18	LAAR15737W-2-1-4-1-3	Rht-B1a	Rht-D1b	non-Lr9	ND	ND	non-Yr4BL	non-Sr36/Pm6	Pm1a	non-Pm54	non-H13	non-H13b	ND
19	LA16038C-4-3-1	Rht-B1a	Rht-D1b	non-Lr9	Lr18	non-Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	H13b	non-QHft.nc-7D
20	LA16196C-14-4-2	Rht-B1a	Rht-D1b	non-Lr9	Lr18_het	Lr37/Yr17/Sr38_het	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13_het	H13_het	non-QHft.nc-7D
21	LATX16D132W-50-3-2	Rht-B1a	Rht-D1b	non-Lr9	non-Lr18	Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
22	LA17176C-52-1	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	QHft.nc-7D
23	LA19333-NDH31	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38	Yr4BL	Sr36/Pm6	Pm1a	non-Pm54	non-H13	non-H13b	QHft.nc-7D

ENTR Y	DESIGNATION	Rht-B1	Rht-D1	Lr9	Lr18	Yr17/Lr37/Sr38	Yr4BL_1	Sr36/Pm6	Pm1a	Pm54	H13	H13b	HF_7D
24	LAVT19VDH-FHB-MAS11-10	Rht-B1a	Rht-D1b	non-Lr9	Lr18	non-Lr37/Yr17/Sr38	non-Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D
25	SC21DH240-70	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38	non-Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D
26	SC21DH145-68	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	Pm1a	non-Pm54	H13	non-H13b	QHft.nc-7D
27	SCNC19-8-3-14-GP80	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38	non-Yr4BL	non-Sr36/Pm6	Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
28	SCNC22-5247	Rht-B1a	Rht-D1b	non-Lr9	Lr18	non-Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
29	SCNC22-10569	Rht-B1b	Rht-D1a	non-Lr9	non-Lr18	Lr37/Yr17/Sr38	Yr4BL	Sr36/Pm6	Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D
30	SC23W517	Rht-B1a	Rht-D1b	non-Lr9	non-Lr18	Lr37/Yr17/Sr38_he t	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	QHft.nc-7D_het
31	SC24W067	Rht-B1b	Rht-D1a	non-Lr9	Lr18	non-Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
32	SC24W217	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	Pm1a_he t	non-Pm54	non-H13	non-H13b	QHft.nc-7D
33	TX24D9373	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D
34	TX24D9571	Rht-B1a	Rht-D1b	non-Lr9	Lr18	ND	Yr4BL	non-Sr36/Pm6	Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
35	TX24D9579	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38	Yr4BL	Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
36	TX24D9598	Rht-B1a	Rht-D1b	non-Lr9	non-Lr18	non-Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
37	19MD-1-9-37	Rht-B1a	Rht-D1b	non-Lr9	Lr18	non-Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
38	FHB-MAS08-11-3	Rht-B1a	Rht-D1b	non-Lr9	Lr18	non-Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D
39	19MD-1-9-8	Rht-B1a	Rht-D1b	non-Lr9	Lr18	non-Lr37/Yr17/Sr38	ND	non-Sr36/Pm6	non-Pm1a	non-Pm54	ND	ND	non-QHft.nc-7D
40	19MD16-463-12	Rht-B1a	Rht-D1b	non-Lr9	Lr18_he t	Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
41	MDW-1-9-40	Rht-B1a	Rht-D1b	non-Lr9	Lr18	non-Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D
42	FHB-MAS03-29-2	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D
43	MDW107	Rht-B1a	Rht-D1b	non-Lr9	Lr18	non-Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
44	DHMD-23-316	Rht-B1b	Rht-D1a	non-Lr9	Lr18	Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D
45	VA20FHB-18	Rht-B1a	Rht-D1b	non-Lr9	Lr18	non-Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
46	18VTK6-3	Rht-B1a	Rht-D1b	non-Lr9	Lr18	non-Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
47	VA22W-201	Rht-B1a	Rht-D1b	non-Lr9	non-Lr18	Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D
48	DH19SRW08-020	Rht-B1b	Rht-D1a	non-Lr9	non-Lr18	Lr37/Yr17/Sr38	non-Yr4BL	Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D

ENTR Y	DESIGNATION	Rht-B1	Rht-D1	Lr9	Lr18	Yr17/Lr37/Sr38	Yr4BL_1	Sr36/Pm6	Pm1a	Pm54	H13	H13b	HF_7D
49	18VTK9-68	Rht-B1a	Rht-D1b	non-Lr9	Lr18	non-Lr37/Yr17/Sr38	Yr4BL_het	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	H13_het	non-QHft.nc-7D
50	VA23W-345	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	non-H13	non-H13b	non-QHft.nc-7D
51	VA23W-40	Rht-B1a	Rht-D1b	non-Lr9	non-Lr18	Lr37/Yr17/Sr38_het	Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D
52	VA23W-532	Rht-B1a	Rht-D1b	non-Lr9	Lr18	Lr37/Yr17/Sr38	non-Yr4BL	non-Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D
53	NC14757LDH-15	Rht-B1a	Rht-D1b	non-Lr9	non-Lr18	non-Lr37/Yr17/Sr38	non-Yr4BL	Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D
54	NC20-21971	Rht-B1a	Rht-D1b	non-Lr9	Lr18	non-Lr37/Yr17/Sr38	non-Yr4BL	Sr36/Pm6	non-Pm1a	non-Pm54	H13	non-H13b	non-QHft.nc-7D

Efficacy of Selected FHB Resistance QTL

Mean Rating (RAT), Fusarium Damaged Kernels (FDK), and DON for entries in the 2013-2025 Uniform Southern Winter Wheat Scab Nurseries with and without resistance alleles at quantitative trait loci (QTL) associated with resistance to (FHB). FHB Rating (RAT) data included for 2018-2025 nurseries only.

With data as of 11/21/25.

QTL†	Allele‡	n§	SEV		FDK		DON		RAT (2018-25)	
<i>Qfhb.nc-2B.1 (Bess)</i>	S	563	32.0	p = 0.505	28.1	p = 0.158	7.8	p = 0.011	3.5	p = 0.063
	R	38	31.0	-1.0	26.6	-1.5	6.6	-1.2	3.2	-0.3
<i>Qfhb.nc-3B.2 (Bess)</i>	S	550	32.4	p = 0.013	28.2	p < 0.0001	7.8	p = 0.799	3.5	p < 0.0001
	R	16	28.3	-4.1	22.5	-5.7	7.7	-0.1	2.9	-0.6
<i>Ning_5A</i>	S	511	31.8	p = 0.009	30.2	p < 0.0001	8.2	p < 0.0001	3.5	p = 0.090
	R	17	27.3	-4.5	22.6	-7.6	5.3	-2.9	3.2	-0.2
<i>Ernie_5A</i>	S	503	31.2	p = 0.174	29.6	p < 0.0001	8.0	p = 0.026	3.5	p < 0.0001
	R	25	32.9	1.7	33.9	4.2	8.9	0.9	2.8	-0.7
<i>Wuhan-1_2DL</i>	S	467	31.9	p = 0.003	29.9	p < 0.0001	8.2	p < 0.0001	3.5	p = 0.212
	R	12	26.7	-5.2	22.0	-7.9	4.8	-3.4	3.2	-0.2
<i>Sumai 3_Fhb1</i>	S	462	34.3	p < 0.0001	29.6	p < 0.0001	8.4	p < 0.0001	3.8	p < 0.0001
	R	141	23.2	-11.1	23.7	-5.9	5.9	-2.4	2.9	-0.9
<i>QTL_3BL (Massey)</i>	S	544	32.3	p < 0.0001	28.1	p = 0.027	7.8	p < 0.0001	3.5	p < 0.0001
	R	50	27.0	-5.3	26.6	-1.5	6.6	-1.2	3.1	-0.4
<i>QTL_1A (Neuse)</i>	S	293	33.5	p = 0.015	28.7	p < 0.0001	8.0	p < 0.0001	3.6	p = 0.001
	R	237	31.9	-1.6	27.0	-1.7	7.3	-0.8	3.4	-0.2
<i>QTL_6A (Neuse)</i>	S	403	32.3	p = 0.612	28.2	p = 0.839	8.0	p = 0.001	3.6	p < 0.0001
	R	127	31.7	-0.5	28.4	0.2	6.8	-1.2	3.3	-0.3
<i>QTL_1B (Jamestown)</i>	S	298	32.8	p < 0.0001	27.6	p = 0.0004	8.0	p < 0.0001	3.5	p = 0.097
	R	184	29.8	-2.9	26.1	-1.5	6.8	-1.1	3.5	-0.1

† QTL, quantitative trait loci.

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

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

¶ Significance levels of mean comparisons are indicated as: NS (P > 0.05), * (P < 0.05), ** (P < 0.01), *** (P < 0.001).

Mean Rating (RAT), Fusarium Damaged Kernels (FDK), and DON for entries in the 2013-2025 Uniform Southern Winter Wheat Scab Nurseries with and without resistance alleles at quantitative trait loci (QTL) associated with resistance to (FHB). FHB Rating (RAT) data included for 2018-2025 nurseries only.

With data as of 11/21/25.

QTL†	Allele‡	n§	SEV		FDK		DON		RAT (2018-24)	
<i>Qfhb.nc-2B.1 (Bess)</i>	S	564	32.0	p = 0.505	28.1	p = 0.158	7.8	p = 0.011	3.5	p = 0.063
	R	38	31.0	-3%	26.6	-5%	6.6	-15%	3.2	-9%
<i>Qfhb.nc-3B.2 (Bess)</i>	S	550	32.4	p = 0.013	28.2	p < 0.0001	7.8	p = 0.799	3.5	p < 0.0001
	R	16	28.3	-13%	22.5	-20%	7.7	-2%	2.9	-18%
<i>Ning_5A</i>	S	511	31.8	p = 0.009	30.2	p < 0.0001	8.2	p < 0.0001	3.5	p = 0.090
	R	17	27.3	-14%	22.6	-25%	5.3	-35%	3.2	-7%
<i>Ernie_5A</i>	S	503	31.2	p = 0.174	29.6	p < 0.0001	8.0	p = 0.026	3.5	p < 0.0001
	R	25	32.9	6%	33.9	14%	8.9	11%	2.8	-19%
<i>Wuhan-1_2DL</i>	S	467	31.9	p = 0.003	29.9	p < 0.0001	8.2	p < 0.0001	3.5	p = 0.212
	R	12	26.7	-16%	22.0	-26%	4.8	-41%	3.2	-6%
<i>Sumai 3_Fhb1</i>	S	463	34.3	p < 0.0001	29.6	p < 0.0001	8.4	p < 0.0001	3.8	p < 0.0001
	R	141	23.2	-32%	23.7	-20%	5.9	-29%	2.9	-23%
<i>QTL_3BL (Massey)</i>	S	545	32.3	p < 0.0001	28.1	p = 0.027	7.8	p < 0.0001	3.5	p < 0.0001
	R	50	27.0	-16%	26.6	-5%	6.6	-16%	3.1	-12%
<i>QTL_1A (Neuse)</i>	S	293	33.5	p = 0.015	28.7	p < 0.0001	8.0	p < 0.0001	3.6	p = 0.001
	R	237	31.9	-5%	27.0	-6%	7.3	-9%	3.4	-5%
<i>QTL_6A (Neuse)</i>	S	403	32.3	p = 0.612	28.2	p = 0.839	8.0	p = 0.001	3.6	p < 0.0001
	R	127	31.7	-2%	28.4	1%	6.8	-15%	3.3	-8%
<i>QTL_1B (Jamestown)</i>	S	298	32.8	p < 0.0001	27.6	p = 0.0004	8.0	p < 0.0001	3.5	p = 0.097
	R	185	29.8	-9%	26.1	-6%	6.8	-14%	3.5	-2%

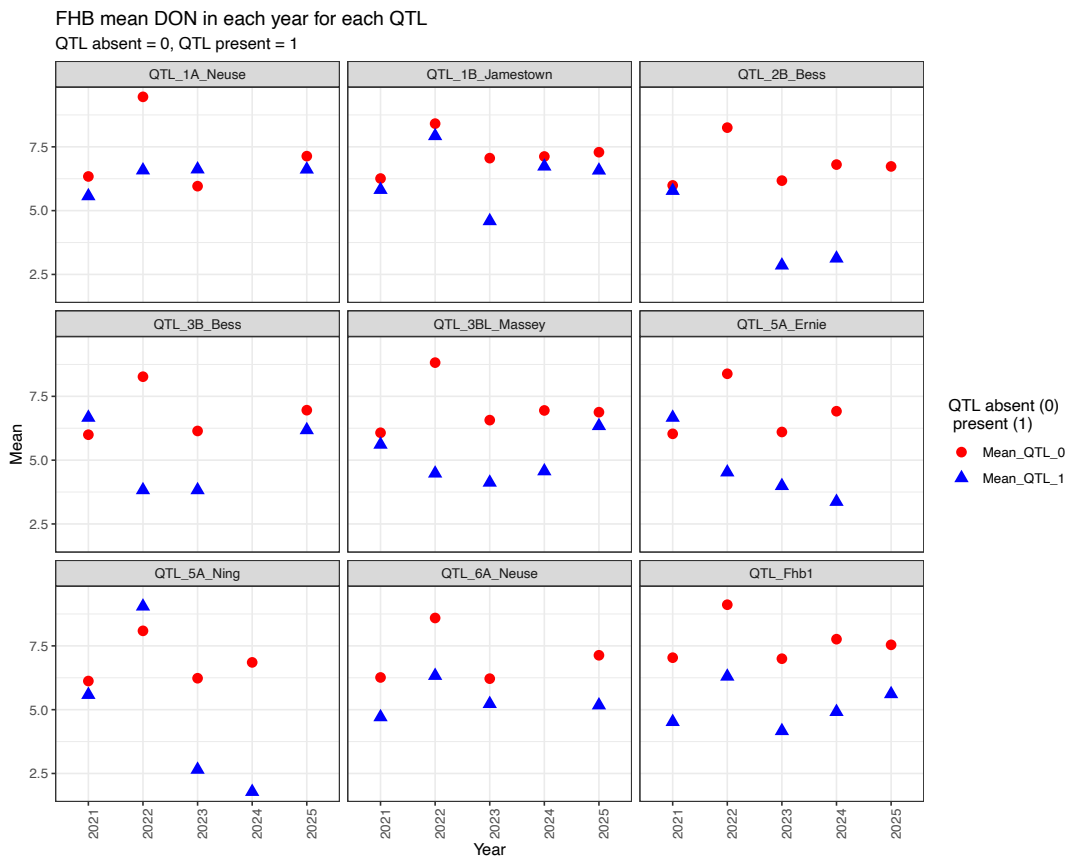
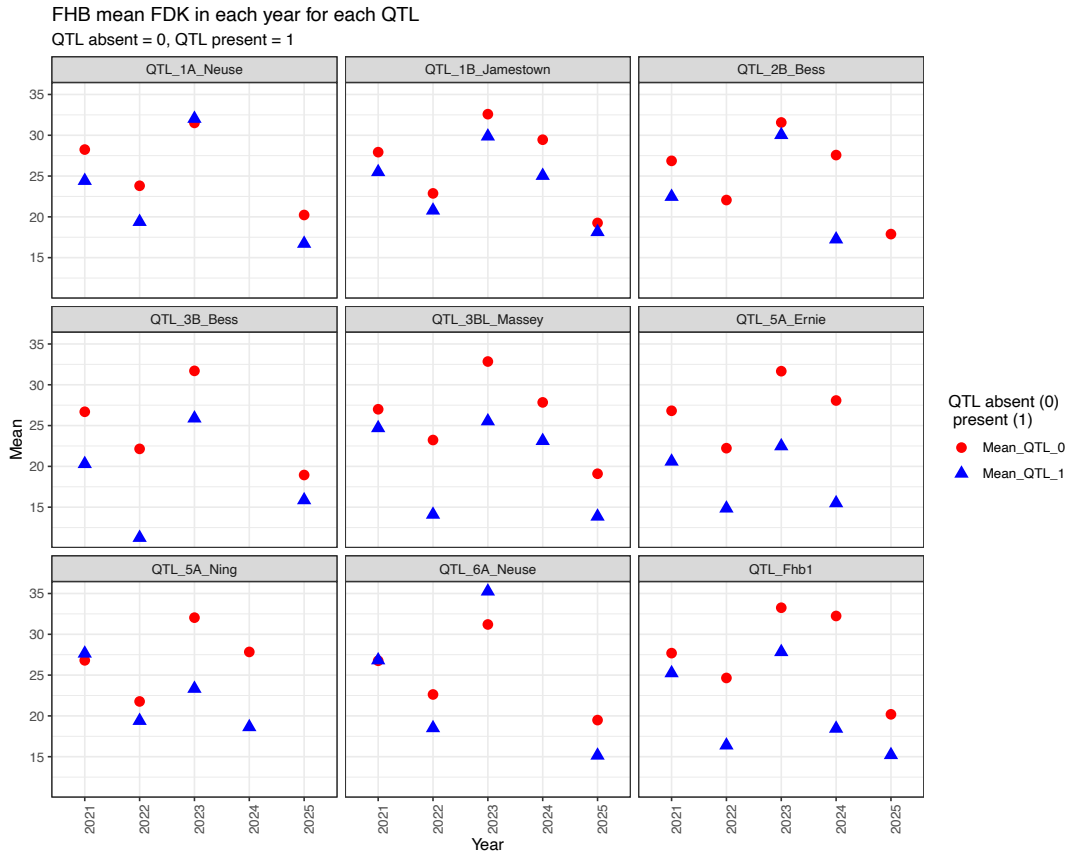
† QTL, quantitative trait loci.

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

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

¶ Significance levels of mean comparisons are indicated as: NS (P > 0.05), * (P < 0.05), ** (P < 0.01), *** (P < 0.001).

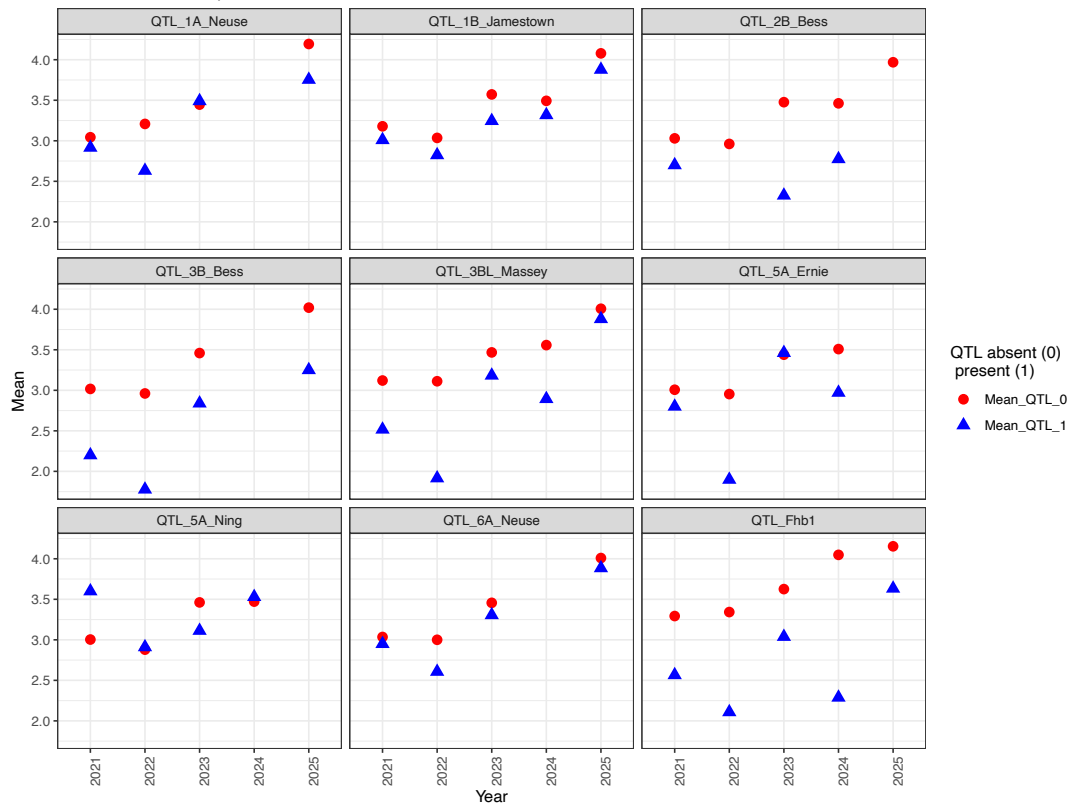
Efficacy of Selected FHB Resistance QTL For FDK (Top) and DON (Bottom), by year, for 2021 through 2025



Efficacy of Selected FHB Resistance QTL For FHB Rating (Top) and Severity (Bottom), by year, for 2021 through 2025

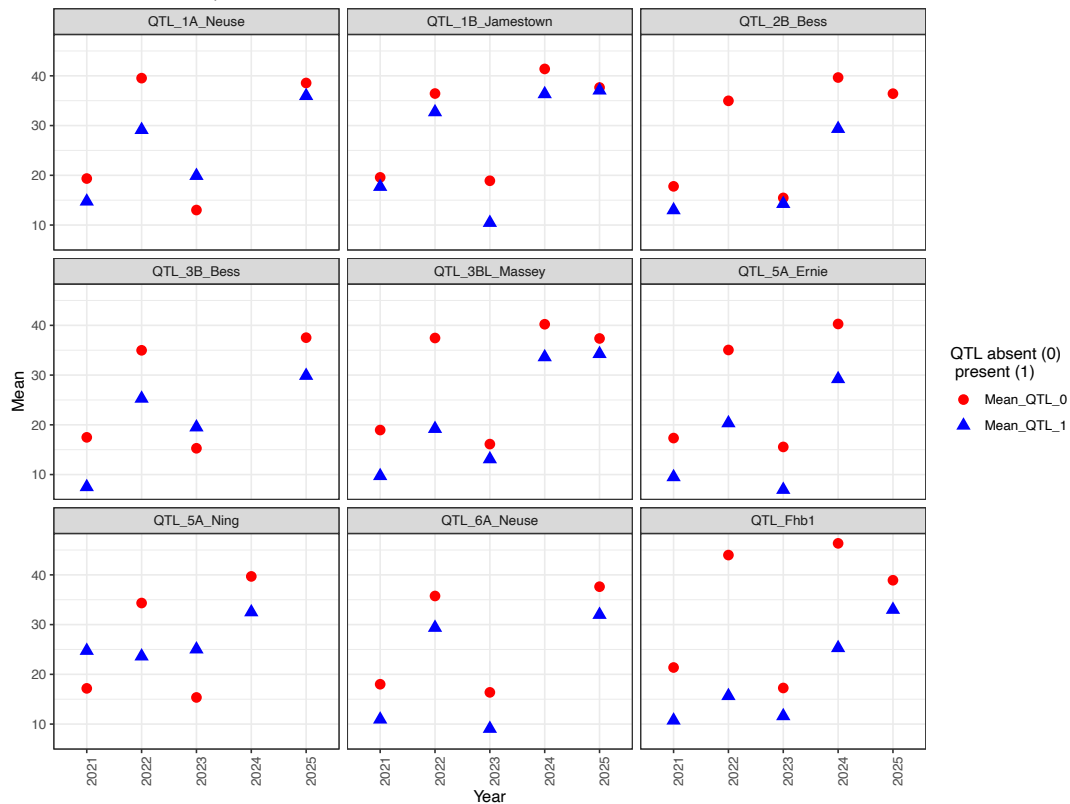
FHB mean RATING in each year for each QTL

QTL absent = 0, QTL present = 1



FHB mean SEV in each year for each QTL

QTL absent = 0, QTL present = 1



Heading Date (Julian Day)

ENTRY	DESIGNATION	ILC	ILU	LAW	SCF	TXCS	VAW	MEAL ALL LOCS	Rank
1	ERNIE	131	132	91.0	96	94	122	111	8
2	COKER9835	134	138	92.0	100	91	122	113	27
3	BESS	134	135	104.0	105	104	122	117	51
4	JAMESTOWN	130	133	88.0	96	94	120	110	3
5	SS8641	134	135	94.0	98	100	120	114	32
6	GA141028-13-3-4-22LE25	136	136	104.0	105	99	123	117	50
7	GA151450-13-6-9-22LE29	134	136	99.0	105	93	123	115	43
8	GA16349ID-8-1-5-22LE31	136	139	102.0	106	98	122	117	50
9	GA161058-13-4-6-23E14	135	141	94.0	100	99	124	116	47
10	GA17371ID-38-6-3-23E23	136	137	97.0	105	91	122	115	40
11	GA18117-58NCDH-23E37F	133	135	90.0	96	94	123	112	17
12	GA161198-3-1-2-23LE14F	133	136	95.0	97	94	122	113	27
13	GA17389ID-8-2-15-23LE39F	128	131	96.0	98	102	124	113	30
14	KWS571	133	136	102.0	105	106	123	118	52
15	KWS578	133	136	102.0	99	99	120	115	42
16	KWS625	131	135	95.0	98	92	120	112	17
17	LA15093SB-30-3-3	131	138	94.0	98	94	123	113	29
18	LAAR15737W-2-1-4-1-3	133	136	92.0	100	92	122	113	24
19	LA16038C-4-3-1	135	136	92.0	97	90	122	112	20
20	LA16196C-14-4-2	134	135	92.0	99	94	122	113	25
21	LATX16D132W-50-3-2	131	134	96.0	99	93	122	113	24
22	LA17176C-52-1	131	133	91.0	96	94	119	111	6
23	LA19333-NDH31	131	132	96.0	98	91	121	112	14
24	LAVT19VDH-FHB-MAS11-10	130	130	89.0	96	92	120	110	1
25	SC21DH240-70	135	135	90.0	98	89	120	111	9
26	SC21DH145-68	130	133	90.0	97	89	120	110	2
27	SCNC19-8-3-14-GP80	135	138	90.0	98	90	122	112	22
28	SCNC22-5247	131	134	102.0	105	98	122	115	45
29	SCNC22-10569	131	134	100.0	105	95	122	115	38
30	SC23W517	132	135	104.0	106	111	124	119	53
31	SC24W067	132	134	95.0	96	92	120	112	14
32	SC24W217	130	132	98.0	99	92	120	112	17
33	TX24D9373	135	139	95.0	102	93	124	115	40
34	TX24D9571	132	136	91.0	98	90	121	111	11
35	TX24D9579	136	140	95.0	103	92	122	115	40
36	TX24D9598	132	133	94.0	97	88	119	111	4
37	19MD-1-9-37	133	135	96.0	100	92	122	113	29
38	FHB-MAS08-11-3	132	135	98.0	98	89	121	112	22
39	19MD-1-9-8	140	140	106.0	107	99	126	120	54
40	19MD16-463-12	131	134	96.0	102	101	120	114	36
41	MDW-1-9-40	132	136	100.0	100	92	122	114	34
42	FHB-MAS03-29-2	134	135	98.0	100	92	121	113	31

ENTRY	DESIGNATION	ILC	ILU	LAW	SCF	TXCS	VAW	MEAL ALL LOCS	Rank
43	MDW107	131	133	96.0	97	92	122	112	17
44	DHMD-23-316	132	134	99.0	105	94	122	114	37
45	VA20FHB-18	130	132	92.0	97	92	121	111	6
46	18VTK6-3	135	134	102.0	105	100	124	117	48
47	VA22W-201	132	132	96.0	103	98	121	114	34
48	DH19SRW08-020	130	134	94.0	97	93	120	111	11
49	18VTK9-68	131	134	92.0	97	92	119	111	7
50	VA23W-345	134	134	102.0	105	96	122	116	47
51	VA23W-40	131	133	94.0	98	92	120	111	11
52	VA23W-532	132	135	94.0	97	94	120	112	20
53	NC14757LDH-15	133	135	102.0	105	95	121	115	44
54	NC20-21971	132	134	101.0	102	91	122	114	34
	Mean	132.65	134.94	96.09	100.20	94.50	121.57	113.33	
	CV%		0.83	5.00	1.26			2.27	
	LSD(0.05)			4.88				2.93	
	LSD(0.10)		1.80		2.10				
	R-Square			0.75	0.87			0.98	

Means Across Locations 2025

ENTRY	DESIGNATION	FHB09 RAT	Rank	FHB INC	Rank	FHB SEV	Rank	FDK	Rank	DON	Rank	HEAD DATE	HEIGHT
1	ERNIE	3.92	28	30.05	10	34.78	22	12.49	9	5.90	17	111	38
2	COKER9835	5.42	54	73.90	54	58.88	54	32.50	52	9.12	49	113	32
3	BESS	3.25	7	34.25	21	29.87	10	15.88	20	6.17	20	117	42
4	JAMESTOWN	3.98	31	31.60	15	33.77	17	9.60	2	3.69	1	110	34
5	SS8641	5.37	53	49.10	49	50.13	51	42.73	54	9.94	51	114	32
6	GA141028-13-3-4-22LE25	4.60	46	58.85	53	55.10	53	31.96	51	8.49	44	117	28
7	GA151450-13-6-9-22LE29	5.25	51	42.40	38	48.87	50	37.19	53	11.87	54	115	33
8	GA16349ID-8-1-5-22LE31	4.72	48	43.95	41	50.97	52	27.26	49	8.43	43	117	34
9	GA161058-13-4-6-23E14	3.93	30	53.00	51	38.05	35	24.53	44	8.59	45	116	36
10	GA17371ID-38-6-3-23E23	3.85	22	36.25	26	36.18	29	17.88	29	7.06	31	115	33
11	GA18117-58NCDH-23E37F	3.75	18	30.65	13	27.23	4	8.04	1	4.71	8	112	32
12	GA161198-3-1-2-23LE14F	4.15	37	12.50	2	28.82	9	18.89	35	5.71	15	113	36
13	GA17389ID-8-2-15-23LE39F	4.15	37	39.35	32	27.47	5	17.84	28	3.91	3	113	35
14	KWS571	2.80	1	23.40	5	23.67	1	18.54	32	7.89	39	118	39
15	KWS578	2.93	2	48.75	47	27.68	7	16.14	22	6.60	25	115	34
16	KWS625	3.87	24	30.50	12	35.17	24	11.06	5	4.33	4	112	37
17	LA15093SB-30-3-3	3.88	26	36.95	28	32.50	14	18.75	33	7.61	35	113	36
18	LAAR15737W-2-1-4-1-3	4.45	41	32.90	19	37.78	34	21.66	41	7.70	36	113	38
19	LA16038C-4-3-1	3.70	16	44.05	42	34.40	21	25.76	47	6.93	29	112	36
20	LA16196C-14-4-2	4.82	49	46.75	45	44.35	45	19.49	37	8.81	46	113	40
21	LATX16D132W-50-3-2	5.35	52	48.85	48	47.62	48	22.25	43	8.09	41	113	38
22	LA17176C-52-1	4.58	45	31.40	14	35.62	27	15.89	21	6.10	19	111	39
23	LA19333-NDH31	4.17	38	39.50	33	36.42	30	13.63	12	6.79	27	112	36
24	LAVT19VDH-FHB-MAS11-10	3.68	15	27.10	7	25.93	3	13.13	11	4.74	9	110	36
25	SC21DH240-70	3.92	28	31.95	16	25.70	2	16.31	23	3.82	2	111	32
26	SC21DH145-68	3.62	13	38.65	30	36.52	31	12.10	8	4.52	5	110	34
27	SCNC19-8-3-14-GP80	4.88	50	56.15	52	45.97	47	29.14	50	11.16	53	112	32
28	SCNC22-5247	3.17	6	32.60	18	42.02	41	18.78	34	7.80	37	115	40
29	SCNC22-10569	3.47	10	40.45	35	40.90	36	13.95	14	6.39	23	115	36
30	SC23W517	3.38	8	24.45	6	31.65	12	13.64	13	7.84	38	119	38
31	SC24W067	3.60	12	18.00	3	27.55	6	11.54	6	5.07	10	112	41
32	SC24W217	3.85	22	27.25	8	37.07	32	19.25	36	5.83	16	112	38
33	TX24D9373	4.20	39	52.65	50	48.67	49	25.18	46	8.99	47	115	34
34	TX24D9571	3.88	25	40.85	36	43.52	44	19.66	38	5.56	13	111	38
35	TX24D9579	4.25	40	48.15	46	42.92	43	19.89	39	6.80	28	115	36
36	TX24D9598	3.92	28	30.40	11	33.35	16	12.98	10	5.11	11	111	36
37	19MD-1-9-37	4.02	32	38.65	30	35.18	25	17.44	27	5.21	12	113	32
38	FHB-MAS08-11-3	4.08	35	43.00	39	41.05	38	14.01	15	7.03	30	112	32
39	19MD-1-9-8	3.12	5	39.55	34	42.80	42	24.84	45	8.39	42	120	36
40	19MD16-463-12	4.72	48	35.05	23	41.15	40	18.23	31	6.47	24	114	34
41	MDW-1-9-40	4.08	35	29.15	9	36.07	28	15.63	18	4.53	6	114	36
42	FHB-MAS03-29-2	3.48	11	35.25	24	33.90	18	10.65	3	5.66	14	113	32
43	MDW107	4.52	43	44.25	43	34.30	20	15.44	16	7.26	33	112	35

ENTRY	DESIGNATION	FHB09 RAT	Rank	FHB INC	Rank	FHB SEV	Rank	FDK	Rank	DON	Rank	HEAD DATE	HEIGHT
44	DHMD-23-316	3.02	3	32.35	17	29.88	11	12.04	7	6.37	22	114	36
45	VA20FHB-18	3.85	22	3.05	1	28.72	8	18.13	30	6.04	18	111	40
46	18VTK6-3	4.47	42	42.20	37	35.58	26	16.80	26	7.99	40	117	36
47	VA22W-201	4.03	33	34.75	22	32.28	13	16.68	25	9.26	50	114	34
48	DH19SRW08-020	3.67	14	46.35	44	35.17	24	15.86	19	10.56	52	111	34
49	18VTK9-68	3.12	5	39.25	31	41.15	40	15.49	17	4.66	7	111	36
50	VA23W-345	3.72	17	36.60	27	40.97	37	10.93	4	7.53	34	116	36
51	VA23W-40	3.77	19	35.35	25	33.93	19	16.61	24	6.32	21	111	34
52	VA23W-532	3.82	20	33.15	20	32.78	15	26.61	48	6.63	26	112	35
53	NC14757LDH-15	3.43	9	21.40	4	37.10	33	20.91	40	7.21	32	115	34
54	NC20-21971	4.55	44	43.70	40	44.65	46	21.75	42	9.03	48	114	38
	Mean	4.00		37.42		37.29		18.77		6.93		113.33	35.54
	CV%	23.65		39.16		33.21		58.27		43.93		2.27	
	LSD (0.05)	1.08		29.39		14.09		10.75		3.20		2.93	
	R-Square	0.90		0.85		0.79		0.69		0.88		0.98	
	Correl w/ GEBV	0.58				0.35		0.57		0.58			

Cross Predictions

FHB 0-9 Rating

Means and Variances of Genotypic Estimated Breeding Values for RAT of progenies from selected crosses between entries in the 2023-24 and 2024-25 nurseries, plus the means for the 10% most resistant progeny in each cross.

Parent 1	Year in Nursery	Parent 2	Year in Nursery	Rating		
				Genotype Estimated Breeding Values of Cross Progenies		
				Mean	Variance	Mean lowest 10%
15VDH-FHB-MAS22-14	USF24	SC19DH146-2	USF24	2.0	0.09	1.5
19MD-1-9-8	USF25	15VDH-FHB-MAS22-14	USF24	2.0	0.08	1.5
ERNIE	USF25	15VDH-FHB-MAS22-14	USF24	2.0	0.11	1.4
19MD-1-9-8	USF25	SC19DH146-2	USF24	2.0	0.04	1.7
ERNIE	USF25	SC19DH146-2	USF24	2.0	0.10	1.5
ERNIE	USF25	19MD-1-9-8	USF25	2.1	0.09	1.6
BESS	USF25	15VDH-FHB-MAS22-14	USF24	2.1	0.11	1.5
BESS	USF25	SC19DH146-2	USF24	2.1	0.09	1.6
DHMD-23-316	USF25	15VDH-FHB-MAS22-14	USF24	2.1	0.11	1.5
19MD-1-9-8	USF25	DHMD-23-316	USF25	2.1	0.11	1.6
FHB-MAS03-29-2	USF25	15VDH-FHB-MAS22-14	USF24	2.1	0.06	1.7
DHMD-23-316	USF25	SC19DH146-2	USF24	2.1	0.13	1.5
BESS	USF25	19MD-1-9-8	USF25	2.1	0.10	1.6
ERNIE	USF25	BESS	USF25	2.2	0.06	1.7
ERNIE	USF25	DHMD-23-316	USF25	2.2	0.13	1.5
FHB-MAS03-29-2	USF25	SC19DH146-2	USF24	2.2	0.05	1.8
19MD-1-9-8	USF25	FHB-MAS03-29-2	USF25	2.2	0.04	1.8
ERNIE	USF25	FHB-MAS03-29-2	USF25	2.2	0.08	1.7
15VDH-FHB-MAS22-14	USF24	MD9-17	USF24	2.2	0.06	1.8
SC19DH146-2	USF24	MD9-17	USF24	2.2	0.07	1.7
BESS	USF25	DHMD-23-316	USF25	2.2	0.13	1.6
19MD-1-9-8	USF25	MD9-17	USF24	2.2	0.06	1.8
VA22W-201	USF25	15VDH-FHB-MAS22-14	USF24	2.2	0.09	1.7
ERNIE	USF25	MD9-17	USF24	2.3	0.11	1.7
BESS	USF25	FHB-MAS03-29-2	USF25	2.3	0.09	1.8
FHB-MAS03-29-2	USF25	DHMD-23-316	USF25	2.3	0.10	1.7
VA22W-201	USF25	SC19DH146-2	USF24	2.3	0.08	1.8
15VDH-FHB-MAS22-14	USF24	NC15949-22	USF24	2.3	0.12	1.7
15VDH-FHB-MAS22-14	USF24	SC22W145	USF24	2.3	0.12	1.7
SC21DH145-68	USF25	15VDH-FHB-MAS22-14	USF24	2.3	0.09	1.8
19MD-1-9-8	USF25	VA22W-201	USF25	2.3	0.07	1.8
SC19DH146-2	USF24	SC22W145	USF24	2.3	0.09	1.8

Parent 1	Year in Nursery	Parent 2	Year in Nursery	Rating		
				Genotype Estimated Breeding Values of Cross Progenies		
				Mean	Variance	Mean lowest 10%
NC15949-22	USF24	SC19DH146-2	USF24	2.3	0.09	1.8
ERNIE	USF25	VA22W-201	USF25	2.3	0.09	1.8
SC21DH145-68	USF25	SC19DH146-2	USF24	2.3	0.08	1.8
19MD-1-9-8	USF25	NC15949-22	USF24	2.3	0.11	1.7
19MD-1-9-8	USF25	SC22W145	USF24	2.3	0.12	1.7
JAMESTOWN	USF25	15VDH-FHB-MAS22-14	USF24	2.3	0.12	1.7
SC21DH145-68	USF25	19MD-1-9-8	USF25	2.3	0.07	1.9
ERNIE	USF25	SC21DH145-68	USF25	2.3	0.12	1.7
ERNIE	USF25	NC15949-22	USF24	2.3	0.11	1.8
ERNIE	USF25	SC22W145	USF24	2.3	0.10	1.8
BESS	USF25	MD9-17	USF24	2.3	0.14	1.7
JAMESTOWN	USF25	SC19DH146-2	USF24	2.3	0.05	1.9
SCNC22-5247	USF25	15VDH-FHB-MAS22-14	USF24	2.4	0.11	1.8
DHMD-23-316	USF25	MD9-17	USF24	2.4	0.14	1.7
BESS	USF25	VA22W-201	USF25	2.4	0.10	1.8
JAMESTOWN	USF25	19MD-1-9-8	USF25	2.4	0.08	1.9
ERNIE	USF25	JAMESTOWN	USF25	2.4	0.07	1.9
SCNC22-5247	USF25	SC19DH146-2	USF24	2.4	0.07	1.9
FHB-MAS03-29-2	USF25	MD9-17	USF24	2.4	0.04	2.1

FDK

Means and Variances of Genotypic Estimated Breeding Values for FDK of progenies from selected crosses between entries in the 2023-24 and 2024-25 nurseries, plus the means for the 10% most resistant progeny in each cross.

Parent 1	Year in Nursery	Parent 2	Year in Nursery	FDK		
				Genotype Estimated Breeding Values of Cross Progenies		
				Mean	Variance	Mean lowest 10%
NC15949-22	USF24	SC19DH146-2	USF24	16.8	10.5	11.2
15VDH-FHB-MAS22-14	USF24	SC19DH146-2	USF24	17.0	11.0	11.3
BESS	USF25	SC19DH146-2	USF24	17.1	19.3	9.5
SCNC22-5247	USF25	SC19DH146-2	USF24	17.3	11.3	11.4
15VDH-FHB-MAS22-14	USF24	NC15949-22	USF24	17.3	10.1	11.8
BESS	USF25	NC15949-22	USF24	17.4	18.4	9.9
SCNC22-5247	USF25	NC15949-22	USF24	17.6	8.4	12.6
BESS	USF25	15VDH-FHB-MAS22-14	USF24	17.7	19.1	10.2
BESS	USF25	SCNC22-5247	USF25	17.8	15.3	11.2
SCNC22-5247	USF25	15VDH-FHB-MAS22-14	USF24	17.9	10.8	12.2
SC24W067	USF25	SC19DH146-2	USF24	18.1	16.4	11.1
SC19DH146-2	USF24	SC23W154	USF24	18.2	14.2	11.7
SC24W067	USF25	NC15949-22	USF24	18.4	16.6	11.2
NC15949-22	USF24	SC23W154	USF24	18.5	16.6	11.5
BESS	USF25	SC24W067	USF25	18.6	20.7	10.8
SC24W067	USF25	15VDH-FHB-MAS22-14	USF24	18.6	17.7	11.4
ERNIE	USF25	SC19DH146-2	USF24	18.7	18.6	11.2
15VDH-FHB-MAS22-14	USF24	SC23W154	USF24	18.8	13.8	12.3
SCNC22-5247	USF25	SC24W067	USF25	18.8	9.7	13.6
BESS	USF25	SC23W154	USF24	18.8	14.7	12.3
SC21DH145-68	USF25	SC19DH146-2	USF24	19.0	12.9	12.7
ERNIE	USF25	NC15949-22	USF24	19.0	18.8	11.4
SC19DH146-2	USF24	SC22W145	USF24	19.0	10.1	13.5
SCNC22-5247	USF25	SC23W154	USF24	19.0	12.4	12.9
ERNIE	USF25	15VDH-FHB-MAS22-14	USF24	19.3	16.1	12.2
JAMESTOWN	USF25	SC19DH146-2	USF24	19.3	11.7	13.4
ERNIE	USF25	BESS	USF25	19.3	12.3	13.2
SC21DH145-68	USF25	NC15949-22	USF24	19.3	9.6	13.9
NC15949-22	USF24	SC22W145	USF24	19.4	10.1	13.9
NC14711-12	USF24	SC19DH146-2	USF24	19.4	11.7	13.5
ERNIE	USF25	SCNC22-5247	USF25	19.4	14.1	13.0
BESS	USF25	SC21DH145-68	USF25	19.5	17.5	12.3
JAMESTOWN	USF25	NC15949-22	USF24	19.6	14.0	13.0
SC21DH145-68	USF25	15VDH-FHB-MAS22-14	USF24	19.6	9.9	14.2

Parent 1	Year in Nursery	Parent 2	Year in Nursery	FDK		
				Genotype Estimated Breeding Values of Cross Progenies		
				Mean	Variance	Mean lowest 10%
15VDH-FHB-MAS22-14	USF24	SC22W145	USF24	19.7	10.0	14.0
BESS	USF25	SC22W145	USF24	19.7	21.2	11.7
NC14711-12	USF24	NC15949-22	USF24	19.7	14.9	13.1
SC21DH145-68	USF25	SCNC22-5247	USF25	19.8	9.7	14.4
SC24W067	USF25	SC23W154	USF24	19.8	18.4	12.4
JAMESTOWN	USF25	15VDH-FHB-MAS22-14	USF24	19.8	15.8	12.9
BESS	USF25	JAMESTOWN	USF25	19.9	16.8	12.7
SCNC22-5247	USF25	SC22W145	USF24	19.9	10.0	14.4
15VDH-FHB-MAS22-14	USF24	NC14711-12	USF24	20.0	15.0	13.4
JAMESTOWN	USF25	SCNC22-5247	USF25	20.0	6.5	15.6
BESS	USF25	NC14711-12	USF24	20.1	18.6	12.6
ERNIE	USF25	SC24W067	USF25	20.2	21.7	12.2
SCNC22-5247	USF25	NC14711-12	USF24	20.3	11.2	14.5
ERNIE	USF25	SC23W154	USF24	20.4	10.0	14.9
SC21DH145-68	USF25	SC24W067	USF25	20.5	20.0	12.8
SC24W067	USF25	SC22W145	USF24	20.7	16.4	13.6

DON

Means and Variances of Genotypic Estimated Breeding Values for DON of progenies from selected crosses between entries in the 2023-24 and 2024-25 nurseries, plus the means for the 10% most resistant progeny in each cross.

Parent 1	Year in Nursery	Parent 2	Year in Nursery	DON (ppm)		
				Genotype Estimated Breeding Values of Cross Progenies		
				Mean	Variance	Mean lowest 10%
LAVT19VDH-FHB-MAS11-10	USF25	SC22W145	USF24	5.3	1.5	3.2
15VDH-FHB-MAS22-14	USF24	SC22W145	USF24	5.3	1.5	3.2
SC24W067	USF25	SC22W145	USF24	5.5	2.4	2.9
JAMESTOWN	USF25	SC22W145	USF24	5.6	2.2	3.0
NC14711-12	USF24	SC22W145	USF24	5.7	1.7	3.5
MDW-1-9-40	USF25	SC22W145	USF24	5.8	1.8	3.5
LA14188C-28-3-1-4-1-2	USF24	SC22W145	USF24	5.9	2.3	3.3
VA23W-532	USF25	SC22W145	USF24	5.9	2.0	3.5
SC22W145	USF24	SC22W207	USF24	6.1	1.2	4.1
SC19DH146-2	USF24	SC22W145	USF24	6.1	1.9	3.7
BESS	USF25	SC22W145	USF24	6.2	2.0	3.7
FHB-MAS08-11-3	USF25	SC22W145	USF24	6.2	1.5	4.0
SCNC22-5247	USF25	SC22W145	USF24	6.2	2.0	3.8
NC16VT30-7-47	USF24	SC22W145	USF24	6.3	1.5	4.1
LAVT19VDH-FHB-MAS11-10	USF25	15VDH-FHB-MAS22-14	USF24	6.3	1.9	3.9
SC22W145	USF24	18VTK5-95	USF24	6.3	2.0	3.9
NC15949-22	USF24	SC22W145	USF24	6.3	1.2	4.4
SC22W145	USF24	MD9-17	USF24	6.4	1.7	4.1
19MD-1-9-8	USF25	SC22W145	USF24	6.4	1.8	4.1
SC21DH145-68	USF25	SC22W145	USF24	6.5	2.1	3.9
LAVT19VDH-FHB-MAS11-10	USF25	SC24W067	USF25	6.5	1.6	4.3
SC24W067	USF25	15VDH-FHB-MAS22-14	USF24	6.5	3.0	3.5
JAMESTOWN	USF25	15VDH-FHB-MAS22-14	USF24	6.5	2.6	3.7
JAMESTOWN	USF25	LAVT19VDH-FHB-MAS11-10	USF25	6.6	1.3	4.5
SC22W145	USF24	SC23W154	USF24	6.6	1.8	4.2
DHMD-23-316	USF25	SC22W145	USF24	6.6	2.2	4.0
ERNIE	USF25	SC22W145	USF24	6.6	2.0	4.1
SC24W217	USF25	SC22W145	USF24	6.6	2.6	3.8
18VTK6-3	USF25	SC22W145	USF24	6.7	2.0	4.2
MDW-1-9-40	USF25	15VDH-FHB-MAS22-14	USF24	6.8	1.4	4.7
18VTK9-68	USF25	SC22W145	USF24	6.8	2.0	4.3
15VDH-FHB-MAS22-14	USF24	NC14711-12	USF24	6.8	1.6	4.5
JAMESTOWN	USF25	SC24W067	USF25	6.8	0.9	5.1
LAVT19VDH-FHB-MAS11-10	USF25	MDW-1-9-40	USF25	6.8	1.6	4.5
LAVT19VDH-FHB-MAS11-10	USF25	NC14711-12	USF24	6.8	1.4	4.6
SCNC22-10569	USF25	SC22W145	USF24	6.8	2.7	3.9
LAAR15172W-42-1-3-1-3	USF24	SC22W145	USF24	6.8	2.1	4.3
15VDH-FHB-MAS22-14	USF24	LA14188C-28-3-1-4-1-2	USF24	6.9	1.9	4.6
LAVT19VDH-FHB-MAS11-10	USF25	LA14188C-28-3-1-4-1-2	USF24	6.9	2.0	4.5

Parent 1	Year in Nursery	Parent 2	Year in Nursery	DON (ppm)		
				Genotype Estimated Breeding Values of Cross Progenies		
				Mean	Variance	Mean lowest 10%
LAVT19VDH-FHB-MAS11-10	USF25	VA23W-532	USF25	6.9	1.3	4.9
VA23W-532	USF25	15VDH-FHB-MAS22-14	USF24	6.9	1.7	4.7
LA15203-LDH197	USF24	SC22W145	USF24	6.9	2.4	4.2
19MD-1-9-37	USF25	SC22W145	USF24	6.9	2.0	4.5
19MD16-463-12	USF25	SC22W145	USF24	7.0	2.4	4.2
SC24W067	USF25	MDW-1-9-40	USF25	7.0	2.5	4.3
SC24W067	USF25	NC14711-12	USF24	7.0	2.1	4.5
JAMESTOWN	USF25	MDW-1-9-40	USF25	7.0	2.2	4.5
JAMESTOWN	USF25	NC14711-12	USF24	7.0	1.4	5.0
15VDH-FHB-MAS22-14	USF24	SC22W207	USF24	7.1	1.3	5.1
LAVT19VDH-FHB-MAS11-10	USF25	SC22W207	USF24	7.1	1.7	4.8
GA18117-58NCDH-23E37	USF25	SC22W145	USF24	7.1	3.1	4.1