

2008

Uniform Eastern & Uniform Southern Soft Red Winter Wheat Nurseries

Marker Reports

Eastern Regional Small Grains Genotyping Lab

Collaborator: Gina Brown-Guedira

USDA-ARS

Table of Contents

2008

Entry List -- UESRWWN	3
Summary of all Markers	4
Dwarfing genes & Photoperiod insensitivity	6
FHB QTLs	7
Leaf, Stripe & Stem Rusts	10
Rye Translocation, Hessian Fly, Barley Yellow Dwarf Virus	11
Quality Traits	12
Entry List -- USSRWWN	13
Summary of all Markers	14
Dwarfing genes & Photoperiod insensitivity	16
FHB QTLs	17
Leaf, Stripe & Stem Rusts	20
Rye Translocation, Hessian Fly, Barley Yellow Dwarf Virus	21
Quality Traits	22

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*

RhtW = wild type; RhtM = dwarfing

Ppd-D1a = photoperiod insensitive = yes

2008 Uniform Eastern Soft Red Winter Wheat Nursery

Entry List

Nursery	Entry	Sample Name	Pedigree	Source	1st Year in Nursery
UESRWWN	1	Roane	VA71-54-147(CI17449)/C68-15//IN65309C1-18-2-3-2 (formerly VA93-54-429)	Check	95-96
UESRWWN	2	INW0411	96204A1-12//Goldfield/92823A1-11 (formerly P97397E1-11-2-4-1-1)	Check	03-04
UESRWWN	3	Branson	Pio2737W/891-4584A (Pike/FL302) (formerly M00-3701)	Check	03-04
UESRWWN	4	Bess	MO11769/Madison (formerly MO981020)	Check	02-03
UESRWWN	5	MO011126	MO94-103/Pio2552	McKendry	05-06
UESRWWN	6	VA03W-412	Roane/Pio2643//SS520	Griffey	05-06
UESRWWN	7	AR97044-10-2	Elkhart/AR494B-2-2	Bacon	06-07
UESRWWN	8	KY96C-0769-7-3	2552/Roane	Van Sanford	06-07
UESRWWN	9	OH02-12678	Foster/Hopewell//OH581/OH569	Sneller	06-07
UESRWWN	10	MO040192	IL85-2872/MO10501	McKendry	06-07
UESRWWN	11	IL00-8530	IL89-1687//IL90-6364/IL93-2489	Kolb	06-07
UESRWWN	12	NC04-20814	NC94-6275/P86958//VA96-54-234	Murphy	07-08
UESRWWN	13	AR97124-4-2	P88288C1-6-1-2/Terra SR204	Bacon	07-08
UESRWWN	14	OH02-7217	92118B4-2/OH561	Sneller	07-08
UESRWWN	15	OH03-41-45	IL91-14167/OH599	Sneller	07-08
UESRWWN	16	P02444A1-23-9	981129/99793//INW0301/92145	Ohm	07-08
UESRWWN	17	P03207A1-7	INW0304*2/RS15//981281/3/INW0315/99794	Ohm	07-08
UESRWWN	18	P04287A1-16	INW0315*2/4/INW0304//9346/CS5Am/3/91202//INW0301/INW0315	Ohm	07-08
UESRWWN	19	NYCalR-L	reselection out of Caledonia	Sorrells	07-08
UESRWWN	20	MD01W233-06-8	McCormick/Choptank	Costa	07-08
UESRWWN	21	MD01W233-06-21	McCormick/Choptank	Costa	07-08
UESRWWN	22	MD99W483-06-9	VA97W358/Renwood 3260	Costa	07-08
UESRWWN	23	VA05W-257	VA98W-130(Savannah/VA87-54-558//VA88-54-328/Gore)//Coker9835/SS520	Griffey	07-08
UESRWWN	24	VA05W-414	Pio25W60//VA96W-606WS(FFR555W/Coker9803//Annette)/Pio2691	Griffey	07-08
UESRWWN	25	LA01_425	P2571/Y91-6B	Moreno	07-08
UESRWWN	26	LA02-923	PS8424//XY90-1B/TX851212	Moreno	07-08
UESRWWN	27	21525c1	OH498/Foster//P2571	Moreno	07-08
UESRWWN	28	IL02-18228	Pio25R26/IL9634-24437(IL90-4813/L85-3132/Ning7840)//IL95-4162	Kolb	07-08
UESRWWN	29	IL02-19463	Patton/Cardinal//IL96-2550	Kolb	07-08
UESRWWN	30	MochaExp	OH489/OH490	Fioritto	07-08
UESRWWN	31	ArenaExp	NASW84-345/Coker9835//OH419/OH389	Fioritto	07-08
UESRWWN	32	IndiaExp	KY85C-35-4/Karl/Madison	Fioritto	07-08
UESRWWN	33	B030543	VA93-54-429/LA85422	Hancock	07-08
UESRWWN	34	D04_5513	DK1551W/D94-50228	Hancock	07-08
UESRWWN	35	M03-3616-11B	Hopewell/Patton	Hancock	07-08
UESRWWN	36	KY97C-0321-02-01	Kristy/VA94-52-25//2540	Van Sanford	07-08
UESRWWN	37	KY97C-0519-04-07	SS555W/2540//2552	Van Sanford	07-08
UESRWWN	38	W06-202B	Ashland/Hopewell//OH546/L930605	Cisar	07-08
UESRWWN	39	MO040152	MO 12278/Pio2571	McKendry	07-08
UESRWWN	40	G41730	T814/L900819	Brown	07-08
UESRWWN	41	G52612	T812/VA91-54-219	Brown	07-08
UESRWWN	42	G69202	VA91-54-219/OH413	Brown	07-08
UESRWWN	43	M04-4566	Bradley/Roane	Fogleman	07-08
UESRWWN	44	M04-4802	FFR518//Elkhart/MV-18	Fogleman	07-08
UESRWWN	45	M04_5109	VA94-54-479/Pio2628	Fogleman	07-08

2008 Uniform Eastern Soft Red Winter Wheat Nursery

Summary of all Markers

Nursery	Entry	Sample Name	Rht1- B1b	Rht2- D1b	Ppd-D1a	Fhb 2DL-				
						Fhb1	Ernie 3Bc	Wuhan1/ W14	Fhb 5A Ernie	Fhb 5A Ning7840
UESRWWN	1	Roane	no	yes	yes	no	?	no	no	<i>no</i>
UESRWWN	2	INW0411	yes	no	yes	no	no	no	no	<i>no</i>
UESRWWN	3	Branson	yes	no	yes	no	no	no	yes	<i>no</i>
UESRWWN	4	Bess	yes	no	no	no	no	no	no	<i>no</i>
UESRWWN	5	MO011126	no	yes	yes	no	no	no	no	<i>no</i>
UESRWWN	6	VA03W-412	no	yes	yes	no	no	no	no	<i>no</i>
UESRWWN	7	AR97044-10-2	yes	nd	het	no	no	no	no	<i>no</i>
UESRWWN	8	KY96C-0769-7-3	no	yes	yes	no	no	no	no	<i>no</i>
UESRWWN	9	OH02-12678	yes	het	no	no	no	no	no	<i>no</i>
UESRWWN	10	MO040192	yes	no	no	no	yes	no	no	<i>no</i>
UESRWWN	11	IL00-8530	yes	no	no	no	het	no	yes	<i>no</i>
UESRWWN	12	NC04-20814	yes	no	yes	no	no	no	no	<i>no</i>
UESRWWN	13	AR97124-4-2	yes	het	nd	nd	nd	nd	nd	<i>nd</i>
UESRWWN	14	OH02-7217	yes	het	het	no	yes	no	yes	<i>no</i>
UESRWWN	15	OH03-41-45	yes	no	no	no	no	no	no	<i>no</i>
UESRWWN	16	P02444A1-23-9	yes	no	yes	?	no	no	no	<i>no</i>
UESRWWN	17	P03207A1-7	yes	no	no	no	no	no	no	<i>no</i>
UESRWWN	18	P04287A1-16	yes	no	no	no	no	no	no	<i>no</i>
UESRWWN	19	NYCalR-L	no	yes	yes	no	no	no	no	<i>no</i>
UESRWWN	20	MD01W233-06-8	no	yes	no	no	no	no	no	<i>no</i>
UESRWWN	21	MD01W233-06-21	no	yes	no	no	no	no	no	<i>no</i>
UESRWWN	22	MD99W483-06-9	het	het	yes	no	no	no	no	<i>no</i>
UESRWWN	23	VA05W-257	no	yes	yes	no	no	no	no	<i>no</i>
UESRWWN	24	VA05W-414	no	yes	yes	no	no	no	no	<i>no</i>
UESRWWN	25	LA01_425	yes	no	yes	no	yes	no	no	<i>no</i>
UESRWWN	26	LA02-923	yes	no	no	no	no	no	no	<i>no</i>
UESRWWN	27	21525c1	yes	no	yes	no	no	no	no	<i>no</i>
UESRWWN	28	IL02-18228	yes	no	nd	no	no	no	no	<i>no</i>
UESRWWN	29	IL02-19463	yes	no	yes	no	no	no	no	<i>no</i>
UESRWWN	30	MochaExp	yes	no	yes	no	no	no	no	<i>no</i>
UESRWWN	31	ArenaExp	no	yes	yes	no	no	no	no	<i>no</i>
UESRWWN	32	IndiaExp	yes		yes	no	no	no	no	<i>no</i>
UESRWWN	33	B030543	no	yes	yes	no	no	no	no	<i>no</i>
UESRWWN	34	D04_5513	no	yes	yes	no	no	no	yes	<i>no</i>
UESRWWN	35	M03-3616-11B	yes	no	no	no	no	no	yes	<i>no</i>
UESRWWN	36	KY97C-0321-02-01	no	yes	yes	no	no	no	no	<i>no</i>
UESRWWN	37	KY97C-0519-04-07	no	yes	yes	no	no	no	no	<i>no</i>
UESRWWN	38	W06-202B	no	yes	yes	no	no	no	no	<i>no</i>
UESRWWN	39	MO040152	yes	het	no	no	no	no	no	<i>no</i>
UESRWWN	40	G41730	no	no	no	no	no	no	no	<i>no</i>
UESRWWN	41	G52612	no	het	no	no	no	no	no	<i>no</i>
UESRWWN	42	G69202	yes	no	no	no	yes	no	no	<i>no</i>
UESRWWN	43	M04-4566	yes	no	yes	no	no	no	no	<i>no</i>
UESRWWN	44	M04-4802	no	yes	yes	no	no	no	no	<i>no</i>
UESRWWN	45	M04_5109	no	yes	yes	no	no	no	no	<i>no</i>

Ppd-D1a = photoperiod insensitive = yes

"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**

2008 Uniform Eastern Soft Red Winter Wheat Nursery

Summary of all Markers

Nursery	Entry	Sample Name	Yr17/ Lr34/				1RS	H13	H9	Bdv2/3	Bx7 over-expressing		
			Sr36	Sr24/ Lr24	Lr37/ Sr38	Yr18/ Pm38					Lr46/ Yr29	Glu-D1	Glu-A1
UESRWWN	1	Roane	no	no	no	no	no	no	no	no	no	2+12	Ax2*
UESRWWN	2	INW0411	yes	no	no	no	no	no	no	no	no	het	Ax1 or null
UESRWWN	3	Branson	no	no	no	no	no	no	no	no	no	2+12	Ax2*
UESRWWN	4	Bess	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
UESRWWN	5	MO011126	no	no	no	no	no	no	no	no	yes	2+12	Ax1 or null
UESRWWN	6	VA03W-412	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
UESRWWN	7	AR97044-10-2	no	no	no	no	no	no	no	no	no	2+12	Ax2*
UESRWWN	8	KY96C-0769-7-3	no	no	no	no	no	no	no	no	no	het	Ax2*
UESRWWN	9	OH02-12678	no	no	no	no	no	no	no	no	no	2+12	Ax2*
UESRWWN	10	MO040192	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
UESRWWN	11	IL00-8530	no	no	no	no	no	no	no	no	no	het	Ax2*
UESRWWN	12	NC04-20814	yes	no	no	no	no	no	no	no	no	2+12	Ax1 or null
UESRWWN	13	AR97124-4-2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
UESRWWN	14	OH02-7217	no	no	no	no	no	no	no	no	no	het	Ax1 or null
UESRWWN	15	OH03-41-45	no	no	no	no	no	no	no	no	no	5+10	Ax2*
UESRWWN	16	P02444A1-23-9	no	no	yes	no	no	no	nd	no	yes	2+12	Ax2*
UESRWWN	17	P03207A1-7	no	no	yes	no	no	no	no	yes	yes	5+10	Ax1 or null
UESRWWN	18	P04287A1-16	yes	no	no	no	no	no	no	yes	yes	het	Ax1 or null
UESRWWN	19	NYCaIR-L	no	no	no	no	yes?	no	no	no	no	2+12	Ax1 or null
UESRWWN	20	MD01W233-06-8	no	no	no	no	no	no	no	no	no	2+12	Ax2*
UESRWWN	21	MD01W233-06-21	no	no	no	no	no	no	no	no	no	2+12	Ax2*
UESRWWN	22	MD99W483-06-9	yes	no	no	no	no	no	no	no	no	5+10	Ax2*
UESRWWN	23	VA05W-257	no	no	no	no	no	no	no	no	no	2+12	Ax2*
UESRWWN	24	VA05W-414	het	no	no	no	no	no	no	no	no	2+12	Ax1 or null
UESRWWN	25	LA01_425	no	no	yes	no	no	no	no	no	yes	het	Ax2*
UESRWWN	26	LA02-923	no	yes	no	no	no	no	no	no	no	2+12	het
UESRWWN	27	21525c1	no	no	no	no	no	no	no	no	no	2+12	Ax2*
UESRWWN	28	IL02-18228	no	no	no	no	no	no	no	no	no	5+10	nd
UESRWWN	29	IL02-19463	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
UESRWWN	30	MochaExp	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
UESRWWN	31	ArenaExp	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
UESRWWN	32	IndiaExp	no	no	no	no	no	no	no	no	no	5+10	Ax2*
UESRWWN	33	B030543	yes	no	no	het	no	no	no	no	no	2+12	Ax1 or null
UESRWWN	34	D04_5513	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
UESRWWN	35	M03-3616-11B	nd	no	no	no	no	no	no	no	no	2+12	Ax1 or null
UESRWWN	36	KY97C-0321-02-01	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
UESRWWN	37	KY97C-0519-04-07	no	no	no	no	no	no	no	no	no	2+12	Ax2*
UESRWWN	38	W06-202B	no	no	no	no	no	no	no	no	yes	5+10	Ax2*
UESRWWN	39	MO040152	no	no	no	no	no	no	no	no	no	5+10	Ax1 or null
UESRWWN	40	G41730	yes	no	no	no	no	no	no	no	no	5+10	Ax2*
UESRWWN	41	G52612	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null
UESRWWN	42	G69202	yes	no	no	no	no	no	no	no	no	2+12	Ax2*
UESRWWN	43	M04-4566	no	no	no	no	no	no	nd	no	no	2+12	Ax1 or null
UESRWWN	44	M04-4802	no	no	no	no	no	no	no	no	het	het	Ax2*
UESRWWN	45	M04_5109	no	no	no	no	no	no	no	no	het	2+12	Ax2*

"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**

Dwarfing genes & Photoperiod insensitivity

2008

Nursery	Entry	Sample Name	Rht1W	Rht1M	Rht2W	Rht2M	Rht1- B1b	Rht2- D1b	Ppd1	Ppd1	Ppd-D1a
UESRWWN	1	Roane	358			250	no	yes	288		yes
UESRWWN	2	INW0411		364	249		yes	no	288		yes
UESRWWN	3	Branson		364	249		yes	no	288		yes
UESRWWN	4	Bess		364	249		yes	no		414	no
UESRWWN	5	MO011126	358			250	no	yes	288		yes
UESRWWN	6	VA03W-412	358			250	no	yes	288		yes
UESRWWN	7	AR97044-10-2		364	nd	nd	yes	nd	288	414	het
UESRWWN	8	KY96C-0769-7-3	358			250	no	yes	288		yes
UESRWWN	9	OH02-12678		364	249	250	yes	het		414	no
UESRWWN	10	MO040192		364	249		yes	no		414	no
UESRWWN	11	IL00-8530		364	249		yes	no		414	no
UESRWWN	12	NC04-20814		364	249		yes	no	288		yes
UESRWWN	13	AR97124-4-2		364	249	251	yes	het	nd		nd
UESRWWN	14	OH02-7217		364	249	250	yes	het	288	414	het
UESRWWN	15	OH03-41-45		364	249		yes	no		414	no
UESRWWN	16	P02444A1-23-9		364	249		yes	no	288		yes
UESRWWN	17	P03207A1-7		364	249		yes	no		414	no
UESRWWN	18	P04287A1-16		364	249		yes	no		414	no
UESRWWN	19	NYCalR-L	358			250	no	yes	288		yes
UESRWWN	20	MD01W233-06-8	358			250	no	yes		414	no
UESRWWN	21	MD01W233-06-21	358			250	no	yes		414	no
UESRWWN	22	MD99W483-06-9	358	365	249	250	het	het	288		yes
UESRWWN	23	VA05W-257	358?			250	no	yes	288		yes
UESRWWN	24	VA05W-414	358			250	no	yes	288		yes
UESRWWN	25	LA01_425		364	249		yes	no	288		yes
UESRWWN	26	LA02-923		364	249		yes	no		414	no
UESRWWN	27	21525c1		364	249		yes	no	288		yes
UESRWWN	28	IL02-18228		364	249		yes	no	nd		nd
UESRWWN	29	IL02-19463		364	249		yes	no	288		yes
UESRWWN	30	MochaExp		364	249		yes	no	288		yes
UESRWWN	31	ArenaExp	358			250	no	yes	288		yes
UESRWWN	32	IndiaExp		364	249	250	yes		288		yes
UESRWWN	33	B030543	358			250	no	yes	288		yes
UESRWWN	34	D04_5513	358			250	no	yes	288		yes
UESRWWN	35	M03-3616-11B		364	249		yes	no		414	no
UESRWWN	36	KY97C-0321-02-01	358			250	no	yes	288		yes
UESRWWN	37	KY97C-0519-04-07	358			250	no	yes	288		yes
UESRWWN	38	W06-202B	358			250	no	yes	288		yes
UESRWWN	39	MO040152		364	249	251	yes	het		414	no
UESRWWN	40	G41730	358		249		no	no		414	no
UESRWWN	41	G52612	358		249	250	no	het		414	no
UESRWWN	42	G69202		364	249		yes	no		414	no
UESRWWN	43	M04-4566		364	249		yes	no	288		yes
UESRWWN	44	M04-4802	358			250	no	yes	288		yes
UESRWWN	45	M04_5109	358			250	no	yes	288		yes

RhtW = wild type; RhtM = dwarfing

Ppd-D1a = photoperiod insensitive = yes

"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*

FHB QTLs

2008

Nursery	Entry	Sample Name	umn 10	umn 10	gwm 533	gwm 533	gwm 533	STS- 256	Fhb1	gwm 285	gwm 285	wmc 612	wmc 612	wmc 307	wmc 307	Fhb Ernie 3Bc
UESRWWN	1	Roane	228		156			224	no	245		282		142		?
UESRWWN	2	INW0411	239		129			231	no	219		288		142		no
UESRWWN	3	Branson	236		119			224	no	219		282	288	144		no
UESRWWN	4	Bess	236		119			224	no	250		291		140		no
UESRWWN	5	MO011126	236		119			224	no	226		291		144		no
UESRWWN	6	VA03W-412	236		141			224	no	220		276		144		no
UESRWWN	7	AR97044-10-2	236		119			224	no	219		282		142		no
UESRWWN	8	KY96C-0769-7-3	236		nd			224	no	226		281	291	144		no
UESRWWN	9	OH02-12678	236		nd			224	no	219		274		142		no
UESRWWN	10	MO040192	236		119			224	no	245		287		142		yes
UESRWWN	11	IL00-8530	228	236	119	147	156	224	no	226	245	287	291	142	144	het
UESRWWN	12	NC04-20814	236		119			224	no	243		288		142		no
UESRWWN	13	AR97124-4-2	nd		nd			nd	nd	nd		nd		nd		nd
UESRWWN	14	OH02-7217	236		nd			224	no	245		287		142		yes
UESRWWN	15	OH03-41-45	228		147	156		224	no	219		281		142		no
UESRWWN	16	P02444A1-23-9	239		nd			231	?	219		288		142		no
UESRWWN	17	P03207A1-7	236		nd			nd	no	219		288		142		no
UESRWWN	18	P04287A1-16	236		119			224	no	219		288		142	144	no
UESRWWN	19	NYCalR-L	236		119			224	no	219		268		142		no
UESRWWN	20	MD01W233-06-8	228		147	156		224	no	219	243	282	288	142		no
UESRWWN	21	MD01W233-06-21	228	236	147	156		224	no	243		288		142		no
UESRWWN	22	MD99W483-06-9	236		119			224	no	226		291		144		no
UESRWWN	23	VA05W-257	236		119			224	no	220		nd		144		no
UESRWWN	24	VA05W-414	236		nd			nd	no	226		291		144		no
UESRWWN	25	LA01_425	236		119			224	no	245		287		142		yes
UESRWWN	26	LA02-923	228	236	119	147	156	224	no	245		nd		142		no
UESRWWN	27	21525c1	236		119			224	no	219		279		144		no
UESRWWN	28	IL02-18228	236		119			224	no	220	245	282		144		no
UESRWWN	29	IL02-19463	236		nd			224	no	219		276	279	144		no
UESRWWN	30	MochaExp	236		nd			224	no	219		276		144		no
UESRWWN	31	ArenaExp	236		119			224	no	226		282		144		no
UESRWWN	32	IndiaExp	236		119			224	no	220		288		144		no
UESRWWN	33	B030543	236		119			224	no	220		281		144		no
UESRWWN	34	D04_5513	236		119			224	no	219		282		144		no
UESRWWN	35	M03-3616-11B	236		nd			224	no	219		276		144		no
UESRWWN	36	KY97C-0321-02-01	236		119			224	no	226		291		144		no
UESRWWN	37	KY97C-0519-04-07	236		119			224	no	226		291		144		no
UESRWWN	38	W06-202B	236		119			224	no	230		285		142		no
UESRWWN	39	MO040152	228		144			224	no	219		nd		144		no
UESRWWN	40	G41730	236		119			224	no	219		282		144		no
UESRWWN	41	G52612	228		156			224	no	220		288		142		no
UESRWWN	42	G69202	236		nd			224	no	245		287		142		yes
UESRWWN	43	M04-4566	236		141			224	no	220		276	282	144		no
UESRWWN	44	M04-4802	236		119			224	no	226	245	287	291	144		no
UESRWWN	45	M04_5109	236		119			224	no	nd		285		144		no

"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**

FHB QTLs

2008

Nursery	Entry	Sample Name	cf 233	cf 233	gwm 539	gwm 539	gwm 608	gwm 608	Fhb 2DL- Wuhan1/W14
UESRWWN	1	Roane	280		131		150		no
UESRWWN	2	INW0411	268	278	139		154	156	no
UESRWWN	3	Branson	280	284	124	144	150		no
UESRWWN	4	Bess	290		137		162		no
UESRWWN	5	MO011126	270		133		156		no
UESRWWN	6	VA03W-412	286		137	144	150	154	no
UESRWWN	7	AR97044-10-2	278		131		150		no
UESRWWN	8	KY96C-0769-7-3	270	280	131		156		no
UESRWWN	9	OH02-12678	276	278	131		150		no
UESRWWN	10	MO040192	290		137		152		no
UESRWWN	11	IL00-8530	280		124	131	150		no
UESRWWN	12	NC04-20814	272		135		162		no
UESRWWN	13	AR97124-4-2	nd		nd		nd		nd
UESRWWN	14	OH02-7217	270		155		150		no
UESRWWN	15	OH03-41-45	288		124	133	156	162	no
UESRWWN	16	P02444A1-23-9	290		124	139	150		no
UESRWWN	17	P03207A1-7	284	288	137		150	152	no
UESRWWN	18	P04287A1-16	278		139		150		no
UESRWWN	19	NYCalR-L	274		139		154		no
UESRWWN	20	MD01W233-06-8	278		131	135	150		no
UESRWWN	21	MD01W233-06-21	272	278	131	135	150	154	no
UESRWWN	22	MD99W483-06-9	278		135		150		no
UESRWWN	23	VA05W-257	272	280	131	137	150		no
UESRWWN	24	VA05W-414	268		137		150	154	no
UESRWWN	25	LA01_425	278		135		150		no
UESRWWN	26	LA02-923	278	290	137		150	162	no
UESRWWN	27	21525c1	290		137		162		no
UESRWWN	28	IL02-18228	280		131		150		no
UESRWWN	29	IL02-19463	278	284	137		150		no
UESRWWN	30	MochaExp	270		131		156		no
UESRWWN	31	ArenaExp	270		133		156		no
UESRWWN	32	IndiaExp	284		133		150		no
UESRWWN	33	B030543	280		131		150		no
UESRWWN	34	D04_5513	278		139		150		no
UESRWWN	35	M03-3616-11B	290		131		154		no
UESRWWN	36	KY97C-0321-02-01	270		133		156		no
UESRWWN	37	KY97C-0519-04-07	270		137		156		no
UESRWWN	38	W06-202B	278		148		150		no
UESRWWN	39	MO040152	290		161		162		no
UESRWWN	40	G41730	284		137		150		no
UESRWWN	41	G52612	284		137		154		no
UESRWWN	42	G69202	290		135		162		no
UESRWWN	43	M04-4566	270		137		150		no
UESRWWN	44	M04-4802	268	270	131	137	156		no
UESRWWN	45	M04_5109	270		133		156		no

"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**

FHB QTLs

2008

Nursery	Entry	Sample Name	gwm 304	gwm 304	wmc7 05	wmc 705	barc 117	barc 117	barc 186	barc 186	Fhb 5A Ernie	Fhb 5A Ning7840
UESRWWN	1	Roane	199		164		217		203		no	<i>no</i>
UESRWWN	2	INW0411	217		162		221		213		no	<i>no</i>
UESRWWN	3	Branson	199	220	135	162	217	221	203		yes	<i>no</i>
UESRWWN	4	Bess	199		164		217		203		no	<i>no</i>
UESRWWN	5	MO011126	199		164		217		203		no	<i>no</i>
UESRWWN	6	VA03W-412	199		164		217		203		no	<i>no</i>
UESRWWN	7	AR97044-10-2	199		164		217		203		no	<i>no</i>
UESRWWN	8	KY96C-0769-7-3	199		164		217		203		no	<i>no</i>
UESRWWN	9	OH02-12678	217		162		221		213		no	<i>no</i>
UESRWWN	10	MO040192	199		164		217		203		no	<i>no</i>
UESRWWN	11	IL00-8530	220		135		221		203		yes	<i>no</i>
UESRWWN	12	NC04-20814	199	215	133	164	217	225	nd		no	<i>no</i>
UESRWWN	13	AR97124-4-2	nd		nd		nd		nd		nd	<i>nd</i>
UESRWWN	14	OH02-7217	220		135		221		203		yes	<i>no</i>
UESRWWN	15	OH03-41-45	199		164		217		203		no	<i>no</i>
UESRWWN	16	P02444A1-23-9	199		164		217		203		no	<i>no</i>
UESRWWN	17	P03207A1-7	213		139		221		213		no	<i>no</i>
UESRWWN	18	P04287A1-16	203		139		217		203		no	<i>no</i>
UESRWWN	19	NYCalR-L	201		135		217		203		no	<i>no</i>
UESRWWN	20	MD01W233-06-8	199		162		217		203		no	<i>no</i>
UESRWWN	21	MD01W233-06-21	199		162		217		203		no	<i>no</i>
UESRWWN	22	MD99W483-06-9	199		162		217		203		no	<i>no</i>
UESRWWN	23	VA05W-257	201		133		217		213		no	<i>no</i>
UESRWWN	24	VA05W-414	222		135		221		203		no	<i>no</i>
UESRWWN	25	LA01_425	199	203	141	162	217		203	215	no	<i>no</i>
UESRWWN	26	LA02-923	199		166		217		203		no	<i>no</i>
UESRWWN	27	21525c1	199		162		217		203		no	<i>no</i>
UESRWWN	28	IL02-18228	213		137		221		213		no	<i>no</i>
UESRWWN	29	IL02-19463	199		162		217		203		no	<i>no</i>
UESRWWN	30	MochaExp	197		139		217		215		no	<i>no</i>
UESRWWN	31	ArenaExp	215		133		225		213		no	<i>no</i>
UESRWWN	32	IndiaExp	199		164		217		203		no	<i>no</i>
UESRWWN	33	B030543	199		164		217		203		no	<i>no</i>
UESRWWN	34	D04_5513	220		135		221		203		yes	<i>no</i>
UESRWWN	35	M03-3616-11B	220		135		221		203		yes	<i>no</i>
UESRWWN	36	KY97C-0321-02-01	199		162		217		203		no	<i>no</i>
UESRWWN	37	KY97C-0519-04-07	199		164		217		203		no	<i>no</i>
UESRWWN	38	W06-202B	201		135		217		203		no	<i>no</i>
UESRWWN	39	MO040152	199		162		217		203		no	<i>no</i>
UESRWWN	40	G41730	199		162		217		203		no	<i>no</i>
UESRWWN	41	G52612	199		164		217		203		no	<i>no</i>
UESRWWN	42	G69202	199		164		217		203		no	<i>no</i>
UESRWWN	43	M04-4566	199		164		217		203		no	<i>no</i>
UESRWWN	44	M04-4802	199		164		217	221	203		no	<i>no</i>
UESRWWN	45	M04_5109	199		164		217		203		no	<i>no</i>

"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**

Leaf, Stripe & Stem Rusts

2008

Nursery	Entry	Sample Name	wmc	wmc	Sr36	barc	barc	Sr24/	ventriup	Yr17/	cslv	cslv	Lr34/	Lr46/	wmc	wmc	Lr46/
			477	477		71	71	Lr24		Lr37/		34	34	Yr18/		Yr29	44
UESRWWN	1	Roane	165		no	105		no		no	235		no	G	267		no
UESRWWN	2	INW0411	186		yes	105		no		no	235		no	G	267		no
UESRWWN	3	Branson	162		no	105		no		no	235		no	G	236	246	no
UESRWWN	4	Bess	169		no	113		no		no	235		no	C	267		no
UESRWWN	5	MO011126	169		no	105		no		no	235		no	C	254	258	no
UESRWWN	6	VA03W-412	162		no	105		no		no	235		no	C	260		no
UESRWWN	7	AR97044-10-2	169		no	113		no		no	235		no	C	246		no
UESRWWN	8	KY96C-0769-7-3	165	169	no	105		no		no	235		no	G	267		no
UESRWWN	9	OH02-12678	162		no	113		no		no	235		no	C	260		no
UESRWWN	10	MO040192	169		no	105		no		no	235		no	C	260		no
UESRWWN	11	IL00-8530	169		no	105		no		no	235		no	C	258		no
UESRWWN	12	NC04-20814	186		yes	105		no		no	235		no	C	260		no
UESRWWN	13	AR97124-4-2	nd		nd	nd		nd	nd	nd	nd		nd	nd	nd		nd
UESRWWN	14	OH02-7217	162		no	105	113	no		no	235		no	C	246		no
UESRWWN	15	OH03-41-45	169		no	113		no		no	235		no	G	267		no
UESRWWN	16	P02444A1-23-9	169		no	105		no	256	yes	235		no	C	267		no
UESRWWN	17	P03207A1-7	167		no	113		no	256	yes	235		no	C	260		no
UESRWWN	18	P04287A1-16	186		yes	105		no		no	235		no	G	260		no
UESRWWN	19	NYCaLR-L	162		no	105		no		no	235		no	G	208		yes?
UESRWWN	20	MD01W233-06-8	167		no	113		no		no	235		no	C	236		no
UESRWWN	21	MD01W233-06-21	167		no	113		no		no	235		no	C	258		no
UESRWWN	22	MD99W483-06-9	186		yes	113		no		no	235		no	C	258		no
UESRWWN	23	VA05W-257	167		no	105		no		no	235		no	C	260		no
UESRWWN	24	VA05W-414	169	186	het	113		no		no	235		no	G	269		no
UESRWWN	25	LA01_425	167		no	113		no	256	yes	235		no	C	263		no
UESRWWN	26	LA02-923	167		no	88	113	yes		no	235		no	G	260		no
UESRWWN	27	21525c1	162		no	105		no		no	235		no	C	260		no
UESRWWN	28	IL02-18228	165		no	105		no		no	235		no	C	260		no
UESRWWN	29	IL02-19463	169		no	113		no		no	235		no	G	236		no
UESRWWN	30	MochaExp	167		no	105		no		no	235		no	C	260		no
UESRWWN	31	ArenaExp	169		no	105		no		no	235		no	C	260		no
UESRWWN	32	IndiaExp	169		no	105		no		no	235		no	C	263		no
UESRWWN	33	B030543	186		yes	105		no		no	155	235	het	G	267		no
UESRWWN	34	D04_5513	169		no	105		no		no	235		no	C	260		no
UESRWWN	35	M03-3616-11B	nd		nd	105		no		no	235		no	C	260		no
UESRWWN	36	KY97C-0321-02-01	162		no	105		no		no	235		no	C	258		no
UESRWWN	37	KY97C-0519-04-07	162		no	105		no		no	235		no	C	258		no
UESRWWN	38	W06-202B	162		no	105		no		no	235		no	C	233		no
UESRWWN	39	MO040152	167		no	113		no		no	235		no	G	236		no
UESRWWN	40	G41730	186		yes	105		no		no	235		no	G	258		no
UESRWWN	41	G52612	167		no	105		no		no	235		no	G	267		no
UESRWWN	42	G69202	186		yes	105		no		no	235		no	G/C	260	267	no
UESRWWN	43	M04-4566	167		no	105		no		no	235		no	G	260		no
UESRWWN	44	M04-4802	165		no	105	113	no		no	235		no	G/C	258		no
UESRWWN	45	M04_5109	162		no	105		no		no	235		no	C	260		no

"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**

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

2008

Nursery	Entry	Sample Name	scm9	1RS	cf132	cf132	H13	cfa2153	cfa2153	cfa2153	H9	Bdv3	Bdv3	Bdv2/3
UESRWWN	1	Roane		non-1RS	116		no	196			no	185		no
UESRWWN	2	INW0411	208	1RS:1BL	116		no	196			no	185		no
UESRWWN	3	Branson		non-1RS	116		no	200	221		no	185		no
UESRWWN	4	Bess		non-1RS	116		no	221			no	185		no
UESRWWN	5	MO011126		non-1RS	116		no	213			no	185		no
UESRWWN	6	VA03W-412		non-1RS	116		no	204	213		no	185		no
UESRWWN	7	AR97044-10-2		non-1RS	116		no	221			no	185		no
UESRWWN	8	KY96C-0769-7-3		non-1RS	116		no	196			no	185		no
UESRWWN	9	OH02-12678	224	1RS:1AL	116		no	196	204	221	no	185		no
UESRWWN	10	MO040192		non-1RS	116		no	204			no	185		no
UESRWWN	11	IL00-8530		non-1RS	116		no	196			no	185		no
UESRWWN	12	NC04-20814		non-1RS	116		no	204	208		no	185		no
UESRWWN	13	AR97124-4-2	nd	nd	nd		nd	nd			nd	nd		nd
UESRWWN	14	OH02-7217		non-1RS	116		no	196			no	185		no
UESRWWN	15	OH03-41-45	224	1RS:1AL	116		no	196			no	185		no
UESRWWN	16	P02444A1-23-9		non-1RS	116		no	nd			nd	185		no
UESRWWN	17	P03207A1-7	208	1RS:1BL	116	153	het	194	213		no	200		yes
UESRWWN	18	P04287A1-16	208	1RS:1BL	116		no	204			no	200		yes
UESRWWN	19	NYCaLR-L	208	1RS:1BL	116		no	192			no	185		no
UESRWWN	20	MD01W233-06-8	224	1RS:1AL	116		no	196	204		no	185		no
UESRWWN	21	MD01W233-06-21	224	1RS:1AL	116		no	202			no	185		no
UESRWWN	22	MD99W483-06-9		non-1RS	116		no	196			no	185		no
UESRWWN	23	VA05W-257		non-1RS	116		no	204			no	185	186	no
UESRWWN	24	VA05W-414		non-1RS	116		no	192			no	185		no
UESRWWN	25	LA01_425		non-1RS	116		no	196			no	185		no
UESRWWN	26	LA02-923		non-1RS	116		no	204			no	185	186	no
UESRWWN	27	21525c1		non-1RS	116		no	194			no	185		no
UESRWWN	28	IL02-18228		non-1RS	116		no	204			no	185		no
UESRWWN	29	IL02-19463		non-1RS	116		no	200			no	185		no
UESRWWN	30	MochaExp		non-1RS	116		no	196			no	185		no
UESRWWN	31	ArenaExp		non-1RS	116		no	196			no	185		no
UESRWWN	32	IndiaExp		non-1RS	116		no	213			no	185		no
UESRWWN	33	B030543		non-1RS	116		no	204			no	185		no
UESRWWN	34	D04_5513		non-1RS	116		no	204			no	185		no
UESRWWN	35	M03-3616-11B	208	1RS:1BL	116		no	170			no	185		no
UESRWWN	36	KY97C-0321-02-01		non-1RS	116		no	204			no	185		no
UESRWWN	37	KY97C-0519-04-07		non-1RS	116		no	213			no	185		no
UESRWWN	38	W06-202B		non-1RS	116		no	204			no	185		no
UESRWWN	39	MO040152		non-1RS	116		no	204			no	185		no
UESRWWN	40	G41730		non-1RS	116		no	194			no	185		no
UESRWWN	41	G52612		non-1RS	116		no	204			no	185		no
UESRWWN	42	G69202		non-1RS	116		no	196			no	185		no
UESRWWN	43	M04-4566		non-1RS	nd		nd	213			no	185	186	no
UESRWWN	44	M04-4802		non-1RS	116		no	196	213		no	185		no
UESRWWN	45	M04_5109		non-1RS	116		no	204			no	185		no

"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**

Quality Traits

2008

Nursery	Entry	Sample Name	Bx7 over-			umn	umn	umn	umn	Glu-D1	umn	umn	Glu-A1
			bx7oe	bx7oe	expressing	25	25	26	26		19	19	
UESRWWN	1	Roane	404		no		293		407	2+12	342		Ax2*
UESRWWN	2	INW0411	404		no	275	293	390	407	het		358	Ax1 or null
UESRWWN	3	Branson	404		no		293		407	2+12	342		Ax2*
UESRWWN	4	Bess	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	5	MO011126		449	yes		293		407	2+12		358	Ax1 or null
UESRWWN	6	VA03W-412	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	7	AR97044-10-2	404		no		299		407	2+12	342		Ax2*
UESRWWN	8	KY96C-0769-7-3	404		no	275	293	390	407	het	342		Ax2*
UESRWWN	9	OH02-12678	404		no		293		407	2+12	342		Ax2*
UESRWWN	10	MO040192	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	11	IL00-8530	404		no	275	293	390	407	het	342		Ax2*
UESRWWN	12	NC04-20814	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	13	AR97124-4-2	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd
UESRWWN	14	OH02-7217	404		no	275	293	390	407	het		358	Ax1 or null
UESRWWN	15	OH03-41-45	404		no	275		390		5+10	342		Ax2*
UESRWWN	16	P02444A1-23-9		449	yes		293		407	2+12	342		Ax2*
UESRWWN	17	P03207A1-7		449	yes	275		390		5+10		358	Ax1 or null
UESRWWN	18	P04287A1-16		449	yes	275	293	390	407	het		358	Ax1 or null
UESRWWN	19	NYCaLR-L	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	20	MD01W233-06-8	404		no		293		407	2+12	342		Ax2*
UESRWWN	21	MD01W233-06-21	404		no		293		407	2+12	342		Ax2*
UESRWWN	22	MD99W483-06-9	404		no	275		390		5+10	342		Ax2*
UESRWWN	23	VA05W-257	404		no		293		407	2+12	342		Ax2*
UESRWWN	24	VA05W-414	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	25	LA01_425		449	yes	275	293	390	407	het	342		Ax2*
UESRWWN	26	LA02-923	404		no		293		407	2+12	342	358	het
UESRWWN	27	21525c1	404		no		293		407	2+12	342		Ax2*
UESRWWN	28	IL02-18228	404		no	275		390		5+10	nd	nd	nd
UESRWWN	29	IL02-19463	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	30	MochaExp	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	31	ArenaExp	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	32	IndiaExp	404		no	275		390		5+10	342		Ax2*
UESRWWN	33	B030543	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	34	D04_5513	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	35	M03-3616-11B	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	36	KY97C-0321-02-01	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	37	KY97C-0519-04-07	404		no		293		407	2+12	342		Ax2*
UESRWWN	38	W06-202B		449	yes	275		390		5+10	342		Ax2*
UESRWWN	39	MO040152	404		no	275		390		5+10		358	Ax1 or null
UESRWWN	40	G41730	404		no	275		390		5+10	342		Ax2*
UESRWWN	41	G52612	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	42	G69202	404		no		293		407	2+12	342		Ax2*
UESRWWN	43	M04-4566	404		no		293		407	2+12		358	Ax1 or null
UESRWWN	44	M04-4802	404	449	het	275	293	390	407	het	342		Ax2*
UESRWWN	45	M04_5109	404	449	het		293		407	2+12	342		Ax2*

"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**

2008 Uniform Southern Soft Red Winter Wheat Nursery

Entry List

Nursery	Entry	Sample Name	Pedigree	Source	1st Year in Nursery
USSRWWN	1	AGS2000	Pio.2555/PF84301//FL 302 (formerly GA89482E7)	Check	97-98
USSRWWN	2	PioneerBrand26R61	Omega78/S76/4/Arthur71/3/Stadler//Redcoat/Wisc1/5/Coker747/6/2555sib (formerly XW663)	Check	97-98
USSRWWN	3	Coker9553	89M-4035A(IL77-2656/NK79W810/Pio2580 (formerly D00*6874-2)	Check	04-05
USSRWWN	4	VA02W-555	VA94-52-60/Pio2643//USG3209	Check	04-05
USSRWWN	5	NC03-6228	A92-4452//NC96BGTD1sib/NC96BGTA6sib	Murphy	06-07
USSRWWN	6	NC03-8026	NC96BGTD1sib/NC94-7673//NCV93-612	Murphy	06-07
USSRWWN	7	VA04W-259	VA97W-533 [FFR555W/Gore//Ck9803/VA87-54-636] /NC95-11612(Stella/KS85WGRC01//C8433/3/C8629/FL7927)	Griffey	06-07
USSRWWN	8	LA99005UC-31-3-C	Pio2548/Coker9835(LA90144B16-3-2)//AGS2000	Harrison	06-07
USSRWWN	9	LA98214D-14-1-2-B	Shelby/LA87167D8-10-2(FR81-19/FL302//Coker983)	Harrison	06-07
USSRWWN	10	MO011126	MO94-103/Pio2552	McKendry	06-07
USSRWWN	11	NC04-15533	NC94-6275/P86958//VA96-54-234	Murphy	07-08
USSRWWN	12	NC04-20814	NC94-6275/P86958//VA96-54-234	Murphy	07-08
USSRWWN	13	LA01140D-70	LA841/LA422//Pio26R61	Harrison	07-08
USSRWWN	14	LA01138D-52	LA841/LA422//AGS2000	Harrison	07-08
USSRWWN	15	AR96077-7-2	Jackson/Pio2643	Bacon	07-08
USSRWWN	16	AR97124-4-3	P88288C1-6-1-2/Terra SR204	Bacon	07-08
USSRWWN	17	P992231A1-2-1	Patton//Patterson/Bizel/3/9346	Ohm	07-08
USSRWWN	18	903112A1-7-14	INW0411//INW0315/99794	Ohm	07-08
USSRWWN	19	904287A1-10	INW0315*2/4/INW0304//9346/CS 5Am/3/91202//INW0301/INW0315	Ohm	07-08
USSRWWN	20	VA05W-250	VA98W-130(Savannah/VA87-54-558//VA88-54-328/Gore)//VA96W-348(IN81401A1-32-2/FFR555W)/Pio26R61	Griffey	07-08
USSRWWN	21	VA05W-258	VA98W-130(Savannah/VA87-54-558//VA88-54-328/Gore)//Coker9835/SS520	Griffey	07-08
USSRWWN	22	VA05W-78	Tribute/AGS2000	Griffey	07-08
USSRWWN	23	MD01W233-05-1	McCormick/Choptank	Costa	07-08
USSRWWN	24	MD01W233-06-16	McCormick/Choptank	Costa	07-08
USSRWWN	25	MD01W233-06-1	McCormick/Choptank	Costa	07-08
USSRWWN	26	TN801	Cardinal/FL302//AR Exp 494B-2-2/3/Fillmore/Cardinal//Jackson	West	07-08
USSRWWN	27	M04-4715	Mason/Ernie	Fogleman	07-08
USSRWWN	28	M04_5109	VA94-54-479/Pio2628	Fogleman	07-08
USSRWWN	29	M03-3616-C	Hopewell/Patton	Fogleman	07-08
USSRWWN	30	B030543	VA93-54-429/LA85422	Hancock	07-08
USSRWWN	31	D04_5546	Mason/Pio26R61	Hancock	07-08
USSRWWN	32	D04-5012	NC96BGTD1/Mason	Hancock	07-08
USSRWWN	33	GA991336-6E9	GA92432//AGS2000/Pio26R61	Johnson	07-08
USSRWWN	34	GA991209-6E33	GA901146/GA96004//AGS2000	Johnson	07-08
USSRWWN	35	GA991371-6E13	GA931521/2*AGS2000	Johnson	07-08
USSRWWN	36	GA991227-6A33	VA97W-24/AGS2000	Johnson	07-08
USSRWWN	37	W98007V1	F2IN82104B1-3-2(H14H15),W900003,Andy/Seneca/3/ Downy/F2IN82104B1-3-2(H14H15),Williams,IN86861-8(H18)/4/NC96BGTA6	Edge	07-08
USSRWWN	38	W98008J1	IN82104B1-3-2(H14H15)/Williams,IN86861-8(H18)//NC96BGTA6	Edge	07-08
USSRWWN	39	W98008P1	IN82104B1-3-2(H14H15)/Williams,IN86861-8(H18)//NC96BGTA6	Edge	07-08
USSRWWN	40	G59160	T812/VA91-54-219	Brown	07-08
USSRWWN	41	G61505	ABI89-4584A/T814	Brown	07-08
USSRWWN	42	G41732	T814/L900819	Brown	07-08

2008 Uniform Southern Soft Red Winter Wheat Nursery

Summary of all Markers

Nursery	Entry	Sample Name	Rht1-	Rht2-	Ppd-D1a	Fhb 2DL-				
			B1b	D1b		Fhb1	Fhb Ernie 3Bc	Wuhan1/ W14	Fhb 5A Ernie	Fhb 5A Ning7840
USSRWWN	1	AGS2000	no	yes	no	no	no	no	no	<i>no</i>
USSRWWN	2	PioneerBrand26R61	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	3	Coker9553	nd	nd	yes	no	no	no	no	<i>no</i>
USSRWWN	4	VA02W-555	no	yes	yes	no	het	no	no	<i>no</i>
USSRWWN	5	NC03-6228	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	6	NC03-8026	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	7	VA04W-259	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	8	LA99005UC-31-3-C	no	nd	yes	no	no	no	no	<i>no</i>
USSRWWN	9	LA98214D-14-1-2-B	no	yes	no	no	no	no	no	<i>no</i>
USSRWWN	10	MO011126	het	het	yes	no	no	no	no	<i>no</i>
USSRWWN	11	NC04-15533	yes	no	yes	no	no	no	no	<i>no</i>
USSRWWN	12	NC04-20814	yes	no	yes	no	no	no	no	<i>no</i>
USSRWWN	13	LA01140D-70	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	14	LA01138D-52	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	15	AR96077-7-2	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	16	AR97124-4-3	yes	het	het	no	no	no	no	<i>no</i>
USSRWWN	17	P992231A1-2-1	yes	no	no	no	?	no	yes	<i>no</i>
USSRWWN	18	903112A1-7-14	yes	no	no	no	no	no	yes	<i>no</i>
USSRWWN	19	904287A1-10	yes	no	no	no	no	no	no	<i>no</i>
USSRWWN	20	VA05W-250	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	21	VA05W-258	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	22	VA05W-78	no	yes	no	no	no	no	no	<i>no</i>
USSRWWN	23	MD01W233-05-1	no	yes	no	no	no	no	no	<i>no</i>
USSRWWN	24	MD01W233-06-16	no	yes	no	no	no	no	no	<i>no</i>
USSRWWN	25	MD01W233-06-1	no	yes	no	no	no	no	no	<i>no</i>
USSRWWN	26	TN801	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	27	M04-4715	het	het	yes	no	het	no	yes	<i>no</i>
USSRWWN	28	M04_5109	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	29	M03-3616-C	yes	no	yes	no	no	no	yes	<i>no</i>
USSRWWN	30	B030543	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	31	D04_5546	no	het	no	no	no	no	no	<i>no</i>
USSRWWN	32	D04-5012	no	yes	no	no	no	no	no	<i>no</i>
USSRWWN	33	GA991336-6E9	no	yes	no	no	no	no	no	<i>no</i>
USSRWWN	34	GA991209-6E33	no	het	no	no	no	no	no	<i>no</i>
USSRWWN	35	GA991371-6E13	no	yes	no	no	no	no	no	<i>no</i>
USSRWWN	36	GA991227-6A33	no	yes	no	no	no	no	no	<i>no</i>
USSRWWN	37	W98007V1	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	38	W98008J1	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	39	W98008P1	no	yes	yes	no	no	no	no	<i>no</i>
USSRWWN	40	G59160	no	yes	no	no	no	no	no	<i>no</i>
USSRWWN	41	G61505	yes	no	no	no	no	no	no	<i>no</i>
USSRWWN	42	G41732	no	het	no	no	no	no	no	<i>no</i>

RhtW = wild type; RhtM = dwarfing

Ppd-D1a = photoperiod insensitive = yes

"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**

2008 Uniform Southern Soft Red Winter Wheat Nursery

Summary of all Markers

Nursery	Entry	Sample Name	Yr17/		Lr34/		1RS	H13	H9	Bdv 2/3	Bx7 over- expressing	Glu-D1	Glu-A1	
			Sr36	Sr24/ Lr24	Lr37/ Sr38	Yr18/ Pm38								Lr46/ Yr29
USSRWWN	1	AGS2000	no	no	no	no	no	no	no	no	no	5+10	Ax2*	
USSRWWN	2	PioneerBrand26R61	no	no	no	no	1RS:1BL	no	no	no	yes	5+10	Ax2*	
USSRWWN	3	Coker9553	no	no	no	no	nd	no	no	nd	no	nd	nd	
USSRWWN	4	VA02W-555	yes	no	no	no	no	no	no	no	no	2+12	Ax2*	
USSRWWN	5	NC03-6228	yes	no	no	no	no	no	no	no	no	2+12	Ax2*	
USSRWWN	6	NC03-8026	yes	no	no	no	no	no	no	no	no	2+12	het	
USSRWWN	7	VA04W-259	yes	no	no	no	no	no	no	no	no	2+12	Ax2*	
USSRWWN	8	LA99005UC-31-3-C	no	no	no	no	no	no	no	no	no	2+12	Ax2*	
USSRWWN	9	LA98214D-14-1-2-B	no	no	yes	no	no	no	no	no	yes	2+12	Ax2*	
USSRWWN	10	MO011126	no	no	no	no	no	no	no	no	het	het	het	
USSRWWN	11	NC04-15533	yes	no	no	no	no	no	no	no	no	2+12	Ax1 or null	
USSRWWN	12	NC04-20814	yes	no	no	no	no	no	no	no	no	2+12	Ax1 or null	
USSRWWN	13	LA01140D-70	no	no	yes	no	no	no	no	no	yes	5+10	Ax2*	
USSRWWN	14	LA01138D-52	no	no	yes	no	no	1RS:1BL	no	no	no	het	Ax2*	
USSRWWN	15	AR96077-7-2	yes	no	no	no	no	no	no	no	no	5+10	Ax2*	
USSRWWN	16	AR97124-4-3	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null	
USSRWWN	17	P992231A1-2-1	no	no	yes	no	no	no	no	no	no	2+12	Ax1 or null	
USSRWWN	18	903112A1-7-14	yes	no	yes	no	no	1RS:1BL	no	no	yes	no	het	Ax2*
USSRWWN	19	904287A1-10	yes	no	no	no	no	1RS:1BL	no	no	yes	het	5+10	Ax1 or null
USSRWWN	20	VA05W-250	no	no	no	no	no	no	no	no	no	5+10	Ax2*	
USSRWWN	21	VA05W-258	no	no	no	no	no	no	no	no	no	2+12	Ax2*	
USSRWWN	22	VA05W-78	no	yes	no	no	no	1RS:1AL	no	no	no	5+10	Ax2*	
USSRWWN	23	MD01W233-05-1	no	yes	no	no	no	no	no	no	no	2+12	het	
USSRWWN	24	MD01W233-06-16	no	yes	no	no	no	1RS:1AL	no	no	no	2+12	Ax2*	
USSRWWN	25	MD01W233-06-1	no	no	no	no	no	1RS:1AL	no	no	no	2+12	Ax1 or null	
USSRWWN	26	TN801	no	no	no	no	no	no	no	no	no	2+12	Ax2*	
USSRWWN	27	M04-4715	no	no	no	no	no	no	no	no	het	2+12	het	
USSRWWN	28	M04_5109	no	no	no	no	no	no	no	no	no	2+12	het	
USSRWWN	29	M03-3616-C	no	no	no	no	no	1RS:1BL	no	no	no	het	2+12	Ax1 or null
USSRWWN	30	B030543	no	no	no	no	no	1RS:1BL	no	no	no	no	2+12	Ax1 or null
USSRWWN	31	D04_5546	no	no	no	no	no	1RS:1BL	no	no	no	yes	5+10	Ax2*
USSRWWN	32	D04-5012	no	no	no	no	no	no	no	no	no	2+12	Ax2*	
USSRWWN	33	GA991336-6E9	no	no	yes	no	no	no	no	no	no	5+10	Ax1 or null	
USSRWWN	34	GA991209-6E33	no	no	no	no	no	1RS:1BL	no	no	no	no	5+10	Ax2*
USSRWWN	35	GA991371-6E13	no	no	yes	no	no	no	no	no	no	5+10	Ax1 or null	
USSRWWN	36	GA991227-6A33	no	no	no	no	no	1RS:1BL	no	no	no	no	2+12	Ax1 or null
USSRWWN	37	W98007V1	no	no	no	no	no	no	no	no	no	2+12	Ax2*	
USSRWWN	38	W98008J1	no	no	no	het	no	no	no	no	no	2+12	Ax2*	
USSRWWN	39	W98008P1	no	no	no	no	no	no	no	no	no	het	het	
USSRWWN	40	G59160	no	no	no	no	no	no	no	no	no	2+12	Ax1 or null	
USSRWWN	41	G61505	yes	no	no	no	no	no	no	no	no	5+10	Ax1 or null	
USSRWWN	42	G41732	yes	no	no	no	no	no	no	no	no	5+10	Ax2*	

"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**

Dwarfing genes & Photoperiod insensitivity

2008

Nursery	Entry	Sample Name	Rht1W	Rht1M	Rht2W	Rht2M	Rht1- B1b	Rht2- D1b	Ppd1	Ppd1	Ppd-D1a
USSRWWN	1	AGS2000	358			250	no	yes		414	no
USSRWWN	2	PioneerBrand26R61	358			250	no	yes	288		yes
USSRWWN	3	Coker9553	nd	nd	nd	nd	nd	nd	288		yes
USSRWWN	4	VA02W-555	358			250	no	yes	288		yes
USSRWWN	5	NC03-6228	358			250	no	yes	288		yes
USSRWWN	6	NC03-8026	358			250	no	yes	288		yes
USSRWWN	7	VA04W-259	357			250	no	yes	288		yes
USSRWWN	8	LA99005UC-31-3-C	358		nd	nd	no	nd	288		yes
USSRWWN	9	LA98214D-14-1-2-B	358			250	no	yes		414	no
USSRWWN	10	MO011126	358	364	249	250	het	het	288		yes
USSRWWN	11	NC04-15533		364	249		yes	no	288		yes
USSRWWN	12	NC04-20814		364	249		yes	no	288		yes
USSRWWN	13	LA01140D-70	358			250	no	yes	288		yes
USSRWWN	14	LA01138D-52	358			250	no	yes	288		yes
USSRWWN	15	AR96077-7-2	358			250	no	yes	288		yes
USSRWWN	16	AR97124-4-3		364	248	250	yes	het	288	414	het
USSRWWN	17	P992231A1-2-1		364	249		yes	no		414	no
USSRWWN	18	903112A1-7-14		364	249		yes	no		414	no
USSRWWN	19	904287A1-10		364	249		yes	no		414	no
USSRWWN	20	VA05W-250	358			250	no	yes	288		yes
USSRWWN	21	VA05W-258	358			250	no	yes	288		yes
USSRWWN	22	VA05W-78	358			250	no	yes		414	no
USSRWWN	23	MD01W233-05-1	358			250	no	yes		414	no
USSRWWN	24	MD01W233-06-16	358			250	no	yes		414	no
USSRWWN	25	MD01W233-06-1	358			250	no	yes		414	no
USSRWWN	26	TN801	358			250	no	yes	288		yes
USSRWWN	27	M04-4715	358	364	251	250	het	het	288		yes
USSRWWN	28	M04_5109	358			250	no	yes	288		yes
USSRWWN	29	M03-3616-C		364	249		yes	no	288		yes
USSRWWN	30	B030543	358			250	no	yes	288		yes
USSRWWN	31	D04_5546	358		249	250	no	het		414	no
USSRWWN	32	D04-5012	358			250	no	yes		414	no
USSRWWN	33	GA991336-6E9	358			250	no	yes		414	no
USSRWWN	34	GA991209-6E33	358		249	251	no	het		414	no
USSRWWN	35	GA991371-6E13	358			250	no	yes		414	no
USSRWWN	36	GA991227-6A33	358			250	no	yes		414	no
USSRWWN	37	W98007V1	358			250	no	yes	288		yes
USSRWWN	38	W98008J1	358			250	no	yes	288		yes
USSRWWN	39	W98008P1	358			250	no	yes	288		yes
USSRWWN	40	G59160	358			250	no	yes		414	no
USSRWWN	41	G61505		364	249		yes	no		414	no
USSRWWN	42	G41732	358		249	250	no	het		414	no

RhtW = wild type; RhtM = dwarfing

Ppd-D1a = photoperiod insensitive = yes

"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**

FHB QTLs

2008

Nursery	Entry	Sample Name	umn 10	umn 10	gwm 533	gwm 533	gwm 533	STS- 256	Fhb1	gwm 285	gwm 285	wmc 612	wmc 612	wmc 307	wmc 307	Fhb Ernie 3Bc
USSRWWN	1	AGS2000	236		119			224	no	226		291		142		no
USSRWWN	2	PioneerBrand26R61	236		119			224	no	220		274		144		no
USSRWWN	3	Coker9553	nd		119			224	no	216		276		142		no
USSRWWN	4	VA02W-555	236	239	119	141		224	no	245		287	291	142		het
USSRWWN	5	NC03-6228	236		119			224	no	226		291		144		no
USSRWWN	6	NC03-8026	236		119			224	no	226		291		144		no
USSRWWN	7	VA04W-259	236		119			224	no	226		291		144		no
USSRWWN	8	LA99005UC-31-3-C	236		119			224	no	226		291		142		no
USSRWWN	9	LA98214D-14-1-2-B	236		119			224	no	226		291		144		no
USSRWWN	10	MO011126	236		119			224	no	226		291		144		no
USSRWWN	11	NC04-15533	239		nd			nd	no	243		288		142		no
USSRWWN	12	NC04-20814	236		119			224	no	243		288		142		no
USSRWWN	13	LA01140D-70	236		119			nd	no	220		274	281	144		no
USSRWWN	14	LA01138D-52	236		119			224	no	226		291		142		no
USSRWWN	15	AR96077-7-2	236		119			224	no	226		291		144		no
USSRWWN	16	AR97124-4-3	236		119			224	no	219		274	288	142		no
USSRWWN	17	P992231A1-2-1	236		nd			224	no	nd		287		nd		?
USSRWWN	18	903112A1-7-14	236	239	119			224	no	219		288		142		no
USSRWWN	19	904287A1-10	236		119			224	no	219		282	288	142	144	no
USSRWWN	20	VA05W-250	228	239	141	147	156	224	no	220		nd		142		no
USSRWWN	21	VA05W-258	228	239	119	141	147	224	no	220	226	291		144		no
USSRWWN	22	VA05W-78	236		nd			224	no	226		282	291	142		no
USSRWWN	23	MD01W233-05-1	228	236	147	156		224	no	219		282		142		no
USSRWWN	24	MD01W233-06-16	236		nd			224	no	219	243	282	288	142		no
USSRWWN	25	MD01W233-06-1	236		nd			224	no	219		282		142		no
USSRWWN	26	TN801	236		119			224	no	226		281	291	142		no
USSRWWN	27	M04-4715	236		nd			224	no	219	245	281	287	142		het
USSRWWN	28	M04_5109	236		119			224	no	226		285		144	147	no
USSRWWN	29	M03-3616-C	236		nd			224	no	219		276		144		no
USSRWWN	30	B030543	236		119			224	no	220		281		144		no
USSRWWN	31	D04_5546	236		119			224	no	226		288		144		no
USSRWWN	32	D04-5012	236		119			224	no	216		nd		144		no
USSRWWN	33	GA991336-6E9	236		119			224	no	226		291		142		no
USSRWWN	34	GA991209-6E33	236		119			224	no	226		291		142		no
USSRWWN	35	GA991371-6E13	236		119			224	no	226		291		142		no
USSRWWN	36	GA991227-6A33	236		119			224	no	220		291		144		no
USSRWWN	37	W98007V1	236		119			224	no	222	226	282	291	144		no
USSRWWN	38	W98008J1	236		119			224	no	226		291		144		no
USSRWWN	39	W98008P1	236		119			224	no	222	226	282	291	142		no
USSRWWN	40	G59160	228		156			224	no	220		288		142		no
USSRWWN	41	G61505	228		nd			224	no	220		288		142		no
USSRWWN	42	G41732	236		119			224	no	219		282		144		no

"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**

FHB QTLs

2008

Nursery	Entry	Sample Name	cf 233	cf 233	gwm 539	gwm 539	gwm 608	gwm 608	Fhb 2DL- Wuhan1/W14
USSRWWN	1	AGS2000	278		135		158		no
USSRWWN	2	PioneerBrand26R61	288		137		156	158	no
USSRWWN	3	Coker9553	272	280	131	133	150	158	no
USSRWWN	4	VA02W-555	272		137		154		no
USSRWWN	5	NC03-6228	272	280	137		150		no
USSRWWN	6	NC03-8026	272		137	139	154		no
USSRWWN	7	VA04W-259	272		131		162		no
USSRWWN	8	LA99005UC-31-3-C	272		133		158		no
USSRWWN	9	LA98214D-14-1-2-B	272		137		154		no
USSRWWN	10	MO011126	270	278	133	144	150	156	no
USSRWWN	11	NC04-15533	272		135		162		no
USSRWWN	12	NC04-20814	272		135		162		no
USSRWWN	13	LA01140D-70	270	278	137		150	156	no
USSRWWN	14	LA01138D-52	278		135	137	150		no
USSRWWN	15	AR96077-7-2	272		137		154	156	no
USSRWWN	16	AR97124-4-3	278		139		150		no
USSRWWN	17	P992231A1-2-1	290		137		154		no
USSRWWN	18	903112A1-7-14	278	288	139		154		no
USSRWWN	19	904287A1-10	278		139		150		no
USSRWWN	20	VA05W-250	280		131		150		no
USSRWWN	21	VA05W-258	280		131		150		no
USSRWWN	22	VA05W-78	278		135		158		no
USSRWWN	23	MD01W233-05-1	278		135		150		no
USSRWWN	24	MD01W233-06-16	272		131		154		no
USSRWWN	25	MD01W233-06-1	278		135		150	154	no
USSRWWN	26	TN801	280		131		150		no
USSRWWN	27	M04-4715	290		139		154		no
USSRWWN	28	M04_5109	270		133		156		no
USSRWWN	29	M03-3616-C	270	288	131		150	152	no
USSRWWN	30	B030543	280		131		150		no
USSRWWN	31	D04_5546	288	290	137		156	164	no
USSRWWN	32	D04-5012	290		137		164		no
USSRWWN	33	GA991336-6E9	278		135		158		no
USSRWWN	34	GA991209-6E33	272		135		156		no
USSRWWN	35	GA991371-6E13	278		135		158		no
USSRWWN	36	GA991227-6A33	278		139		158		no
USSRWWN	37	W98007V1	272	284	135		150	158	no
USSRWWN	38	W98008J1	272		131		156		no
USSRWWN	39	W98008P1	284		139		150		no
USSRWWN	40	G59160	284		137	139	154		no
USSRWWN	41	G61505	284		137		150		no
USSRWWN	42	G41732	284		137		150		no

"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*

FHB QTLs

2008

Nursery	Entry	Sample Name	gwm	gwm	wmc	wmc	barc	barc	barc	barc	Fhb 5A	Fhb 5A
			304	304	705	705	117	117	186	186	Ernie	Ning7840
USSRWWN	1	AGS2000	199		162		217		203		no	no
USSRWWN	2	PioneerBrand26R61	201		133		217		203		no	no
USSRWWN	3	Coker9553	199		166		217		203		no	no
USSRWWN	4	VA02W-555	199		164		217		203		no	no
USSRWWN	5	NC03-6228	199	203	141	166	217		203	215	no	no
USSRWWN	6	NC03-8026	199	215	137	164	217	221	203	213	no	no
USSRWWN	7	VA04W-259	201		133		217		203		no	no
USSRWWN	8	LA99005UC-31-3-C	199		162		217		203		no	no
USSRWWN	9	LA98214D-14-1-2-B	203		141		217		215		no	no
USSRWWN	10	MO011126	199		164		217		203		no	no
USSRWWN	11	NC04-15533	199	215	133	164	217	225	203	213	no	no
USSRWWN	12	NC04-20814	215		133		225		213		no	no
USSRWWN	13	LA01140D-70	201		133	162	217		203		no	no
USSRWWN	14	LA01138D-52	199		162		217		203		no	no
USSRWWN	15	AR96077-7-2	199		162		217		203		no	no
USSRWWN	16	AR97124-4-3	199		164		217		203		no	no
USSRWWN	17	P992231A1-2-1	220		135		221		203		yes	no
USSRWWN	18	903112A1-7-14	220		135		221		203		yes	no
USSRWWN	19	904287A1-10	203		139		217		203		no	no
USSRWWN	20	VA05W-250	215		135		225		213		no	no
USSRWWN	21	VA05W-258	199	215	135	162	217	225	203	213	no	no
USSRWWN	22	VA05W-78	199		162		217		203		no	no
USSRWWN	23	MD01W233-05-1	199	201	133	162	217		203		no	no
USSRWWN	24	MD01W233-06-16	199		162		217		203		no	no
USSRWWN	25	MD01W233-06-1	199	201	133	162	217		203		no	no
USSRWWN	26	TN801	199		162		217		203		no	no
USSRWWN	27	M04-4715	201	220	135		221		203		yes	no
USSRWWN	28	M04_5109	199		164		217		203		no	no
USSRWWN	29	M03-3616-C	220		135		221		203		yes	no
USSRWWN	30	B030543	199		164		217		203		no	no
USSRWWN	31	D04_5546	201		133		217		203		no	no
USSRWWN	32	D04-5012	199		160		217		203		no	no
USSRWWN	33	GA991336-6E9	199		166		217		203		no	no
USSRWWN	34	GA991209-6E33	199		162		217		203		no	no
USSRWWN	35	GA991371-6E13	199		166		217		203		no	no
USSRWWN	36	GA991227-6A33	199	215	133	162	217	225	203	213	no	no
USSRWWN	37	W98007V1	201		133	164	217		203		no	no
USSRWWN	38	W98008J1	199		164		217		203		no	no
USSRWWN	39	W98008P1	199		162		217		203		no	no
USSRWWN	40	G59160	199		164		217		203		no	no
USSRWWN	41	G61505	199		164		217		203		no	no
USSRWWN	42	G41732	199		162		217		203		no	no

"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*

Leaf, Stripe & Stem Rusts

2008

Nursery	Entry	Sample Name	wmc	wmc	Sr36	barc	barc	Sr24/	ventriup	Yr17/	cslv	cslv	Lr34/	Lr46/	wmc	wmc	Lr46/
			477	477		71	71	Lr24		Lr37/		34	34	Yr18/		Yr29	
USSRWWN	1	AGS2000	165		no	105	113	no		no	235		no	G	265		no
USSRWWN	2	PioneerBrand26R61	169		no	113		no		no	235		no	G	265		no
USSRWWN	3	Coker9553	169		no	105		no		no	235		no	nd	nd		nd
USSRWWN	4	VA02W-555	186		yes	105		no		no	235		no	G	258		no
USSRWWN	5	NC03-6228	186		yes	105	113	no		no	235		no	G/C	267		no
USSRWWN	6	NC03-8026	186		yes	113		no		no	235		no	C	260	267	no
USSRWWN	7	VA04W-259	186		yes	105		no		no	235		no	G	236		no
USSRWWN	8	LA99005UC-31-3-C	165		no	105		no		no	235		no	G	265		no
USSRWWN	9	LA98214D-14-1-2-B	162		no	113		no	256	yes	235		no	G	246		no
USSRWWN	10	MO011126	169		no	113		no		no	235		no	C	248	254	no
USSRWWN	11	NC04-15533	186		yes	105		no		no	235		no	C	260		no
USSRWWN	12	NC04-20814	186		yes	105		no		no	235		no	C	260		no
USSRWWN	13	LA01140D-70	162	169	no	113		no	256	yes	235		no	C	258		no
USSRWWN	14	LA01138D-52	165		no	113		no	256	yes	235		no	G	258	267	no
USSRWWN	15	AR96077-7-2	186		yes	105		no		no	235		no	C	258		no
USSRWWN	16	AR97124-4-3	167		no	113		no		no	235		no	G	267		no
USSRWWN	17	P992231A1-2-1	165		no	105		no	256	yes	235		no	G	263		no
USSRWWN	18	903112A1-7-14	186		yes	105		no	256	yes	235		no	G	267		no
USSRWWN	19	904287A1-10	186		yes	105		no		no	235		no	G	267		no
USSRWWN	20	VA05W-250	167		no	105		no		no	235		no	C	246		no
USSRWWN	21	VA05W-258	167		no	105	113	no		no	235		no	C	246	258	no
USSRWWN	22	VA05W-78	167		no	88	113	yes		no	235		no	C	246		no
USSRWWN	23	MD01W233-05-1	167		no	88	105	yes		no	235		no	C	236		no
USSRWWN	24	MD01W233-06-16	167		no	88	105	yes		no	235		no	C	258		no
USSRWWN	25	MD01W233-06-1	165		no	105		no		no	235		no	C	258		no
USSRWWN	26	TN801	165		no	113		no		no	235		no	G	246	260	no
USSRWWN	27	M04-4715	165		no	113		no		no	235		no	C	208	263	no
USSRWWN	28	M04_5109	nd		no	105		no		no	235		no	C	260		no
USSRWWN	29	M03-3616-C	165		no	105		no		no	235		no	C	260		no
USSRWWN	30	B030543	nd		no	105		no		no	235		no	G	267		no
USSRWWN	31	D04_5546	162	169	no	113		no		no	235		no	G	265		no
USSRWWN	32	D04-5012	162		no	105		no		no	235		no	C	263		no
USSRWWN	33	GA991336-6E9	165		no	105		no	256	yes	235		no	G	265		no
USSRWWN	34	GA991209-6E33	165		no	113		no		no	235		no	G	265		no
USSRWWN	35	GA991371-6E13	165		no	105		no	256	yes	235		no	G	265		no
USSRWWN	36	GA991227-6A33	165		no	113		no		no	235		no	G	269		no
USSRWWN	37	W98007V1	162		no	113		no		no	235		no	C	260	267	no
USSRWWN	38	W98008J1	162		no	105	113	no		no	155	235	het	C	258		no
USSRWWN	39	W98008P1	162		no	113		no		no	235		no	C	233	265	no
USSRWWN	40	G59160	167		no	105		no		no	235		no	G	267		no
USSRWWN	41	G61505	186		yes	105		no		no	235		no	G	258		no
USSRWWN	42	G41732	186		yes	105		no		no	235		no	G	258		no

"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**

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

2008

Nursery	Entry	Sample Name	scm9	IRS	cf132	H13	cfa2153	cfa2153	cfa2153	H9	Bdv3	Bdv3	Bdv2/3
USSRWWN	1	AGS2000		non-1RS	116	no	204			no	185		no
USSRWWN	2	PioneerBrand26R61	208	IRS:1BL	116	no	194			no	185		no
USSRWWN	3	Coker9553		non-1RS	116	no	204			no	nd		nd
USSRWWN	4	VA02W-555	208	IRS:1BL	116	no	204			no	185		no
USSRWWN	5	NC03-6228		non-1RS	116	no	204			no	185		no
USSRWWN	6	NC03-8026	208	IRS:1BL	116	no	204			no	179	185	no
USSRWWN	7	VA04W-259		non-1RS	116	no	208			no	185		no
USSRWWN	8	LA99005UC-31-3-C		non-1RS	116	no	204			no	185		no
USSRWWN	9	LA98214D-14-1-2-B		non-1RS	116	no	208			no	185		no
USSRWWN	10	MO011126		non-1RS	116	no	194	204	213	no	185		no
USSRWWN	11	NC04-15533		non-1RS	116	no	208			no	185		no
USSRWWN	12	NC04-20814		non-1RS	116	no	204	208		no	185		no
USSRWWN	13	LA01140D-70		non-1RS	116	no	194	204		no	185	187	no
USSRWWN	14	LA01138D-52	208	IRS:1BL	116	no	204			no	185		no
USSRWWN	15	AR96077-7-2		non-1RS	116	no	204			no	185		no
USSRWWN	16	AR97124-4-3		non-1RS	116	no	204			no	185		no
USSRWWN	17	P992231A1-2-1		non-1RS	116	no	170			no	185		no
USSRWWN	18	903112A1-7-14	208	IRS:1BL	116	no	196			no	200		yes
USSRWWN	19	904287A1-10	208	IRS:1BL	116	no	204			no	200		yes
USSRWWN	20	VA05W-250		non-1RS	116	no	196			no	185	187	no
USSRWWN	21	VA05W-258		non-1RS	116	no	196	204		no	185		no
USSRWWN	22	VA05W-78	224	IRS:1AL	116	no	202			no	181	185	no
USSRWWN	23	MD01W233-05-1		non-1RS	116	no	201			no	185		no
USSRWWN	24	MD01W233-06-16	224	IRS:1AL	116	no	208			no	185		no
USSRWWN	25	MD01W233-06-1	224	IRS:1AL	116	no	211			no	185		no
USSRWWN	26	TN801		non-1RS	116	no	204			no	185		no
USSRWWN	27	M04-4715		non-1RS	116	no	208			no	185		no
USSRWWN	28	M04_5109		non-1RS	116	no	204			no	185		no
USSRWWN	29	M03-3616-C	208	IRS:1BL	116	no	170			no	185		no
USSRWWN	30	B030543	208	IRS:1BL	116	no	204			no	185		no
USSRWWN	31	D04_5546	208	IRS:1BL	116	no	204			no	185		no
USSRWWN	32	D04-5012		non-1RS	116	no	204			no	185		no
USSRWWN	33	GA991336-6E9		non-1RS	116	no	204			no	185		no
USSRWWN	34	GA991209-6E33	208	IRS:1BL	116	no	204			no	185		no
USSRWWN	35	GA991371-6E13		non-1RS	116	no	204			no	185		no
USSRWWN	36	GA991227-6A33	208	IRS:1BL	116	no	200	204		no	185		no
USSRWWN	37	W98007V1		non-1RS	116	no	204			no	185		no
USSRWWN	38	W98008J1		non-1RS	116	no	204			no	185		no
USSRWWN	39	W98008P1		non-1RS	116	no	202	204		no	185		no
USSRWWN	40	G59160		non-1RS	116	no	204			no	185		no
USSRWWN	41	G61505		non-1RS	116	no	194			no	185		no
USSRWWN	42	G41732		non-1RS	116	no	194			no	185		no

"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*

Quality Traits

2008

Nursery	Entry	Sample Name	bx7oe	bx7oe	Bx7 over-expressing	umn	umn	umn	umn	Glu-D1	umn	umn	Glu-A1
						25	25	26	26		19	19	
USSRWWN	1	AGS2000	404		no	275		390		5+10	342		Ax2*
USSRWWN	2	PioneerBrand26R61		449	yes	275		390		5+10	342		Ax2*
USSRWWN	3	Coker9553	404		no	nd		nd		nd	nd		nd
USSRWWN	4	VA02W-555	404		no		293		407	2+12	342		Ax2*
USSRWWN	5	NC03-6228	404		no		293		407	2+12	342		Ax2*
USSRWWN	6	NC03-8026	404		no		293		407	2+12	342	358	het
USSRWWN	7	VA04W-259	404		no		293		407	2+12	342		Ax2*
USSRWWN	8	LA99005UC-31-3-C	404		no		293		407	2+12	342		Ax2*
USSRWWN	9	LA98214D-14-1-2-B		449	yes		293		407	2+12	342		Ax2*
USSRWWN	10	MO011126	404	449	het	275	293	390	407	het	342	358	het
USSRWWN	11	NC04-15533	404		no		293		407	2+12		358	Ax1 or null
USSRWWN	12	NC04-20814	404		no		293		407	2+12		358	Ax1 or null
USSRWWN	13	LA01140D-70		449	yes	275		390		5+10	342		Ax2*
USSRWWN	14	LA01138D-52	404		no	275	293	390	407	het	342		Ax2*
USSRWWN	15	AR96077-7-2	404		no	275		390		5+10	342		Ax2*
USSRWWN	16	AR97124-4-3	404		no		293		407	2+12		358	Ax1 or null
USSRWWN	17	P992231A1-2-1	404		no		293		407	2+12		358	Ax1 or null
USSRWWN	18	903112A1-7-14	404		no	275	293	390	407	het	342		Ax2*
USSRWWN	19	904287A1-10	404	449	het	275		390		5+10		358	Ax1 or null
USSRWWN	20	VA05W-250	404		no	275		390		5+10	342		Ax2*
USSRWWN	21	VA05W-258	404		no		293		407	2+12	342		Ax2*
USSRWWN	22	VA05W-78	404		no	275		390		5+10	342		Ax2*
USSRWWN	23	MD01W233-05-1	404		no		293		407	2+12	342	358	het
USSRWWN	24	MD01W233-06-16	404		no		293		407	2+12	342		Ax2*
USSRWWN	25	MD01W233-06-1	404		no		299		407	2+12		358	Ax1 or null
USSRWWN	26	TN801	404		no		293		407	2+12	342		Ax2*
USSRWWN	27	M04-4715	404	449	het		293		407	2+12	342	358	het
USSRWWN	28	M04_5109	404		no		293		407	2+12	342	358	het
USSRWWN	29	M03-3616-C	404	449	het		293		407	2+12		358	Ax1 or null
USSRWWN	30	B030543	404		no		293		407	2+12		358	Ax1 or null
USSRWWN	31	D04_5546		449	yes	275		390		5+10	342		Ax2*
USSRWWN	32	D04-5012	404		no		293		407	2+12	342		Ax2*
USSRWWN	33	GA991336-6E9	404		no	275		390		5+10		358	Ax1 or null
USSRWWN	34	GA991209-6E33	404		no	275		390		5+10	342		Ax2*
USSRWWN	35	GA991371-6E13	404		no	275		390		5+10		358	Ax1 or null
USSRWWN	36	GA991227-6A33	404		no		293		407	2+12		358	Ax1 or null
USSRWWN	37	W98007V1	404		no		293		407	2+12	342		Ax2*
USSRWWN	38	W98008J1	404		no		293		407	2+12	342		Ax2*
USSRWWN	39	W98008P1	404		no	275	293	390	407	het	342	358	het
USSRWWN	40	G59160	404		no		293		407	2+12		358	Ax1 or null
USSRWWN	41	G61505	404		no	275		390		5+10		358	Ax1 or null
USSRWWN	42	G41732	404		no	275		390		5+10	342		Ax2*

"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**