

# WESTERN MANITOBA SOYBEAN ADAPTATION TRIAL

In 2013, trials were located at Carberry, Hamiota, Melita, and Roblin

## VARIETY DESCRIPTIONS

Variety	Company Heat Units	Yield % Check	Site Years Tested	Days to Maturity <sup>1</sup> +/- Check	2013 Yield % of 23-10RY				
					Carberry	Melita	Hamiota	Roblin	
P001T34R	2300	82	4	-7	83	96	65	105	
29002RR	2375	87	9	-6	104	54	77	93	
NSC Anola RR2Y	2350	109	4	-2	113	94	107	120	
TH 33003R2Y	2400	106	5	-2	113	108	93	130	
NSC Moosomin RR2Y	2300	100	4	-2	101	91	78	130	
23-10RY	2325	100	10	0	100	100	100	100	
Bishop R2	2450	98	5	0	107	112	82	107	
MCLEOD R2	2375	112	5	0	125	102	110	129	
NSC Tilston RR2Y	2375	110	5	0	122	107	106	130	
LS 002R23	2375	111	5	1	130	96	108	127	
Pekko R2	2325	95	10	1	93	100	99	47	
900Y71	2450	103	10	1	119	143	90	102	
TH 32004R2Y	2425	115	10	1	131	121	114	127	
NSC Libau RR2Y	2375	101	5	2	109	133	99	79	
NSC Reston RR2Y	2325	99	5	2	103	116	106	83	
900Y61	2425	101	10	2	112	127	98	107	
Vito R2	2350	101	5	2	110	103	83	110	
PRO 2525R2	2450	120	4	3	127	115	128	110	
Sampsa R2	2425	96	10	5	93	111	79	79	
<b>Experimental lines that have been supported for registration in Canada</b>									
LS002R24N		113	4	0	109	101	123	121	
NSC Gladstone RR2Y		113	4	0	116	119	103	113	
EXP00313R2		105	4	1	111	98	103	105	
TH 33005R2Y		116	4	3	121	101	126	113	
FLZ612A4		107	4	5	98	121	99	116	
<b>CHECK CHARACTERISTICS</b>				23-10RY (bu/acre)	58	37	47	42	
23-10 RY		48	10	135	CV%	7.7	14.2	9.3	6.5
		bu/ acre	site years	days to maturity	LSD%	13	23	15	11
				Sign Diff	Yes	yes	Yes	Yes	
				<b>Seeding Date</b>	16-May	16-May	26-May	22-May	
				<b>Harvest Date</b>	18-Oct	10-Oct	15-Oct	17-Oct	

<sup>1</sup> Maturity based on data from Carberry and Melita.

**Not all varieties reached 95% brown pod in Roblin and Hamiota before first frost.**

## NOTES — APPLICABLE TO ROUNDUP READY AND CONVENTIONAL SOYBEAN CHARTS ONLY

### **MATURITY NOTES – always use more than one criteria to gauge maturity**

- 1 Soybean varieties have been organized into three maturity zones – short-, mid- and long-season areas. Although there are no variety restrictions, the **short-season** grouping is meant to be a starting point for new growers in the outer production areas. The **long-season** group is targeted for southern Manitoba generally south of highway 23, with the **mid-season** grouping making up the bulk of the production area between the short- and long-season area.
- 2 Company Crop Heat Unit ratings are assigned to assist growers in selecting varieties suitable for their area. Unfortunately Company Heat Unit ratings do not always reflect the actual maturity in Manitoba. Growers should never rely on just one criteria for judging maturity. Experimental lines are not assigned a HU rating until they become registered.
- 3 Maturity grouping is a ranking of maturity provided by seed suppliers. These rankings are assigned to varieties to assist growers to select varieties suited for their area. For future years, maturity grouping will be used instead of CHU Ranking.
- 4 Relative days to maturity (dtm) is the number of days from seeding to plant maturity (95% of the pods on the plant are mature with seeds rattling in the pods when plant is shaken) and is expressed as + or - days from the check. Growers need to be cautious when using only one-year data when evaluating maturity and yield. Using multiple-year maturity data when available will give you a better indication on how a variety will mature with different growing seasons. Actual days to maturity for the check is found in the grey check box at the bottom of the table.

### **GENERAL NOTES**

- 1 Roundup Ready, Conventional and soybean varieties are evaluated separately from Roundup Ready type varieties, meaning direct comparison of varieties between different tables is not possible. All trials are solid seeded at 210,000 plants/acre.
- 2 Hilum colour can range from Clear (CL), Yellow (Y), Imperfect Yellow (IY), Grey (GR), Brown (BR), Light Brown (LBR), Buff (BF), Imperfect Buff (IB) or Black (BL) and is solely a marketing issue. The hilum is the point on the soybean seed where it attaches to the pod.
- 3 Relative Seeds/lb – these were the seed numbers of the varieties entered into the trial. Soybean seed size can vary greatly between varieties and even from seed lot to seed lot of the same variety. Growers should use the seed size for their seed lot when calculating seeding rates.
- 4 Lodging is rated at harvest; 1=standing upright, 5=flat along the ground. A rating of 3 or more can promote white mould within the crop canopy.
- 5 Iron Deficiency Chlorosis (IDC) rating scores 1=green leaves, 2=yellowish leaves, 3=green veins with yellow leaves, 4=brown dead tissue between green veins, 5=severe chlorosis and a stunted growing point. Ratings were taken from one site prone to iron chlorosis over the last two years. IDC tolerant varieties are varieties with lower IDC scores and perform better on soils prone to iron deficiency chlorosis.
- 6 Iron Deficiency Chlorosis (IDC) grouping is used because varieties will have different visual rating scores from year to year. Numerical ratings, which are close but are in different groupings, will show similar symptoms. Both numerical and groupings should be considered together when judging IDC. Tolerant=leaves stayed green, Semi Tolerant=leaves when yellow then turned green, Susceptible=leaves went chlorotic and had dead patches on their leaves and were often stunted.

## CONVENTIONAL SOYBEANS

Manitoba Variety Zone	Company Heat Unit	Variety	Relative Days to Maturity <sup>1</sup> + / - of Check			Yield % Check	Site Years Tested	Hilum Colour	Relative Seeds/lb	Lodging <sup>2</sup>	
			Average	2013	2012					Clay	Loam
Mid Season Zone	2450	OAC Prudence	0	0	0	100	82	Y	2691	1.1	1.8
		AAC Mandor (OT09-03)	2	3	1	109	23	Y	2465	1.0	2.3
		<b>Experimental lines are being tested/proposed for registration in Canada</b>									
		OT11-01	-4	-2	-5	112	10	IY	3106	1.1	1.3
		OAC 11-02C	5	6	4	111	11	Y	2408	1.1	1.7
Long Season Zone	<b>Experimental lines are being tested/proposed for registration in Canada</b>										
	OT11-03	5	5	5	116	11	Y	2223	1.0	1.3	
	SeCan 11-05C	2	5	0	110	17	Y	2364	1.0	2.1	
	OT12-02	8	8	-	117	6	Y	2699	1.1	2.2	
<b>CHECK CHARACTERISTICS</b>											
OAC Prudence			114	114	114	50	82				
			days to maturity			bu/acre	site years				

<sup>1</sup>Maturity ratings for 2013 are average across Carman, Morris, St. Adolphe, Portage

<sup>2</sup>Lodging ratings are average across Loams (Portage and Carman) and Clays (St. Adolphe, Morris)

## YIELD BY LOCATION

Manitoba Variety Zone	Variety	2013 Average Yield	Site Years Tested	2013 Yield: % of OAC Prudence							
				Core Sites				Late Sites			
				Carman	Morris	Portage	St. Adolphe	Rosebank	Morden		
	OAC Prudence	100	6	100	100	100	100	100	100		
	AAC Mandor (OT09-03)	119	6	123	121	105	118	125	127		
Mid Season Zone	<b>Experimental lines are being tested/proposed for registration in Canada</b>										
	OT11-01	110	6	111	108	103	108	136	97		
	OAC 11-02C	112	6	110	119	105	115	116	110		
Lon Season Zone	<b>Experimental lines are being tested/proposed for registration in Canada</b>										
	OT11-03	117	6	110	123	112	98	130	126		
	SeCan 11-05C	118	6	107	120	111	118	135	116		
	OT12-02	117	6	117	119	122	114	117	115		
<b>CHECK CHARACTERISTICS</b>											
OAC Prudence (bu/acre)				47	37	71	48	60	64		
CV%				5.1	4.6	3.9	3.7	6.1	6.0		
LSD%				9	8	7	6	10	10		
Sign Diff				Yes	Yes	Yes	Yes	Yes	Yes		
<b>Seeding Date</b>				17-May	24-May	17-May	16-May	24-May	16-May		
<b>Harvest Date</b>				04-Oct	25-Sep	05-Oct	02-Oct	17-Oct	04-Oct		

# ROUNDUP READY SOYBEANS

New for 2014

Variety	Previous Code	Distributor	Seed Availability	Variety	Previous Code	Distributor	Seed Availability
00703	DAS 007R3	Hyland Seeds	2014	NSC Niverville RR2Y	NSM EXP 1209N R2	Northstar Genetics Manitoba	2013
24-61RY	24-61RY	DEKALB	2014	NSC Reston RR2Y	NSM EXP 1225 R2	Northstar Genetics Manitoba	2013
Gray R2	SC2450R2	Secan	2013	NSC Tilston RR2Y	NSMR2-EXP G10	Northstar Genetics Manitoba	2013
HS 007RY32	HX 007RY32	Hyland Seeds	2014	P001T34R	PH12004	DuPont Pioneer	2014
LS 002R23	LS 002R23	Delmar Commodities	2013	S007-Y4	AR1111955	Syngenta Canada	2014
McLeod R2	SC2375R2	Secan	2013	S00-T9	X2R00922	Syngenta Canada	2013
NSC Moosomin RR2Y	NSC Moosomin RR2Y	Northstar Genetics Manitoba	2014	TH 33003R2Y	TH 33003R2Y	Quarry Seeds Ltd	2013

## VARIETY DESCRIPTIONS

Manitoba Variety Zone	Company Heat Unit	Maturity Grouping	Variety	1Type	Relative Days to Maturity <sup>2</sup> + / - of Check			Yield % Check	Site Years Tested	Hilum Colour	Relative Seeds/ lb	Lodging <sup>3</sup>		IDC <sup>4</sup>		Notes <sup>5</sup>
					Average	2013	2012					Clay	Loam	Rating (1-5)	Grouping	
Short Season Zone	2300	00.1	P001T34R	RR1	-10	-12	-8	75	11	BR	2935	1.0	1.0	2.0	ST	-
	2300	000	NSC Moosomin RR2Y	R2Y	-8	-8	-	82	6	BR	3209	1.0	1.2	2.5	S	-
	2325	000	Pekko R2	R2Y	-5	-5	-5	96	16	BL	2389	1.0	1.3	2.1	ST	-
	2325	00.1	NSC Reston RR2Y	R2Y	-5	-5	-4	101	12	BL	2653	1.2	2.3	2.9	S	1k
	2325	00.1	23-10RY	R2Y	-4	-4	-4	96	18	BL	3128	1.1	1.4	1.8	ST	1c
	2400	00.7	S007-Y4	R2Y	-4	-4	-	104	6	IY	2441	1.0	1.7	2.0	ST	1k
	2450	00.2	Bishop R2	R2Y	-4	-4	-3	94	17	IY	2987	1.3	2.3	2.8	S	-
	2350	00.2	NSC Anola RR2Y	R2Y	-3	-4	-1	102	16	BL	2930	1.1	2.0	1.8	ST	1c
	2425	00.4	TH 32004R2Y	R2Y	-3	-4	-1	105	18	BL	3400	1.4	2.2	1.7	ST	1c
	<b>Experimental Lines that have been supported for registration in Canada</b>															
			PH12005	R2Y	-5	-5	-	85	85	IY	2936	1.0	1.5	2.1	ST	-
			FLZ612A4	R2Y	-3	-3	-	100	6	BL	2965	1.2	2.0	1.7	T	-
			EXP00313R2	R2Y	-3	-3	-	99	6	BL	2550	1.3	2.0	1.8	ST	SCN
			LS002R24N	R2Y	-2	-2	-	101	6	BL	2500	1.6	2.3	1.9	ST	-
Mid Season Zone	2375	00.2	LS 002R23	R2Y	-2	-2	-1	102	12	BL	2719	1.1	1.5	1.9	ST	-
	2450	00.7	S00-B7	R2Y	-2	-4	0	93	11	BL	2377	2.1	2.5	2.3	S	1a
	2400	00.3	TH 33003R2Y	R2Y	-1	-2	0	101	15	BR	3200	1.4	2.3	1.7	ST	1c
	2475	00.6	Chadburn R2	R2Y	-1	-1	-1	100	19	BL	3086	1.0	1.5	1.7	T	-
	2375	00.3	McLeod R2	R2Y	-1	-2	0	104	12	BL	2473	1.1	1.3	1.7	T	-
	2350	00.3	Vito R2	R2Y	-1	-1	-1	96	16	GR	3160	1.5	2.3	1.7	ST	1k
	2375	00.4	NSC Libau RR2Y	R2Y	-1	0	-1	100	18	BL	2800	1.0	1.6	1.8	ST	1c
	2375	00.4	NSC Tilston RR2Y	R2Y	0	-1	1	101	16	BL	2965	1.1	2.4	1.9	ST	-
	2425	00.5	NSC Elie RR2Y	R2Y	0	-1	1	104	19	BL	2673	1.0	1.8	2.3	ST	1k
	2425	00.4	004R21	R2Y	0	0	0	100	22	BL	3153	1.0	1.9	1.6	T	1a
	2425	00.5	24-10RY	R2Y	0	0	0	104	22	IB	2645	1.0	1.8	2.2	ST	1k
	2425	00.6	900Y61	RR1	1	-1	2	96	18	BR	2608	1.0	1.5	1.6	T	1c
	2450	00.7	900Y71	RR1	1	1	1	98	18	IY	2935	1.0	1.9	1.7	T	1c
	2450	00.5	Gray R2	R2Y	1	0	1	101	12	BL	3300	1.0	1.5	2.0	ST	1c
	2425	00.8	Sampsa R2	R2Y	1	0	1	106	14	IB	2092	1.0	1.3	2.0	ST	1c
	2425	00.3	LS 003R22	R2Y	1	1	0	101	18	BL	2827	1.1	2.1	1.8	ST	-
	2450	00.6	HS 006RYS24	R2Y	1	1	1	103	17	BL	2900	1.1	2.1	1.7	T	SCN
	2500	00.8	Beurling R2	R2Y	1	0	2	94	17	BL	3220	2.4	3.1	2.1	ST	-
<b>Experimental Lines that have been supported for registration in Canada</b>																
			NSC Gladstone RR2Y	R2Y	-1	-1	-	99	6	BL	2620	1.1	2.8	1.8	ST	-
			TH 33005R2Y	R2Y	-1	-2	1	113	12	BL	2500	1.1	1.8	1.8	ST	1c,1k
			S00-N6	R2Y	0	0	-	99	6	BL	3006	1.1	2.6	2.5	S	-
			TH 34006R2Y	R2Y	0	0	-	106	6	BL	2800	1.1	2.0	2.3	S	-
			SC2380 R2	R2Y	1	1	-	98	6	BL	2830	1.2	3.0	2.0	ST	1c
			CFS 12.302R2	R2Y	-1	-2	0	104	11	BL	2142	1.1	2.3	NT	NT	-
Long Season Zone	2500	00.7	HS 007RY32	R2Y	2	2	2	111	11	BL	2950	1.1	1.7	1.8	ST	1c,1k
	2525	00.7	PS 0074 R2	R2Y	2	1	3	107	11	BR	2900	1.3	3.0	1.6	T	-
	2450	00.6	NSC Niverville RR2Y	R2Y	2	2	2	111	11	BL	4093	1.1	2.7	1.6	T	SCN,1c
	2475	00.6	LS 006R21	R2Y	3	2	3	104	14	BL	2999	1.1	1.4	2.0	ST	-
	2475	00.7	NSC Richer RR2Y	R2Y	3	2	3	109	16	BL	2937	1.1	2.3	1.6	T	1c
	2500	00.7	LS 007R22	R2Y	3	2	4	109	11	BL	3278	1.4	3.0	2.3	ST	-
	2500	00.9	S00-T9	R2Y	3	1	4	114	11	BL	2383	1.0	1.8	1.6	T	1k
	2475	00.7	24-61RY	R2Y	3	3	-	104	6	BL	3094	1.0	1.8	1.7	T	1c
	2500	00.8	PS 0083 R2	R2Y	3	3	3	99	16	BL	2600	1.0	1.5	2.3	S	-
	2475	00.7	00703	R2Y	3	3	3	109	11	BR	2900	1.0	1.9	2.6	S	-
	2475	00.5	LS 005R22	R2Y	3	3	3	101	11	BL	2886	1.1	2.1	1.8	ST	-
	2500	00.8	Currie R2	R2Y	4	5	3	108	17	BL	2950	1.1	2.3	1.8	ST	1k
2500	00.9	25-10RY	R2Y	5	4	5	107	14	BL	2310	1.2	2.2	1.8	ST	1c	
2525	00.7	Astro R2	R2Y	6	6	5	112	14	BL	3100	1.0	2.2	1.9	ST	1k	
<b>Experimental Lines that have been supported for registration in Canada</b>																
			LS005R24	R2Y	4	4	-	111	6	BL	2760	1.3	2.6	1.8	ST	-

### CHECK CHARACTERISTICS

004R21	117	120	115	50	22
	days to maturity			bu/acre	site years

<sup>1</sup>R2Y Indicates Genuity Roundup Ready 2 Yield™ Soybeans

<sup>2</sup>Maturity Ratings for 2013 are average across Carman, Morris, St. Adolphe, Portage

<sup>3</sup>Lodging ratings are average across Loams (Portage and Carman) Clays (St. Adolphe, Morris)

<sup>4</sup>IDC Groupings ST = Semi-Tolerant T = Tolerant S = Susceptible

<sup>5</sup>Notes 2a, 1c, etc. Phytoph. Resist. gene SCN – SCN Resistance NT – Not Tested

**YIELD BY LOCATION – ROUNDUP READY SOYBEANS**

2013 Yield: % of 004R21

Manitoba Variety Zone	Variety	2013 Average Yield	Site Years Tested	2013 Yield: % of 004R21								
				Early Sites		Core Sites			Late Sites			
				Beausejour	Stonewall	Carman	Morris	Portage	St. Adolphe	Morden	Rosebank	
Short Season Zone	P001T34R	69	6	56	84	71	72	71	64	-	-	
	NSC Moosomin RR2Y	82	6	73	88	93	94	72	78	-	-	
	Pekko R2	91	6	83	87	95	96	91	96	-	-	
	NSC Reston RR2Y	94	6	91	100	98	99	84	99	-	-	
	23-10RY	84	6	67	90	84	85	88	90	-	-	
	S007-Y4	104	6	89	111	114	102	101	112	-	-	
	Bishop R2	89	6	84	95	99	93	80	90	-	-	
	NSC Anola RR2Y	98	6	85	103	101	100	93	111	-	-	
	TH 32004R2Y	100	6	87	108	104	99	95	110	-	-	
	<b>Experimental Lines that have been supported for registration in Canada</b>											
		PH12005	77	6	65	88	86	74	74	78	-	-
		FLZ612A4	100	6	84	107	115	104	89	106	-	-
		EXP00313R2	99	6	91	103	99	99	101	102	-	-
	LS002R24N	101	6	96	99	102	104	97	109	-	-	
Mid Season Zone	LS 002R23	97	6	85	97	99	104	98	101	-	-	
	S00-B7	94	6	92	99	103	100	83	97	-	-	
	TH 33003R2Y	97	6	87	90	110	98	96	102	-	-	
	Chadburn R2	98	6	91	92	99	103	95	110	-	-	
	McLeod R2	99	6	98	104	105	98	97	95	-	-	
	Vito R2	93	6	85	94	96	104	86	95	-	-	
	NSC Libau RR2Y	97	6	88	94	97	99	99	102	-	-	
	NSC Tilston RR2Y	96	6	90	95	107	98	91	99	-	-	
	NSC Elie RR2Y	97	6	95	99	101	97	94	98	-	-	
	004R21	100	8	100	100	100	100	100	100	100	100	
	24-10RY	99	8	87	100	102	99	96	101	110	95	
	900Y61 ☀	92	6	82	98	95	89	93	92	-	-	
	900Y71 ☀	93	6	82	99	98	94	93	95	-	-	
	Gray R2	99	6	88	93	112	102	92	108	-	-	
	Sampsa R2	102	6	-	-	105	99	93	106	128	88	
	LS 003R22	90	6	78	93	96	98	83	98	-	-	
	HS 006RYS24	102	6	93	105	105	108	97	105	-	-	
	Beurling R2	97	6	-	-	100	100	94	95	112	83	
	<b>Experimental Lines that have been supported for registration in Canada</b>											
		NSC Gladstone RR2Y	99	6	93	102	103	103	94	104	-	-
	TH 33005R2Y	109	6	-	-	120	105	98	111	126	100	
	S00-N6	99	6	84	102	102	108	101	99	-	-	
	TH 34006R2Y	105	6	-	-	100	104	105	99	114	108	
	SC2380 R2	98	6	95	100	101	105	87	107	-	-	
	CFS 12.302R2	100	6	88	86	107	101	109	103	-	-	
Long Season Zone	HS 007RY32	106	6	-	-	107	103	97	108	119	104	
	PS 0074 R2	118	6	-	-	102	108	116	107	152	118	
	NSC Niverville RR2Y	110	6	-	-	99	106	110	98	136	108	
	LS 006R21	102	6	-	-	103	102	99	98	117	92	
	NSC Richer RR2Y	111	6	-	-	103	113	91	111	148	107	
	LS 007R22	109	6	-	-	93	108	98	110	138	108	
	S00-T9	118	6	-	-	126	116	109	111	132	117	
	24-61RY	103	6	-	-	104	103	99	106	110	98	
	PS 0083 R2	103	6	-	-	95	98	96	100	118	109	
	00703	106	6	-	-	106	105	99	102	122	105	
	LS 005R22	103	6	-	-	102	106	92	107	124	93	
	Currie R2	108	6	-	-	107	107	96	104	131	103	
	25-10RY	109	6	-	-	112	109	86	115	126	114	
	Astro R2	118	6	-	-	113	108	110	117	142	116	
<b>Experimental Lines that have been supported for registration in Canada</b>												
	LS005R24	110	6	-	-	104	109	101	112	132	105	
<b>CHECK CHARACTERISTICS</b>		004R21 (bu/acre)		57	47	53	44	74	55	58	67	
		CV%		7.6	5.6	5.2	4.8	8.0	4.1	6.9	7.3	
		LSD%		12	9	8	8	13	7	11	12	
		Sign Dif		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	<b>Seeding Date</b>	24-May	22-May	17-May	24-May	16-May	16-May	16-May	16-May	27-May		
	<b>Harvest Date</b>	03-Oct	24-Sep	03-Oct	25-Sep	07-Oct	30-Sep	04-Oct	17-Oct			