

2010

Cooperative Scab Nurseries

Northern Uniform Winter Wheat Scab Nursery
Preliminary Northern Uniform Winter Wheat Scab Nursery
Uniform Southern FHB Nursery

Marker Reports

Eastern Regional Small Grains Genotyping Lab

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USDA-ARS

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Some details of notations in the Marker tables

"nd" = not determined or lack of amplification

if marker is dominant, samples with no amplification are left blank

"?" indicates that markers may not be diagnostic or data was not clear; therefore,
can not be sure if gene is present or not

All numbers are size in base pairs of amplified fragments

Target alleles are in **bold** or *italics*

Rht1-B1b = dwarf = yes; Rht2-D1b = dwarf = yes

Ppd-D1a = photoperiod insensitive = yes

2010 Northern Uniform Winter Wheat Scab Nursery

Entry List

Nursery	Entry	Sample Name	Pedigree	Source
NUWWSN	1	ERNIE		UMO
NUWWSN	2	TRUMAN		UMO
NUWWSN	3	FREEDOM		OSU
NUWWSN	4	PIONEER-2545		PIO
NUWWSN	5	NY99045-3110	Geneva/P2737W	COR
NUWWSN	6	OH07-176-56	OH708 / P.92145E8-7-7-1-9	OSU
NUWWSN	7	NY94052-9340	P2737W/Harus	COR
NUWWSN	8	NY99068-3251	NY87048W-7387/P25W33	COR
NUWWSN	9	NY88046-7088	MD286-21/Harus	COR
NUWWSN	10	MSULINEE5011B	Caledonia / NY88024-117	MSU
NUWWSN	11	MSULINEE5024	D6234 / Pioneer Brand 25W33	MSU
NUWWSN	12	MSULINEE3024	980775,(Caledonia, Geneva / Geneva)//NY85020-395	MSU
NUWWSN	13	MSULINEE6012	Caledonia / Pioneer Brand 25W33	MSU
NUWWSN	14	MSULINEE8052	P2552 / D8006	MSU
NUWWSN	15	OH04-264-58	OH645/HOPEWELL	OSU
NUWWSN	16	OH05-101-1	HOPEWELL/PIONEER25R26	OSU
NUWWSN	17	OH05-164-76	PIONEER25R18/OH686	OSU
NUWWSN	18	OH05-200-74	OH629/HOPEWELL	OSU
NUWWSN	19	99691A2-5-4-16-1	NC97BGTD8/Patterson//92212/3/9560	PUR
NUWWSN	20	01946A1-16-48-5	981477/981128//INW0304/981250	PUR
NUWWSN	21	057RA1-8-5	Truman/96169/49819/3INW9811//Fdm/201R	PUR
NUWWSN	22	059A1-2-4-3	Truman/INW0316/4/9819/3/Freedom//Ernie/INW9824	PUR
NUWWSN	23	TABOO	L930605/ASHLAND	SUN
NUWWSN	24	MONDO	ROANE/IL95-3245	SUN
NUWWSN	25	PROBE	MENDON/GR915	SUN
NUWWSN	26	RUMOR	HOPEWELL/HONEY	SUN
NUWWSN	27	03M1539_019	GIBSON/92226E2-5-3	SYN
NUWWSN	28	03M1539_031	GIBSON/92226E2-5-3	SYN
NUWWSN	29	W1104	HOPEWELL/M94-1107	SYN
NUWWSN	30	ML06-2097	BENTON/M98-1569	SYN
NUWWSN	31	GS-0-EM0681	Radiant/FE9	UGR
NUWWSN	32	GS-0-EM0614	Radiant/BR32	UGR
NUWWSN	33	GS-1-EM0362	GS-0-EM0672/Radiant = FE9/2*Radiant	UGR
NUWWSN	34	ACF213003B	Harding/TF174	UGR
NUWWSN	35	ACF126103	Movokrimka/Arina	UGR
NUWWSN	36	IL02-18228	Pio25R26/IL9634-24437//IL95-4162	UIL
NUWWSN	37	IL04-24668	IL98-13404/ IL97-3578	UIL
NUWWSN	38	IL06-7550	IL97-3632/ IL98-4632	UIL
NUWWSN	39	IL06-14262	IL00-8530/ IL97-1828	UIL
NUWWSN	40	KY02C-3006-46	25R18/VA97W-375WS	UKY
NUWWSN	41	KY02C-3004-02	25R18/Tribute	UKY
NUWWSN	42	KY04C-2151	25R18/VA01W-476	UKY
NUWWSN	43	KY03C-1192-34	KY93C-0876-66//KY96C-0059-21	UKY
NUWWSN	44	KY02C-3008-01	25R18/92C-0010-17	UKY
NUWWSN	45	MD03W91-09-8	25R42/TRIBUTE	UMD
NUWWSN	46	MD03W61-09-1	25R42/CHESAPEAKE	UMD
NUWWSN	47	MD02W135-08-9	SISSON/MCCORMICK	UMD
NUWWSN	48	MO071522	003013/980525	UMO
NUWWSN	49	MO080104	L910097/MO-92-599	UMO
NUWWSN	50	MO080864	981020//P92201D5-2/980725	UMO
NUWWSN	51	MO081652	PL-2552/980829	UMO
NUWWSN	52	WESLEY		UNE
NUWWSN	53	WESLEYFHB1		UNE
NUWWSN	54	NE06607	NE98466=(KS89H50-4/NE90518(=BRL//SXL/BENN))/WESLEY	UNE
NUWWSN	55	NE06469	Pedigree lost	UNE
NUWWSN	56	NW07505	Trego/Thunderbolt F3	UNE
NUWWSN	57	VA06W-612	FREEDOM/ NEUSE"S" (NC96-13374)// VA98W-688[ROANE"S" (91-54-219) //FFR555W/GORE],F9	VAT
NUWWSN	58	VA07W-594	FREEDOM/ NEUSE"S" (NC96-13374) // RC-STRATEGY,F9	VAT
NUWWSN	59	VA07W-601	OH 552/ SISSON"S" (SS550)// RC-STRATEGY,F9	VAT
NUWWSN	60	VA08W-734	COKER 9474(FHB-RES)/ IL97-2945 (FHB-RES) //TRIBUTE,F7	VAT

2010 Northern Uniform Winter Wheat Scab Nursery

Summary of all Markers

Nursery	Entry	Sample Name	Lr37/ Lr34/				1RS	H13	H9	Bdv2/3	Bx7 over-expressing	Glu-D1	Glu-A1
			Sr2	Sr36	Sr24/ Lr24	Yr17/ Sr38							
NUWWSN	1	ERNIE	no	het	no	no	no	no	no	no	no	2+12	het
NUWWSN	2	TRUMAN	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
NUWWSN	3	FREEDOM	no	yes	no	no	no	no	no	no	no	2+12	Ax1 or null
NUWWSN	4	PIONEER-2545	no	no	no	no	no	no	no	no	no	2+12	Ax2*
NUWWSN	5	NY99045-3110	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
NUWWSN	6	OH07-176-56	no	no	no	no	no	no	no	no	het	het	Ax2*
NUWWSN	7	NY94052-9340	no	no	no	no	no	no	no	no	het	2+12	Ax1 or null
NUWWSN	8	NY99068-3251	no	no	no	no	no	no	no	no	no	2+12	Ax2*
NUWWSN	9	NY88046-7088	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
NUWWSN	10	MSULINEE5011B	no	no	no	no	no	no	no	no	no	2+12	Ax2*
NUWWSN	11	MSULINEE5024	no	no	no	no	no	no	no	no	no	5+10	Ax1 or null
NUWWSN	12	MSULINEE3024	no	no	no	no	no	no	no	no	no	2+12	Ax2*
NUWWSN	13	MSULINEE6012	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
NUWWSN	14	MSULINEE8052	no	no	no	no	no	no	no	no	yes	5+10	Ax2*
NUWWSN	15	OH04-264-58	no	no	no	no	no	no	no	no	yes	5+10	Ax2*
NUWWSN	16	OH05-101-1	no	no	no	no	no	no	no	no	no	5+10	Ax1 or null
NUWWSN	17	OH05-164-76	no	no	no	no	yes	no	no	no	no	5+10	Ax2*
NUWWSN	18	OH05-200-74	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
NUWWSN	19	99691A2-5-4-16-1	no	no	no	no	no	no	no	no	het	2+12	Ax2*
NUWWSN	20	01946A1-16-48-5	no	yes	no	no	no	no	no	het	no	2+12	Ax1 or null
NUWWSN	21	057RA1-8-5	no	yes	no	no	no	no	no	no	no	5+10	Ax1 or null
NUWWSN	22	059A1-2-4-3	no	yes	no	no	no	no	no	yes	yes	5+10	Ax1 or null
NUWWSN	23	TABOO	no	no	no	no	nd	no	no	no	no	2+12	Ax2*
NUWWSN	24	MONDO	no	no	no	no	no	no	no	no	no	2+12	het
NUWWSN	25	PROBE	no	yes	no	no	no	no	no	no	no	5+10	Ax2*
NUWWSN	26	RUMOR	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
NUWWSN	27	03M1539_019	no	no	no	yes	no	no	yes	no	no	het	Ax2*
NUWWSN	28	03M1539_031	no	no	no	no	no	no	yes	no	no	2+12	Ax2*
NUWWSN	29	W1104	no	no	no	no	no	no	no	no	yes	2+12	Ax2*
NUWWSN	30	ML06-2097	no	no	no	no	no	no	no	no	no	5+10	Ax2*
NUWWSN	31	GS-0-EM0681	no	no	no	yes	no	no	no	no	no	5+10	Ax2*
NUWWSN	32	GS-0-EM0614	no	no	no	no	yes	no	no	no	no	2+12	Ax2*
NUWWSN	33	GS-1-EM0362	no	no	no	no	yes	no	no	no	no	het	Ax2*
NUWWSN	34	ACF213003B	no	no	no	no	no	no	no	no	no	het	Ax1 or null
NUWWSN	35	ACF126103	no	no	no	no	no	no	no	no	no	5+10	Ax1 or null
NUWWSN	36	IL02-18228	no	no	no	no	no	no	no	no	no	5+10	Ax1 or null
NUWWSN	37	IL04-24668	no	no	no	no	no	no	no	no	no	5+10	Ax2*
NUWWSN	38	IL06-7550	no	no	no	no	no	no	no	no	no	nd	Ax2*
NUWWSN	39	IL06-14262	no	no	no	no	no	no	no	no	no	5+10	Ax2*
NUWWSN	40	KY02C-3006-46	no	no	no	no	no	no	no	no	no	5+10	het
NUWWSN	41	KY02C-3004-02	no	no	yes	no	yes	no	nd	no	no	5+10	Ax2*
NUWWSN	42	KY04C-2151	no	no	no	no	yes	no	no	no	no	2+12	Ax2*
NUWWSN	43	KY03C-1192-34	no	no	no	no	no	no	no	no	no	5+10	Ax2*
NUWWSN	44	KY02C-3008-01	no	no	no	no	yes	no	no	no	no	5+10	Ax2*
NUWWSN	45	MD03W91-09-8	no	no	yes	no	no	no	nd	no	no	5+10	Ax2*
NUWWSN	46	MD03W61-09-1	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
NUWWSN	47	MD02W135-08-9	no	no	yes	no	no	no	no	no	no	2+12	Ax2*
NUWWSN	48	MO071522	no	no	no	no	no	no	no	no	no	5+10	Ax1 or null
NUWWSN	49	MO080104	no	no	no	no	no	no	no	no	no	5+10	Ax2*
NUWWSN	50	MO080864	no	no	no	yes	no	no	no	no	no	2+12	Ax1 or null
NUWWSN	51	MO081652	no	no	no	no	no	no	no	no	no	5+10	Ax2*
NUWWSN	52	WESLEY	no	no	yes	no	no	no	no	no	no	5+10	Ax2*
NUWWSN	53	WESLEYFHB1	no	no	yes	no	no	no	no	no	no	5+10	Ax2*
NUWWSN	54	NE06607	no	no	no	no	no	no	no	no	no	5+10	Ax2*
NUWWSN	55	NE06469	no	no	yes	no	no	no	no	no	no	5+10	Ax2*
NUWWSN	56	NW07505	no	no	no	no	no	no	no	no	no	5+10	Ax2*
NUWWSN	57	VA06W-612	no	yes	no	no	no	no	no	no	no	5+10	Ax2*
NUWWSN	58	VA07W-594	no	yes	no	no	no	no	no	no	no	het?	het
NUWWSN	59	VA07W-601	no	yes	no	no	no	no	no	no	no	2+12	Ax1 or null
NUWWSN	60	VA08W-734	no	no	no	no	no	no	yes	no	no	5+10	Ax2*

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Summary of all Markers

Nursery	Entry	Sample Name	PHS Cayuga
NUWWSN	1	ERNIE	no
NUWWSN	2	TRUMAN	no
NUWWSN	3	FREEDOM	nd
NUWWSN	4	PIONEER-2545	yes
NUWWSN	5	NY99045-3110	no
NUWWSN	6	OH07-176-56	het?
NUWWSN	7	NY94052-9340	het?
NUWWSN	8	NY99068-3251	no
NUWWSN	9	NY88046-7088	yes
NUWWSN	10	MSULINEE5011B	no
NUWWSN	11	MSULINEE5024	no
NUWWSN	12	MSULINEE3024	no
NUWWSN	13	MSULINEE6012	nd
NUWWSN	14	MSULINEE8052	yes
NUWWSN	15	OH04-264-58	yes
NUWWSN	16	OH05-101-1	yes
NUWWSN	17	OH05-164-76	yes
NUWWSN	18	OH05-200-74	yes
NUWWSN	19	99691A2-5-4-16-1	no
NUWWSN	20	01946A1-16-48-5	het?
NUWWSN	21	057RA1-8-5	nd
NUWWSN	22	059A1-2-4-3	het?
NUWWSN	23	TABOO	no
NUWWSN	24	MONDO	no
NUWWSN	25	PROBE	nd
NUWWSN	26	RUMOR	no
NUWWSN	27	03M1539_019	yes
NUWWSN	28	03M1539_031	yes
NUWWSN	29	W1104	yes
NUWWSN	30	ML06-2097	yes
NUWWSN	31	GS-0-EM0681	no
NUWWSN	32	GS-0-EM0614	no
NUWWSN	33	GS-1-EM0362	het?
NUWWSN	34	ACF213003B	het?
NUWWSN	35	ACF126103	yes
NUWWSN	36	IL02-18228	no
NUWWSN	37	IL04-24668	yes
NUWWSN	38	IL06-7550	no
NUWWSN	39	IL06-14262	het?
NUWWSN	40	KY02C-3006-46	yes
NUWWSN	41	KY02C-3004-02	yes
NUWWSN	42	KY04C-2151	yes
NUWWSN	43	KY03C-1192-34	no
NUWWSN	44	KY02C-3008-01	yes
NUWWSN	45	MD03W91-09-8	no
NUWWSN	46	MD03W61-09-1	no
NUWWSN	47	MD02W135-08-9	yes
NUWWSN	48	MO071522	no
NUWWSN	49	MO080104	no
NUWWSN	50	MO080864	no
NUWWSN	51	MO081652	no
NUWWSN	52	WESLEY	no
NUWWSN	53	WESLEYFHB1	no
NUWWSN	54	NE06607	no
NUWWSN	55	NE06469	no
NUWWSN	56	NW07505	yes
NUWWSN	57	VA06W-612	yes
NUWWSN	58	VA07W-594	het?
NUWWSN	59	VA07W-601	no
NUWWSN	60	VA08W-734	yes

Dwarfing genes & Photoperiod insensitivity

2010

Nursery	Entry	Sample Name	Rht1K	Rht2K	Rht1-	Rht2-	gwm261	gwm261	gwm261	Rht8	Ppd	Ppd	Ppd-D1a
					B1b	D1b							
NUWWSN	1	ERNE	Allele Y	Both Alleles	yes	het	173	201		no	283		yes
NUWWSN	2	TRUMAN	Allele Y	Allele X	yes	no	173			no		414	no
NUWWSN	3	FREEDOM	Allele Y	Allele X	yes	no	163			no		414	no
NUWWSN	4	PIONEER-2545	Both Alleles	Allele Y	het	yes	201			no	283		yes
NUWWSN	5	NY99045-3110	Allele X	Allele Y	no	yes	201			no		414	no
NUWWSN	6	OH07-176-56	Allele Y	Allele X	yes	no	163	173	191	het	283	414	het
NUWWSN	7	NY94052-9340	Allele X	Allele Y	no	yes	173			no		414	no
NUWWSN	8	NY99068-3251	Allele X	Allele Y	no	yes	173			no		414	no
NUWWSN	9	NY88046-7088	Allele X	Allele Y	no	yes	173			no		414	no
NUWWSN	10	MSULINEE5011B	Allele X	Allele Y	no	yes	173			no	283	414	het
NUWWSN	11	MSULINEE5024	Allele X	Allele Y	no	yes	163			no	283		yes
NUWWSN	12	MSULINEE3024	Allele X	Allele Y	no	yes	173			no		414	no
NUWWSN	13	MSULINEE6012	Allele X	nd	no	nd	163			no	283		yes
NUWWSN	14	MSULINEE8052	Allele X	Allele Y	no	yes	163			no	283		yes
NUWWSN	15	OH04-264-58	Allele X	Allele Y	no	yes	163			no	283		yes
NUWWSN	16	OH05-101-1	Allele Y	Allele X	yes	no	163	201		no	283		yes
NUWWSN	17	OH05-164-76	Allele Y	Allele X	yes	no	163			no	283		yes
NUWWSN	18	OH05-200-74	Allele Y	Allele X	yes	no	163			no		414	no
NUWWSN	19	99691A2-5-4-16-1	Allele Y	Allele X	yes	no	201			no	283		yes
NUWWSN	20	01946A1-16-48-5	Allele Y	Allele X	yes	no	173			no	283		yes
NUWWSN	21	057RA1-8-5	Allele Y	nd	yes	nd	173			no		414	no
NUWWSN	22	059A1-2-4-3	Allele Y	Allele X	yes	no	201			no		414	no
NUWWSN	23	TABOO	Allele Y	Allele X	yes	no	192			yes		414	no
NUWWSN	24	MONDO	Allele X	Allele X	no	no	173			no		414	no
NUWWSN	25	PROBE	Allele X	Allele Y	no	yes	192			yes		414	no
NUWWSN	26	RUMOR	Allele X	Allele Y	no	yes	163	173		no		414	no
NUWWSN	27	03M1539_019	Allele Y	Allele X	yes	no	173	203		no	283		yes
NUWWSN	28	03M1539_031	Allele Y	Allele X	yes	no	201			no	283		yes
NUWWSN	29	W1104	Allele Y	Allele X	yes	no	201			no	283		yes
NUWWSN	30	ML06-2097	Allele Y	Allele X	yes	no	192			yes	283		yes
NUWWSN	31	GS-0-EM0681	Allele X	Allele Y	no	yes	211			no		414	no
NUWWSN	32	GS-0-EM0614	Allele Y	Allele Y	yes	yes	211			no		414	no
NUWWSN	33	GS-1-EM0362	Allele X	Allele Y	no	yes	163	210		no		414	no
NUWWSN	34	ACF213003B	Allele Y	Allele X	yes	no	173	192		het		414	no
NUWWSN	35	ACF126103	Allele Y	Allele X	yes	no	192			yes		414	no
NUWWSN	36	IL02-18228	Allele Y	Allele X	yes	no	173			no		414	no
NUWWSN	37	IL04-24668	Allele Y	Allele X	yes	no	173			no	283		yes
NUWWSN	38	IL06-7550	Allele Y	Allele X	yes	no	173			no		414	no
NUWWSN	39	IL06-14262	Allele Y	Allele X	yes	no	173			no		414	no
NUWWSN	40	KY02C-3006-46	Allele Y	Allele X	yes	no	163	173	201	no	283		yes
NUWWSN	41	KY02C-3004-02	Allele X	Allele Y	no	yes	201			no		414	no
NUWWSN	42	KY04C-2151	Allele X	Allele X	no	no	163			no	283		yes
NUWWSN	43	KY03C-1192-34	Allele X	Allele X	no	no	201			no	283		yes
NUWWSN	44	KY02C-3008-01	Both Alleles	Both Alleles	het	het	163			no	283		yes
NUWWSN	45	MD03W91-09-8	Allele X	Allele Y	no	yes	173			no	283		yes
NUWWSN	46	MD03W61-09-1	Allele X	Allele Y	no	yes	201			no	283		yes
NUWWSN	47	MD02W135-08-9	Allele X	Allele Y	no	yes	173	201		no		414	no
NUWWSN	48	MO071522	Allele Y	Allele X	yes	no	173			no	283	414	het
NUWWSN	49	MO080104	Allele X	Allele X	no	no	201			no	283		yes
NUWWSN	50	MO080864	Allele Y	Allele X	yes	no	173			no		414	no
NUWWSN	51	MO081652	Allele X	Allele X	no	no	201			no	283		yes
NUWWSN	52	WESLEY	Allele Y	Allele X	yes	no	192			yes		414	no
NUWWSN	53	WESLEYFHB1	Allele Y	Allele X	yes	no	195			no		414	no
NUWWSN	54	NE06607	Allele Y	Allele X	yes	no	209			no		414	no
NUWWSN	55	NE06469	Allele Y	Allele X	yes	no	163			no	283		yes
NUWWSN	56	NW07505	Allele Y	Allele X	yes	no	209			no		414	no
NUWWSN	57	VA06W-612	Allele X	Allele Y	no	yes	173			no		414	no
NUWWSN	58	VA07W-594	Allele X	Allele Y	no	yes	163	173		no	283		yes
NUWWSN	59	VA07W-601	Allele X	Allele Y	no	yes	163			no		414	no
NUWWSN	60	VA08W-734	Allele Y	Allele X	yes	no	173	201		no		414	no

FHB QTLs

2010

Nursery	Entry	Sample Name	Fhb1-SNP8	umn10	umn10	gwm533	gwm533	gwm533	Fhb1
NUWWSN	1	ERNIE	Allele X	229	236	155			no
NUWWSN	2	TRUMAN	Allele X	236		118			no
NUWWSN	3	FREEDOM	nd	236		128			no
NUWWSN	4	PIONEER-2545	nd	236		128			no
NUWWSN	5	NY99045-3110	nd	236		128			no
NUWWSN	6	OH07-176-56	nd	236		146			no
NUWWSN	7	NY94052-9340	nd	236		118			no
NUWWSN	8	NY99068-3251	Allele Y	236		118			no?
NUWWSN	9	NY88046-7088	Allele X	236		118			no
NUWWSN	10	MSULINEE5011B	Allele X	236		146			no
NUWWSN	11	MSULINEE5024	nd	236		118			no
NUWWSN	12	MSULINEE3024	Allele X	239		141			yes
NUWWSN	13	MSULINEE6012	nd	236		118			no
NUWWSN	14	MSULINEE8052	Allele X	236		118			no
NUWWSN	15	OH04-264-58	Allele X	nd		nd			no
NUWWSN	16	OH05-101-1	Allele X	nd		nd			no
NUWWSN	17	OH05-164-76	Allele Y	239		144			yes
NUWWSN	18	OH05-200-74	nd	236		128			no
NUWWSN	19	99691A2-5-4-16-1	Allele X	236		118			no
NUWWSN	20	01946A1-16-48-5	Allele X	236		118			no
NUWWSN	21	057RA1-8-5	Allele X	236		118			no
NUWWSN	22	059A1-2-4-3	Allele X	229		146	155		no
NUWWSN	23	TABOO	Allele X	229		146	155		no
NUWWSN	24	MONDO	Allele X	229	236	118			no
NUWWSN	25	PROBE	Allele X	236		146			no
NUWWSN	26	RUMOR	nd	236		nd			no
NUWWSN	27	03M1539_019	nd	236		nd			no
NUWWSN	28	03M1539_031	Allele X	236		118			no
NUWWSN	29	W1104	nd	236		nd			no
NUWWSN	30	ML06-2097	Allele X	229		118	146	155	no
NUWWSN	31	GS-0-EM0681	nd	236		118			no
NUWWSN	32	GS-0-EM0614	Allele X	236		118			no
NUWWSN	33	GS-1-EM0362	nd	236		nd			no
NUWWSN	34	ACF213003B	Allele X	236		118			no
NUWWSN	35	ACF126103	Allele X	236		nd			no
NUWWSN	36	IL02-18228	Allele X	236		118			no
NUWWSN	37	IL04-24668	nd	229		146	155		no
NUWWSN	38	IL06-7550	nd	229		146	155		no
NUWWSN	39	IL06-14262	nd	229		146	155		no
NUWWSN	40	KY02C-3006-46	nd	239		144			yes
NUWWSN	41	KY02C-3004-02	nd	239		146			yes?
NUWWSN	42	KY04C-2151	nd	239		142			yes
NUWWSN	43	KY03C-1192-34	nd	236		128			no
NUWWSN	44	KY02C-3008-01	nd	236		118	144		no
NUWWSN	45	MD03W91-09-8	nd	236		nd			no
NUWWSN	46	MD03W61-09-1	nd	239		144			yes
NUWWSN	47	MD02W135-08-9	nd	236		146			no
NUWWSN	48	MO071522	nd	236		118			no
NUWWSN	49	MO080104	nd	229		146	155		no
NUWWSN	50	MO080864	nd	229		118	146		no
NUWWSN	51	MO081652	nd	229		146	155		no
NUWWSN	52	WESLEY	nd	236		nd			no
NUWWSN	53	WESLEYFHB1	nd	239		144			yes
NUWWSN	54	NE06607	nd	236		nd			no
NUWWSN	55	NE06469	nd	236		nd			no
NUWWSN	56	NW07505	nd	236		118			no
NUWWSN	57	VA06W-612	nd	229		155			no
NUWWSN	58	VA07W-594	nd	236		146	155		no
NUWWSN	59	VA07W-601	nd	236		128			no
NUWWSN	60	VA08W-734	nd	229		118	155		no

FHB QTLs

2010

Nursery	Entry	Sample Name	gwm	gwm	wmc	wmc	wmc	wmc	wmc	wmc	wmc	wmc	wmc	wmc	wmc	wmc	wmc	Fhb
			285	285	612	612	612	307	307	1	1	418	418	471	471	471	471	471
NUWWSN	1	ERNIE	246		281	283		141		153		262		177	179	216	260	no
NUWWSN	2	TRUMAN	250		287	289		139		151		271		177	216			no
NUWWSN	3	FREEDOM	219	246	283	285		141	149		262		177	260				yes?
NUWWSN	4	PIONEER-2545	222		279	281		143	149	153		260		177	220			no
NUWWSN	5	NY99045-3110	244		283	285		141		153		273		179	216			no
NUWWSN	6	OH07-176-56	219	246	283	285		141	143	153	160	262	271	177	179	216	260	het?
NUWWSN	7	NY94052-9340	217	245	267	273	283	141	143	153	160	271		179	216			no
NUWWSN	8	NY99068-3251	244		nd			141		153		273		177	214	216		no
NUWWSN	9	NY88046-7088	221		275	277		143		160		260		177	216			no
NUWWSN	10	MSULINEE5011B	217		267			141		160		271		177	245			no
NUWWSN	11	MSULINEE5024	221		271	273		143		151		271		177	220			no
NUWWSN	12	MSULINEE3024	244		283	285		141		153		273		177	216			no
NUWWSN	13	MSULINEE6012	226		287	289		143		149		271		177	220			no
NUWWSN	14	MSULINEE8052	226		287	289		143		149		269		177	220			no
NUWWSN	15	OH04-264-58	219		273	275		143		153		262		177	216			no
NUWWSN	16	OH05-101-1	219		273	275		143		153		271		177	216			no
NUWWSN	17	OH05-164-76	246		283	285		141		153		262		177	220			yes?
NUWWSN	18	OH05-200-74	222		nd			141		151		271		177	216			no
NUWWSN	19	99691A2-5-4-16-1	221		279	281		143		162		271		177	214			no
NUWWSN	20	01946A1-16-48-5	219		279	281		141		160		271		177	216			no
NUWWSN	21	057RA1-8-5	295		265			143		160		262	271	177	216			no
NUWWSN	22	059A1-2-4-3	219		285	287		141		156		262	271	177	214			no
NUWWSN	23	TABOO	221		271	273		143		158		271		179	214			no
NUWWSN	24	MONDO	221	250	nd			139	141	151	160	271		177	216			no
NUWWSN	25	PROBE	226		287	289		143		149		271		214				no
NUWWSN	26	RUMOR	250		279	281		139		151		271		177	216			no
NUWWSN	27	03M1539_019	221		267	271	273	143		151	156	262	271	179	214	216		no
NUWWSN	28	03M1539_031	246		283	285		141		153		262		177	260			yes
NUWWSN	29	W1104	246		285	287		141		153		262		177	220			?
NUWWSN	30	ML06-2097	221		271	273		143		156		262		179	216			no
NUWWSN	31	GS-0-EM0681	226		281	283		141		160		265		177	216			no
NUWWSN	32	GS-0-EM0614	221		281	283		141		160		262		177	216			no
NUWWSN	33	GS-1-EM0362	221	226	281	283		141	151	160	262	265	177	216				no
NUWWSN	34	ACF213003B	217	226	267	279	281	143		149	160	260	271	177	220			no
NUWWSN	35	ACF126103	226		279	281		143		149		260		177	220			no
NUWWSN	36	IL02-18228	221	246	279	281		143		162		271		177	216			no
NUWWSN	37	IL04-24668	221		279	281		143		162		271		179	216			no
NUWWSN	38	IL06-7550	246		283	285		141		160		271		177	216			no
NUWWSN	39	IL06-14262	250		287	289		139		151		271		177	216			no
NUWWSN	40	KY02C-3006-46	221		271	273		143		151		271		179	214			no
NUWWSN	41	KY02C-3004-02	219		279	281		141		161		271		179	216			no
NUWWSN	42	KY04C-2151	221		277	279		141		151		262		179	216			no
NUWWSN	43	KY03C-1192-34	226		287	289		143		149	149	269		177	220			no
NUWWSN	44	KY02C-3008-01	221		271	273		143		151		269	271	179	218			no
NUWWSN	45	MD03W91-09-8	219	226	287	289		143		149	162	269		177	216			no
NUWWSN	46	MD03W61-09-1	226		287	289		143		nd		269		177	218			no
NUWWSN	47	MD02W135-08-9	219		279	281		141		160		271		177	216			no
NUWWSN	48	MO071522	250		287	289		139		151		265		177	216			no
NUWWSN	49	MO080104	246		281	283		141		153		262		179	216			no
NUWWSN	50	MO080864	250		267	287	289	139	143	151		271		177	216			no
NUWWSN	51	MO081652	246		281	283		141		153		262		179	216			no
NUWWSN	52	WESLEY	217		275	277		141		151		269		177	218			no
NUWWSN	53	WESLEYFHB1	226		277	279		141		160		265		177	216			no
NUWWSN	54	NE06607	217		275	277		141		151		269		218				no
NUWWSN	55	NE06469	221		271	273		139	143	151	158	271		177	216			no
NUWWSN	56	NW07505	221	226	277	279		139	141	158		265	271	177	216			no
NUWWSN	57	VA06W-612	246		283	285		141		149		262		220				no
NUWWSN	58	VA07W-594	222	246	273	275	281	141		148	156	262	271	216				no
NUWWSN	59	VA07W-601	246		281	283		141		153		262		177	216			no
NUWWSN	60	VA08W-734	219		279	281		141		162		271		177	214			no

FHB QTLs

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Nursery	Entry	Sample Name	cf233	cf233	cf233	gwm539	gwm539	gwm608	gwm608	Fhb 2DL- Wuhan1/ W14
NUWWSN	1	ERNIE	280			131	137	150		no
NUWWSN	2	TRUMAN	290			137		162		no
NUWWSN	3	FREEDOM	290			137		nd		no
NUWWSN	4	PIONEER-2545	271			131	139	150	156	no
NUWWSN	5	NY99045-3110	278			141		150		no
NUWWSN	6	OH07-176-56	272	288		135		158	160	no
NUWWSN	7	NY94052-9340	271	278		133		150	156	no
NUWWSN	8	NY99068-3251	280			139		152		no
NUWWSN	9	NY88046-7088	282			141		152		no
NUWWSN	10	MSULINEE5011B	274	288		139		152	154	no
NUWWSN	11	MSULINEE5024	272			133		156		no
NUWWSN	12	MSULINEE3024	274			139		154		no
NUWWSN	13	MSULINEE6012	272			133		156		no
NUWWSN	14	MSULINEE8052	271			133		154	156	no
NUWWSN	15	OH04-264-58	271			133		156		no
NUWWSN	16	OH05-101-1	271	286		124	133	156	162	no
NUWWSN	17	OH05-164-76	278			139		150		no
NUWWSN	18	OH05-200-74	271	288		131		150		no
NUWWSN	19	99691A2-5-4-16-1	274			139		150		no
NUWWSN	20	01946A1-16-48-5	278			139		150		no
NUWWSN	21	057RA1-8-5	290			161		152		no
NUWWSN	22	059A1-2-4-3	290			139		152		no
NUWWSN	23	TABOO	288			139	141	156		no
NUWWSN	24	MONDO	278			131		154		no
NUWWSN	25	PROBE	272			137		156		no
NUWWSN	26	RUMOR	271			131		150		no
NUWWSN	27	03M1539_019	278			161		150	156	no
NUWWSN	28	03M1539_031	272			131		156		no
NUWWSN	29	W1104	290			137		154		no
NUWWSN	30	ML06-2097	288			137		156		no
NUWWSN	31	GS-0-EM0681	272	286		124	155	154		no
NUWWSN	32	GS-0-EM0614	276			131		158		no
NUWWSN	33	GS-1-EM0362	276	286		131	155	154		no
NUWWSN	34	ACF213003B	271			137		156		no
NUWWSN	35	ACF126103	271			137		156		no
NUWWSN	36	IL02-18228	280			131		150		no
NUWWSN	37	IL04-24668	286	288		152		154		no
NUWWSN	38	IL06-7550	288	290		137		152		no
NUWWSN	39	IL06-14262	278			124		150		no
NUWWSN	40	KY02C-3006-46	272	286	288	125	137	156	158	no
NUWWSN	41	KY02C-3004-02	286	288		125		156		no
NUWWSN	42	KY04C-2151	276	286	288	125		152	156	het
NUWWSN	43	KY03C-1192-34	271			131		156		no
NUWWSN	44	KY02C-3008-01	286	288		125		156		no
NUWWSN	45	MD03W91-09-8	nd			nd		156		no
NUWWSN	46	MD03W61-09-1	271			133		156		no
NUWWSN	47	MD02W135-08-9	nd			136		150	162	no
NUWWSN	48	MO071522	288	290		137		162		no
NUWWSN	49	MO080104	280			137		150		no
NUWWSN	50	MO080864	288	290		137		162		no
NUWWSN	51	MO081652	280			137		150		no
NUWWSN	52	WESLEY	274			125		156		no
NUWWSN	53	WESLEYFHB1	271	276		159		152	156	no
NUWWSN	54	NE06607	274			124		154		no
NUWWSN	55	NE06469	nd			nd		154	158	no
NUWWSN	56	NW07505	270	284	286	156		158		no
NUWWSN	57	VA06W-612	288	290		124		162		no
NUWWSN	58	VA07W-594	278	280		124		150		no
NUWWSN	59	VA07W-601	278			135		150		no
NUWWSN	60	VA08W-734	280			124		150		no

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Nursery	Entry	Sample Name	gwm	gwm	wmc	wmc	barc	barc	barc	barc	barc	gwm	gwm	Fhb 5A	Fhb 5A
			304	304	705	705	117	117	117	186	186	156	156	Ernie	Ning7840
NUWWSN	1	ERNIE	198	220	135		217	221		203		283	312	het	no
NUWWSN	2	TRUMAN	198		164		217			203			312	no	no
NUWWSN	3	FREEDOM			133		221	224		212		285		no	no
NUWWSN	4	PIONEER-2545	199		133		217			203		292	312	no	no
NUWWSN	5	NY99045-3110	199		133		217			203			312	no	no
NUWWSN	6	OH07-176-56	198	211	131	162	217			203	212	292	312	no	no
NUWWSN	7	NY94052-9340	199		133		217			203		280	312	no	no
NUWWSN	8	NY99068-3251	199		133		217			203		280		no	no
NUWWSN	9	NY88046-7088	199		133		217			203		285	299	no	no
NUWWSN	10	MSULINEE5011B	195		158		217			203		280		no	no
NUWWSN	11	MSULINEE5024	220		135		221			203		309		yes	no
NUWWSN	12	MSULINEE3024	199		135		217			203		280		no	no
NUWWSN	13	MSULINEE6012	220		135		221			203		285	309	yes	no
NUWWSN	14	MSULINEE8052	198		164		217			203		283		no	no
NUWWSN	15	OH04-264-58	198		162						nd	300		no	no
NUWWSN	16	OH05-101-1	198		162		217			203		292		no	no
NUWWSN	17	OH05-164-76	198		164		217			203			312	no	no
NUWWSN	18	OH05-200-74	195		139		217				212	283		no	no
NUWWSN	19	99691A2-5-4-16-1	220		162		221			203		292		no	no
NUWWSN	20	01946A1-16-48-5	220		135		221			203		283		no	no
NUWWSN	21	057RA1-8-5	198		164		217			203			312	no	no
NUWWSN	22	059A1-2-4-3	211		139		221				212		312	no	no
NUWWSN	23	TABOO	213		133		224				212	285		no	no
NUWWSN	24	MONDO	220		135		221			203			312	yes	no
NUWWSN	25	PROBE	198		164		217			203		283		no	no
NUWWSN	26	RUMOR	195		139		217				212	312		no	no
NUWWSN	27	03M1539_019	198		164		217			203		283	312	no	no
NUWWSN	28	03M1539_031	198		164		217			203		283		no	no
NUWWSN	29	W1104	220		135		221			203			312	yes	no
NUWWSN	30	ML06-2097	198	213	137		221			203	212	283	312	no	no
NUWWSN	31	GS-0-EM0681	199	201	135		217			203		283	316	no	no
NUWWSN	32	GS-0-EM0614	198		137		217			203			312	no	no
NUWWSN	33	GS-1-EM0362	198	211	135		217	224		203	212	312	313	no	no
NUWWSN	34	ACF213003B	199	213	133		217	221	224	203	212	285		no	no
NUWWSN	35	ACF126103	213		133		224				212	285		no	no
NUWWSN	36	IL02-18228	211		137		221				212	312		no	no
NUWWSN	37	IL04-24668	198		162	164	217			203			312	no	no
NUWWSN	38	IL06-7550	198		162	164	217			203		283		no	no
NUWWSN	39	IL06-14262	211		131		226				212	312		no	no
NUWWSN	40	KY02C-3006-46	214		133		224				212	283		no	no
NUWWSN	41	KY02C-3004-02	214		133		224				212	292		no	no
NUWWSN	42	KY04C-2151	214		133		224				212	285		no	no
NUWWSN	43	KY03C-1192-34	214		133		224				212	285		no	no
NUWWSN	44	KY02C-3008-01	198	214	133	162	217	224		203	212	285	318	no	no
NUWWSN	45	MD03W91-09-8	198		160	162	217			203		292		no	no
NUWWSN	46	MD03W61-09-1	198		162	164	217			203		283		no	no
NUWWSN	47	MD02W135-08-9	198		160	162	217			203			312	no	no
NUWWSN	48	MO071522	198		162	164	217			203			312	no	no
NUWWSN	49	MO080104	198		162	164	217			203		318		no	no
NUWWSN	50	MO080864	198	221	135	162	217	221		203		283	312	het	no
NUWWSN	51	MO081652	198		162	164	217			203		318		no	no
NUWWSN	52	WESLEY	211		160	162	221				212	316		no	no
NUWWSN	53	WESLEYFHB1	199		133		217			203		313		no	no
NUWWSN	54	NE06607	211		160	162	221				212	316		no	no
NUWWSN	55	NE06469	199		133		217			203		280		no	no
NUWWSN	56	NW07505	211		160	162	221				212	280		no	no
NUWWSN	57	VA06W-612	216		nd		221				212	283		no	no
NUWWSN	58	VA07W-594	199		133		217			203		283		no	no
NUWWSN	59	VA07W-601	198		164	166	217			203			312	no	no
NUWWSN	60	VA08W-734	198		162	164	217			203			312	no	no

Leaf, Stripe & Stem Rusts

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Nursery	Entry	Sample Name	Sr2	wmc	wmc	Sr36	barc	barc	barc	Sr24/ Lr24	ventriup	Yr17/ Lr37/ Sr38	CsLv34	CsLv34	Lr34/ Yr18/ Pm38
				477	477		71	71	71	no		no	no	no	no
NUWWSN	1	ERNIE	no	163	185	het	104	112		no		no	235		no
NUWWSN	2	TRUMAN	no	167		no	112			no		no	235		no
NUWWSN	3	FREEDOM	no	185		yes	104			no		no	235		no
NUWWSN	4	PIONEER-2545	no	167		no	104			no		no	235		no
NUWWSN	5	NY99045-3110	no	167		no	104			no		no	235		no
NUWWSN	6	OH07-176-56	no	165		no	104			no		no	235		no
NUWWSN	7	NY94052-9340	no	167		no	104			no		no	235		no
NUWWSN	8	NY99068-3251	no	167		no	104			no		no	235		no
NUWWSN	9	NY88046-7088	no	160		no	104			no		no	235		no
NUWWSN	10	MSULINEE5011B	no	165		no	104			no		no	235		no
NUWWSN	11	MSULINEE5024	no	167		no	104			no		no	235		no
NUWWSN	12	MSULINEE3024	no	160		no	112			no		no	235		no
NUWWSN	13	MSULINEE6012	no	160		no	104			no		no	235		no
NUWWSN	14	MSULINEE8052	no	167		no	92			no		no	235		no
NUWWSN	15	OH04-264-58	no	160		no	92			no		no	235		no
NUWWSN	16	OH05-101-1	no	165		no	104			no		no	235		no
NUWWSN	17	OH05-164-76	no	163		no	112			no		no	154		yes
NUWWSN	18	OH05-200-74	no	167		no	104			no		no	235		no
NUWWSN	19	99691A2-5-4-16-1	no	163		no	104			no		no	235		no
NUWWSN	20	01946A1-16-48-5	no	185		yes	115			no		no	235		no
NUWWSN	21	057RA1-8-5	no	185		yes	104			no		no	235		no
NUWWSN	22	059A1-2-4-3	no	185		yes	104			no		no	235		no
NUWWSN	23	TABOO	no	165		no	112			no		no	nd		nd
NUWWSN	24	MONDO	no	165		no	115			no		no	235		no
NUWWSN	25	PROBE	no	185		yes	112			no		no	235		no
NUWWSN	26	RUMOR	no	165		no	104			no		no	235		no
NUWWSN	27	03M1539_019	no	165		no	104			no	256	yes	235		no
NUWWSN	28	03M1539_031	no	160		no	104			no		no	235		no
NUWWSN	29	W1104	no	165		no	104			no		no	235		no
NUWWSN	30	ML06-2097	no	160	167	no	104			no		no	235		no
NUWWSN	31	GS-0-EM0681	no	165		no	104			no	256	yes	235		no
NUWWSN	32	GS-0-EM0614	no	165		no	104			no		no	154	235	yes
NUWWSN	33	GS-1-EM0362	no	165		no	104			no		no	154	235	yes
NUWWSN	34	ACF213003B	no	167		no	104			no		no	235		no
NUWWSN	35	ACF126103	no	167		no	104			no		no	235		no
NUWWSN	36	IL02-18228	no	163		no	104			no		no	235		no
NUWWSN	37	IL04-24668	no	167		no	104			no		no	235		no
NUWWSN	38	IL06-7550	no	165		no	92			no		no	235		no
NUWWSN	39	IL06-14262	no	163		no	104			no		no	235		no
NUWWSN	40	KY02C-3006-46	no	167		no	104	112		no		no	235		no
NUWWSN	41	KY02C-3004-02	no	165	167	no	87	104		yes		no	154		yes
NUWWSN	42	KY04C-2151	no	167		no	104			no		no	154		yes
NUWWSN	43	KY03C-1192-34	no	165		no	104			no		no	235		no
NUWWSN	44	KY02C-3008-01	no	167		no	104			no		no	154	235	yes
NUWWSN	45	MD03W91-09-8	no	165		no	87	104		yes		no	235		no
NUWWSN	46	MD03W61-09-1	no	167		no	112			no		no	235		no
NUWWSN	47	MD02W135-08-9	no	165		no	87	104		yes		no	235		no
NUWWSN	48	MO071522	no	167		no	112			no		no	235		no
NUWWSN	49	MO080104	no	163		no	104			no		no	235		no
NUWWSN	50	MO080864	no	167		no	112			no	256	yes	235		no
NUWWSN	51	MO081652	no	163		no	104			no		no	235		no
NUWWSN	52	WESLEY	no	167		no	87	112		yes		no	235		no
NUWWSN	53	WESLEYFHB1	no	167		no	87	104	112	yes		no	235		no
NUWWSN	54	NE06607	no	167		no	112			no		no	235		no
NUWWSN	55	NE06469	no	165		no	87			yes		no	235		no
NUWWSN	56	NW07505	no	167		no	104			no		no	235		no
NUWWSN	57	VA06W-612	no	185		yes	104			no		no	235		no
NUWWSN	58	VA07W-594	no	185		yes	104			no		no	235		no
NUWWSN	59	VA07W-601	no	185		yes	104			no		no	235		no
NUWWSN	60	VA08W-734	no	163		no	104			no		no	235		no

Rye Translocation -- Hessian Fly -- Barley Yellow Dwarf Virus

2010

Nursery	Entry	Sample Name	scm9	scm9	IRS	cf132	H13	cfa2153	cfa2153	H9	Bdv	Bdv	Bdv2/3
NUWWSN	1	ERNIE			non-IRS	114	no	191		no	184		no
NUWWSN	2	TRUMAN			non-IRS	114	no	217		no	184		no
NUWWSN	3	FREEDOM	206		IRS:1BL	114	no	194		no	184		no
NUWWSN	4	PIONEER-2545			non-IRS	114	no	194		no	184		no
NUWWSN	5	NY99045-3110			non-IRS	114	no	194		no	184		no
NUWWSN	6	OH07-176-56			non-IRS	114	no	191	201	no	184		no
NUWWSN	7	NY94052-9340			non-IRS	114	no	194		no	184		no
NUWWSN	8	NY99068-3251			non-IRS	114	no	201		no	184		no
NUWWSN	9	NY88046-7088			non-IRS	114	no	175		no	184		no
NUWWSN	10	MSULINEE5011B	206		IRS:1BL	114	no	201	217	no	184		no
NUWWSN	11	MSULINEE5024	206		IRS:1BL	114	no	201		no	184		no
NUWWSN	12	MSULINEE3024			non-IRS	114	no	194		no	184		no
NUWWSN	13	MSULINEE6012			non-IRS	114	no	201		no	184		no
NUWWSN	14	MSULINEE8052			non-IRS	114	no	211		no	184		no
NUWWSN	15	OH04-264-58			non-IRS	114	no	201		no	184		no
NUWWSN	16	OH05-101-1			non-IRS	114	no	201		no	184		no
NUWWSN	17	OH05-164-76	206		IRS:1BL	114	no	201		no	184		no
NUWWSN	18	OH05-200-74		222	IRS:1AL	114	no	194		no	184		no
NUWWSN	19	99691A2-5-4-16-1			non-IRS	114	no	201		no	184		no
NUWWSN	20	01946A1-16-48-5	206		IRS:1BL	114	no	201		no	184	199	het
NUWWSN	21	057RA1-8-5			non-IRS	114	no	194		no	184		no
NUWWSN	22	059A1-2-4-3	206		IRS:1BL	114	no	194	201	no	199		yes
NUWWSN	23	TABOO	206		IRS:1BL	114	no	191		no	184		no
NUWWSN	24	MONDO			non-IRS	114	no	201	217	no	184		no
NUWWSN	25	PROBE			non-IRS	114	no	205		no	184		no
NUWWSN	26	RUMOR			non-IRS	114	no	217		no	184		no
NUWWSN	27	03M1539_019	206		IRS:1BL	114	no	179	191	yes	184		no
NUWWSN	28	03M1539_031			non-IRS	114	no	179		yes	184		no
NUWWSN	29	W1104	206		IRS:1BL	114	no	169		no	184		no
NUWWSN	30	ML06-2097	206		IRS:1BL	114	no	191		no	184		no
NUWWSN	31	GS-0-EM0681	206		IRS:1BL	114	no	191	211	no	184		no
NUWWSN	32	GS-0-EM0614	206		IRS:1BL	114	no	211		no	184		no
NUWWSN	33	GS-1-EM0362	206		IRS:1BL	114	no	211		no	184		no
NUWWSN	34	ACF213003B			non-IRS	114	no	175	191	no	184		no
NUWWSN	35	ACF126103	206		IRS:1BL	114	no	191		no	184		no
NUWWSN	36	IL02-18228			non-IRS	114	no	201		no	184		no
NUWWSN	37	IL04-24668			non-IRS	114	no	194		no	184		no
NUWWSN	38	IL06-7550			non-IRS	114	no	201		no	184		no
NUWWSN	39	IL06-14262			non-IRS	114	no	195		no	184		no
NUWWSN	40	KY02C-3006-46	206		IRS:1BL	114	no	191	205	no	184		no
NUWWSN	41	KY02C-3004-02		222	IRS:1AL	114	no	nd		nd	184		no
NUWWSN	42	KY04C-2151	206		IRS:1BL	114	no	191		no	184		no
NUWWSN	43	KY03C-1192-34			non-IRS	114	no	211		no	184		no
NUWWSN	44	KY02C-3008-01	206		IRS:1BL	114	no	191		no	184		no
NUWWSN	45	MD03W91-09-8	206	222	IRS:1BL, IRS:1AL	114	no	nd		nd	184		no
NUWWSN	46	MD03W61-09-1	206		IRS:1BL	114	no	191		no	184		no
NUWWSN	47	MD02W135-08-9	206	222	IRS:1BL, IRS:1AL	114	no	191		no	184		no
NUWWSN	48	MO071522			non-IRS	114	no	194	219	no	184		no
NUWWSN	49	MO080104			non-IRS	114	no	194		no	184		no
NUWWSN	50	MO080864			non-IRS	114	no	201	219	no	184		no
NUWWSN	51	MO081652			non-IRS	114	no	194		no	184		no
NUWWSN	52	WESLEY			non-IRS	114	no	198		no	184		no
NUWWSN	53	WESLEYFHB1			non-IRS	114	no	194		no	184		no
NUWWSN	54	NE06607			non-IRS	114	no	197		no	184		no
NUWWSN	55	NE06469			non-IRS	114	no	219		no	184		no
NUWWSN	56	NW07505			non-IRS	114	no	211		no	182		no
NUWWSN	57	VA06W-612			non-IRS	114	no	194	201	no	184		no
NUWWSN	58	VA07W-594	206		IRS:1BL	114	no	194	201	no	184		no
NUWWSN	59	VA07W-601	206?		IRS:1BL?	114	no	205		no	184		no
NUWWSN	60	VA08W-734		222	IRS:1AL	114	no	179		yes	184		no

Quality Traits

2010

Nursery	Entry	Sample Name	Bx7oe	Bx7oe	Bx7 over-expressing	Umn25	Umn25	UMN26	UMN26	Glu-D1	Umn19	Umn19	Glu-A1
NUWWSN	1	ERNIE	404		no		295		409	2+12	341	359	het
NUWWSN	2	TRUMAN	404		no		295		409	2+12		359	Ax1 or null
NUWWSN	3	FREEDOM	404		no		295		409	2+12		359	Ax1 or null
NUWWSN	4	PIONEER-2545	404		no		295		409	2+12	341		Ax2*
NUWWSN	5	NY99045-3110	404		no		295		409	2+12		359	Ax1 or null
NUWWSN	6	OH07-176-56	404	448	het	277	295	392	409	het	341		Ax2*
NUWWSN	7	NY94052-9340	404	448	het		295		409	2+12		359	Ax1 or null
NUWWSN	8	NY99068-3251	404		no		295		409	2+12	341		Ax2*
NUWWSN	9	NY88046-7088	404		no		295		409	2+12		359	Ax1 or null
NUWWSN	10	MSULINEE5011B	404		no		295		409	2+12	341		Ax2*
NUWWSN	11	MSULINEE5024	404		no	277		392		5+10		359	Ax1 or null
NUWWSN	12	MSULINEE3024	404		no		295		409	2+12	341		Ax2*
NUWWSN	13	MSULINEE6012	404		no		295		409	2+12		359	Ax1 or null
NUWWSN	14	MSULINEE8052		448	yes	277		392		5+10	341		Ax2*
NUWWSN	15	OH04-264-58		448	yes	277		392		5+10	341		Ax2*
NUWWSN	16	OH05-101-1	404		no	277				5+10		359	Ax1 or null
NUWWSN	17	OH05-164-76	404		no	277		392		5+10	341		Ax2*
NUWWSN	18	OH05-200-74	404		no		295		409	2+12		359	Ax1 or null
NUWWSN	19	99691A2-5-4-16-1	404	448	het		295		409	2+12	341		Ax2*
NUWWSN	20	01946A1-16-48-5	404		no		295		409	2+12		359	Ax1 or null
NUWWSN	21	057RA1-8-5	404		no	277		392		5+10		359	Ax1 or null
NUWWSN	22	059A1-2-4-3		448	yes	277		392		5+10		359	Ax1 or null
NUWWSN	23	TABOO	404		no		295		409	2+12	341		Ax2*
NUWWSN	24	MONDO	404		no		295		409	2+12	341	359	het
NUWWSN	25	PROBE	404		no	277		392		5+10	341		Ax2*
NUWWSN	26	RUMOR	404		no		295		409	2+12		359	Ax1 or null
NUWWSN	27	03M1539_019	404		no	277	295	392	409	het	341		Ax2*
NUWWSN	28	03M1539_031	404		no		295		409	2+12	341		Ax2*
NUWWSN	29	W1104		448	yes		295		409	2+12	341		Ax2*
NUWWSN	30	ML06-2097	404		no	277		392		5+10	341		Ax2*
NUWWSN	31	GS-0-EM0681	404		no	277		392		5+10	341		Ax2*
NUWWSN	32	GS-0-EM0614	404		no		295		409	2+12	341		Ax2*
NUWWSN	33	GS-1-EM0362	404		no	277	295	392	409	het	341		Ax2*
NUWWSN	34	ACF213003B	404		no	277	295	392	409	het		359	Ax1 or null
NUWWSN	35	ACF126103	404		no	277		392		5+10		359	Ax1 or null
NUWWSN	36	IL02-18228	404		no	277		392		5+10		359	Ax1 or null
NUWWSN	37	IL04-24668	404		no	277		392		5+10	341		Ax2*
NUWWSN	38	IL06-7550	404		no		295	nd		nd	341		Ax2*
NUWWSN	39	IL06-14262	404		no	277		392		5+10	341		Ax2*
NUWWSN	40	KY02C-3006-46	404		no	277		392		5+10	341	359	het
NUWWSN	41	KY02C-3004-02	404		no	277		392		5+10	341		Ax2*
NUWWSN	42	KY04C-2151	404		no		295		409	2+12	341		Ax2*
NUWWSN	43	KY03C-1192-34	404		no	277		392		5+10	341		Ax2*
NUWWSN	44	KY02C-3008-01	404		no	277		392		5+10	341		Ax2*
NUWWSN	45	MD03W91-09-8	404		no	277		392		5+10	341		Ax2*
NUWWSN	46	MD03W61-09-1	404		no		295		409	2+12		359	Ax1 or null
NUWWSN	47	MD02W135-08-9	404		no		295		409	2+12	341		Ax2*
NUWWSN	48	MO071522	404		no	277		392		5+10		359	Ax1 or null
NUWWSN	49	MO080104	404		no	277		392		5+10	341		Ax2*
NUWWSN	50	MO080864	404		no		295		409	2+12		359	Ax1 or null
NUWWSN	51	MO081652	404		no	277		392		5+10	341		Ax2*
NUWWSN	52	WESLEY	404		no	277		392		5+10	341		Ax2*
NUWWSN	53	WESLEYFHB1	404		no	277		392		5+10	341		Ax2*
NUWWSN	54	NE06607	404		no	277		392		5+10	341		Ax2*
NUWWSN	55	NE06469	404		no	277		392		5+10	341		Ax2*
NUWWSN	56	NW07505	404		no	277		392		5+10	341		Ax2*
NUWWSN	57	VA06W-612	404		no	277		392		5+10	341		Ax2*
NUWWSN	58	VA07W-594	404		no	277		392	409	het?	341	359	het
NUWWSN	59	VA07W-601	404		no		295		409	2+12		359	Ax1 or null
NUWWSN	60	VA08W-734	404		no	277		392		5+10	341		Ax2*

Pre-harvest Sprouting

2010

Nursery	Entry	Sample Name	barc55	barc55	PHS Cayuga
NUWWSN	1	ERNIE	128		no
NUWWSN	2	TRUMAN	124		no
NUWWSN	3	FREEDOM	nd		nd
NUWWSN	4	PIONEER-2545	132		yes
NUWWSN	5	NY99045-3110	128		no
NUWWSN	6	OH07-176-56	128	132	het?
NUWWSN	7	NY94052-9340	128	132	het?
NUWWSN	8	NY99068-3251	128		no
NUWWSN	9	NY88046-7088	132		yes
NUWWSN	10	MSULINEE5011B	128		no
NUWWSN	11	MSULINEE5024	128		no
NUWWSN	12	MSULINEE3024	128		no
NUWWSN	13	MSULINEE6012	nd		nd
NUWWSN	14	MSULINEE8052	132		yes
NUWWSN	15	OH04-264-58	132		yes
NUWWSN	16	OH05-101-1	132		yes
NUWWSN	17	OH05-164-76	132		yes
NUWWSN	18	OH05-200-74	132		yes
NUWWSN	19	99691A2-5-4-16-1	124		no
NUWWSN	20	01946A1-16-48-5	124	132	het?
NUWWSN	21	057RA1-8-5	nd		nd
NUWWSN	22	059A1-2-4-3	124	132	het?
NUWWSN	23	TABOO	132		no
NUWWSN	24	MONDO	128		no
NUWWSN	25	PROBE	nd		nd
NUWWSN	26	RUMOR	128		no
NUWWSN	27	03M1539_019	132		yes
NUWWSN	28	03M1539_031	132		yes
NUWWSN	29	W1104	132		yes
NUWWSN	30	ML06-2097	132		yes
NUWWSN	31	GS-0-EM0681	124		no
NUWWSN	32	GS-0-EM0614	124		no
NUWWSN	33	GS-1-EM0362	124	132	het?
NUWWSN	34	ACF213003B	128	132	het?
NUWWSN	35	ACF126103	132		yes
NUWWSN	36	IL02-18228	128		no
NUWWSN	37	IL04-24668	132		yes
NUWWSN	38	IL06-7550	124		no
NUWWSN	39	IL06-14262	124	132	het?
NUWWSN	40	KY02C-3006-46	132		yes
NUWWSN	41	KY02C-3004-02	132		yes
NUWWSN	42	KY04C-2151	132		yes
NUWWSN	43	KY03C-1192-34	128		no
NUWWSN	44	KY02C-3008-01	132		yes
NUWWSN	45	MD03W91-09-8	124		no
NUWWSN	46	MD03W61-09-1	124		no
NUWWSN	47	MD02W135-08-9	132		yes
NUWWSN	48	MO071522	124		no
NUWWSN	49	MO080104	128		no
NUWWSN	50	MO080864	124		no
NUWWSN	51	MO081652	128		no
NUWWSN	52	WESLEY	124		no
NUWWSN	53	WESLEYFHB1	124		no
NUWWSN	54	NE06607	124		no
NUWWSN	55	NE06469	124		no
NUWWSN	56	NW07505	132		yes
NUWWSN	57	VA06W-612	132		yes
NUWWSN	58	VA07W-594	124	132	het?
NUWWSN	59	VA07W-601	124		no
NUWWSN	60	VA08W-734	132		yes

2010 Preliminary Northern Uniform Winter Wheat Scab Nursery

Entry List

Nursery	Entry	Sample Name	Pedigree	Source
PNUWWSN	1	ERNIE		UMO
PNUWWSN	2	TRUMAN		UMO
PNUWWSN	3	FREEDOM		OSU
PNUWWSN	4	PIONEER-2545		PIO
PNUWWSN	5	MSULINEE5017	D6206 / Pioneer Brand 2552	MSU
PNUWWSN	6	MSULINEE8007	VA96W-403-WS / W14	MSU
PNUWWSN	7	OH06-158-50	P.92145E8-7-7-1-9-1/OH728	OSU
PNUWWSN	8	OH06-159-6	P.92145E8-7-7-1-9-1/OH728	OSU
PNUWWSN	9	OH06-180-57	KY90C-042-37-1/OH687	OSU
PNUWWSN	10	OH06-197-61	P.92145E8-7-7-1-9-1/OH701	OSU
PNUWWSN	11	OH06-228-73	OH708/OH707	OSU
PNUWWSN	12	OH06-190-29	OH707/OH687	OSU
PNUWWSN	13	03207A1-7-5	INW0304*2/RSI5/3/981281//INW0316/99794	PUR
PNUWWSN	14	03615A1-5-7	Ernie/INW0316//981358/97462	PUR
PNUWWSN	15	059A1-1-9-5	Truman/INW0316/4/9819/3/Freedom//Ernie/INW9824	PUR
PNUWWSN	16	059A1-1-9-6	Truman/INW0316/4/9819/3/Freedom//Ernie/INW9824	PUR
PNUWWSN	17	0527A1-9-9-3	99751/2754//97462/INW0412	PUR
PNUWWSN	18	0537A1-7-8	INW0411/2754//INW0412/98134	PUR
PNUWWSN	19	SE99-1015-7	T97/A941315	SUN
PNUWWSN	20	SE-MO98-274-8	IL-87-2834-1/960314	SUN
PNUWWSN	21	SE98-1094-C20	FREEDOM/SE2549	SUN
PNUWWSN	22	SE00-4040-10	LIBRA/N95L189	SUN
PNUWWSN	23	SE00-10303-35	PION25W60/CALEDONIA	SUN
PNUWWSN	24	SE00-10286-7	PION25W60/TW96286	SUN
PNUWWSN	25	MISC-HDS-148	Unknown	SUN
PNUWWSN	26	M08_8005_	BRANSON/M99*3098	SYN
PNUWWSN	27	MH07-7474	M97-1048/ELKHART	SYN
PNUWWSN	28	IL06-13072	IL00-8109/ IL97-3632	UIL
PNUWWSN	29	IL06-13708	IL00-8530/IL97-3632	UIL
PNUWWSN	30	IL06-13721	IL00-8530/ IL97-3632	UIL
PNUWWSN	31	IL06-25634	N-1538/ IL98-4632// IL97-3632	UIL
PNUWWSN	32	IL06-27969	IL96-6472/ P961341A3-2-2	UIL
PNUWWSN	33	IL06-14325	IL00-8530/ IL97-1828	UIL
PNUWWSN	34	KY02C-3007-55	25R18/ALLEGIANCE	UKY
PNUWWSN	35	KY03C-1237-23	25R18/92C-0017-17//KY96C-0767-1	UKY
PNUWWSN	36	KY01C-1070-02	KY91C-170-3/KY91C-117-27//KY91C-170-3/Roane	UKY
PNUWWSN	37	KY01C-1531-17	Tribute/2552//Tribute/SS 520	UKY
PNUWWSN	38	KY03C-1136-18	CG 554W/25R37//CG 554W/Tribute	UKY
PNUWWSN	39	KY03C-1092-13	Allegiance/25W33//Allegiance/25R44	UKY
PNUWWSN	40	MO070933	980429/P86958RC4-2-1-10	UMO
PNUWWSN	41	MO080103	L910097/MO-92-599	UMO
PNUWWSN	42	MO080373	980703/980525,-Truman-'S'/Truman	UMO
PNUWWSN	43	MO081378	003013/981020	UMO
PNUWWSN	44	MO081772	Truman/Seu-Seun-6	UMO
PNUWWSN	45	MO081777	PL-2552/980829	UMO
PNUWWSN	46	VA08W-622	FREEDOM / NEUSE"S" (NC96-13374)// VA98W-688[Roane"S" (91-54-219)// FFR555W/GORE],F9	VAT
PNUWWSN	47	VA08W-630	OH 552(P71761A4-31-5-33/MD55-286-21: FHB-RES)/SS550 (VA96W-247= CK9803/FREEDOM)/RC STRATEGY [VA98W-586=92-51-39 (IN71761A4-31-5-48//71-54-147/ MCN1813)/ Roane"S" (91-54-219)],F9	VAT
PNUWWSN	48	VA08W-653	COKER 9474(FHB-RES)/ NEUSE"S" (NC96-13374),F8	VAT
PNUWWSN	49	VA07W-600	OH 552/SS550//RC-STRATEGY,F9	VAT
PNUWWSN	50	VA07W-607	IL89-6489(PIONEER 9021L// ROLAND/IL77-2656: FHB-RES)/ Sisson"S" (VA97W-375= CK9803/FREEDOM)// ERNIE,F8	VAT
PNUWWSN	51	VA08W-740	B961092(SCAB RES)/ VA00W-566 [(CHILL"S"/YMI6)/PION2548// PION2684] //McCORMICK"S" (VA98W-590),F7	VAT

2010 Preliminary Northern Uniform Winter Wheat Scab Nursery

Summary of all Markers

Nursery	Entry	Sample Name	Rht1- B1b	Rht2- D1b	Rht8	Ppd-D1a	Fhb		Fhb 2DL-	Fhb 5A	Fhb 5A
							Ernie	3Bc	Wuhan1/ W14	Ernie	Ning7840
PNUWWSN	1	ERNIE	yes	no	no	no	no	yes	no	yes	no
PNUWWSN	2	TRUMAN	yes	no	no	no	no	no	no	no	no
PNUWWSN	3	FREEDOM	yes	no	no	no	no	yes?	no	no	no
PNUWWSN	4	PIONEER-2545	no	yes	no	yes	no	no	no	het	no
PNUWWSN	5	MSULINEE5017	no	yes	no	yes	no	no	no	no	no
PNUWWSN	6	MSULINEE8007	no	yes	no	no	yes	no	no	no	yes
PNUWWSN	7	OH06-158-50	yes	no	no	no	no	no	no	no	no
PNUWWSN	8	OH06-159-6	yes	no	no	yes	no	no	no	no	no
PNUWWSN	9	OH06-180-57	no	no	yes	yes	no	no	no	no	no
PNUWWSN	10	OH06-197-61	yes	no	no	yes	no	no	no	no	no
PNUWWSN	11	OH06-228-73	yes	no	no	yes	no	no	no	no	no
PNUWWSN	12	OH06-190-29	yes	no	no	yes	no	no	no	no	no
PNUWWSN	13	03207A1-7-5	yes	no	no	no	no	no	no	no	no
PNUWWSN	14	03615A1-5-7	yes	no	no	no	no	no	no	no	no
PNUWWSN	15	059A1-1-9-5	yes	no	no	no	no	no	no	no	no
PNUWWSN	16	059A1-1-9-6	yes	no	no	no	het	no	no	no	no
PNUWWSN	17	0527A1-9-9-3	yes	no	no	yes	no	no	no	het	no
PNUWWSN	18	0537A1-7-8	yes	no	no	yes	no	no	no	het	no
PNUWWSN	19	SE99-1015-7	yes	no	no	no	no	no	no	no	no
PNUWWSN	20	SE-MO98-274-8	yes	no	no	no	no	no	no	no	no
PNUWWSN	21	SE98-1094-C20	yes	no	no	no	no	het?	no	no	no
PNUWWSN	22	SE00-4040-10	yes	no	no	yes	no	no	no	no	no
PNUWWSN	23	SE00-10303-35	no	yes	no	het	no	no	no	no?	no
PNUWWSN	24	SE00-10286-7	no	no	no	yes	no	no	no	no	no
PNUWWSN	25	MISC-HDS-148	yes	no	no	yes	no	no	no	no	no
PNUWWSN	26	M08_8005_	yes	no	no	yes	no	no	no	no	no
PNUWWSN	27	MH07-7474	yes	no	no	no	no	no	no	no	no
PNUWWSN	28	IL06-13072	yes	no	no	no	no	no	no	no	no
PNUWWSN	29	IL06-13708	yes	no	no	no	no	no	no	no	no
PNUWWSN	30	IL06-13721	yes	no	no	no	no	no	no	no	no
PNUWWSN	31	IL06-25634	yes	no	het	het	no	?	no	no	no
PNUWWSN	32	IL06-27969	yes	nd	no	no	no	no	no	?	no
PNUWWSN	33	IL06-14325	yes	no	no	no	no	no	no	?	no
PNUWWSN	34	KY02C-3007-55	yes	no	no	yes	yes	no	no	no	no
PNUWWSN	35	KY03C-1237-23	yes	no	no	yes	het	no	no	no	no
PNUWWSN	36	KY01C-1070-02	no	no	no	yes	no	no	no	no	no
PNUWWSN	37	KY01C-1531-17	no	yes	no	yes	no	no	no	no	no
PNUWWSN	38	KY03C-1136-18	no	yes	no	yes	no	het?	no	no	no
PNUWWSN	39	KY03C-1092-13	no	yes	no	yes	no	no	no	no?	no
PNUWWSN	40	MO070933	yes	no	no	no	no	no	no	yes	no
PNUWWSN	41	MO080103	no	no	no	yes	no	no	no	no	no
PNUWWSN	42	MO080373	yes	no	no	no	no	no	no	no	no
PNUWWSN	43	MO081378	yes	no	no	no	no	no	no	no	no
PNUWWSN	44	MO081772	het	no	no	het	no	no	no	no	no
PNUWWSN	45	MO081777	no	no	no	yes	no	no	no	no	no
PNUWWSN	46	VA08W-622	nd	yes	no	no	no	no	no	no	no
PNUWWSN	47	VA08W-630	no	yes	no	no	no	no	no	no	no
PNUWWSN	48	VA08W-653	no	yes	no	no	no	no	no	no	no
PNUWWSN	49	VA07W-600	no	yes	no	no	no	no	no	het?	no
PNUWWSN	50	VA07W-607	het	het	no	no	no	no	no	no	no
PNUWWSN	51	VA08W-740	no	yes	no	no	no	no	no	no	no

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Summary of all Markers

Nursery	Entry	Sample Name	Yr17/ Lr34/ Sr24/ Lr37/ Yr18/ Sr36 Lr24 Sr38 Pm38					1RS	H13	H9	Bdv 2/3	Bx7 over-ex pressing		
			Sr2	Sr36	Lr24	Sr38	Pm38					Glu-D1	Glu-A1	
PNUWWSN	1	ERNIE	no	yes	no	no	no	non-1RS	no	no	no	no	2+12	Ax1 or null
PNUWWSN	2	TRUMAN	no	no	no	no	no	non-1RS	no	no	no	no	2+12	Ax1 or null
PNUWWSN	3	FREEDOM	no	yes	no	no	no	1RS:1BL	no	no	no	no	2+12	het
PNUWWSN	4	PIONEER-2545	no	no	no	no	no	non-1RS	no	no	no	no	2+12	het
PNUWWSN	5	MSULINEE5017	no	no	no	no	no	1RS:1BL	no	no	no	no	2+12	Ax1 or null
PNUWWSN	6	MSULINEE8007	no	no	no	no	no	non-1RS	no	no	no	no	2+12	Ax1 or null
PNUWWSN	7	OH06-158-50	no	no	no	no	no	non-1RS	no	no	no	yes	2+12	Ax1 or null
PNUWWSN	8	OH06-159-6	no	no	no	yes	no	non-1RS	no	no	no	yes	het	Ax1 or null
PNUWWSN	9	OH06-180-57	no	no	no	yes?	no	1RS:1BL	no	no	no	no	2+12	Ax1 or null
PNUWWSN	10	OH06-197-61	no	no	no	no	no	non-1RS	no	no	no	yes	2+12	Ax1 or null
PNUWWSN	11	OH06-228-73	no	no	no	no	no	non-1RS	no	no	no	no	2+12	Ax2*
PNUWWSN	12	OH06-190-29	no	no	no	no	no	non-1RS	no	no	no	no	het	Ax1 or null
PNUWWSN	13	03207A1-7-5	no	no	no	yes	no	1RS:1BL	no	no	yes	yes	5+10	Ax1 or null
PNUWWSN	14	03615A1-5-7	no	yes	no	no	no	1RS:1BL	no	no	no	yes	het	Ax1 or null
PNUWWSN	15	059A1-1-9-5	no	yes	no	no	no	non-1RS	no	no	yes	no	2+12	Ax1 or null
PNUWWSN	16	059A1-1-9-6	no	yes	no	no	no	non-1RS	no	no	het	het	het	Ax1 or null
PNUWWSN	17	0527A1-9-9-3	no	no	no	yes	no	1RS:1BL	no	yes	het	het	2+12	Ax1 or null
PNUWWSN	18	0537A1-7-8	no	yes	no	no	no	non-1RS	no	no	no	no	het	Ax1 or null
PNUWWSN	19	SE99-1015-7	no	yes	no	no	no	non-1RS	no	no	no	no	5+10	Ax2*
PNUWWSN	20	SE-MO98-274-8	no	no	no	no	no	non-1RS	no	no	no	no	5+10	Ax2*
PNUWWSN	21	SE98-1094-C20	no	het	no	no	no	1RS:1BL	no	no	no	no	het	het
PNUWWSN	22	SE00-4040-10	no	no	no	no	yes	1RS:1BL	no	no	no	no	5+10	Ax2*
PNUWWSN	23	SE00-10303-35	no	no	no	no	no	non-1RS	no	no	no	no	2+12	Ax2*
PNUWWSN	24	SE00-10286-7	no	no	no	no	no	non-1RS	no	no	no	no	2+12	het
PNUWWSN	25	MISC-HDS-148	no	no	no	no	no	non-1RS	no	no	no	no	2+12	Ax1 or null
PNUWWSN	26	M08_8005_	no	no	no	no	no	non-1RS	no	no	no	no	5+10	Ax2*
PNUWWSN	27	MH07-7474	no	no	no	no	no	non-1RS	no	no	no	no	5+10	Ax1 or null
PNUWWSN	28	IL06-13072	no	no	no	no	no	non-1RS	no	no	no	no	5+10	Ax2*
PNUWWSN	29	IL06-13708	no	no	no	no	no	non-1RS	no	no	no	no	5+10	Ax2*
PNUWWSN	30	IL06-13721	no	no	no	no	no	non-1RS	no	no	no	no	5+10	Ax2*
PNUWWSN	31	IL06-25634	no	no	no	no	no	non-1RS	no	no	no	no	2+12	Ax1 or null
PNUWWSN	32	IL06-27969	no	no	no	no	no	non-1RS	no	no	yes	no	5+10	Ax2*
PNUWWSN	33	IL06-14325	no	no	no	no	no	non-1RS	no	no	yes	no	5+10	Ax2*
PNUWWSN	34	KY02C-3007-55	no	no	no	no	yes	1RS:1BL	no	no	no	no	5+10	Ax2*
PNUWWSN	35	KY03C-1237-23	no	no	no	no	no	non-1RS	no	no	no	no	5+10	Ax2*
PNUWWSN	36	KY01C-1070-02	no	het	no	no	no	non-1RS	no	no	no	no	2+12	Ax2*
PNUWWSN	37	KY01C-1531-17	no	no	no	no	no	1RS:1AL	no	nd	no	no	het	Ax2*
PNUWWSN	38	KY03C-1136-18	no	no	yes	no	no	1RS:1BL	no	no	no	no	het	Ax1 or null
PNUWWSN	39	KY03C-1092-13	no	no	no	no	no	non-1RS	no	no	no	no	het	het
PNUWWSN	40	MO070933	no	yes	no	no	no	non-1RS	het	no	no	no	5+10	Ax2*
PNUWWSN	41	MO080103	no	no	no	no	no	non-1RS	no	no	no	no	5+10	het
PNUWWSN	42	MO080373	no	no	no	no	no	non-1RS	no	no	no	no	2+12	Ax1 or null
PNUWWSN	43	MO081378	no	no	no	no	no	non-1RS	no	no	no	no	5+10	Ax1 or null
PNUWWSN	44	MO081772	no	no	no	no	no	non-1RS	no	no	no	no	5+10	Ax1 or null
PNUWWSN	45	MO081777	no	no	no	no	no	non-1RS	no	no	no	no	5+10	Ax2*
PNUWWSN	46	VA08W-622	no	het	no	no	no	non-1RS	no	no	no	no	2+12	Ax1 or null
PNUWWSN	47	VA08W-630	no	no	no	no	no	non-1RS	no	no	no	no	2+12	Ax2*
PNUWWSN	48	VA08W-653	no	het	no	no	no	non-1RS	no	yes	no	no	2+12	Ax1 or null
PNUWWSN	49	VA07W-600	no	yes	no	no	no	non-1RS	no	no	no	no	2+12	Ax1 or null
PNUWWSN	50	VA07W-607	no	no	yes	no	no	1RS:1AL	no	nd	no	no	2+12	Ax2*
PNUWWSN	51	VA08W-740	no	no	yes	no	no	1RS:1AL	no	no	no	no	het	het

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Summary of all Markers

Nursery	Entry	Sample Name	PHS Cayuga
PNUWWSN	1	ERNIE	no
PNUWWSN	2	TRUMAN	no
PNUWWSN	3	FREEDOM	no
PNUWWSN	4	PIONEER-2545	yes
PNUWWSN	5	MSULINEE5017	yes
PNUWWSN	6	MSULINEE8007	yes
PNUWWSN	7	OH06-158-50	nd
PNUWWSN	8	OH06-159-6	no
PNUWWSN	9	OH06-180-57	?
PNUWWSN	10	OH06-197-61	yes
PNUWWSN	11	OH06-228-73	nd
PNUWWSN	12	OH06-190-29	het?
PNUWWSN	13	03207A1-7-5	no
PNUWWSN	14	03615A1-5-7	no
PNUWWSN	15	059A1-1-9-5	nd
PNUWWSN	16	059A1-1-9-6	yes
PNUWWSN	17	0527A1-9-9-3	yes
PNUWWSN	18	0537A1-7-8	no
PNUWWSN	19	SE99-1015-7	nd
PNUWWSN	20	SE-MO98-274-8	yes
PNUWWSN	21	SE98-1094-C20	yes
PNUWWSN	22	SE00-4040-10	yes
PNUWWSN	23	SE00-10303-35	yes
PNUWWSN	24	SE00-10286-7	no
PNUWWSN	25	MISC-HDS-148	no
PNUWWSN	26	M08_8005_	yes
PNUWWSN	27	MH07-7474	no
PNUWWSN	28	IL06-13072	yes
PNUWWSN	29	IL06-13708	yes
PNUWWSN	30	IL06-13721	yes
PNUWWSN	31	IL06-25634	yes
PNUWWSN	32	IL06-27969	no
PNUWWSN	33	IL06-14325	no
PNUWWSN	34	KY02C-3007-55	yes
PNUWWSN	35	KY03C-1237-23	no
PNUWWSN	36	KY01C-1070-02	het?
PNUWWSN	37	KY01C-1531-17	yes
PNUWWSN	38	KY03C-1136-18	het?
PNUWWSN	39	KY03C-1092-13	het?
PNUWWSN	40	MO070933	het?
PNUWWSN	41	MO080103	no
PNUWWSN	42	MO080373	no
PNUWWSN	43	MO081378	no
PNUWWSN	44	MO081772	no
PNUWWSN	45	MO081777	no
PNUWWSN	46	VA08W-622	het?
PNUWWSN	47	VA08W-630	nd
PNUWWSN	48	VA08W-653	yes
PNUWWSN	49	VA07W-600	no
PNUWWSN	50	VA07W-607	no
PNUWWSN	51	VA08W-740	yes

Dwarfing genes & Photoperiod insensitivity

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Nursery	Entry	Sample Name	Rht1K	Rht2K	Rht1- B1b	Rht2- D1b	gwm261	gwm261	Rht8	Ppd	Ppd	Ppd-D1a
PNUWWSN	1	ERNIE	Allele Y	Allele X	yes	no	173		no	414	no	
PNUWWSN	2	TRUMAN	Allele Y	Allele X	yes	no	173		no	414	no	
PNUWWSN	3	FREEDOM	Allele Y	Allele X	yes	no	163		no	414	no	
PNUWWSN	4	PIONEER-2545	Allele X	Allele Y	no	yes	173	201	no	283		yes
PNUWWSN	5	MSULINEE5017	Allele X	Allele Y	no	yes	173		no	283		yes
PNUWWSN	6	MSULINEE8007	Allele X	Allele Y	no	yes	201		no		414	no
PNUWWSN	7	OH06-158-50	Allele Y	Allele X	yes	no	173		no		414	no
PNUWWSN	8	OH06-159-6	Allele Y	Allele X	yes	no	173		no	283		yes
PNUWWSN	9	OH06-180-57	Allele X	Allele X	no	no	192		yes	283		yes
PNUWWSN	10	OH06-197-61	Allele Y	Allele X	yes	no	163		no	283		yes
PNUWWSN	11	OH06-228-73	Allele Y	Allele X	yes	no	201		no	283		yes
PNUWWSN	12	OH06-190-29	Allele Y	Allele X	yes	no	173		no	283		yes
PNUWWSN	13	03207A1-7-5	Allele Y	Allele X	yes	no	173		no		414	no
PNUWWSN	14	03615A1-5-7	Allele Y	Allele X	yes	no	173		no		414	no
PNUWWSN	15	059A1-1-9-5	Allele Y	Allele X	yes	no	173		no		414	no
PNUWWSN	16	059A1-1-9-6	Allele Y	Allele X	yes	no	173		no		414	no
PNUWWSN	17	0527A1-9-9-3	Allele Y	Allele X	yes	no	173		no	283		yes
PNUWWSN	18	0537A1-7-8	Allele Y	Allele X	yes	no	173	201	no	283		yes
PNUWWSN	19	SE99-1015-7	Allele Y	Allele X	yes	no	173		no		414	no
PNUWWSN	20	SE-MO98-274-8	Allele Y	Allele X	yes	no	173		no		414	no
PNUWWSN	21	SE98-1094-C20	Allele Y	Allele X	yes	no	163	173	no		414	no
PNUWWSN	22	SE00-4040-10	Allele Y	Allele X	yes	no	173		no	283		yes
PNUWWSN	23	SE00-10303-35	Allele X	Allele Y	no	yes	173		no	283	414	het
PNUWWSN	24	SE00-10286-7	Allele X	Allele X	no	no	173		no	283		yes
PNUWWSN	25	MISC-HDS-148	Allele Y	Allele X	yes	no	163		no	283		yes
PNUWWSN	26	M08_8005_	Allele Y	Allele X	yes	no	173		no	283		yes
PNUWWSN	27	MH07-7474	Allele Y	Allele X	yes	no	163		no		414	no
PNUWWSN	28	IL06-13072	Allele Y	Allele X	yes	no	173		no		414	no
PNUWWSN	29	IL06-13708	Allele Y	Allele X	yes	no	173		no		414	no
PNUWWSN	30	IL06-13721	Allele Y	Allele X	yes	no	173		no		414	no
PNUWWSN	31	IL06-25634	Allele Y	Allele X	yes	no	173	192	het	283	414	het
PNUWWSN	32	IL06-27969	Allele Y	nd	yes	nd	173		no		414	no
PNUWWSN	33	IL06-14325	Allele Y	Allele X	yes	no	173		no		414	no
PNUWWSN	34	KY02C-3007-55	Allele Y	Allele X	yes	no	173		no	283		yes
PNUWWSN	35	KY03C-1237-23	Allele Y	Allele X	yes	no	201		no	283		yes
PNUWWSN	36	KY01C-1070-02	Allele X	Allele X	no	no	201		no	283		yes
PNUWWSN	37	KY01C-1531-17	Allele X	Allele Y	no	yes	163		no	283		yes
PNUWWSN	38	KY03C-1136-18	Allele X	Allele Y	no	yes	163		no	283		yes
PNUWWSN	39	KY03C-1092-13	Allele X	Allele Y	no	yes	163		no	283		yes
PNUWWSN	40	MO070933	Allele Y	Allele X	yes	no	173		no		414	no
PNUWWSN	41	MO080103	Allele X	Allele X	no	no	173	201	no	283		yes
PNUWWSN	42	MO080373	Allele Y	Allele X	yes	no	173		no		414	no
PNUWWSN	43	MO081378	Allele Y	Allele X	yes	no	173		no		414	no
PNUWWSN	44	MO081772	Both Alleles	Allele X	het	no	173		no	283	414	het
PNUWWSN	45	MO081777	Allele X	Allele X	no	no	201		no	283		yes
PNUWWSN	46	VA08W-622	nd	Allele Y	nd	yes	201		no		414	no
PNUWWSN	47	VA08W-630	Allele X	Allele Y	no	yes	173		no		414	no
PNUWWSN	48	VA08W-653	Allele X	Allele Y	no	yes	173		no		414	no
PNUWWSN	49	VA07W-600	Allele X	Allele Y	no	yes	163		no		414	no
PNUWWSN	50	VA07W-607	Both Alleles	Both Alleles	het	het	173		no		414	no
PNUWWSN	51	VA08W-740	Allele X	Allele Y	no	yes	173		no		414	no

FHB QTLs

2010

Nursery	Entry	Sample Name	umn10	umn10	gwm533	gwm533	Fhb1
PNUWWSN	1	ERNIE	236		nd		no
PNUWWSN	2	TRUMAN	236		118		no
PNUWWSN	3	FREEDOM	236		128		no
PNUWWSN	4	PIONEER-2545	236		118		no
PNUWWSN	5	MSULINEE5017	236		118		no
PNUWWSN	6	MSULINEE8007	239		142		yes
PNUWWSN	7	OH06-158-50	229		146		no
PNUWWSN	8	OH06-159-6	236		nd		no
PNUWWSN	9	OH06-180-57	236		118		no
PNUWWSN	10	OH06-197-61	236		128		no
PNUWWSN	11	OH06-228-73	229		146	155	no
PNUWWSN	12	OH06-190-29	236		118		no
PNUWWSN	13	03207A1-7-5	236		118		no
PNUWWSN	14	03615A1-5-7	236		118		no
PNUWWSN	15	059A1-1-9-5	236		118		no
PNUWWSN	16	059A1-1-9-6	236	239	118	144	het
PNUWWSN	17	0527A1-9-9-3	236		118	128	no
PNUWWSN	18	0537A1-7-8	236		118		no
PNUWWSN	19	SE99-1015-7	236		118		no
PNUWWSN	20	SE-MO98-274-8	236		118		no
PNUWWSN	21	SE98-1094-C20	236		128		no
PNUWWSN	22	SE00-4040-10	236		118		no
PNUWWSN	23	SE00-10303-35	236		118		no
PNUWWSN	24	SE00-10286-7	236		118		no
PNUWWSN	25	MISC-HDS-148	236		128		no
PNUWWSN	26	M08_8005_	236		118		no
PNUWWSN	27	MH07-7474	229		146	155	no
PNUWWSN	28	IL06-13072	229		146	155	no
PNUWWSN	29	IL06-13708	229		146	155	no
PNUWWSN	30	IL06-13721	229		146	152.7	no
PNUWWSN	31	IL06-25634	229		146	155	no
PNUWWSN	32	IL06-27969	236		118		no
PNUWWSN	33	IL06-14325	236		118		no
PNUWWSN	34	KY02C-3007-55	239		144		yes
PNUWWSN	35	KY03C-1237-23	229	239	118	144	het
PNUWWSN	36	KY01C-1070-02	236		128	146	no
PNUWWSN	37	KY01C-1531-17	236		nd		no
PNUWWSN	38	KY03C-1136-18	236		118		no
PNUWWSN	39	KY03C-1092-13	236		118		no
PNUWWSN	40	MO070933	236		118		no
PNUWWSN	41	MO080103	229	236	146	155	no
PNUWWSN	42	MO080373	236		118		no
PNUWWSN	43	MO081378	229		146	155	no
PNUWWSN	44	MO081772	236		118		no
PNUWWSN	45	MO081777	229		146	155	no
PNUWWSN	46	VA08W-622	236		nd		no
PNUWWSN	47	VA08W-630	236		nd		no
PNUWWSN	48	VA08W-653	229		146	155	no
PNUWWSN	49	VA07W-600	236		128		no
PNUWWSN	50	VA07W-607	229	236	146	155	no
PNUWWSN	51	VA08W-740	229		146	155	no

FHB QTLs

2010

Nursery	Entry	Sample Name	gwm	gwm	gwm	wmc	wmc	wmc	wmc	wmc	wmc	wmc	wmc	wmc	wmc	wmc	wmc	Fhb	
			285	285	285	612	612	612	307	307	1	1	1	418	418	471	471	471	Ernie 3Bc
PNUWWSN	1	ERNIE	244	246		283	285		141		153		262		177	260		yes	
PNUWWSN	2	TRUMAN	250			287	289		139		151		271		177	216		no	
PNUWWSN	3	FREEDOM	246			283	285		141		149		262		177	260		yes?	
PNUWWSN	4	PIONEER-2545	222			279	281		143		149	156	260	271	177	216	220	no	
PNUWWSN	5	MSULINEE5017	226			287	289		143		149		269		177	216		no	
PNUWWSN	6	MSULINEE8007	221			277	279		141		151		262		177	216		no	
PNUWWSN	7	OH06-158-50	219			267	273		143		153		271		177	216		no	
PNUWWSN	8	OH06-159-6	241			267			143		160		262		179	216		no	
PNUWWSN	9	OH06-180-57	246			283	285		143		149		260	262	177	220		no	
PNUWWSN	10	OH06-197-61	226			267	277		143		149	160	262		177	216	220	no	
PNUWWSN	11	OH06-228-73	219			273	275		143		153		271		177	216		no	
PNUWWSN	12	OH06-190-29	226			279	281	283	143		149	153	162	260	271	177	216	220	no
PNUWWSN	13	03207A1-7-5	219			285	287		141		160		262		177	260		no	
PNUWWSN	14	03615A1-5-7	219			285	287		141		156		260		177	216		no	
PNUWWSN	15	059A1-1-9-5	nd			267			143		156		271		177	214		no	
PNUWWSN	16	059A1-1-9-6	219	246		267	285		143		156		262	271	177	214		no	
PNUWWSN	17	0527A1-9-9-3	221			271	273		141		149	156	262	271	177	214		no	
PNUWWSN	18	0537A1-7-8	219	222	246	267	279		141		149	160	162	262	271	177	260	no	
PNUWWSN	19	SE99-1015-7	246			283	285		141		162		271		177	214		no	
PNUWWSN	20	SE-MO98-274-8	250			287	289		139		151		271		177	216		no	
PNUWWSN	21	SE98-1094-C20	246			283	285		141		149	162	262	271	177	216	260	het?	
PNUWWSN	22	SE00-4040-10	219			275	277		141		156		271		179	220		no	
PNUWWSN	23	SE00-10303-35	217	219		267	279		141	143	153	160	271		177	214		no	
PNUWWSN	24	SE00-10286-7	219			267			141		160		271		177	216		no	
PNUWWSN	25	MISC-HDS-148	219			273	275		143		151	153	271		177	216		no	
PNUWWSN	26	M08_8005_	219			275	277		143		153		262		179	260		no	
PNUWWSN	27	MH07-7474	219			279	281		143		153		271		177	214		no	
PNUWWSN	28	IL06-13072	246			287	289		141		153		271		177	216		no	
PNUWWSN	29	IL06-13708	219	246		283	285		141		153	156	271		177	216		no	
PNUWWSN	30	IL06-13721	246			283	285		141		156	162	271		177	216		no	
PNUWWSN	31	IL06-25634	219	246		283	285		141		153	162	262	271	177	216		?	
PNUWWSN	32	IL06-27969	219			285	287		141		153	156	271		177	216		no	
PNUWWSN	33	IL06-14325	219			285	287		141		153	156	271		177	216		no	
PNUWWSN	34	KY02C-3007-55	221			271	273		143		149	151	269	271	179	218		no	
PNUWWSN	35	KY03C-1237-23	226			287	289		143		149		262		177	216		no	
PNUWWSN	36	KY01C-1070-02	226			279	281		141		156		262		177	214		no	
PNUWWSN	37	KY01C-1531-17	219			279	281		141		162		271		216			no	
PNUWWSN	38	KY03C-1136-18	222	246		281	283	285	141	143	149	151	153	262		179	216	260	het?
PNUWWSN	39	KY03C-1092-13	226			285	287		143		149	153	262	269	179	218		no	
PNUWWSN	40	MO070933	246			283	285		139		153		260		177	216		no	
PNUWWSN	41	MO080103	220	226	246	279	281		141	143	153	160	262	269	179	216		no	
PNUWWSN	42	MO080373	250			287	289		139		151		271		177	216		no	
PNUWWSN	43	MO081378	246			283	285		141		151	162	265	271	177	216		no	
PNUWWSN	44	MO081772	219			279	281		141		156	162	265		177	216		no	
PNUWWSN	45	MO081777	246			281	283		141		153		262		179	216		no	
PNUWWSN	46	VA08W-622	246			279	281		141		162		271		179	214		no	
PNUWWSN	47	VA08W-630	221			279	281		143		162		262		179	216		no	
PNUWWSN	48	VA08W-653	219			279	281		139		162		271		214			no	
PNUWWSN	49	VA07W-600	246			281	283		141		153		262		177	216		no	
PNUWWSN	50	VA07W-607	219	226		287	289		141		149	161	271		177	214		no	
PNUWWSN	51	VA08W-740	219			279	281		141		nd		271		177	179	216	no	

FHB QTLs

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Nursery	Entry	Sample Name								Fhb 2DL-
			cf 233	cf 233	cf 233	gwm 539	gwm 539	gwm 608	gwm 608	Wuhan1/ W14
PNUWWSN	1	ERNIE	282	284		137		150		no
PNUWWSN	2	TRUMAN	288	290		137		160	162	no
PNUWWSN	3	FREEDOM	288	290		137		162		no
PNUWWSN	4	PIONEER-2545	271			125	139	150	156	no
PNUWWSN	5	MSULINEE5017	274			133		154		no
PNUWWSN	6	MSULINEE8007	276			137		152		no
PNUWWSN	7	OH06-158-50	271			137		150		no
PNUWWSN	8	OH06-159-6	271			124	137	150		no
PNUWWSN	9	OH06-180-57	278	280		137		156		no
PNUWWSN	10	OH06-197-61	271			124	133	156	158	no
PNUWWSN	11	OH06-228-73	272			137		158		no
PNUWWSN	12	OH06-190-29	272	280		131	137	150	158	no
PNUWWSN	13	03207A1-7-5	286	288		137		142		no
PNUWWSN	14	03615A1-5-7	nd			nd		150		no
PNUWWSN	15	059A1-1-9-5	278			139		150		no
PNUWWSN	16	059A1-1-9-6	278			137	139	150		no
PNUWWSN	17	0527A1-9-9-3	278			139		150		no
PNUWWSN	18	0537A1-7-8	271	278	290	124	139	150		no
PNUWWSN	19	SE99-1015-7	282	284		124		150		no
PNUWWSN	20	SE-MO98-274-8	288	290		124		162		no
PNUWWSN	21	SE98-1094-C20	278	288		137		150	162	no
PNUWWSN	22	SE00-4040-10	278			139		150		no
PNUWWSN	23	SE00-10303-35	274			137		154		no
PNUWWSN	24	SE00-10286-7	268			137		142		no
PNUWWSN	25	MISC-HDS-148	271			125		156		no
PNUWWSN	26	M08_8005_	282	284		144		150		no
PNUWWSN	27	MH07-7474	278	288		137	141	150	162	no
PNUWWSN	28	IL06-13072	288	290		137		152		no
PNUWWSN	29	IL06-13708	278	280		124		150		no
PNUWWSN	30	IL06-13721	280	288	290	124	137	152		no
PNUWWSN	31	IL06-25634	288	290		124	137	152		no
PNUWWSN	32	IL06-27969	278			139		150		no
PNUWWSN	33	IL06-14325	278			139		150		no
PNUWWSN	34	KY02C-3007-55	272	286		125	137	156	158	no
PNUWWSN	35	KY03C-1237-23	271			133		156		no
PNUWWSN	36	KY01C-1070-02	284	288		133	135	154	162	no
PNUWWSN	37	KY01C-1531-17	272			137		nd		no
PNUWWSN	38	KY03C-1136-18	271			133		156		no
PNUWWSN	39	KY03C-1092-13	271			133		156		no
PNUWWSN	40	MO070933	282	284		137		150		no
PNUWWSN	41	MO080103	270	282	284	133	137	150	156	no
PNUWWSN	42	MO080373	288			137		162		no
PNUWWSN	43	MO081378	288	290		137	139	162		no
PNUWWSN	44	MO081772	286	288		137		156		no
PNUWWSN	45	MO081777	282	284		137		150		no
PNUWWSN	46	VA08W-622	272			135		154		no
PNUWWSN	47	VA08W-630	280			124		150		no
PNUWWSN	48	VA08W-653	278	280		124		150		no
PNUWWSN	49	VA07W-600	278			135		150		no
PNUWWSN	50	VA07W-607	278			135		150	142	no
PNUWWSN	51	VA08W-740	276	278		135		154		no

FHB QTLs

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Nursery	Entry	Sample Name	gwm	gwm	wmc	wmc	wmc	barc	barc	barc	barc	gwm	gwm	Fhb 5A	Fhb 5A
			304	304	705	705	705	117	117	186	186	156	156	Ernie	Ning7840
PNUWWSN	1	ERNIE	220		135			221		203		312		yes	no
PNUWWSN	2	TRUMAN	198		162	164		217		203		312		no	no
PNUWWSN	3	FREEDOM	214	216	133			221	224	212		283	285	no	no
PNUWWSN	4	PIONEER-2545	199	220	133	135		217	221	203		292	312	het	no
PNUWWSN	5	MSULINEE5017	199		133			217		203		280		no	no
PNUWWSN	6	MSULINEE8007	216		170			221		212		286		no	yes
PNUWWSN	7	OH06-158-50	198		162	164		217		203		312		no	no
PNUWWSN	8	OH06-159-6	198		162	164		217		203		312		no	no
PNUWWSN	9	OH06-180-57	216		nd			221		212		283		no	no
PNUWWSN	10	OH06-197-61	198	216	160	162		217	221	203	212	283		no	no
PNUWWSN	11	OH06-228-73	196		139			217		212		312		no	no
PNUWWSN	12	OH06-190-29	199		133			217	221	203	212	292	312	no	no
PNUWWSN	13	03207A1-7-5	211		139			221		212		292		no	no
PNUWWSN	14	03615A1-5-7	211		137			221		212		312		no	no
PNUWWSN	15	059A1-1-9-5	201		139			217		203		312		no	no
PNUWWSN	16	059A1-1-9-6	201	211	139			217	221	203	212	312		no	no
PNUWWSN	17	0527A1-9-9-3	216	221	135			221		203	212	283	312	het	no
PNUWWSN	18	0537A1-7-8	216	221	135			221		203	212	285	312	het	no
PNUWWSN	19	SE99-1015-7	199		133			217		203		280		no	no
PNUWWSN	20	SE-MO98-274-8	198		162	164		217		203		312		no	no
PNUWWSN	21	SE98-1094-C20	216		139			221		203	212	283	312	no	no
PNUWWSN	22	SE00-4040-10	214		133			224		203		285		no	no
PNUWWSN	23	SE00-10303-35	199	221	135			221		203		280	309	no?	no
PNUWWSN	24	SE00-10286-7	221		135			221		203		280		no	no
PNUWWSN	25	MISC-HDS-148	201		139			217		214		312		no	no
PNUWWSN	26	M08_8005_	198		160	162		217		203		312		no	no
PNUWWSN	27	MH07-7474	198		160	162		217		203		312		no	no
PNUWWSN	28	IL06-13072	198		160	162		217		203		292		no	no
PNUWWSN	29	IL06-13708	198		162	164		217		203		285	316	no	no
PNUWWSN	30	IL06-13721	198		135	162	164	217	221	203		283	316	no	no
PNUWWSN	31	IL06-25634	198		162	164		217		203		316		no	no
PNUWWSN	32	IL06-27969	220		137			221		203		312		?	no
PNUWWSN	33	IL06-14325	220		139			221		203		312		?	no
PNUWWSN	34	KY02C-3007-55	214		133			224		212		292		no	no
PNUWWSN	35	KY03C-1237-23	198	214	133	162	164	217	224	203	212	283		no	no
PNUWWSN	36	KY01C-1070-02	198		162	164		217		203		283		no	no
PNUWWSN	37	KY01C-1531-17	200		133			217		203		312		no	no
PNUWWSN	38	KY03C-1136-18	198	216	160	162		217	221	203		283	292	no	no
PNUWWSN	39	KY03C-1092-13	216	220	135			221		203		283	309	no?	no
PNUWWSN	40	MO070933	220		135			221		203		312		yes	no
PNUWWSN	41	MO080103	198		162	164		217		203		292	318	no	no
PNUWWSN	42	MO080373	198		162	164		217		203		312		no	no
PNUWWSN	43	MO081378	198		162	164		217		203		312		no	no
PNUWWSN	44	MO081772	198		162	164		217		203		312		no	no
PNUWWSN	45	MO081777	198		162	164		217		203		318		no	no
PNUWWSN	46	VA08W-622	198		164	166		217		203		283		no	no
PNUWWSN	47	VA08W-630	198		164	166		217		203		283		no	no
PNUWWSN	48	VA08W-653	199		133			217		203		292		no	no
PNUWWSN	49	VA07W-600	198	220	135	164	166	nd		nd		312		het?	no
PNUWWSN	50	VA07W-607	198	214	133	160	162	217	224	203	212	285	292	no	no
PNUWWSN	51	VA08W-740	198		160	162		217		203		292		no	no

Leaf, Stripe & Stem Rusts

2010

Nursery	Entry	Sample Name	Sr2	wmc	wmc	Sr36	barc	barc	Sr24/	ventriup	Yr17/	CsLv34	CsLv34	Lr34/
				477	477		71	71	Lr24		Sr38		Yr18/	Pm38
PNUWWSN	1	ERNIE	no	185		yes	112		no		no	235		no
PNUWWSN	2	TRUMAN	no	167		no	112		no		no	235		no
PNUWWSN	3	FREEDOM	no	185		yes	104		no		no	235		no
PNUWWSN	4	PIONEER-2545	no	167		no	104		no		no	235		no
PNUWWSN	5	MSULINEE5017	no	160		no	104		no		no	235		no
PNUWWSN	6	MSULINEE8007	no	165		no	116		no		no	235		no
PNUWWSN	7	OH06-158-50	no	167		no	104		no		no	235		no
PNUWWSN	8	OH06-159-6	no	163		no	104		no	256	yes	235		no
PNUWWSN	9	OH06-180-57	no	167		no	104		no	256?	yes?	235		no
PNUWWSN	10	OH06-197-61	no	167		no	104		no		no	235		no
PNUWWSN	11	OH06-228-73	no	165		no	104		no		no	235		no
PNUWWSN	12	OH06-190-29	no	165		no	104		no		no	235		no
PNUWWSN	13	03207A1-7-5	no	165		no	112		no	256	yes	235		no
PNUWWSN	14	03615A1-5-7	no	185		yes	104		no		no	235		no
PNUWWSN	15	059A1-1-9-5	no	185		yes	104		no		no	235		no
PNUWWSN	16	059A1-1-9-6	no	185		yes	104		no		no	235		no
PNUWWSN	17	0527A1-9-9-3	no	160	165	no	104	112	no	256	yes	235		no
PNUWWSN	18	0537A1-7-8	no	185		yes	104	112	no		no	235		no
PNUWWSN	19	SE99-1015-7	no	185		yes	112		no		no	235		no
PNUWWSN	20	SE-MO98-274-8	no	167		no	104		no		no	235		no
PNUWWSN	21	SE98-1094-C20	no	160	185	het	104		no		no	235		no
PNUWWSN	22	SE00-4040-10	no	163		no	104		no		no	154		yes
PNUWWSN	23	SE00-10303-35	no	167		no	104		no		no	235		no
PNUWWSN	24	SE00-10286-7	no	160		no	112		no		no	235		no
PNUWWSN	25	MISC-HDS-148	no	165		no	104		no		no	235		no
PNUWWSN	26	M08_8005_	no	160		no	104		no		no	235		no
PNUWWSN	27	MH07-7474	no	160	165	no	104	112	no		no	235		no
PNUWWSN	28	IL06-13072	no	165		no	92		no		no	235		no
PNUWWSN	29	IL06-13708	no	165		no	104		no		no	235		no
PNUWWSN	30	IL06-13721	no	165		no	92		no		no	235		no
PNUWWSN	31	IL06-25634	no	165		no	104	112	no		no	235		no
PNUWWSN	32	IL06-27969	no	160		no	104		no		no	235		no
PNUWWSN	33	IL06-14325	no	160		no	104		no		no	235		no
PNUWWSN	34	KY02C-3007-55	no	167		no	104		no		no	154	235	yes
PNUWWSN	35	KY03C-1237-23	no	160		no	104		no		no	235		no
PNUWWSN	36	KY01C-1070-02	no	165	185	het	104		no		no	235		no
PNUWWSN	37	KY01C-1531-17	no	165		no	104		no		no	235		no
PNUWWSN	38	KY03C-1136-18	no	160	165	no	87	104	yes		no	235		no
PNUWWSN	39	KY03C-1092-13	no	165	167	no	104		no		no	235		no
PNUWWSN	40	MO070933	no	185		yes	112		no		no	235		no
PNUWWSN	41	MO080103	no	163		no	104		no		no	235		no
PNUWWSN	42	MO080373	no	167		no	112		no		no	235		no
PNUWWSN	43	MO081378	no	167		no	112		no		no	235		no
PNUWWSN	44	MO081772	no	167		no	104		no		no	235		no
PNUWWSN	45	MO081777	no	163		no	104		no		no	235		no
PNUWWSN	46	VA08W-622	no	165	185	het	104		no		no	235		no
PNUWWSN	47	VA08W-630	no	165		no	104		no		no	235		no
PNUWWSN	48	VA08W-653	no	165	185	het	112		no		no	235		no
PNUWWSN	49	VA07W-600	no	185		yes	104		no		no	235		no
PNUWWSN	50	VA07W-607	no	163		no	87	104	yes		no	235		no
PNUWWSN	51	VA08W-740	no	163		no	87	104	yes		no	235		no

Rye Translocation -- Hessian Fly -- Barley Yellow Dwarf Virus

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Nursery	Entry	Sample Name	scm9	scm9	IRS	cf132	cf132	H13	cfa2153	cfa2153	H9	Bdv	Bdv	Bdv2/3
PNUWWSN	1	ERNIE			non-IRS	114		no	191		no	184		no
PNUWWSN	2	TRUMAN			non-IRS	114		no	219		no	184		no
PNUWWSN	3	FREEDOM	206		IRS:1BL	114		no	194		no	184		no
PNUWWSN	4	PIONEER-2545			non-IRS	114		no	194	201	no	184		no
PNUWWSN	5	MSULINEE5017	206		IRS:1BL	114		no	211		no	184		no
PNUWWSN	6	MSULINEE8007			non-IRS	114		no	169		no	182		no
PNUWWSN	7	OH06-158-50			non-IRS	114		no	211		no	184		no
PNUWWSN	8	OH06-159-6			non-IRS	114		no	201	211	no	184		no
PNUWWSN	9	OH06-180-57	206		IRS:1BL	114		no	194	201	no	184		no
PNUWWSN	10	OH06-197-61			non-IRS	114		no	194	211	no	184		no
PNUWWSN	11	OH06-228-73			non-IRS	114		no	194	201	no	184		no
PNUWWSN	12	OH06-190-29			non-IRS	114		no	201		no	184		no
PNUWWSN	13	03207A1-7-5	206		IRS:1BL	114		no	191		no	199		yes
PNUWWSN	14	03615A1-5-7	206		IRS:1BL	114		no	201		no	184		no
PNUWWSN	15	059A1-1-9-5			non-IRS	114		no	201		no	199		yes
PNUWWSN	16	059A1-1-9-6			non-IRS	114		no	194	201	no	184	199	het
PNUWWSN	17	0527A1-9-9-3	206		IRS:1BL	114		no	179		yes	184	199	het
PNUWWSN	18	0537A1-7-8			non-IRS	114		no	194	201	no	184		no
PNUWWSN	19	SE99-1015-7			non-IRS	114		no	194		no	184		no
PNUWWSN	20	SE-MO98-274-8			non-IRS	114		no	201		no	184		no
PNUWWSN	21	SE98-1094-C20	206		IRS:1BL	114		no	194	197	no	184		no
PNUWWSN	22	SE00-4040-10	206		IRS:1BL	114		no	211		no	184		no
PNUWWSN	23	SE00-10303-35			non-IRS	114		no	201		no	184		no
PNUWWSN	24	SE00-10286-7			non-IRS	114		no	201		no	184		no
PNUWWSN	25	MISC-HDS-148			non-IRS	114		no	194		no	184		no
PNUWWSN	26	M08_8005_			non-IRS	114		no	219		no	184		no
PNUWWSN	27	MH07-7474			non-IRS	114		no	201		no	184		no
PNUWWSN	28	IL06-13072			non-IRS	114		no	191		no	184		no
PNUWWSN	29	IL06-13708			non-IRS	114		no	201		no	184		no
PNUWWSN	30	IL06-13721			non-IRS	114		no	194		no	184		no
PNUWWSN	31	IL06-25634			non-IRS	114		no	194	201	no	184		no
PNUWWSN	32	IL06-27969			non-IRS	114		no	194		no	199		yes
PNUWWSN	33	IL06-14325			non-IRS	114		no	194		no	199		yes
PNUWWSN	34	KY02C-3007-55	206		IRS:1BL	114		no	191		no	184		no
PNUWWSN	35	KY03C-1237-23			non-IRS	114		no	205	211	no	184		no
PNUWWSN	36	KY01C-1070-02			non-IRS	114		no	201		no	184		no
PNUWWSN	37	KY01C-1531-17		222	IRS:1AL	114		no	nd		nd	184		no
PNUWWSN	38	KY03C-1136-18	206		IRS:1BL	114		no	201		no	184		no
PNUWWSN	39	KY03C-1092-13			non-IRS	114		no	201	205	no	184		no
PNUWWSN	40	MO070933			non-IRS	114	152	het	194		no	184		no
PNUWWSN	41	MO080103			non-IRS	114		no	194		no	184		no
PNUWWSN	42	MO080373			non-IRS	114		no	219		no	184		no
PNUWWSN	43	MO081378			non-IRS	114		no	219		no	184		no
PNUWWSN	44	MO081772			non-IRS	114		no	191	201	no	184		no
PNUWWSN	45	MO081777			non-IRS	114		no	194		no	184		no
PNUWWSN	46	VA08W-622			non-IRS	114		no	201		no	184		no
PNUWWSN	47	VA08W-630			non-IRS	114		no	201	219	no	184		no
PNUWWSN	48	VA08W-653			non-IRS	114		no	179		yes	184		no
PNUWWSN	49	VA07W-600			non-IRS	114		no	205		no	184		no
PNUWWSN	50	VA07W-607		222	IRS:1AL	114		no	nd		nd	184		no
PNUWWSN	51	VA08W-740		222	IRS:1AL	114		no	194		no	184		no

Quality Traits

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Nursery	Entry	Sample Name	Bx7oe	Bx7oe	Bx7 over-expressing	Umn25	Umn25	UMN26	UMN26	Glu-D1	Umn19	Umn19	Glu-A1
PNUWWSN	1	ERNIE	404		no		295		409	2+12		359	Ax1 or null
PNUWWSN	2	TRUMAN	404		no		295		409	2+12		359	Ax1 or null
PNUWWSN	3	FREEDOM	404		no		295		409	2+12	341	359	het
PNUWWSN	4	PIONEER-2545	404		no		295		409	2+12	341	359	het
PNUWWSN	5	MSULINEE5017	404		no		295		409	2+12		359	Ax1 or null
PNUWWSN	6	MSULINEE8007	404		no		295		409	2+12		359	Ax1 or null
PNUWWSN	7	OH06-158-50		448	yes		295		409	2+12		359	Ax1 or null
PNUWWSN	8	OH06-159-6		448	yes	277	295	392	409	het		359	Ax1 or null
PNUWWSN	9	OH06-180-57	404		no		295		409	2+12		359	Ax1 or null
PNUWWSN	10	OH06-197-61		448	yes		295		409	2+12		359	Ax1 or null
PNUWWSN	11	OH06-228-73	404		no		295		409	2+12	341		Ax2*
PNUWWSN	12	OH06-190-29	404		no	277	295	392	409	het		359	Ax1 or null
PNUWWSN	13	03207A1-7-5		448	yes	277		392		5+10		359	Ax1 or null
PNUWWSN	14	03615A1-5-7		448	yes	277	295	392	409	het		359	Ax1 or null
PNUWWSN	15	059A1-1-9-5	404		no		295		409	2+12		359	Ax1 or null
PNUWWSN	16	059A1-1-9-6	404	448	het	277	295	392	409	het		359	Ax1 or null
PNUWWSN	17	0527A1-9-9-3	404	448	het		295		409	2+12		359	Ax1 or null
PNUWWSN	18	0537A1-7-8	404		no	277	295	392	409	het		359	Ax1 or null
PNUWWSN	19	SE99-1015-7	404		no	277		392		5+10	341		Ax2*
PNUWWSN	20	SE-MO98-274-8	404		no	277		392		5+10	341		Ax2*
PNUWWSN	21	SE98-1094-C20	404		no	277	295	392	409	het	341	359	het
PNUWWSN	22	SE00-4040-10	404		no	277		392		5+10	341		Ax2*
PNUWWSN	23	SE00-10303-35	404		no		295		409	2+12	341		Ax2*
PNUWWSN	24	SE00-10286-7	404		no		295		409	2+12	341	359	het
PNUWWSN	25	MISC-HDS-148	404		no		295		409	2+12		359	Ax1 or null
PNUWWSN	26	M08_8005_	404		no	277		392		5+10	341		Ax2*
PNUWWSN	27	MH07-7474	404		no	277		392		5+10		359	Ax1 or null
PNUWWSN	28	IL06-13072	404		no	277		392		5+10	341		Ax2*
PNUWWSN	29	IL06-13708	404		no	277		392		5+10	341		Ax2*
PNUWWSN	30	IL06-13721	404		no	277		392		5+10	341		Ax2*
PNUWWSN	31	IL06-25634	404		no				409	2+12		359	Ax1 or null
PNUWWSN	32	IL06-27969	404		no	277		392		5+10	341		Ax2*
PNUWWSN	33	IL06-14325	404		no	277		392		5+10	341		Ax2*
PNUWWSN	34	KY02C-3007-55	404		no	277		392		5+10	341		Ax2*
PNUWWSN	35	KY03C-1237-23	404		no	277		392		5+10	341		Ax2*
PNUWWSN	36	KY01C-1070-02	404		no		295		409	2+12	341		Ax2*
PNUWWSN	37	KY01C-1531-17	404		no	277	295	392	409	het	341		Ax2*
PNUWWSN	38	KY03C-1136-18	404		no	277	295	392	409	het		359	Ax1 or null
PNUWWSN	39	KY03C-1092-13	404		no	277	295	392	409	het	341	359	het
PNUWWSN	40	MO070933	404		no	277		392		5+10	341		Ax2*
PNUWWSN	41	MO080103	404		no	277		392		5+10	341	359	het
PNUWWSN	42	MO080373	404		no		295		409	2+12		359	Ax1 or null
PNUWWSN	43	MO081378	404		no	277		392		5+10		359	Ax1 or null
PNUWWSN	44	MO081772	404		no	277		392		5+10		359	Ax1 or null
PNUWWSN	45	MO081777	404		no	277		392		5+10	341		Ax2*
PNUWWSN	46	VA08W-622	404		no		295		409	2+12		359	Ax1 or null
PNUWWSN	47	VA08W-630	404		no		295		409	2+12	341		Ax2*
PNUWWSN	48	VA08W-653	404		no		295		409	2+12		359	Ax1 or null
PNUWWSN	49	VA07W-600	404		no		295		409	2+12		359	Ax1 or null
PNUWWSN	50	VA07W-607	404		no		295		409	2+12	341		Ax2*
PNUWWSN	51	VA08W-740	404		no	277	295	392	409	het	341	359	het

Pre-harvest Sprouting

2010

Nursery	Entry	Sample Name	barc55	barc55	PHS Cayuga
PNUWWSN	1	ERNIE	124		no
PNUWWSN	2	TRUMAN	124		no
PNUWWSN	3	FREEDOM	124		no
PNUWWSN	4	PIONEER-2545	132		yes
PNUWWSN	5	MSULINEE5017	132		yes
PNUWWSN	6	MSULINEE8007	132		yes
PNUWWSN	7	OH06-158-50	nd		nd
PNUWWSN	8	OH06-159-6	128		no
PNUWWSN	9	OH06-180-57	131		?
PNUWWSN	10	OH06-197-61	132		yes
PNUWWSN	11	OH06-228-73	nd		nd
PNUWWSN	12	OH06-190-29	128	132	het?
PNUWWSN	13	03207A1-7-5	124		no
PNUWWSN	14	03615A1-5-7	124		no
PNUWWSN	15	059A1-1-9-5	nd		nd
PNUWWSN	16	059A1-1-9-6	132		yes
PNUWWSN	17	0527A1-9-9-3	132		yes
PNUWWSN	18	0537A1-7-8	128		no
PNUWWSN	19	SE99-1015-7	nd		nd
PNUWWSN	20	SE-MO98-274-8	132		yes
PNUWWSN	21	SE98-1094-C20	132		yes
PNUWWSN	22	SE00-4040-10	132		yes
PNUWWSN	23	SE00-10303-35	132		yes
PNUWWSN	24	SE00-10286-7	128		no
PNUWWSN	25	MISC-HDS-148	124		no
PNUWWSN	26	M08_8005_	132		yes
PNUWWSN	27	MH07-7474	124		no
PNUWWSN	28	IL06-13072	132		yes
PNUWWSN	29	IL06-13708	132		yes
PNUWWSN	30	IL06-13721	132		yes
PNUWWSN	31	IL06-25634	132		yes
PNUWWSN	32	IL06-27969	124		no
PNUWWSN	33	IL06-14325	124		no
PNUWWSN	34	KY02C-3007-55	132		yes
PNUWWSN	35	KY03C-1237-23	128		no
PNUWWSN	36	KY01C-1070-02	124	132	het?
PNUWWSN	37	KY01C-1531-17	132		yes
PNUWWSN	38	KY03C-1136-18	128	132	het?
PNUWWSN	39	KY03C-1092-13	128	132	het?
PNUWWSN	40	MO070933	128	132	het?
PNUWWSN	41	MO080103	128		no
PNUWWSN	42	MO080373	124		no
PNUWWSN	43	MO081378	124		no
PNUWWSN	44	MO081772	124		no
PNUWWSN	45	MO081777	128		no
PNUWWSN	46	VA08W-622	124	132	het?
PNUWWSN	47	VA08W-630	nd		nd
PNUWWSN	48	VA08W-653	132		yes
PNUWWSN	49	VA07W-600	124		no
PNUWWSN	50	VA07W-607	128		no
PNUWWSN	51	VA08W-740	132		yes

2010 Uniform Southern FHB Nursery

Entry List

Nursery	Entry	Sample Name	Pedigree	Source
USFHBN	1	ERNIE	Pike /3/ Stoddard / Blueboy // Stoddard D1707	CHECK(RES)
USFHBN	2	COKER9835	CK68-19 // CK61-19*3 / IN4946A4-18-2-10-2 /4/ Bb /3/ CK65-20*5 / W17-TRANS // TIFT /5/ P 2550	CHECK(SUS)
USFHBN	3	BESS	MO11769/Madison	CHECK(RES)
USFHBN	4	JAMESTOWN	Roane / Pioneer 2691	Check (RES)
USFHBN	5	LA01164D-94-2	LA422/FUTAI8944//PIONEER 26R61	Harrison
USFHBN	6	03M1539_031	GIBSON/92226E2-5-3	Fogleman
USFHBN	7	AR99054-4-1	AR679-9-1-2 / Roane	Bacon
USFHBN	8	ARS03-4736	KS00U755/TAM 303 (=WX02ARS113-9)	Marshall
USFHBN	9	ARS05-1234	KS2016-U2/Lakin (=WX03ARS1080-19)	Marshall
USFHBN	10	LA01141D-98-6-2	LA841/PI225160/LA841	Harrison
USFHBN	11	03M1539_019	Gibson/92226E2-5-3	Fogleman
USFHBN	12	AR99092-4-1	AR837-4-1-1/P86300RB1-4-3-2-104	Bacon
USFHBN	13	AR99102-4-1	Pat/P92118B4-2	Bacon
USFHBN	14	AR99160-1-1-B	Ernie//PI590277/Ernie	Bacon
USFHBN	15	AR99264-8-1	P92118B4-2/Saluda	Bacon
USFHBN	16	AR99311-12-1	Roane/Coker 9704	Bacon
USFHBN	17	ARGE97-1042-4-5-20	Mason / Catbird	Milus
USFHBN	18	ARGE97-1047-4-2-9	P2684/N7840//Parula/Veery#6	Milus
USFHBN	19	ARGE97-1048-3-6-7	Mason/SHA3/Catbird	Milus
USFHBN	20	ARS04-1267	KS98HW151-6/KS01HW101(01-6101) (=KS2135-U54)	Marshall
USFHBN	21	ARS05-0005	TX85-264*2/TTCC512	Marshall
USFHBN	22	ARS05-0043	TAM 303*2/TTCC365	Marshall
USFHBN	23	ARS05-0277	WX98D011-U38/TX99D4657	Marshall
USFHBN	24	ARS07 0095	AR93005-6-5/MO002021	Marshall
USFHBN	25	ARS07-0203	FL9547/NC00-14622	Marshall
USFHBN	26	GA031188-O15	VA476 / AGS 2485	Johnson
USFHBN	27	GA031188-O16	VA476 / AGS 2485	Johnson
USFHBN	28	GA031188-O17	VA476 / AGS 2485	Johnson
USFHBN	29	GA041243-LE36	VA461 / AGS2000 // GA96229-3E39	Johnson
USFHBN	30	GA041260-Q19	McCormick / *2 GA951216-2E26	Johnson
USFHBN	31	GA041271-PL49	McCormick / GA951216-2E26 // GA96229-3E39	Johnson
USFHBN	32	GA041271-Q23	McCormick / GA951216-2E26 // GA96229-3E39	Johnson
USFHBN	33	GA041271-Q24	McCormick / GA951216-2E26 // GA96229-3E39	Johnson
USFHBN	34	LA01141D-98-6-3	LA841/PI225160/LA841	Harrison
USFHBN	35	LA02058E63	LA94242D4-2(VA92-54-104/MOREY SIB)/AM-CIM-FHB6(MILAN/SHA7)	Harrison
USFHBN	36	LA02058E97	LA94242D4-2/AM-CIM-FHB6(MILAN/SHA7)	Harrison
USFHBN	37	LA03130E68	ARGM97-1033-14-2(MASON/CATBIRD (G82))/LA95361CA8-2-2 (FL302/KS93WGRC32)	Harrison
USFHBN	38	LA03186E2	ARLA97447D-9-4(MASON/CATBIRDG52)/LA59D2-1 (AR396-1/SWM16395//PIO2684)	Harrison
USFHBN	39	LA04142C-P5	AR857-1-1(MADISON/YMI 6)/LA841	Harrison
USFHBN	40	M08_8005_	Branson/M99*3098	Fogleman
USFHBN	41	MD01W233-07-1	McCormick/Choptank	Costa
USFHBN	42	MD02W135-08-9	Sisson/McCormick	Costa
USFHBN	43	MD03W61-09-1	P25R42/Chesapeake	Costa
USFHBN	44	MD03W91-09-7	P25R42/Tribute	Costa
USFHBN	45	NC07-21036	NC96-13155 / ROANE // Tribute	Murphy
USFHBN	46	NC07-23081	IL94-1909 / ROANE // NC96-13965	Murphy
USFHBN	47	NC07-23126	CIM1FHB#5 / NC96-14629 // TRIBUTE	Murphy
USFHBN	48	NC07-23771	NC96-13965 / I164-1-127 // NC96-13155	Murphy
USFHBN	49	NC07-24445	USG 3209 / NC98-26541	Murphy
USFHBN	50	VA06W-580	Roane / Pion 2684//OH 552 (P71761A4-31-5-33/MD55-286-21: FHB-RES),F9	Griffey
USFHBN	51	VA07W-569	ROANE / ERNIE// McCORMICK,F10	Griffey
USFHBN	52	VA08W-622	FREEDOM / NEUSE"S" (NC96-13374)// VA98W-688[Roane"S" (91-54-219)]// FFR555W/GORE],F9	Griffey
USFHBN	53	VA08W-630	OH 552(P71761A4-31-5-33/MD55-286-21: FHB-RES)/SS550 (VA96W-247= CK9803/FREEDOM)//RC STRATEGY [VA98W-586=92-51-39 (IN71761A4-31-5-48//71-54-147/ MCN1813)/ Roane"S" (91-54-219)],F9	Griffey
USFHBN	54	VA08W-653	COKER 9474(FHB-RES)/ NEUSE"S" (NC96-13374),F8	Griffey
USFHBN	55	VA08W-709	ERNIE / AGS2000 // TRIBUTE,F7	Griffey
USFHBN	56	VA09W-641	ERNIE/ NC96-13374(SCAB RES) //McCORMICK,F8	Griffey
USFHBN	57	VA09W-654	VA98W-749[GA821066-1-7-2-1 (GA73054//STACY/AL"S")]/CK9803/ FREEDOM]/IL96-3073(SCAB RES) //9793A1-5(INW9853/INW9811// ERNIE),F8	Griffey
USFHBN	58	W1104	Hopewell/M94-1107	Fogleman

2010 Uniform Southern FHB Nursery

Summary of all Markers

Nursery	Entry	Sample Name	Rht1-	Rht2-	Rht8	Ppd-D1a	Fhb	Fhb 2DL-	Fhb 5A Ernie	Fhb 5A Ning 7840	
			B1b	D1b			Fhb1	Ernie 3Bc			Wuhan1/ W14
USFHBN	1	ERNIE	yes	no	no	no	no	yes	no	yes	no
USFHBN	2	COKER9835	no	yes	no	yes	no	no	no	no	no
USFHBN	3	BESS	yes	no	no	het	no	no	no	no	no
USFHBN	4	JAMESTOWN	no	nd	no	yes	no	no	no	no	no
USFHBN	5	LA01164D-94-2	no	yes	no	no	yes	no	no	no	no
USFHBN	6	03M1539_031	yes	het	no	yes	no	no	no	no	no
USFHBN	7	AR99054-4-1	no	no	no	no	no	no	no	no	no
USFHBN	8	ARS03-4736	yes	no	no	no	no	no	nd	no	no
USFHBN	9	ARS05-1234	yes	no	no	no	no	no	no	no	no
USFHBN	10	LA01141D-98-6-2	no	yes	no	yes	false positive	no	no	no	no
USFHBN	11	03M1539_019	yes	no	no	no	no	no	no	no	no
USFHBN	12	AR99092-4-1	no	no	no	yes	no	no	no	no	no
USFHBN	13	AR99102-4-1	het	no	het	yes	no	no	no	no	no
USFHBN	14	AR99160-1-1-B	no	no	no	no	no	yes	no	no	no
USFHBN	15	AR99264-8-1	no	no	no	yes	no	no	no	no	no
USFHBN	16	AR99311-12-1	no	yes	no	yes	no	no	no	no	no
USFHBN	17	ARGE97-1042-4-5-20	yes	no	no	no	no	no	no	no	no
USFHBN	18	ARGE97-1047-4-2-9	het	no	no	yes	het?	no	no	no	no
USFHBN	19	ARGE97-1048-3-6-7	yes	no	no	yes	no	no	yes	no	no
USFHBN	20	ARS04-1267	yes	no	no	no	no	no	no	no	no
USFHBN	21	ARS05-0005	yes	no	no	yes	no	no	no	no	no
USFHBN	22	ARS05-0043	yes	no	no	yes	no	no	no	no	no
USFHBN	23	ARS05-0277	yes	no	no	no	no	no	no	no	no
USFHBN	24	ARS07 0095	nd	nd	no	no	no	no	no	het	no
USFHBN	25	ARS07-0203	no	yes	no	yes	no	no	no	no	no
USFHBN	26	GA031188-O15	no	yes	no	yes	no	no	no	no	no
USFHBN	27	GA031188-O16	no	yes	no	yes	no	no	no	no	no
USFHBN	28	GA031188-O17	no	yes	no	yes	no	no	no	no	no
USFHBN	29	GA041243-LE36	yes	no	no	yes	no	no	no	no	no
USFHBN	30	GA041260-Q19	no	yes	no	yes	no	no	no	no	no
USFHBN	31	GA041271-PL49	no	yes	no	no	no	no	no	no	no
USFHBN	32	GA041271-Q23	nd	nd	no	no	no	no	no	no	no
USFHBN	33	GA041271-Q24	no	yes	no	no	no	no	no	no	no
USFHBN	34	LA01141D-98-6-3	no	yes	no	yes	false positive	no	no	no	no
USFHBN	35	LA02058E63	no	yes	yes	yes	no?	het?	yes	no	no
USFHBN	36	LA02058E97	no	yes	yes	yes	no?	no	yes	no	no
USFHBN	37	LA03130E68	yes	no	no	yes	no	no	no	no	no
USFHBN	38	LA03186E2	yes	no	no	no	no	no	yes	no	no
USFHBN	39	LA04142C-P5	no	no	no	no	no	no	no	no	no
USFHBN	40	M08_8005_	yes	nd	no	yes	no	no	no	no	no
USFHBN	41	MD01W233-07-1	no	yes	no	no	no	no	no	no	no
USFHBN	42	MD02W135-08-9	no	yes	no	no	no	no	no	no	no
USFHBN	43	MD03W61-09-1	no	yes	no	yes	yes	no	no	no	no
USFHBN	44	MD03W91-09-7	no	het	no	yes	no	no	no	no	no
USFHBN	45	NC07-21036	no	yes	no	no	no	no	no	no	no
USFHBN	46	NC07-23081	yes	no	no	yes	no	no	no	no	no
USFHBN	47	NC07-23126	yes	no	no	no	no	no	no	no	no
USFHBN	48	NC07-23771	no	nd	no	no	no	no	no	no	no
USFHBN	49	NC07-24445	no	yes	yes	yes	no	yes	no	no	no
USFHBN	50	VA06W-580	no	yes	no	yes	no	no	no	no	no
USFHBN	51	VA07W-569	no	yes	no	no	no	yes?	no	no	no
USFHBN	52	VA08W-622	no	no	no	no	no	no	no	no	no
USFHBN	53	VA08W-630	no	yes	no	no	no	no	no	no	no
USFHBN	54	VA08W-653	no	yes	no	no	no	no	no	no	no
USFHBN	55	VA08W-709	no	yes	no	no	no	no	no	no	no
USFHBN	56	VA09W-641	no	yes	no	no	no	no	no	yes	no
USFHBN	57	VA09W-654	no	no	no	no	no	no	no	no	no
USFHBN	58	W1104	yes	no	no	yes	no	no	no	yes	no

2010 Uniform Southern FHB Nursery

Summary of all Markers

Nursery	Entry	Sample Name	Yr17/ Lr34/			1RS	H13 H9		Bdv 2/3	Bx7 over- expressing	Glu-D1	Glu-A1
			Sr2	Sr36	Sr24/ Lr24		Lr37/ Sr38	Yr18/ Pm38				
USFHBN	1	ERNIE	no	het	no	no	no	no	no	2+12	Ax1 or null	
USFHBN	2	COKER9835	no	yes	no	no	no	no	no	2+12	Ax2*	
USFHBN	3	BESS	no	no	no	no	no	no	no	2+12	Ax1 or null	
USFHBN	4	JAMESTOWN	no	no	no	no	no	no	no	2+12	Ax2*	
USFHBN	5	LA01164D-94-2	no	het	no	yes	no	no	yes	2+12	het	
USFHBN	6	03M1539_031	no	no	no	no	no	yes	no	2+12	het	
USFHBN	7	AR99054-4-1	no	no	no	no	no	no	no	2+12	Ax2*	
USFHBN	8	ARS03-4736	no	no	no	no	no	nd	no	2+12	Ax2*	
USFHBN	9	ARS05-1234	no	no	no	yes	no	no	no	2+12	Ax1 or null	
USFHBN	10	LA01141D-98-6-2	no	no	no	yes	yes	no	het	2+12	Ax2*	
USFHBN	11	03M1539_019	no	no	no	yes	no	yes	no	2+12	Ax2*	
USFHBN	12	AR99092-4-1	no	no	no	no	no	no	no	2+12	Ax2*	
USFHBN	13	AR99102-4-1	no	no	no	no	no	no	no	5+10	Ax1 or null	
USFHBN	14	AR99160-1-1-B	no	no	no	no	no	no	no	2+12	Ax1 or null	
USFHBN	15	AR99264-8-1	no	no	no	no	no	no	no	2+12	Ax2*	
USFHBN	16	AR99311-12-1	no	no	no	no	no	no	no	2+12	Ax2*	
USFHBN	17	ARGE97-1042-4-5-20	no	no	no	no	no	no	no	2+12	Ax2*	
USFHBN	18	ARGE97-1047-4-2-9	no	no	no	no	no	no	no	het?	Ax2*	
USFHBN	19	ARGE97-1048-3-6-7	no	no	no	no	no	no	no	2+12	Ax1 or null	
USFHBN	20	ARS04-1267	no	no	no	yes	no	nd	no	5+10	Ax2*	
USFHBN	21	ARS05-0005	no	no	yes	no	no	no	no	2+12	Ax2*	
USFHBN	22	ARS05-0043	no	no	yes	no	no	no	no	2+12	Ax1 or null	
USFHBN	23	ARS05-0277	no	het	no	no	no	nd	no	5+10	Ax2*	
USFHBN	24	ARS07 0095	no	no	yes	no	no	no	no	5+10	het	
USFHBN	25	ARS07-0203	no	yes	no	yes	no	no	no	2+12	Ax1 or null	
USFHBN	26	GA031188-O15	no	no	no	yes	no	no	no	2+12	Ax2*	
USFHBN	27	GA031188-O16	no	no	no	yes	no	no	no	2+12	Ax2*	
USFHBN	28	GA031188-O17	no	no	no	yes	no	no	no	2+12	Ax2*	
USFHBN	29	GA041243-LE36	no	no	no	yes	no	yes	no	2+12	Ax1 or null	
USFHBN	30	GA041260-Q19	no	no	no	yes	no	no	no	2+12	Ax1 or null	
USFHBN	31	GA041271-PL49	no	no	no	yes	no	no	no	5+10	Ax2*	
USFHBN	32	GA041271-Q23	no	no	no	yes	no	no	no	5+10	Ax2*	
USFHBN	33	GA041271-Q24	no	no	no	yes	no	no	no	5+10	Ax2*	
USFHBN	34	LA01141D-98-6-3	no	no	no	yes	yes	no	no	2+12	Ax2*	
USFHBN	35	LA02058E63	no	no	no	yes	no	no	no	het?	Ax1 or null	
USFHBN	36	LA02058E97	no	no	no	yes	no	nd	no	het	Ax1 or null	
USFHBN	37	LA03130E68	no	yes	no	no	yes	no	no	2+12	Ax2*	
USFHBN	38	LA03186E2	no	no	no	no	no	no	no	2+12	Ax1 or null	
USFHBN	39	LA04142C-P5	no	no	no	no	no	no	no	2+12	Ax2*	
USFHBN	40	M08_8005_	no	no	no	no	no	no	no	5+10	Ax2*	
USFHBN	41	MD01W233-07-1	no	no	yes	no	no	nd	no	2+12	Ax2*	
USFHBN	42	MD02W135-08-9	no	no	no	no	no	nd	no	2+12	Ax2*	
USFHBN	43	MD03W61-09-1	no	no	no	no	no	no	no	2+12	Ax1 or null	
USFHBN	44	MD03W91-09-7	no	yes	no	no	no	no	no	5+10	Ax2*	
USFHBN	45	NC07-21036	no	no	yes	no	no	nd	no	2+12	Ax2*	
USFHBN	46	NC07-23081	no	yes	no	no	no	yes	no	2+12	Ax2*	
USFHBN	47	NC07-23126	no	yes	yes	no	no	nd	no	5+10	Ax2*	
USFHBN	48	NC07-23771	no	yes	no	no	no	no	no	2+12	Ax1 or null	
USFHBN	49	NC07-24445	no	yes	no	no	no	no	no	5+10	Ax1 or null	
USFHBN	50	VA06W-580	no	yes	no	no	no	no	no	2+12	Ax2*	
USFHBN	51	VA07W-569	no	no	no	no	no	no	no	2+12	Ax2*	
USFHBN	52	VA08W-622	no	yes	no	no	no	no	no	2+12	Ax1 or null	
USFHBN	53	VA08W-630	no	no	no	no	no	no	no	2+12	Ax2*	
USFHBN	54	VA08W-653	no	het	no	no	no	yes	no	2+12	Ax1 or null	
USFHBN	55	VA08W-709	no	no	yes	no	no	no	no	het?	Ax2*	
USFHBN	56	VA09W-641	no	no	no	no	no	nd	no	2+12	het	
USFHBN	57	VA09W-654	no	no	no	no	no	no	no	5+10	Ax1 or null	
USFHBN	58	W1104	no	no	no	no	no	no	yes	2+12	Ax2*	

2010 Uniform Southern FHB Nursery
Summary of all Markers

Nursery	Entry	Sample Name	PHS Cayuga
USFHBN	1	ERNIE	no
USFHBN	2	COKER9835	het?
USFHBN	3	BESS	no
USFHBN	4	JAMESTOWN	no
USFHBN	5	LA01164D-94-2	nd
USFHBN	6	03M1539_031	yes
USFHBN	7	AR99054-4-1	yes
USFHBN	8	ARS03-4736	no
USFHBN	9	ARS05-1234	yes
USFHBN	10	LA01141D-98-6-2	yes
USFHBN	11	03M1539_019	yes
USFHBN	12	AR99092-4-1	yes
USFHBN	13	AR99102-4-1	het?
USFHBN	14	AR99160-1-1-B	yes
USFHBN	15	AR99264-8-1	yes
USFHBN	16	AR99311-12-1	nd
USFHBN	17	ARGE97-1042-4-5-20	yes
USFHBN	18	ARGE97-1047-4-2-9	het?
USFHBN	19	ARGE97-1048-3-6-7	no
USFHBN	20	ARS04-1267	no
USFHBN	21	ARS05-0005	no
USFHBN	22	ARS05-0043	no
USFHBN	23	ARS05-0277	het?
USFHBN	24	ARS07 0095	yes
USFHBN	25	ARS07-0203	het?
USFHBN	26	GA031188-O15	yes
USFHBN	27	GA031188-O16	yes
USFHBN	28	GA031188-O17	yes
USFHBN	29	GA041243-LE36	yes
USFHBN	30	GA041260-Q19	no
USFHBN	31	GA041271-PL49	no
USFHBN	32	GA041271-Q23	nd
USFHBN	33	GA041271-Q24	no
USFHBN	34	LA01141D-98-6-3	yes
USFHBN	35	LA02058E63	no
USFHBN	36	LA02058E97	nd
USFHBN	37	LA03130E68	het?
USFHBN	38	LA03186E2	yes
USFHBN	39	LA04142C-P5	yes
USFHBN	40	M08_8005_	yes
USFHBN	41	MD01W233-07-1	het?
USFHBN	42	MD02W135-08-9	yes
USFHBN	43	MD03W61-09-1	no
USFHBN	44	MD03W91-09-7	nd
USFHBN	45	NC07-21036	yes
USFHBN	46	NC07-23081	no
USFHBN	47	NC07-23126	het?
USFHBN	48	NC07-23771	nd
USFHBN	49	NC07-24445	het?
USFHBN	50	VA06W-580	no
USFHBN	51	VA07W-569	yes
USFHBN	52	VA08W-622	het?
USFHBN	53	VA08W-630	yes
USFHBN	54	VA08W-653	het?
USFHBN	55	VA08W-709	yes
USFHBN	56	VA09W-641	yes
USFHBN	57	VA09W-654	no
USFHBN	58	W1104	yes

Dwarfing genes & Photoperiod insensitivity

2010

Nursery	Entry	Sample Name	Rht1K	Rht2K	Rht1-	Rht2-	gwm261	gwm261	Rht8	Ppd	Ppd	Ppd-D1a
					B1b	D1b						
USFHBN	1	ERNIE	Allele Y	Allele X	yes	no	173		no		414	no
USFHBN	2	COKER9835	Allele X	Allele Y	no	yes	201		no	283		yes
USFHBN	3	BESS	Allele Y	Allele X	yes	no	173		no	283	414	het
USFHBN	4	JAMESTOWN	Allele X	nd	no	nd	201		no	283		yes
USFHBN	5	LA01164D-94-2	Allele X	Allele Y	no	yes	201		no		414	no
USFHBN	6	03M1539_031	Allele Y	Both Alleles	yes	het	201		no	283		yes
USFHBN	7	AR99054-4-1	Allele X	Allele X	no	no	201		no		414	no
USFHBN	8	ARS03-4736	Allele Y	Allele X	yes	no	163		no		454	no
USFHBN	9	ARS05-1234	Allele Y	Allele X	yes	no	163	210	no		414	no
USFHBN	10	LA01141D-98-6-2	Allele X	Allele Y	no	yes	201		no	283		yes
USFHBN	11	03M1539_019	Allele Y	Allele X	yes	no	173		no		414	no
USFHBN	12	AR99092-4-1	Allele X	Allele X	no	no	163	173	no	283		yes
USFHBN	13	AR99102-4-1	Both Alleles	Allele X	het	no	173	192	het	283		yes
USFHBN	14	AR99160-1-1-B	Allele X	Allele X	no	no	173		no		414	no
USFHBN	15	AR99264-8-1	Allele X	Allele X	no	no	201		no	283		yes
USFHBN	16	AR99311-12-1	Allele X	Allele Y	no	yes	201		no	283		yes
USFHBN	17	ARGE97-1042-4-5-20	Allele Y	Allele X	yes	no	163		no		414	no
USFHBN	18	ARGE97-1047-4-2-9	Both Alleles	Allele X	het	no	163	204	no	283		yes
USFHBN	19	ARGE97-1048-3-6-7	Allele Y	Allele X	yes	no	163		no	283		yes
USFHBN	20	ARS04-1267	Allele Y	Allele X	yes	no	210		no		414	no
USFHBN	21	ARS05-0005	Allele Y	Allele X	yes	no	163		no	283		yes
USFHBN	22	ARS05-0043	Allele Y	Allele X	yes	no	163		no	283		yes
USFHBN	23	ARS05-0277	Allele Y	Allele X	yes	no	201		no		414	no
USFHBN	24	ARS07 0095	nd	nd	nd	nd	163	173	no		414	no
USFHBN	25	ARS07-0203	Allele X	Allele Y	no	yes	201		no	283		yes
USFHBN	26	GA031188-O15	Allele X	Allele Y	no	yes	201		no	283		yes
USFHBN	27	GA031188-O16	Allele X	Allele Y	no	yes	201		no	283		yes
USFHBN	28	GA031188-O17	Allele X	Allele Y	no	yes	163	201	no	283		yes
USFHBN	29	GA041243-LE36	Allele Y	Allele X	yes	no	201		no	283		yes
USFHBN	30	GA041260-Q19	Allele X	Allele Y	no	yes	201		no	283		yes
USFHBN	31	GA041271-PL49	Allele X	Allele Y	no	yes	201		no		414	no
USFHBN	32	GA041271-Q23	nd	nd	nd	nd	201		no		414	no
USFHBN	33	GA041271-Q24	Allele X	Allele Y	no	yes	201		no		414	no
USFHBN	34	LA01141D-98-6-3	Allele X	Allele Y	no	yes	201		no	283		yes
USFHBN	35	LA02058E63	Allele X	Allele Y	no	yes	192		yes	283		yes
USFHBN	36	LA02058E97	Allele X	Allele Y	no	yes	192		yes	283		yes
USFHBN	37	LA03130E68	Allele Y	Allele X	yes	no	163	201	no	283		yes
USFHBN	38	LA03186E2	Allele Y	Allele X	yes	no	163		no		414	no
USFHBN	39	LA04142C-P5	Allele X	Allele X	no	no	175		no		414	no
USFHBN	40	M08_8005_	Allele Y	nd	yes	nd	173		no	283		yes
USFHBN	41	MD01W233-07-1	Allele X	Allele Y	no	yes	173		no		414	no
USFHBN	42	MD02W135-08-9	Allele X	Allele Y	no	yes	173		no		414	no
USFHBN	43	MD03W61-09-1	Allele X	Allele Y	no	yes	201		no	283		yes
USFHBN	44	MD03W91-09-7	Allele X	Both Alleles	no	het	175		no	283		yes
USFHBN	45	NC07-21036	Allele X	Allele Y	no	yes	201		no		414	no
USFHBN	46	NC07-23081	Allele Y	Allele X	yes	no	163		no	283		yes
USFHBN	47	NC07-23126	Allele Y	Allele X	yes	no	201		no		414	no
USFHBN	48	NC07-23771	Allele X	nd	no	nd	201		no		414	no
USFHBN	49	NC07-24445	Allele X	Allele Y	no	yes	192		yes	283		yes
USFHBN	50	VA06W-580	Allele X	Allele Y	no	yes	201		no	283		yes
USFHBN	51	VA07W-569	Allele X	Allele Y	no	yes	173		no		414	no
USFHBN	52	VA08W-622	Allele X	Allele X	no	no	201		no		414	no
USFHBN	53	VA08W-630	Allele X	Allele Y	no	yes	173		no		414	no
USFHBN	54	VA08W-653	Allele X	Allele Y	no	yes	173		no		414	no
USFHBN	55	VA08W-709	Allele X	Allele Y	no	yes	173		no		414	no
USFHBN	56	VA09W-641	Allele X	Allele Y	no	yes	173		no		414	no
USFHBN	57	VA09W-654	Allele X	Allele X	no	no	173		no		414	no
USFHBN	58	W1104	Allele Y	Allele X	yes	no	201		no	283		yes

FHB QTLs

2010

Nursery	Entry	Sample Name	Fhb1-SNP8	umn10	umn10	gwm533	gwm533	gwm533	Fhb1
USFHBN	1	ERNIE	nd	236		nd			no
USFHBN	2	COKER9835	nd	236		128			no
USFHBN	3	BESS	Allele X	236		118			no
USFHBN	4	JAMESTOWN	nd	236		144			no
USFHBN	5	LA01164D-94-2	Allele Y	239		144			yes
USFHBN	6	03M1539_031	Allele X	236		118			no
USFHBN	7	AR99054-4-1	nd	236		143			no
USFHBN	8	ARS03-4736	nd	236		nd			no
USFHBN	9	ARS05-1234	nd	236		nd			no
USFHBN	10	LA01141D-98-6-2	nd	239		nd			false positive
USFHBN	11	03M1539_019	nd	236		nd			no
USFHBN	12	AR99092-4-1	Allele X	229	236	118	146	155	no
USFHBN	13	AR99102-4-1	Allele X	236		118			no
USFHBN	14	AR99160-1-1-B	Allele X	236		118			no
USFHBN	15	AR99264-8-1	Allele X	236		118			no
USFHBN	16	AR99311-12-1	Allele X	236		118			no
USFHBN	17	ARGE97-1042-4-5-20	nd	236		118			no
USFHBN	18	ARGE97-1047-4-2-9	Allele Y	236	239	118			het?
USFHBN	19	ARGE97-1048-3-6-7	Allele X	236		118			no
USFHBN	20	ARS04-1267	nd	236		118			no
USFHBN	21	ARS05-0005	nd	236		nd			no
USFHBN	22	ARS05-0043	nd	236		nd			no
USFHBN	23	ARS05-0277	nd	236		nd			no
USFHBN	24	ARS07 0095	nd	236		118			no
USFHBN	25	ARS07-0203	Allele X	236		118			no
USFHBN	26	GA031188-O15	nd	236		128			no
USFHBN	27	GA031188-O16	nd	236		128			no
USFHBN	28	GA031188-O17	Allele X	236		118			no
USFHBN	29	GA041243-LE36	Allele X	236		118			no
USFHBN	30	GA041260-Q19	Allele X	236		118			no
USFHBN	31	GA041271-PL49	Allele X	236		128			no
USFHBN	32	GA041271-Q23	Allele X	236		128			no
USFHBN	33	GA041271-Q24	Allele X	236		128			no
USFHBN	34	LA01141D-98-6-3	nd	239		nd			false positive
USFHBN	35	LA02058E63	Allele X	239		141			no?
USFHBN	36	LA02058E97	Allele X	239		141			no?
USFHBN	37	LA03130E68	nd	236		118			no
USFHBN	38	LA03186E2	Allele X	236		118			no
USFHBN	39	LA04142C-P5	Allele X	236		118			no
USFHBN	40	M08_8005_	Allele X	236		118			no
USFHBN	41	MD01W233-07-1	Allele X	229		146	155		no
USFHBN	42	MD02W135-08-9	nd	236		128			no
USFHBN	43	MD03W61-09-1	Allele Y	239		144			yes
USFHBN	44	MD03W91-09-7	Allele X	236		118			no
USFHBN	45	NC07-21036	Allele X	229	236	155			no
USFHBN	46	NC07-23081	Allele X	229		155			no
USFHBN	47	NC07-23126	Allele X	236		118			no
USFHBN	48	NC07-23771	Allele X	236		118			no
USFHBN	49	NC07-24445	Allele X	236		118			no
USFHBN	50	VA06W-580	nd	236		128			no
USFHBN	51	VA07W-569	Allele X	229		146	155		no
USFHBN	52	VA08W-622	nd	236		nd			no
USFHBN	53	VA08W-630	Allele X	236		128	146	155	no
USFHBN	54	VA08W-653	Allele X	229		146	155		no
USFHBN	55	VA08W-709	Allele X	229	236	146	155		no
USFHBN	56	VA09W-641	Allele X	229		146	155		no
USFHBN	57	VA09W-654	Allele X	236		118			no
USFHBN	58	W1104	nd	236		nd			no

FHB QTLs

2010

Nursery	Entry	Sample Name	QTLs														Fhb	
			gwm 285	gwm 285	gwm 285	wmc 612	wmc 612	wmc 612	wmc 307	wmc 307	wmc 1	wmc 1	wmc 418	wmc 418	wmc 471	wmc 471	Ernie 3Bc	
USFHBN	1	ERNIE	246			283	285		141		153		262		177	260	yes	
USFHBN	2	COKER9835	222			279	281		146		156		271		179	214	no	
USFHBN	3	BESS	250			287	289		139		151		271		177	216	no	
USFHBN	4	JAMESTOWN	246			281	283		141		153		262		216		no	
USFHBN	5	LA01164D-94-2	221	226		277	279	287	143		162		271		216		no	
USFHBN	6	03M1539_031	226	246		283	285		141	143	153		262		177	220	no	
USFHBN	7	AR99054-4-1	219			273	275		143		160		271		177	216	no	
USFHBN	8	ARS03-4736	226			277	279		141		160		265		177	216	no	
USFHBN	9	ARS05-1234	219			277	279		141		162		269		177	216	no	
USFHBN	10	LA01141D-98-6-2	226			287	289		143		149		269		177	216	no	
USFHBN	11	03M1539_019	nd			267			143		155		262		179	216	no	
USFHBN	12	AR99092-4-1	219			279	281		141	143	149	161	260	271	177	214	220	no
USFHBN	13	AR99102-4-1	226			279			139		160		265	271	177	214	no	
USFHBN	14	AR99160-1-1-B	246			283	285		141		153		262		177	260	yes	
USFHBN	15	AR99264-8-1	226			287	289		143		151		271		179	220	no	
USFHBN	16	AR99311-12-1	246			279	281		141		149		269		216	220	no	
USFHBN	17	ARGE97-1042-4-5-20	226			285	287		143		149		269		177	214	no	
USFHBN	18	ARGE97-1047-4-2-9	237			277	279		141		151		262		177	216	no	
USFHBN	19	ARGE97-1048-3-6-7	226			285	287		143		149		269		177	218	no	
USFHBN	20	ARS04-1267	219			277	279		141		158		265		177	216	no	
USFHBN	21	ARS05-0005	237			283	285		141		155		269		177	216	no	
USFHBN	22	ARS05-0043	237			283	285		141		155		271		177	216	no	
USFHBN	23	ARS05-0277	219			279	281		143		149		271		177	214	no	
USFHBN	24	ARS07 0095	226			287	289		143		149		269		177	220	no	
USFHBN	25	ARS07-0203	226			287	289		143		149		269		177	220	no	
USFHBN	26	GA031188-O15	219			287	289		143		162		271		216		no	
USFHBN	27	GA031188-O16	219			287	289		143		162		271		216		no	
USFHBN	28	GA031188-O17	219			287	289		143		162		271		177	216	no	
USFHBN	29	GA041243-LE36	219			275	277		141		149		262		179	216	no	
USFHBN	30	GA041260-Q19	226			287	289		141	143	149		271		177	214	no	
USFHBN	31	GA041271-PL49	219			275	277		141		149		269		216		no	
USFHBN	32	GA041271-Q23	219			275	277		141		149		269		216		no	
USFHBN	33	GA041271-Q24	219			275	277		141		149		262		216		no	
USFHBN	34	LA01141D-98-6-3	226			287	289		143		149		269		177	216	no	
USFHBN	35	LA02058E63	221	246		283	285		139	141	153	160	262	271	177	214	216	het?
USFHBN	36	LA02058E97	221			nd			139		160		271		177	216	no	
USFHBN	37	LA03130E68	239			277	279		139		151		262		179	214	no	
USFHBN	38	LA03186E2	226			287	289		143		149		269		177	218	no	
USFHBN	39	LA04142C-P5	219			279	281		143		149	151	262	271	177	214	216	no
USFHBN	40	M08_8005_	219			275	277		143		153		262		179	260	no	
USFHBN	41	MD01W233-07-1	219			277	279		141		156		269		179	216	no	
USFHBN	42	MD02W135-08-9	219			279	281		141		162		271		177	216	no	
USFHBN	43	MD03W61-09-1	226			287	289		143		149		269		177	218	no	
USFHBN	44	MD03W91-09-7	246			283	285		141		149		269		177	216	no	
USFHBN	45	NC07-21036	221			287	289		143		162		271		177	218	no	
USFHBN	46	NC07-23081	221			287	289		143		162		271		177	218	no	
USFHBN	47	NC07-23126	219			267			143		149		271		216		no	
USFHBN	48	NC07-23771	221	226		287	289		143		149		260	269	177	220	no	
USFHBN	49	NC07-24445	246			283	285		141		153		262		260		yes	
USFHBN	50	VA06W-580	226			287	289		143		149		269		220		no	
USFHBN	51	VA07W-569	246			279	281		141		153		262		177	260	yes?	
USFHBN	52	VA08W-622	246			279	281		141		162		271		179	214	no	
USFHBN	53	VA08W-630	221			279	281		143		153	162	262		179	216	no	
USFHBN	54	VA08W-653	219			279	281		141		162		271		214		no	
USFHBN	55	VA08W-709	219			279	281		141		162		271		177	179	216	no
USFHBN	56	VA09W-641	219	230		281	285		141		162		262	271	177	216	220	no
USFHBN	57	VA09W-654	219			285	287		141		162		271		177	216	no	
USFHBN	58	W1104	246			285	287		141		153		262		177	220	no	

FHB QTLs

2010

Nursery	Entry	Sample Name							Fhb 2DL- Wuhan1/ W14
			cfd233	cfd233	gwm539	gwm539	gwm608	gwm608	
USFHBN	1	ERNIE	284		137		150		no
USFHBN	2	COKER9835	272		139		158		no
USFHBN	3	BESS	290		137	139	162		no
USFHBN	4	JAMESTOWN	272		133		154		no
USFHBN	5	LA01164D-94-2	278		137		158		no
USFHBN	6	03M1539_031	272	280	131	137	156		no
USFHBN	7	AR99054-4-1	290		131		162		no
USFHBN	8	ARS03-4736	nd		nd		nd		nd
USFHBN	9	ARS05-1234	274		125		158		no
USFHBN	10	LA01141D-98-6-2	272		133		156		no
USFHBN	11	03M1539_019	278		161		150		no
USFHBN	12	AR99092-4-1	272	280	124		156	162	no
USFHBN	13	AR99102-4-1	271	272	133	155	150	158	no
USFHBN	14	AR99160-1-1-B	284		131		150		no
USFHBN	15	AR99264-8-1	272		144		158		no
USFHBN	16	AR99311-12-1	272		137		154		no
USFHBN	17	ARGE97-1042-4-5-20	288		125		154	156	no
USFHBN	18	ARGE97-1047-4-2-9	278		125		150		no
USFHBN	19	ARGE97-1048-3-6-7	276		125		152		yes
USFHBN	20	ARS04-1267	274		135		152		no
USFHBN	21	ARS05-0005	263		125		nd		no
USFHBN	22	ARS05-0043	263		125		nd		no
USFHBN	23	ARS05-0277	278		137		158		no
USFHBN	24	ARS07 0095	278	290	137		158	162	no
USFHBN	25	ARS07-0203	272		133		158	162	no
USFHBN	26	GA031188-O15	271		135		150		no
USFHBN	27	GA031188-O16	271		135		150		no
USFHBN	28	GA031188-O17	271		135		150		no
USFHBN	29	GA041243-LE36	272		131		?	?	no
USFHBN	30	GA041260-Q19	272		131		158		no
USFHBN	31	GA041271-PL49	278		135		158		no
USFHBN	32	GA041271-Q23	278		135		158		no
USFHBN	33	GA041271-Q24	278		131	135	158		no
USFHBN	34	LA01141D-98-6-3	272		133		156		no
USFHBN	35	LA02058E63	276		125		152		yes
USFHBN	36	LA02058E97	276		125		152		yes
USFHBN	37	LA03130E68	272		137		162		no
USFHBN	38	LA03186E2	276		125		152		yes
USFHBN	39	LA04142C-P5	268	278	124	125	158		no
USFHBN	40	M08_8005_	284		144		150		no
USFHBN	41	MD01W233-07-1	272		131		154		no
USFHBN	42	MD02W135-08-9	290		137		162		no
USFHBN	43	MD03W61-09-1	271		133		156		no
USFHBN	44	MD03W91-09-7	278		135		150		no
USFHBN	45	NC07-21036	282		131		150		no
USFHBN	46	NC07-23081	280		152		150		no
USFHBN	47	NC07-23126	278		135		150		no
USFHBN	48	NC07-23771	272		137		150		no
USFHBN	49	NC07-24445	272		137		154		no
USFHBN	50	VA06W-580	280		131		150		no
USFHBN	51	VA07W-569	284		131		150		no
USFHBN	52	VA08W-622	272		135		154		no
USFHBN	53	VA08W-630	280		124		150		no
USFHBN	54	VA08W-653	280		124		150		no
USFHBN	55	VA08W-709	278		135		150		no
USFHBN	56	VA09W-641	272		137		150	154	no
USFHBN	57	VA09W-654	278		139		150		no
USFHBN	58	W1104	290		137		154		no

FHB QTLs

2010

Nursery	Entry	Sample Name	gwm	gwm	gwm	wmc	wmc	wmc	barc	barc	barc	barc	gwm	gwm	Fhb 5A	Fhb 5A
			304	304	304	705	705	705	117	117	186	186	156	156	Ernie	Ning
USFHBN	1	ERNIE	220			135			221		203		312		yes	no
USFHBN	2	COKER9835	198			160			217		203		292		no	no
USFHBN	3	BESS	198			164			217		203		312		no	no
USFHBN	4	JAMESTOWN	199			133			217		203		292		no	no
USFHBN	5	LA01164D-94-2	nd			nd			221		212		320		no	no
USFHBN	6	03M1539_031	198			162			217		203		283		no	no
USFHBN	7	AR99054-4-1	199			133			217		203		280		no	no
USFHBN	8	ARS03-4736	199			133			217		203		313		no	no
USFHBN	9	ARS05-1234	199	220		137			217	221	203		316		no	no
USFHBN	10	LA01141D-98-6-2	198			160			217		203		292		no	no
USFHBN	11	03M1539_019	198			162			217		203		312		no	no
USFHBN	12	AR99092-4-1	198	220		135			221		203		292		no	no
USFHBN	13	AR99102-4-1	198	201	220	135	139	162	217		203	215	283	312	no	no
USFHBN	14	AR99160-1-1-B	198			160			217		203		292		no	no
USFHBN	15	AR99264-8-1	198			160			217		203		292		no	no
USFHBN	16	AR99311-12-1	198			135	162		217	221	203		283		no	no
USFHBN	17	ARGE97-1042-4-5-20	199			135			217		203		312		no	no
USFHBN	18	ARGE97-1047-4-2-9	199			135			217		203		285	312	no	no
USFHBN	19	ARGE97-1048-3-6-7	198			158			217		203		283		no	no
USFHBN	20	ARS04-1267	211			160			221		212		283		no	no
USFHBN	21	ARS05-0005	199			141			217		203		316		no	no
USFHBN	22	ARS05-0043	199			141			217		203		316		no	no
USFHBN	23	ARS05-0277	199			133			217		203		313		no	no
USFHBN	24	ARS07 0095	199	220		135			217	221	203		280	312	het	no
USFHBN	25	ARS07-0203	nd			166			217		203		312		no	no
USFHBN	26	GA031188-O15	198			162			217		203		312		no	no
USFHBN	27	GA031188-O16	198			162			217		203		312		no	no
USFHBN	28	GA031188-O17	198			162			217		203		283	312	no	no
USFHBN	29	GA041243-LE36	201			141			217		215		285	312	no	no
USFHBN	30	GA041260-Q19	199			133			217		203		312		no	no
USFHBN	31	GA041271-PL49	198			164			217		203		283		no	no
USFHBN	32	GA041271-Q23	198			164			217		203		283		no	no
USFHBN	33	GA041271-Q24	198			164			217		203		283		no	no
USFHBN	34	LA01141D-98-6-3	198			162			217		203		292		no	no
USFHBN	35	LA02058E63	198			162			217		203		292		no	no
USFHBN	36	LA02058E97	198			162			217		203		292		no	no
USFHBN	37	LA03130E68	199	201		137			217		203		285	301	no	no
USFHBN	38	LA03186E2	201			137			217		214		285		no	no
USFHBN	39	LA04142C-P5	198			164			217		203		285		no	no
USFHBN	40	M08_8005_	198			162			217		203		312		no	no
USFHBN	41	MD01W233-07-1	198			162			217		203		312		no	no
USFHBN	42	MD02W135-08-9	198			162			217		203		312		no	no
USFHBN	43	MD03W61-09-1	198			164			217		203		283		no	no
USFHBN	44	MD03W91-09-7	199			137			217		203		283		no	no
USFHBN	45	NC07-21036	198			162			217		203		283		no	no
USFHBN	46	NC07-23081	199			133			217		203		283		no	no
USFHBN	47	NC07-23126	199			137			217		203		312		no	no
USFHBN	48	NC07-23771	199	220		133			217	221	203		283	292	no	no
USFHBN	49	NC07-24445	198			164			217		203		312		no	no
USFHBN	50	VA06W-580	198			166			217		203		283		no	no
USFHBN	51	VA07W-569	198			156			217		203		283		no	no
USFHBN	52	VA08W-622	198			166			217		203		283		no	no
USFHBN	53	VA08W-630	198			166			217		203		283		no	no
USFHBN	54	VA08W-653	199			133			217		203		292		no	no
USFHBN	55	VA08W-709	198			162			217		203		292		no	no
USFHBN	56	VA09W-641	220			135			221		203		312		yes	no
USFHBN	57	VA09W-654	198			164			217		203		312		no	no
USFHBN	58	W1104	220			135			221		203		312		yes	no

Leaf, Stripe & Stem Rusts

2010

Nursery	Entry	Sample Name	Sr2	wmc	wmc	Sr36	barc71	barc71	Sr24/	ventriup	Yr17/	CsLv34	Lr34/
				477	477				Lr24		Lr37/		Yr18/
USFHBN	1	ERNIE	no	167	185	het	112		no		no	235	no
USFHBN	2	COKER9835	no	185		yes	104		no		no	235	no
USFHBN	3	BESS	no	167		no	112		no		no	235	no
USFHBN	4	JAMESTOWN	no	163		no	104		no		no	235	no
USFHBN	5	LA01164D-94-2	no	160	185	het	116		no	256	yes	235	no
USFHBN	6	03M1539_031	no	160		no	104		no		no	235	no
USFHBN	7	AR99054-4-1	no	165		no	104		no		no	235	no
USFHBN	8	ARS03-4736	no	167		no	104		no		no	235	no
USFHBN	9	ARS05-1234	no	167		no	112		no	256	yes	235	no
USFHBN	10	LA01141D-98-6-2	no	165		no	112		no	256	yes	154	yes
USFHBN	11	03M1539_019	no	165		no	104		no	256	yes	235	no
USFHBN	12	AR99092-4-1	no	160	167	no	104		no		no	235	no
USFHBN	13	AR99102-4-1	no	160	167	no	104		no		no	235	no
USFHBN	14	AR99160-1-1-B	no	167		no	112		no		no	235	no
USFHBN	15	AR99264-8-1	no	160		no	104		no		no	235	no
USFHBN	16	AR99311-12-1	no	167		no	112		no		no	235	no
USFHBN	17	ARGE97-1042-4-5-20	no	165		no	112		no		no	235	no
USFHBN	18	ARGE97-1047-4-2-9	no	165		no	112		no		no	235	no
USFHBN	19	ARGE97-1048-3-6-7	no	161		no	112		no		no	235	no
USFHBN	20	ARS04-1267	no	167		no	104		no	256	yes	235	no
USFHBN	21	ARS05-0005	no	167		no	87		yes		no	235	no
USFHBN	22	ARS05-0043	no	167		no	87		yes		no	235	no
USFHBN	23	ARS05-0277	no	167	185	het	92		no		no	235	no
USFHBN	24	ARS07 0095	no	167		no	87	112	yes		no	235	no
USFHBN	25	ARS07-0203	no	185		yes	104		no	256	yes	235	no
USFHBN	26	GA031188-O15	no	160	163	no	112		no	256	yes	235	no
USFHBN	27	GA031188-O16	no	160	163	no	104	112	no	256	yes	235	no
USFHBN	28	GA031188-O17	no	163		no	112		no	256	yes	235	no
USFHBN	29	GA041243-LE36	no	165		no	104		no	256	yes	235	no
USFHBN	30	GA041260-Q19	no	163		no	104		no	256	yes	235	no
USFHBN	31	GA041271-PL49	no	167		no	104		no	256	yes	235	no
USFHBN	32	GA041271-Q23	no	163		no	104		no	256	yes	235	no
USFHBN	33	GA041271-Q24	no	163	167	no	104		no	256	yes	235	no
USFHBN	34	LA01141D-98-6-3	no	165		no	112		no	256	yes	154	yes
USFHBN	35	LA02058E63	no	167		no	112		no	256	yes	235	no
USFHBN	36	LA02058E97	no	167		no	112		no	256	yes	235	no
USFHBN	37	LA03130E68	no	185		yes	104		no		no	154	yes
USFHBN	38	LA03186E2	no	160		no	112		no		no	235	no
USFHBN	39	LA04142C-P5	no	160		no	112		no		no	235	no
USFHBN	40	M08_8005_	no	160		no	104		no		no	235	no
USFHBN	41	MD01W233-07-1	no	165		no	87	104	yes		no	235	no
USFHBN	42	MD02W135-08-9	no	165		no	104		no		no	235	no
USFHBN	43	MD03W61-09-1	no	167		no	112		no		no	235	no
USFHBN	44	MD03W91-09-7	no	185		yes	92		no		no	235	no
USFHBN	45	NC07-21036	no	165		no	87	104	yes		no	235	no
USFHBN	46	NC07-23081	no	185		yes	104		no		no	235	no
USFHBN	47	NC07-23126	no	185		yes	87	104	yes		no	235	no
USFHBN	48	NC07-23771	no	185		yes	112		no		no	235	no
USFHBN	49	NC07-24445	no	185		yes	104		no		no	235	no
USFHBN	50	VA06W-580	no	185		yes	104		no		no	235	no
USFHBN	51	VA07W-569	no	165		no	104		no		no	235	no
USFHBN	52	VA08W-622	no	185		yes	104		no		no	235	no
USFHBN	53	VA08W-630	no	165		no	104		no		no	235	no
USFHBN	54	VA08W-653	no	165	185	het	112		no		no	235	no
USFHBN	55	VA08W-709	no	165		no	87	104	yes		no	235	no
USFHBN	56	VA09W-641	no	165		no	104	112	no		no	235	no
USFHBN	57	VA09W-654	no	163		no	112		no		no	235	no
USFHBN	58	W1104	no	165		no	104		no		no	235	no

Rye Translocation -- Hessian Fly -- Barley Yellow Dwarf Virus

2010

Nursery	Entry	Sample Name	scm9	scm9	1RS	cf132	H13	cfa2153	cfa2153	H9	Bdv	Bdv2/3
USFHBN	1	ERNIE			non-1RS	114	no	191		no	184	no
USFHBN	2	COKER9835			non-1RS	114	no	194		no	184	no
USFHBN	3	BESS			non-1RS	114	no	217		no	184	no
USFHBN	4	JAMESTOWN			non-1RS	114	no	194		no	184	no
USFHBN	5	LA01164D-94-2			non-1RS	114	no	201		no	184	no
USFHBN	6	03M1539_031			non-1RS	114	no	179	194	yes	184	no
USFHBN	7	AR99054-4-1			non-1RS	114	no	194	201	no	184	no
USFHBN	8	ARS03-4736		222	1RS:1AL	114	no	nd		nd	184	no
USFHBN	9	ARS05-1234			non-1RS	114	no	195		no	182	no
USFHBN	10	LA01141D-98-6-2			non-1RS	114	no	197		no	184	no
USFHBN	11	03M1539_019	206		1RS:1BL	114	no	179		yes	184	no
USFHBN	12	AR99092-4-1			non-1RS	114	no	203		no	184	no
USFHBN	13	AR99102-4-1			non-1RS	114	no	203		no	184	no
USFHBN	14	AR99160-1-1-B			non-1RS	114	no	194		no	184	no
USFHBN	15	AR99264-8-1			non-1RS	114	no	211		no	184	no
USFHBN	16	AR99311-12-1			non-1RS	114	no	194		no	184	no
USFHBN	17	ARGE97-1042-4-5-20	206		1RS:1BL	114	no	201		no	184	no
USFHBN	18	ARGE97-1047-4-2-9	206		1RS:1BL	114	no	205		no	184	no
USFHBN	19	ARGE97-1048-3-6-7			non-1RS	114	no	197		no	184	no
USFHBN	20	ARS04-1267		222	1RS:1AL	114	no	nd		nd	184	no
USFHBN	21	ARS05-0005			non-1RS	114	no	194		no	184	no
USFHBN	22	ARS05-0043			non-1RS	114	no	197		no	184	no
USFHBN	23	ARS05-0277		222	1RS:1AL	114	no	nd		nd	184	no
USFHBN	24	ARS07 0095		222	1RS:1AL	114	no	191	217	no	184	no
USFHBN	25	ARS07-0203			non-1RS	114	no	205		no	184	no
USFHBN	26	GA031188-O15			non-1RS	114	no	194		no	184	no
USFHBN	27	GA031188-O16			non-1RS	114	no	194		no	184	no
USFHBN	28	GA031188-O17			non-1RS	114	no	201		no	184	no
USFHBN	29	GA041243-LE36			non-1RS	152	yes	194		no	182	no
USFHBN	30	GA041260-Q19			non-1RS	114	no	201		no	184	no
USFHBN	31	GA041271-PL49			non-1RS	114	no	201		no	184	no
USFHBN	32	GA041271-Q23			non-1RS	114	no	201		no	184	no
USFHBN	33	GA041271-Q24			non-1RS	114	no	201		no	184	no
USFHBN	34	LA01141D-98-6-3			non-1RS	114	no	197		no	184	no
USFHBN	35	LA02058E63	206		1RS:1BL	114	no	211		no	184	no
USFHBN	36	LA02058E97	206		1RS:1BL	114	no	nd		nd	184	no
USFHBN	37	LA03130E68			non-1RS	114	no	197		no	184	no
USFHBN	38	LA03186E2			non-1RS	114	no	197		no	184	no
USFHBN	39	LA04142C-P5			non-1RS	114	no	201	219	no	184	no
USFHBN	40	M08_8005_			non-1RS	114	no	217		no	184	no
USFHBN	41	MD01W233-07-1		222	1RS:1AL	114	no	nd		nd	184	no
USFHBN	42	MD02W135-08-9	206	222	1RS:1BL, 1RS:1AL	114	no	nd		nd	184	no
USFHBN	43	MD03W61-09-1	206		1RS:1BL	114	no	191		no	184	no
USFHBN	44	MD03W91-09-7		222	1RS:1AL	114	no	217		no	184	no
USFHBN	45	NC07-21036		222	1RS:1AL	114	no	nd		nd	184	no
USFHBN	46	NC07-23081		222	1RS:1AL	114	no	179		yes	184	no
USFHBN	47	NC07-23126		222	1RS:1AL	114	no	nd		nd	184	no
USFHBN	48	NC07-23771			non-1RS	114	no	205		no	184	no
USFHBN	49	NC07-24445			non-1RS	114	no	201		no	184	no
USFHBN	50	VA06W-580			non-1RS	114	no	194		no	184	no
USFHBN	51	VA07W-569		222	1RS:1AL	114	no	194		no	184	no
USFHBN	52	VA08W-622			non-1RS	114	no	201		no	184	no
USFHBN	53	VA08W-630		222	1RS:1AL	114	no	201	217	no	184	no
USFHBN	54	VA08W-653			non-1RS	114	no	179		yes	184	no
USFHBN	55	VA08W-709	206	222	1RS:1BL, 1RS:1AL	114	no	191		no	184	no
USFHBN	56	VA09W-641		222	1RS:1AL	114	no	nd		nd	184	no
USFHBN	57	VA09W-654			non-1RS	114	no	199		no	184	no
USFHBN	58	W1104	206		1RS:1BL	114	no	169		no	184	no

Quality Traits

2010

Nursery	Entry	Sample Name	Bx7oe	Bx7oe	Bx7 over-expressing	Umn25	Umn25	UMN26	UMN26	Glu-D1	Umn19	Umn19	Glu-A1
USFHBN	1	ERNIE	404		no		295		409	2+12		359	Ax1 or null
USFHBN	2	COKER9835	404		no		295		409	2+12	341		Ax2*
USFHBN	3	BESS	404		no		295		409	2+12		359	Ax1 or null
USFHBN	4	JAMESTOWN	404		no		295		409	2+12	341		Ax2*
USFHBN	5	LA01164D-94-2		448	yes		295		409	2+12	341	359	het
USFHBN	6	03M1539_031	404		no		295		409	2+12	341	359	het
USFHBN	7	AR99054-4-1	404		no		295		409	2+12	341		Ax2*
USFHBN	8	ARS03-4736	404		no		295		409	2+12	341		Ax2*
USFHBN	9	ARS05-1234	404		no		295		409	2+12		359	Ax1 or null
USFHBN	10	LA01141D-98-6-2	404	448	het		295		409	2+12	341		Ax2*
USFHBN	11	03M1539_019	404		no		295		409	2+12	341		Ax2*
USFHBN	12	AR99092-4-1	404		no		295		409	2+12	341		Ax2*
USFHBN	13	AR99102-4-1	404		no	277		392		5+10		359	Ax1 or null
USFHBN	14	AR99160-1-1-B	404		no		295		409	2+12		359	Ax1 or null
USFHBN	15	AR99264-8-1	404		no		295		409	2+12	341		Ax2*
USFHBN	16	AR99311-12-1	404		no		295		409	2+12	341		Ax2*
USFHBN	17	ARGE97-1042-4-5-20	404		no		295		409	2+12	341		Ax2*
USFHBN	18	ARGE97-1047-4-2-9	404		no		295	392	409	het?	341		Ax2*
USFHBN	19	ARGE97-1048-3-6-7	404		no		295		409	2+12		359	Ax1 or null
USFHBN	20	ARS04-1267	404		no	277		392		5+10	341		Ax2*
USFHBN	21	ARS05-0005	404		no		295		409	2+12	341		Ax2*
USFHBN	22	ARS05-0043	404		no		295		409	2+12		359	Ax1 or null
USFHBN	23	ARS05-0277	404		no	277		392		5+10	341		Ax2*
USFHBN	24	ARS07 0095	404		no	277		392		5+10	341	359	het
USFHBN	25	ARS07-0203	404		no		295		409	2+12		359	Ax1 or null
USFHBN	26	GA031188-O15	404		no		295		409	2+12	341		Ax2*
USFHBN	27	GA031188-O16	404		no		295		409	2+12	341		Ax2*
USFHBN	28	GA031188-O17	404		no		295		409	2+12	341		Ax2*
USFHBN	29	GA041243-LE36	404		no		295		409	2+12		359	Ax1 or null
USFHBN	30	GA041260-Q19	404		no		295		409	2+12		359	Ax1 or null
USFHBN	31	GA041271-PL49	404		no	277		392		5+10	341		Ax2*
USFHBN	32	GA041271-Q23	404		no	277		392		5+10	341		Ax2*
USFHBN	33	GA041271-Q24	404		no	277		392		5+10	341		Ax2*
USFHBN	34	LA01141D-98-6-3	404		no		295		409	2+12	341		Ax2*
USFHBN	35	LA02058E63	404		no	277		392	409	het?		359	Ax1 or null
USFHBN	36	LA02058E97	404		no	277	295	392	409	het		359	Ax1 or null
USFHBN	37	LA03130E68	404		no		295		409	2+12	341		Ax2*
USFHBN	38	LA03186E2	404		no		295		409	2+12		359	Ax1 or null
USFHBN	39	LA04142C-P5	404		no		295		409	2+12	341		Ax2*
USFHBN	40	M08_8005_	404		no	277		392		5+10	341		Ax2*
USFHBN	41	MD01W233-07-1	404		no		295		409	2+12	341		Ax2*
USFHBN	42	MD02W135-08-9	404		no		295		409	2+12	341		Ax2*
USFHBN	43	MD03W61-09-1	404		no		295		409	2+12		359	Ax1 or null
USFHBN	44	MD03W91-09-7	404		no	277		392		5+10	341		Ax2*
USFHBN	45	NC07-21036	404		no		295		409	2+12	341		Ax2*
USFHBN	46	NC07-23081	404		no		295		409	2+12	341		Ax2*
USFHBN	47	NC07-23126	404		no	277		392		5+10	341		Ax2*
USFHBN	48	NC07-23771	404		no		295		409	2+12		359	Ax1 or null
USFHBN	49	NC07-24445	404		no	277		nd		5+10		359	Ax1 or null
USFHBN	50	VA06W-580	404		no		295		409	2+12	341		Ax2*
USFHBN	51	VA07W-569	404		no		295		409	2+12	341		Ax2*
USFHBN	52	VA08W-622	404		no		295		409	2+12		359	Ax1 or null
USFHBN	53	VA08W-630	404		no		295		409	2+12	341		Ax2*
USFHBN	54	VA08W-653	404		no		295		409	2+12		359	Ax1 or null
USFHBN	55	VA08W-709	404		no		295	392	409	het?	341		Ax2*
USFHBN	56	VA09W-641	404		no		295		409	2+12	341	359	het
USFHBN	57	VA09W-654	404		no	277		392		5+10		359	Ax1 or null
USFHBN	58	W1104		448	yes		295		409	2+12	341		Ax2*

Pre-harvest Sprouting

2010

Nursery	Entry	Sample Name	barc55	barc55	PHS Cayuga
USFHBN	1	ERNIE	124		no
USFHBN	2	COKER9835	124	132	het?
USFHBN	3	BESS	124		no
USFHBN	4	JAMESTOWN	128		no
USFHBN	5	LA01164D-94-2	nd		nd
USFHBN	6	03M1539_031	132		yes
USFHBN	7	AR99054-4-1	132		yes
USFHBN	8	ARS03-4736	124		no
USFHBN	9	ARS05-1234	132		yes
USFHBN	10	LA01141D-98-6-2	132		yes
USFHBN	11	03M1539_019	132		yes
USFHBN	12	AR99092-4-1	132		yes
USFHBN	13	AR99102-4-1	124	132	het?
USFHBN	14	AR99160-1-1-B	132		yes
USFHBN	15	AR99264-8-1	132		yes
USFHBN	16	AR99311-12-1	nd		nd
USFHBN	17	ARGE97-1042-4-5-20	132		yes
USFHBN	18	ARGE97-1047-4-2-9	124	132	het?
USFHBN	19	ARGE97-1048-3-6-7	128		no
USFHBN	20	ARS04-1267	124		no
USFHBN	21	ARS05-0005	124		no
USFHBN	22	ARS05-0043	124		no
USFHBN	23	ARS05-0277	124	132	het?
USFHBN	24	ARS07 0095	132		yes
USFHBN	25	ARS07-0203	124	132	het?
USFHBN	26	GA031188-O15	132		yes
USFHBN	27	GA031188-O16	132		yes
USFHBN	28	GA031188-O17	132		yes
USFHBN	29	GA041243-LE36	132		yes
USFHBN	30	GA041260-Q19	128		no
USFHBN	31	GA041271-PL49	124		no
USFHBN	32	GA041271-Q23	nd		nd
USFHBN	33	GA041271-Q24	124	128	no
USFHBN	34	LA01141D-98-6-3	132		yes
USFHBN	35	LA02058E63	124		no
USFHBN	36	LA02058E97	nd		nd
USFHBN	37	LA03130E68	124	132	het?
USFHBN	38	LA03186E2	132		yes
USFHBN	39	LA04142C-P5	132		yes
USFHBN	40	M08_8005_	132		yes
USFHBN	41	MD01W233-07-1	124	132	het?
USFHBN	42	MD02W135-08-9	132		yes
USFHBN	43	MD03W61-09-1	124		no
USFHBN	44	MD03W91-09-7	nd		nd
USFHBN	45	NC07-21036	132		yes
USFHBN	46	NC07-23081	124		no
USFHBN	47	NC07-23126	124	132	het?
USFHBN	48	NC07-23771	nd		nd
USFHBN	49	NC07-24445	124	132	het?
USFHBN	50	VA06W-580	124		no
USFHBN	51	VA07W-569	132		yes
USFHBN	52	VA08W-622	124	132	het?
USFHBN	53	VA08W-630	132		yes
USFHBN	54	VA08W-653	124	132	het?
USFHBN	55	VA08W-709	132		yes
USFHBN	56	VA09W-641	132		yes
USFHBN	57	VA09W-654	124		no
USFHBN	58	W1104	132		yes