2023 SOYBEAN VARIETY GUIDE



This publication features the results from MPSG-sponsored trials.

Contents of this publication can only be reproduced with the permission of MPSG.

KEY FOR SOYBEAN VARIETY TABLES

Manitoba Maturity Zone – Soybean varieties are organized into four maturity zones – very early-, early-, mid- and long-season. These categories reflect the *Manitoba Soybean Maturity Zones* map (next page), based on long-term heat unit and frost-free period data. Varieties fit into respective zones based on average relative days to maturity. Each zone indicates the longest season varieties that should be selected for a given region.

Company Maturity Group – The maturity ranking provided by seed suppliers, indicating growing season length. Triple zero (000) and double zero (00) soybean varieties are best suited to Manitoba. Varieties currently tested in Manitoba range from 000 (earliest) to 0.1 (longest).

Туре

E3 = Enlist E3® soybeans with 2,4-D choline, glyphosate and glufosinate herbicide tolerance.

RR1 = Roundup Ready 1 soybeans with glyphosate herbicide tolerance. R2Y = Genuity® Roundup Ready 2 Yield® soybeans with glyphosate herbicide tolerance.

R2X = Roundup Ready 2 Xtend® soybeans with dicamba and glyphosate herbicide tolerance.

WPX = Blended Variety Xtend® soybeans with glyphosate and dicamba herbicide tolerance.

R2XF = Roundup Ready 2 XtendFlex® soybeans with glyphosate, dicamba and glufosinate herbicide tolerance.

DTM +/- Check – The number of days from planting to full maturity (R8 or 95% brown pod). It is expressed as + or – days relative to the check variety. Actual days to maturity (DTM) for the check variety is found in the shaded area at the bottom of the table. Average DTM is calculated from multiple site-years. It is important to use long-term data for variety selection, as maturity can vary by year.

Hilum Colour – The hilum is the area of a soybean seed that was previously attached to the pod. Hilum colour is a marketing factor

that varies among soybean varieties. Hilum colour can be clear (CL), yellow (Y), imperfect yellow (IY), grey (GR), light brown (LB), brown (BR), tan (TN), imperfect black (IB) or black (BL).

Table 1. Field risk of IDC based on carbonate and soluble salt

soli test levels.			
Soluble Salt		Carbonate (%)	
(mmhos/cm)	0 to 2.5	2.6 to 5	>5.0
0 to 0.25	Low	Low	Moderate
0.26 to 0.50	Low	Moderate	High
0.50 to 1.0	Moderate	High	Very high
>1.0	Hiah	Very high	Extreme

Source: Agvise Laboratories

IDC Rating and Group – The iron deficiency chlorosis (IDC) rating is the severity of IDC expressed in a given variety on a 1–5 scale. The IDC group indicates the overall level of tolerance. Each year, ratings are conducted during the V2 to V3 stages at a site near Winnipeg that is prone to IDC. If a field is at moderate to high risk of IDC (Table 1), select a variety with a low (tolerant) rating.

IDC Ratings

1 = green leaves4 = brown dead tissue2 = yellowish leavesbetween green veins3 = green veins with yellow leaves5 = severe chlorosis and a stunted growing point

IDC Groups

T = tolerant ST = semi-tolerant S = susceptible

SCN – Variety resistance to soybean cyst nematode (SCN). The presence of SCN was confirmed for the first time in Manitoba in 2019. For full details of SCN findings, visit manitobapulse.ca.

PRR – Phytophthora root rot (PRR) race-specific resistance genes for each variety. Resistance genes that correspond with prevalent races in Manitoba are listed in Table 2. A new pathotype was most prevalent in Manitoba in 2018, according to Agriculture and Agri-Food Canada research. Soybean varieties with the rps 6 gene are resistant to this new pathotype.

CV% – The coefficient of variation (CV) is the statistical measure of random variation in a research trial. A CV of less than 15% generally indicates a more uniform trial and conclusive data.

LSD % – The least significant difference (LSD) is the quantity by which two varieties must differ to conclude with 95% confidence that a true difference exists due to genetics.

Sign. Diff. – The indication of whether significant differences were found between varieties. Yes = at least one variety is significantly different from another within one site. No = varieties are not significantly different within one site.

Table 2. Resistance to *Phytopthora sojae* (rps) genes currently available in Manitoba for control of Phytophthora root rot.

Race of			Rps Gene		
P. sojae	1a	1c	1k	3a	6
New Pathotype	S	S	S	S	R
25	S	S	S	R	R
4	S	S	R	R	R
28	S	R	S	R	R
3	S	R	R	R	R

S = susceptible R = resistant

Source: Debra McLaren, AAFC



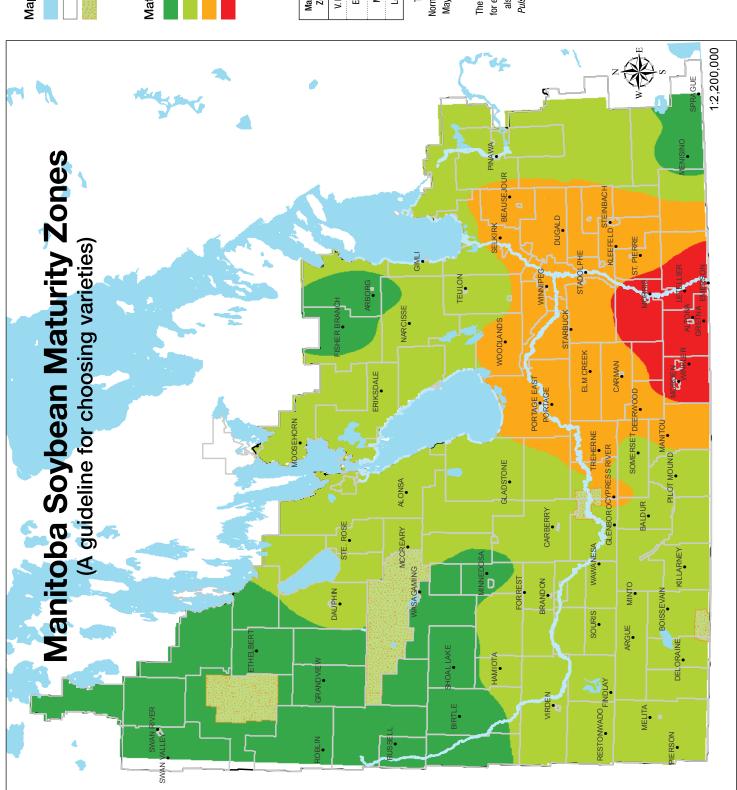












Map Elements



Prov/Nat. Parks

Maturity Zones

Very Early Early Mid

Long

00.2-00.3 00.4-00.6 Maturity Group <00.2 2250-2400 110-118 119-125 FFP (days) 2401-2550 <2250 >2550 몽 Maturity Zone V. Early Early Μ Long

May 15 - Sept 20) and average frost-free period Normal Data for cumulative Corn Heat Units (CHU This map is based on 1981–2010 Climate (FFP, days Tmin > 0°C). The map outlines the longest maturity suggested for each production area, but earlier varieties can Pulse and Soybean Variety Guide, which outlines also perform well. Use in conjunction with the varieties according to maturity zones.

HERBICIDE TOLERANT SOYBEANS ◆ VARIETY DESCRIPTIONS ◆ EASTERN MANITOBA

Maturity Zone Gro Very Early- Season Zone OC Coc Coc Coc Coc Coc Coc Coc C	npany turity roup 10.2 10.01 10.03 10.04 10.03 10.04 10.03 10.01 10.02 10.05 10.02 10.05 10.01	Variety Major R2X S001-D8X S003-R5X Bomber R2X P003A97X PV S0009X84 PV S004XF13 BY Hector XT P002A42E B0041RX PV 25s005R2X TH84002X Hart R2X NSC Arden RR2X Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	Type R2X R2X R2X R2X R2X R2X R2X R2X R2X R2	Average DTM +/- Check† -8 -7 -6 -5 -5 -5 -4 -3 -3 -3 -2 -2 -2 -2 -2 -2 -2 -7 registration -3 -2 -1 -1 0 0 0 0 0 1 1 1 1 1 1 1 1	84 92 81 92 91 100 91 94 92 92 100 87 90	Site-Years Tested 5 21 7 5 20 5 5 5 5 15 2 5 12 9 32 5 15 15 21 9 9 5 18 9 9 5 18 9 32 16 29 32 6 6 6	Hilum Colour BR IY IY BL GR BL BL BL BL BR BL BR BL BR BL BR BL BR	Rating (1–5) 2.0 2.0 2.1 2.1 1.8 1.8 2.3 1.9 1.7 1.7 1.9 1.9 1.9 1.8 1.7 2.0 1.9 1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.7 1.7 1.9 1.9 1.9 1.7 1.7 1.9 1.9 1.9 1.7 1.7 1.9 1.9 1.7 1.7 1.9 1.9 1.9 1.8 1.7 1.7 1.9 1.9 1.9 1.9 1.8 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	ST ST ST ST ST ST ST ST	SCN yes yes yes yes yes - yes	PRR 1c 1c 1c 1k 1k 1c			
October October	0.01 0.03 0.04 0.03 0.04 0.03 0.0.9 0.03 0.0.1 0.0.2 0.0.4 0.0.5 0.0.2 0.0.5 0.0.2 0.0.5 0.0.1 0.0.1 0.0.1 0.0.1 0.0.1 0.0.1 0.0.1 0.0.1 0.0.1 0.0.1 0.0.1 0.0.5 0.0.5 0.0.2 0.0.5 0.0.1 0.0.1 0.0.1 0.0.1 0.0.1 0.0.1 0.0.5	Major R2X S001-D8X S003-R5X Bomber R2X P003A97X PV S0009X84 PV S0004XF13 BY Hector XT P002A42E B0041RX PV 25s005R2X TH84002X Hart R2X NSC Arden RR2X Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Suna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X	-8 -7 -6 -5 -5 -5 -5 -4 -3 -3 -3 -3 -2 -2 -2 -2 -2 -2 -2 -2 -1 -1 0 0 0 0 1 1 1 1	79 82 89 83 90 90 88 84 84 84 93 90 90 90 88 95 90 92 89 89 85 in Canada 84 92 81 92 91 100 91 94 92 92 100 87 90	5 21 7 5 20 5 5 5 5 5 5 15 22 9 32 5 15 15 21 9 9 5 5 18 9 9 5 18 9 32 16 29 32 6 6 6	BR IY IY BL GR BL BL BL IY BR BL BR BL BL BR	2.0 2.0 2.1 2.1 1.8 1.8 2.3 1.9 1.7 1.7 1.9 1.9 1.9 1.8 1.7 2.0 1.9 1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.7 1.7 1.9 1.9 1.9 1.9 1.8 1.7 1.7 1.9 1.9 1.9 1.9 1.8 1.7 1.7 1.9	ST	- yes yes yes yes yes - yes	1c 1c 1c 1k 1k - 1c			
Very Early- Season Zone 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.01 0.03 0.04 0.03 0.0.4 0.03 0.0.9 0.03 0.0.1 0.0.2 0.0.4 0.0.5 0.0.2 0.0.5 0.0.2 0.0.3 0.0.4 0.0.9 0.05 0.0.1 0.01 0.01 0.01 0.01 0.01 0.0	S001-D8X S003-R5X Bomber R2X P003A97X PV S0009X84 PV S0004XF13 BY Hector XT P002A42E B0041RX PV 25s005R2X TH84002X Hart R2X NSC Arden RR2X Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Suna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 22s002 R2X PV 16s004 R2X	R2X	-7 -6 -5 -5 -5 -4 -3 -3 -3 -3 -2 -2 -2 -2 -2 -2 -2 -2 -1 -1 0 0 0 0 1 1 1 1	82 89 83 90 90 88 84 84 93 90 90 90 88 95 90 92 89 85 in Canada 84 92 91 100 91 94 92 92 90 91 91 92 93 95 96 97 98 99 90 90 90 90 90 90 90 90 90	21 7 5 20 5 5 5 5 5 5 5 5 15 2 9 32 5 15 21 9 9 5 15 21 9 9 5 15 21 9 9 5 15 21 9 32 5 15 16 21 21 21 21 21 21 21 21 21 21	IY IY BL GR BL BL BL IY GR IY BL BR BL BL BL BR BL BL BR BL BL BR BL BR BL BR BL BR BL BR BL BR	2.0 2.1 1.8 1.8 2.3 1.9 1.7 1.7 1.9 1.9 1.9 1.8 1.7 2.0 1.9 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 1.7 1.7 1.9 1.9 1.9 1.9 1.7 2.4 1.8	ST	- yes yes yes - yes yes yes yes - yes	1c 1c 1k 1k - 1c			
Very Early- Season Zone 00 00 00 00 00 00 00 00 00 00 00 00 0	0.03 0.04 0.03 0.09 0.03 0.09 0.03 0.01 0.02 0.04 0.05 0.02 0.05 0.02 0.03 0.04 0.09 0.05 0.01 0.01 0.01 0.01 0.01 0.01 0.02 0.05 0.02 0.05 0.01 0.01 0.01 0.01 0.01 0.01 0.01	S003-R5X Bomber R2X P003A97X PV S0009X84 PV S0004XF13 BY Hector XT P002A42E B0041RX PV 25s005R2X TH84002X Hart R2X NSC Arden RR2X Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Suna R2X SY Suna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X	-6 -5 -5 -5 -4 -3 -3 -3 -3 -2 -2 -2 -2 -2 -2 -2 -2 -1 -1 0 0 0 0 1 1 1 1	89 83 90 90 88 84 84 84 93 90 90 90 88 95 90 92 89 85 in Canada 84 92 91 100 91 94 92 92	7 5 20 5 5 5 5 5 5 15 22 5 12 9 32 5 15 15 21 9 9 5 5 18 9 32 16 29 32 6 6 6	IY BL GR BL BL FR BL BR BL BL BR	2.1 2.1 1.8 1.8 2.3 1.9 1.7 1.7 1.9 1.9 1.9 1.8 1.7 2.0 1.9 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 1.7 1.7 1.9 1.9 1.9 1.9 1.7 1.7 1.9	ST	- yes yes yes yes yes - yes yes	1c 1k 1k - 1c			
Season Co Co Co Co Co Co Co	00.4 00.3 00.9 00.3 00.1 00.2 00.4 00.5 00.2 00.5 00.2 00.3 00.3 00.4 00.9 0.05 00.1 00.1 00.1 00.7 00.2 00.5 00.6 00.3 00.4 00.9 00.5 00.1 00.1 00.1 00.1 00.1 00.1 00.1	Bomber R2X P003A97X PV 50009X84 PV 50009X84 PV 5004XF13 BY Hector XT P002A42E B0041RX PV 25s005R2X TH84002X Hart R2X NSC Arden RR2X Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Suna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X	-5 -5 -5 -4 -3 -3 -3 -3 -3 -2 -2 -2 -2 -2 -2 -2 -2 -1 -1 0 0 0 0 1 1 1	83 90 90 88 84 84 84 93 90 90 90 88 95 90 92 89 89 85 in Canada 84 92 91 100 91 94 92 92 100 87 90	5 20 5 5 5 5 5 15 2 9 32 5 15 15 21 9 9 5 15 21 9 9 32 5 15 21 9 9 32 5 15 21 9 9 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18	BL GR BL BL BL Y GR IY BL BR BL BL BL BR BL BR BL BR BL BR BL BR BL GR BR	2.1 1.8 1.8 2.3 1.9 1.7 1.7 1.9 1.9 1.9 1.8 1.7 2.0 1.9 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 1.7 1.9 1.9 1.8 1.7 1.9 1.9 1.8 1.9 1.9 1.9 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	ST	- yes yes yes yes - yes yes	1k 1k - 1c			
Zone	00.3 00.9 00.3 00.9 00.3 00.1 00.2 00.4 00.5 00.2 00.3 00.3 00.4 00.9 0.05 00.1 00.1 00.1 00.1 00.7 00.2 00.3 00.4 00.9 00.05 00.1 00.1 00.1 00.1 00.1 00.1 00.	P003A97X PV S0009X84 PV S0009X84 PV S004XF13 BY Hector XT P002A42E B0041RX PV 25s005R2X TH84002X Hart R2X NSC Arden RR2X Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Suna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X	-5 -5 -4 -3 -3 -3 -3 -3 -2 -2 -2 -2 -2 -2 -2 -2 -1 -1 0 0 0 0 1 1 1	90 90 88 84 84 93 90 90 90 88 95 90 92 89 89 85 in Canada 84 92 91 100 91 94 92 92 90 90 90 90 90 90 90 90 90 90	20 5 5 5 5 5 5 15 2 9 32 5 15 15 21 9 9 5 18 9 32 5 16 29 30 6 6 6 6	GR BL BL Y GR IY BL BR BL BL BL BR BL BL BR BL BR BL BR BL BR	1.8 1.8 2.3 1.9 1.7 1.7 1.9 1.9 1.9 1.8 1.7 2.0 1.9 1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 1.7 1.7 1.9 1.9	ST	yes yes yes yes yes - yes	1k			
000 000	00.9 00.9 10.3 10.1 10.2 10.4 10.5 10.2 10.3 10.3 10.3 10.3 10.4 10.9 10.5 10.1 10.1 10.1 10.1 10.1 10.1 10.1	PV S0009X84 PV S0009X84 PV S004XF13 BY Hector XT P002A42E B0041RX PV 25s005R2X TH84002X Hart R2X NSC Arden RR2X Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Suna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X	-5 -4 -3 -3 -3 -3 -2 -2 -2 -2 -2 -2 -2 -2 -2 -1 -1 0 0 0 0	90 88 84 84 93 90 90 90 90 88 95 90 92 89 89 85 in Canada 84 92 91 100 91 94 92 92 90 90 90 90 90 90 90 90 90 90	5 5 5 5 5 15 2 5 12 9 32 5 15 15 21 9 9 5 5 18 9 9 32 5 15 21 9	BL BL GR IY BL BR BL BL BL BR BL BL BR BL BR BL BR BL BR	1.8 2.3 1.9 1.7 1.7 1.9 1.9 1.9 1.8 1.7 2.0 1.9 1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 1.8 1.1 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	ST	yes yes yes yes - yes	- 1c			
OC OC OC OC OC OC OC OC	00.3 00.1 00.2 00.4 00.5 00.2 00.05 00.2 00.3 00.3 00.4 00.9 00.5 00.1 00.1 00.1 00.7 00.2 00.5 00.6 00.3 00.4 00.9 00.5 00.1 00.1 00.1 00.1 00.1 00.1 00.1	PV S004XF13 BY Hector XT P002A42E B0041RX PV 25s005R2X TH84002X Hart R2X NSC Arden RR2X Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Suna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X	-4 -3 -3 -3 -3 -3 -2 -2 -2 -2 -2 -2 -2 -2 -1 -1 0 0 0 0 1 1 1 1	88 84 84 93 90 90 90 88 89 89 89 85 in Canada 84 92 91 100 91 94 92 92 90	5 5 5 15 2 5 12 9 32 5 15 15 21 9 9 5 5 18 9 32 5 16 29 32 6 6	BL BL Y GR IY BL BR BL BL BL BR BL BL BR BL BR BL BR BL BR	2.3 1.9 1.7 1.7 1.9 1.9 1.9 1.8 1.7 2.0 1.9 1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 1.1 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	S ST T T ST S	yes yes - yes	1c 1c 1k 1c			
Early- 000 Company of the property of the prop	00.1 00.2 00.4 00.5 00.2 00.5 00.2 00.5 00.0 00.3 00.4 00.9 0.05 00.1 00.1 00.1 00.7 00.2 00.5 00.6 00.3 00.4 00.3 00.4 00.3 00.5 00.6 00.3 00.4 00.3 00.5 00.6 00.3 00.4	BY Hector XT P002A42E B0041RX PV 25s005R2X TH84002X Hart R2X NSC Arden RR2X Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Suna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X E3 R2X	-3 -3 -3 -3 -3 -3 -2 -2 -2 -2 -2 -2 -2 -2 -7 -1 -1 0 0 0 0 0 1 1 1	84 84 93 90 90 90 98 88 95 90 92 89 89 85 in Canada 84 92 91 100 91 94 92 92 90 90 90 90 90 90 90 90 90 90	5 5 15 2 5 12 9 32 5 15 15 21 9 9 5 5 18 9 32 6 6 6	BL Y GR IY BL BR BL BL BL BL BR BL BL BR BL BR BL BR BL BR	1.9 1.7 1.7 1.9 1.9 1.9 1.8 1.7 2.0 1.9 1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 1.7 1.7 1.9	ST T T ST	- yes - yes yes yes yes yes yes yes yes	1c 1c 1k 1c			
Early- 00 Season 00 00 00 00 00 00 00 00 00 00 00 00 00	00.4 00.5 00.2 00.5 00.2 00.5 00.2 00.3 00.3 00.4 00.9 0.05 00.1 00.1 00.1 00.7 00.2 00.5 00.6 00.3 00.4 00.3 00.4 00.3 00.5 00.5 00.6 00.3 00.5 00.5 00.5 00.5 00.5 00.5	B0041RX PV 25s005R2X TH84002X Hart R2X NSC Arden RR2X Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X R2X R2X R2X R2X R2Y R2X R2Y R2X	-3 -3 -3 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -1 -1 0 0 0 1 1 1 1	93 90 90 90 88 95 90 92 89 85 85 in Canada 84 92 91 100 91 94 92 92 100 87	15 2 5 12 9 32 5 15 15 21 9 9 5 5 18 9 32 16 29 32 6 6	GR IY BL BR BL BL BL BL BL BR BL BR BL BR BL GR BL GR	1.7 1.9 1.9 1.9 1.8 1.7 2.0 1.9 1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 1.7 1.7 1.9	T ST	- yes - yes yes yes yes yes yes yes yes	1c 1k 1c			
Early- 000	00.5 00.2 00.5 00.2 00.5 00.2 00.3 00.4 00.9 0.05 00.1 100.1 00.1 00.1 00.7 00.2 00.5 00.6 00.3 00.4 00.3 00.4 00.5 00.6 00.3 00.4 00.5 00.6 00.3 00.6 00.3 00.6 00.3 00.6 00.3 00.6 00.3 00.6	PV 25s005R2X TH84002X Hart R2X NSC Arden RR2X Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X R2X R2X R2X R2Y R2X	-3 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -7 -1 -1 0 0 0 1 1 1 1	90 90 90 90 88 95 90 92 89 85 in Canada 84 92 91 100 91 94 92 92 100 87	2 5 12 9 32 5 15 15 21 9 9 5 5 18 9 32 16 29 32 6 6	IY BL BR BL BL BL BL BL BR BL BR BL BR BL BR	1.9 1.9 1.9 1.8 1.7 2.0 1.9 1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 1.7 1.7 1.7	ST	- yes	1c 1			
Early- 000 Season 000 Zone 000 000 000 000 000 000 000 000 000 00	00.2 00.5 00.05 00.02 00.3 00.3 00.4 00.9 0.05 00.1 00.1 00.1 00.7 00.2 00.5 00.6 00.3 00.4 00.3 00.5 00.5 00.5 00.6	TH84002X Hart R2X NSC Arden RR2X Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X R2X R2X R2Y R2X	-2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -1 -1 0 0 0 1 1 1 1	90 90 88 95 90 92 89 85 in Canada 84 92 91 100 91 94 92 92 100 87	5 12 9 32 5 15 15 15 21 9 9 5 5 18 9 32 16 29 32 6 6 6	BL BR BL BR BL BL BL BR BL BR BL BR BL BR BR BR BR BR BR BR BR	1.9 1.9 1.8 1.7 2.0 1.9 1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 1.7 1.7 1.7	ST	yes	1c 1			
Early- 000 Season 000 Zone 000 000 000 000 000 000 000 000 000 00	00.5 00.2 00.3 00.3 00.4 00.9 0.05 00.1 00.1 00.7 00.2 00.5 00.6 00.3 00.4 00.3 00.5 00.5 00.5 00.6	Hart R2X NSC Arden RR2X Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X R2Y R2X R2Y R2X	-2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -1 -1 0 0 0 1 1 1	90 88 95 90 92 89 89 85 in Canada 84 92 91 100 91 94 92 92 100 87 90	12 9 32 5 15 15 21 9 9 5 5 18 9 32 16 29 32 6 6	BR BL BL BL BL BL BR BL BR BL BR BL BR BR BR BR BR BR BR BR BR	1.9 1.8 1.7 2.0 1.9 1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 1.7 1.7 1.7	ST	yes - yes yes yes yes yes yes yes yes	1c 1			
Early- Season Zone 00 00 00 00 00 00 00 00 00 00 00 00 0	00.2 00.3 00.3 00.3 00.4 00.9 0.05 00.1 00.1 00.7 00.2 00.5 0.6 00.3 00.4 00.3 00.5 00.5 00.6	NSC Arden RR2X Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2Y R2X R2X R2X R2X R2X R2X R2X Proposed for WPX R2X R2X R2X R2X R2X R2X R2Y R2X	-2 -2 -2 -2 -2 -2 -2 -2 -2 -7 -1 -1 0 0 0 1 1 1 1	88 95 90 92 89 89 85 in Canada 84 92 91 100 91 94 92 92 100 87 90	9 32 5 15 15 15 21 9 9 5 5 18 9 32 16 29 32 6 6 6	BL BL BR BL BL BR BL BR BL BR	1.8 1.7 2.0 1.9 1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 1.9 1.9 1.7 1.7 1.7	ST T ST	- yes - yes yes yes yes yes yes	1c 1			
Season	00.3 00.3 00.4 00.9 0.05 00.1 00.1 00.7 00.2 00.5 00.4 00.3 00.4 00.3 00.5 00.5 00.5 00.6 00.3 00.5 00.6 00.3 00.5 00.5 00.6	Akras R2 BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2Y R2X R2X R2X R2X R2X R2X R2X /proposed fc WPX R2X R2X R2X R2X R2X R2X R2X R2Y R2X	-2 -2 -2 -2 -2 -2 -2 -7 -2 -2 -7 -1 -1 -1 0 0 0 1 1 1 1	95 90 92 89 89 85 in Canada 84 92 91 100 91 94 92 92 92 100 87 90	32 5 15 15 21 9 9 5 5 18 9 32 16 29 32 6 6	BL BR BL BL BR BL BR BL BR BL BR	1.7 2.0 1.9 1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 2.4 1.8 1.7 1.7	T ST ST T ST	- yes - yes yes yes yes yes yes yes yes yes	1c 1			
Zone 000 000 000 000 000 000 000 000 000 00	00.3 00.4 00.9 0.05 00.1 00.1 00.7 00.2 00.5 00.6 00.3 00.4 00.3 00.5 00.5 00.6 00.3 00.5 00.5 00.6	BY Deno XT NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X R2X R2X R2X R2X R2X /proposed fc WPX R2X R2X R2X R2X R2X R2X R2Y R2X	-2 -2 -2 -2 -2 -2 -7 -2 -2 -7 -1 -1 -1 0 0 0 1 1 1 1	90 92 89 89 85 in Canada 84 92 91 100 91 94 92 92 92 100 87 90	5 15 15 21 9 9 5 5 18 9 32 16 29 32 6 6	BL BR BL BL BR BR BR BL BR	2.0 1.9 1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 2.4 1.8 1.7	ST	yes - yes - yes yes yes yes yes yes	1c 1			
000 000 000 000 000 000 000 000 000 00	00.4 00.9 0.05 10.1 100.1 100.7 100.2 100.5 100.6 100.3 100.4 100.3 100.5 100.5 100.5 100.3 100.5 100.3 100.5 100.3 100.5 100.3 100.5 100.3 100.5 100.3	NSC Holland RR2X Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X R2X R2X R2X /proposed fo WPX WPX R2X R2X R2X R2X R2X R2Y R2X	-2 -2 -2 -2 -2 -2 -2 -7 -2 -7 -1 -1 -1 0 0 0 1 1 1 1	92 89 89 85 In Canada 84 92 91 100 91 94 92 92 100 87 90	15 15 21 9 9 5 5 18 9 32 16 29 32 6 6	BR BL BL BR	1.9 1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 1.7 1.7 1.7	ST T ST ST ST ST T T ST ST ST ST ST ST S	yes yes yes yes yes yes yes - yes yes	1c 1k 1c 1c 1c 1c 1c 1c 1c 1c			
000 0.1 000 0.2 000 000 000 000 000 000 000 000	00.9 0.05 00.1 perimental l 00.1 00.1 00.7 00.2 00.5 00.6 00.3 00.4 00.3 00.5 00.5 00.6 00.3 00.4	Young R2X S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X R2X /proposed fo WPX WPX R2X R2X E3 R2X R2Y R2X R2X R2X R2X R2X R2X R2X R2X R2X	-2 -2 -2 or registration -3 -2 -1 -1 0 0 0 0 0	89 89 85 in Canada 84 92 81 92 91 100 91 94 92 92 100 87 90	15 21 9 9 5 5 18 9 32 16 29 32 6 6	BL BL BR BL BR	1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 2.4 1.8 1.7 1.7	T S S S T S T S T S T S T S T S T S T S	yes - yes yes yes yes yes yes yes	1c 1c 1c 1c 1c 1c 1c 1c 1k 1c 1c 1c 1c 1c 1c 1c 1c			
000 0.1 000 0.2 000 000 000 000 000 000 000 000	00.9 0.05 00.1 perimental l 00.1 00.1 00.7 00.2 00.5 00.6 00.3 00.4 00.3 00.5 00.5 00.6 00.3 00.4	S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X R2X /proposed fo WPX WPX R2X R2X E3 R2X R2Y R2X R2X R2X R2X R2X R2X R2X R2X R2X	-2 -2 -2 or registration -3 -2 -1 -1 0 0 0 0 0	89 89 85 in Canada 84 92 81 92 91 100 91 94 92 92 100 87 90	15 21 9 9 5 5 18 9 32 16 29 32 6 6	BL BL BR BL BR	1.7 2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 2.4 1.8 1.7 1.7	T S S S T S T S T S T S T S T S T S T S	yes yes yes yes yes yes yes yes	1c 1c 1c 1c 1c 1c 1c 1c 1k 1c 1c 1c 1c 1c 1c 1c 1c 1c			
0.0 00 00 00 00 00 00 00 00 00 00 00 00	0.05 0.0.1 Primental I 00.1 00.7 00.2 00.5 00.6 00.3 00.4 00.3 00.5 00.3 00.5 00.3	S005-C9X PV 28s001R2X ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X /proposed fo WPX WPX R2X R2X E3 R2X R2Y R2X R2X R2X R2X R2X R2X R2X R2X R2X	-2 -2 or registration -3 -2 -1 -1 0 0 0 0 0	89 85 in Canada 84 92 81 92 91 100 91 94 92 92 100 87 90	21 9 9 5 5 18 9 32 16 29 32 6 6	BL BL BR BL BR	2.4 1.8 1.9 2.0 2.0 1.9 1.8 1.8 2.4 1.8 1.7 1.7	\$ ST	yes yes yes yes yes yes yes yes	1c 1c 1c 1c 1c 1c 1c 1k 1c 1c 1c 1c 1c 1c 1c			
OC	00.1 erimental I 00.1 00.7 00.2 00.5 00.6 00.3 00.4 00.3 00.5 00.5 00.6 00.3 00.4	ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	/proposed fo WPX WPX R2X R2X E3 R2X R2Y R2Y R2X R2X R2X R2X R2X R2X R2X R2X R2X	-3 -2 -1 -1 0 0 0 1 1 1	84 92 81 92 91 100 91 94 92 92 100 87 90	9 5 5 18 9 32 16 29 32 6 6	BL BR BL BR BR BR BR BL GR	1.9 2.0 2.0 1.9 1.8 1.8 2.4 1.8 1.7 1.7	ST ST ST ST ST ST T SST T	yes yes yes yes - yes yes	1c			
Experiment Comparison Com	Primental I (0.1) (0.1) (0.1) (0.1) (0.0)	ines that are being tested/ CP00121WPX CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	/proposed fo WPX WPX R2X R2X E3 R2X R2Y R2Y R2X R2X R2X R2X R2X R2X R2X R2X R2X	-3 -2 -1 -1 0 0 0 0 0 1 1	84 92 81 92 91 100 91 94 92 92 100 87 90	5 5 18 9 32 16 29 32 6 6	BL BR BL BR BR BR BR BL GR	1.9 2.0 2.0 1.9 1.8 1.8 2.4 1.8 1.7 1.7	ST ST ST ST ST ST T SST T	yes yes yes yes - yes yes	- 1c 1c 1k 1c 1c - 1k 1c			
000 000 000 000 000 000 000 000 000 00	00.1 00.7 00.2 00.5 00.6 00.3 00.4 00.3 00.5 00.5 00.3	CP00123WPX Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	WPX R2X R2X R2X E3 R2X R2Y R2X R2Y R2X R2X R2X R2X R2X R2X R2X R2X	-2 -1 -1 0 0 0 0 1 1	92 81 92 91 100 91 94 92 92 100 87	5 5 18 9 32 16 29 32 6 6	BR BL BR BR BR BR BL BL GR BL	2.0 2.0 1.9 1.8 1.8 2.4 1.8 1.7 1.7	ST ST ST ST ST T T	yes yes yes yes - yes -	1c 1k 1c 1c - 1k 1c 1c			
000 000 000 000 000 000 000 000 000 00	00.7 00.2 00.5 00.6 00.3 00.4 00.3 00.5 00.5 00.5	Briggs R2X DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X E3 R2X R2Y R2X R2X R2X R2X R2X R2X R2X R2X R2X	-1 -1 0 0 0 0 0 1 1	81 92 91 100 91 94 92 92 100 87	5 18 9 32 16 29 32 6 6	BL BR BR BL BL GR BL GR	2.0 1.9 1.8 1.8 2.4 1.8 1.7 1.7	ST ST ST ST S ST T T	yes yes yes - yes -	1c 1k 1c 1c - 1k 1c 1c			
000 000 000 000 000 000 000 000 000 00	00.2 00.5 00.6 00.3 00.4 00.3 00.5 00.5 00.5 00.3	DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X E3 R2X R2Y R2X R2X R2X R2X R2X R2X R2X R2X	-1 0 0 0 0 0 1 1	92 91 100 91 94 92 92 100 87 90	18 9 32 16 29 32 6 6	BR BR BR BL BL GR BL GR	1.9 1.8 1.8 2.4 1.8 1.7 1.7	ST ST S S ST T T	yes yes yes - yes -	1k 1c 1c - 1k 1c 1c			
000 000 000 000 000 000 000 000 000 00	00.5 10.6 10.3 10.4 10.3 10.5 10.5 10.5 10.3 10.2 10.4	DKB002-32 P005A59E P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	E3 R2X R2Y R2X R2X R2X R2X R2X R2X R2X R2X R2X	0 0 0 0 0 1 1	91 100 91 94 92 92 100 87 90	9 32 16 29 32 6 6 6	BR BR BL BL GR BL GR	1.8 1.8 2.4 1.8 1.7 1.7	ST ST S ST T T ST	yes yes	1c 1c - 1k 1c 1c			
000 000	00.6 00.3 00.4 00.3 00.5 00.5 00.5 00.3 00.2	P006A37X Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2Y R2X R2X R2X R2X R2X R2X R2X	0 0 0 0 1 1 1	91 94 92 92 100 87 90	32 16 29 32 6 6	BR BL BL GR BL GR	1.8 2.4 1.8 1.7 1.7	ST S ST T T ST	- - - yes -	1c - 1k 1c 1c 1c			
000 000 000 000 000 000 000 000 000 00	00.3 00.4 00.3 00.5 00.5 00.3 00.2	Mahony R2 Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2Y R2X R2X R2X R2X R2X R2X R2X	0 0 0 1 1 1	91 94 92 92 100 87 90	16 29 32 6 6	BL BL GR BL GR	2.4 1.8 1.7 1.7 1.9	S ST T T ST	- yes - -	- 1k 1c 1c			
000 000 000 000 Mid-00 Season 000 000 000 000 000 000 000 000 000 00	00.4 00.3 00.5 00.5 00.3 00.2	Bourke R2X Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X R2X R2X R2X R2X	0 0 1 1 1 1	94 92 92 100 87 90	29 32 6 6	BL GR BL GR	1.8 1.7 1.7 1.9	ST T T ST	– yes – –	1k 1c 1c 1c			
Mid- Season	00.3 00.5 00.5 00.3 00.2	Sunna R2X BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X R2X R2X R2X	0 1 1 1 1	92 92 100 87 90	32 6 6 6	GR BL GR	1.7 1.7 1.9	T T ST	yes - -	1c 1c 1c			
Mid- 000 Season 000 Zone 000 000 000 000 000 Experi	00.5 00.5 00.3 00.2	BY Rainier XT Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X R2X R2X	1 1 1 1	92 100 87 90	6 6	BL GR	1.7 1.9	T ST	- -	1c 1c			
Mid- Season	00.5 00.5 00.3 00.2	Mako R2X Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X R2X	1 1 1	100 87 90	6	GR	1.9	T ST	- -	1c 1c			
Mid- 00 Season 00 Zone 00 00 00 00 00 Experi- 00 00 00 00 00 00 00 00 00 00 00 00 00	00.5 00.3 00.2 00.4	Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X	1 1	87 90	6								
Mid- 00 Season 00 Zone 00 00 00 00 00 Exper	00.3 00.2 00.4	Merino R2X PV 22s002 R2X PV 16s004 R2X	R2X R2X	1 1	87 90	6								
Season 00 Zone 00 00 00 00 00 00 00 Exper	00.2	PV 22s002 R2X PV 16s004 R2X	R2X	1	90			1.7	T	yes	1k			
00 00 00 00 00 00 Exper 00 00 00			R2X	1		15	BL	2.0	ST	yes	1k			
000 000 000 000 000 Exper 000 000 000				7.1	92	29	BL	1.8	ST	yes	1k			
00 00 00 00 00 Exper 00 00 00 00		SI 00323XT	R2X	1	101	5	BL	1.9	ST	_	1c			
00 00 00 00 Exper 00 00 00 00	0.6	BY Robson XT	R2X	2	105	2	BL	2.1	ST	_	1c			
00 Exper 	0.6	SI 00623XT	R2X	2	98	5	BL	2.1	ST	-	1c			
00 Exper 	0.6	Mao R2X	R2X	2	99	7	BL	1.7	Т	yes	1c			
Exper - 00 00 00 00 00 00 00	0.4	TH83004X	R2X	2	99	5	BL	1.8	ST	´-	1k			
00 00 0.0 0.0 00	00.7	NSC EXP007LX	R2X	2	99	2	BR	1.8	T	-	1c, 3a			
00 00 0.0 0.0 00		ines that are being tested/				_					,			
0.0 0.0 00	- SV193025-10-01 R2X -1 81 5 BL 2.1 ST													
0.0 0.0 00	0.5	CP005WPRX	WPX	2	94	9	BL	1.9	ST	_	1k, 1c, 3a			
0.0 00 00	0.6	Badger R2X	R2X	3	95	6	BL	1.7	<u></u>	-	1k			
00	0.07	S007-A2XS	R2X	3	98	15	GR	1.8	ST	_	-			
00	0.7	B0073EE	E3	3	93	5	IB	1.7	T	yes	1c			
	0.7	PV 26s007R2X	R2X	4	93	3	BL	1.9	ST	yes	1c			
nn	0.9	P00A49X	R2X	4	98	19	BR	1.7	T	yes	1c			
	0.6	DKB006-80	R2X	4	101	3	BL	1.9	ST	yes	1c			
	0.5	Barker R2X	R2X	4	95	18	BL	1.7	T	yes	1k			
	0.7	P007A68E	E3	4	102	5	BF	1.8	ST	- -	1c			
	0.5	TH82005 R2X	R2X	4	98	15	BR	1.9	ST	_	1k			
	0.8	DKB008-48	R2X	4	100	9	BL	1.8	ST	yes	1c, 1k			
	0.5	Kudo R2X	R2X	5	97	13	BL	1.8	ST	- -	- IC, IK			
	0.8	ND21008GT20 *	RR1	5	83	2	BL	1.7	T					
	0.7	TH81007 R2XN	R2X	5	100	7	BR	1.7	T	yes	1c			
	0.8	TH82008XF	R2XF	5	88	3	BL	2.1	ST	yes	1c			
	0.8	Triquet R2X	R2X	6	96	2	BI	1.7	T	yes	1k			
	0.1	Rico R2X	R2X	6	95	2	GR	2.3	S	- -	1c			
	0.7	SI 00723XFN	R2X	8	95	5	BL	1.7	T	yes	1c			
	0.7	NSC ENGage E3	E3	11	82	2	BL	1.7	T	yes –	1c			
		ines that are being tested/				2	DL	1./	'		IC			
-	erimentai i 10.5	CP00523WPX	/proposed ic WPX	or registration 3	99	2	BL	2.1	ST	_	1k, 1c			
		CP00323WPX CP00722WPX	WPX	4	93	3	BL	1.9	ST	_	1k, 1c, 3			
	W 1 /		R2XF	6		2		1.9	ST	_	1K, 1C, 3a			
00	0.7	EXP008-23XF			93		Y							
-	00.7 00.8	CV/10/0000 00	R2X	6	78	5	BL	2.5	S	-				
IECK CHARACTERI	0.8	SV194090-03												
	0.8	SV194090-03 P006A37X		115	51	32								

 $^{\ \, + \,} Maturity \, ratings \, were \, averaged \, across \, the \, Carman, \, Morris, \, Portage \, and \, St. \, Adolphe \, core \, sites \, over \, multiple \, years.$

^{*} ndicates a variety that is protected by, or has been applied for and pending, Plant Breeder's Rights legislation that complies with UPOV 1991.

HERBICIDE TOLERANT SOYBEANS ◆ YIELDS BY LOCATION ◆ EASTERN MANITOBA

2023 Yield % Check

			2023 Yield % Check								
Manitoba		Average DTM —		Early Sites‡		Core	Sites				
Maturity Zone	Variety	+/- Check [†]	Arborg	Beausejour	Stonewall	Carman	St. Adolphe				
Lone	Major R2X	-8	79	80	78	83	74				
	S001-D8X	-7	83	86	87	94	83				
ery Early-	S003-R5X	-6	82	92	83	90	89				
Season	Bomber R2X	-5	88	88	80	78	82				
Zone	P003A97X	-5	91	78	87	93	93				
	PV S0009X84	-5	95	91	87	90	87				
	PV S004XF13	-4	91	97	81	83	90				
	BY Hector XT	-3	84	84	81	79	90				
	P002A42E	-3	103	89	80	66	79				
	B0041RX	-3	93	78	90	105	89				
	PV 25s005R2X	-3	-	-	-	82	100				
	TH84002X	-2	89	86	89	89	99				
	Hart R2X	-2	92	90	92	82	91				
Early-	NSC Arden RR2X	-2	91	91	85	90	91				
Season	Akras R2	-2	93	107	100	94	102				
Zone	BY Deno XT	-2	86	93	90	94	86				
	NSC Holland RR2X	-2	89	93	92	81	88				
	Young R2X	-2	95	80	85	85	98				
	S005-C9X	-2	91	84	82	93	91				
	PV 28s001R2X	-2	86	91	84	82	86				
		t are being tested/propos									
	CP00121WPX	-3	91	83	93	83	92				
	CP00123WPX	-2	97	90	89	92	88				
	Briggs R2X	-1	89	68	81	90	75				
	DKB002-32	-1	104	89	84	87	100				
	P005A59E	0	97	97	89	75	90				
	P006A37X	0	100	100	100	100	100				
	Mahony R2	0	83	83	92	89	88				
	Bourke R2X	0	94	93	88	87	96				
	Sunna R2X	0	89	80	84	84	96				
	BY Rainier XT	1	91	95	88	101	85				
	Mako R2X	1	111	109	93	96	92				
Mid-	Merino R2X	1 ()	86	79	84	94	89				
Season	PV 22s002R2X	1	86	89	85	93	90				
Zone	PV 16s004 R2X	1 '		-	-	92	96				
	SI 00323XT	1	99	109	97	100	101				
	BY Robson XT	2	-		_	98	114				
	SI 00623XT	2	98	101	90	100	101				
	Mao R2X	2	-		-	93	97				
	TH83004X	2	98	104	102	95	99				
	NSC EXPOO7LX	2 t are being tested/propos	_ 	- in Canada	-	108	89				
		t are being tested/propos	_		75	82	86				
	SV193025-10-01	2	86	73		92	97				
	CP005WPRX Badger R2X	3	101 98	<u>103</u> 94	91 93	92 87	101				
	S007-A2XS	3	90	94	95	102	93				
	B0073EE	3	91	97	96	89	91				
	PV 26s007R2X	4	-	97	96	90	100				
	P00A49X	4				99	100				
	DKB006-80	4			-	105	98				
	Barker R2X	4	_	_	_	94	98				
	P007A68E	4	104	110	95	102	100				
	TH82005 R2X	4	106	98	99	100	108				
	DKB008-48	4	-	-	-	98	96				
Long-	Kudo R2X	5	96	107	94	100	96				
Season	ND21008GT20*	5	-	-	-	84	81				
Zone	TH81007 R2XN	5	-		-	97	100				
20110	TH82008XF	5	-		-	90	79				
	Triquet R2X	6	-		-	90	104				
	Rico R2X	6	-	-	-	100	89				
	SI 00723XFN	8	101	97	97	91	101				
	NSC ENGage E3	11	-	-	-	91	72				
		t are being tested/propos	sed for registration	n in Canada							
	CP00523WPX	3	-	-	-	101	97				
	CP00722WPX	4	-	-	-	89	92				
	EXP008-23XF	6	-	-	-	93	93				
	SV194090-03	6	75	88	76	78	72				
ECK CHAR	ACTERISTICS										
-	P006A37X	115	67	60	59	66	57				
		DTM	-	bu,			<u> </u>				
		CV %	8.1	7.5	8.2	8.7	5.5				
		LSD %	12	11	12	13	8				
		Sign. Diff.	yes	yes	yes	yes	yes				
		Seeding Date	May 15	May 23	May 22	May 24	May 23				
		Harvest Date	Sep 27	Oct 16	Sep 27	Oct 10	Sep 27				

 $^{\ \, 1\,\}text{Maturity ratings were averaged across the Carman, Morris, Portage and St. Adolphe core sites over multiple years.}$

[‡] Dashes indicate that varieties were not tested at the early sites.

^{*} Indicates a variety that is protected by, or has been applied for and pending, Plant Breeder's Rights legislation that complies with UPOV 1991.

HERBICIDE TOLERANT SOYBEANS ◆ VARIETY DESCRIPTIONS & YIELDS BY LOCATION ◆ WESTERN MANITOBA IDC 2023 Yield % Check Resistance Manitoba Average Long-Term Site-Company DTM Yield % Rating Swan Maturity Maturity Years Variety +/- Check[†] Check Tested (1-5)Group SCN PRR Dauphin Hamiota Souris Zone Group River 000.5 BY Rundle XT * 88 ST 78 95 94 -5 16 2.1 1c. 3a 100 Very Early yes 000.9 S0009-F2X Season -4 91 16 1.9 ST 1c 93 88 94 95 Zone 0.007 S0007-S1X -4 85 10 2.3 1c, 3a 92 87 91 85 000.3 Wolf R2X * -1 90 10 1.9 ST yes 3а 96 90 97 101 ST S001-D8X 91 96 91 97 90 0.01 -1 16 2.0 1c 92 10 ST 92 94 97 00.2 Maior R2X -1 2.0 112 1c B0012RX -1 99 101 97 107 102 0.01 16 1.7 1k, 6 00.1 Polo R2X -1 94 10 1.8 ST 102 97 96 96 Gecko R2X -1 103 4 ST 103 101 103 104 000.7 1.8 1c 8.000 NSC EXP0008CX -1 104 4 1.8 ST 108 106 101 99 1c 0.03 S003-R5X 0 100 16 2.1 ST 1c 100 100 100 100 000.7 PV S0007X74 0 103 4 1.8 ST 1c, 3a 105 91 117 98 O 10 ST 88 96 99 104 000.7 Briggs R2X 94 2.0 yes 1c 00.3 PV S004XF13 0 95 4 2.3 S 1c 93 96 96 97 yes 000.5 DKB0005-03 93 10 1.8 ST 108 106 112 92 1c 00.2 P002A42E 95 4 1.7 Τ 1c 98 90 104 88 Bomber R2X 99 4 91 00.4 2.1 ST 1k 98 108 96 1 000.9 Young R2X 98 16 1.7 Т 1c 106 103 115 117 Earlyves Season 000.6 PV S0006X24 99 4 1.8 ST 98 102 98 97 1 yes ST 102 Zone 00.2 NSC Arden RR2X 1 94 10 1.8 1c 97 105 94 99 000.9 S0009-15X 1 4 1.8 ST 1c, 3a 103 85 108 96 00.1 PV 28s001R2X 2 95 10 1.8 ST 1c 102 102 107 112 yes 000.9 PV S0009X84 2 106 4 1.8 ST yes 105 94 103 121 2 3 00.5 PV 25s005R2X 100 1.9 ST 1c 96 96 110 000.9 TH830009X 2 95 10 2.1 ST 1c 97 91 111 112 DKB0008-87 2 ST 100 94 8.000 96 16 1.9 yes 1c, 1k 100 117 00.3 P003A97X 2 99 16 1.8 ST 1k 104 98 110 111 yes 00.3 Sunna R2X 3 94 15 1.7 Т yes 1c 101 99 98 00.5 Hart R2X 3 97 14 1.9 ST 103 106 106 1c 00.3 BY Deno XT 3 108 4 2.0 ST yes 1c 108 111 113 99 00.3 Mahony R2 3 100 9 2.4 S 100 104 112 DKB001-07 4 Т 1k 101 93 00.1 3 105 1.7 yes 104 124 Experimental lines that are being tested/proposed for registration in Canada CP00123WPX ST 100 95 113 00.1 103 yes 1c 96 102 00.1 NSC EXP001CX 4 101 4 1.8 ST 1c 97 109 NSC Holland RR2X 8 ST 4 92 00.494 1.9 1c 96 112 00.4 B0041RX 4 101 14 1.7 Т 1k 101 104 116 115 P005A59E 4 99 10 ST 103 106 103 108 00.5 1.8 1c 00.1 BY Hector XT 4 103 4 1.9 ST 1c 96 99 107 113 4 ST 109 SI 00323XT 111 1.9 114 110 00.3 4 1c 113 00.3 Akras R2 96 16 1.7 Т 99 106 106 114 1c 00.3 NSC EXP003CX 5 120 4 1.8 ST yes 1c 108 113 121 140 00.2 PV 22s002 R2X 5 98 16 2.0 ST yes 1k 102 98 121 113 00.4 TH83004X 5 109 3 1.8 ST 1k 107 103 116 00.3 Merino R2X 5 98 8 1.7 Т 1k 100 98 106 yes Mid-00.4 Bourke R2X 5 95 13 1.8 ST 1k 101 94 105 Season 00.5 Badger R2X 5 108 3 1.7 Т 1k 105 107 113 Zone TH84002X 5 4 1.9 ST 102 127 00.2 111 1c 103 117 yes 5 10 ST 00.2 DKB002-32 102 1.8 yes 1k 100 99 121 118 00.7 NSC EXP007LX 6 109 3 1.7 Τ 1c, 3a 108 107 111 ST 00.4PV 16s004 R2X 6 98 13 1.8 yes 1k 98 103 116 P007A68E 7 111 ST 103 00.7 3 1.8 1c 110 121 7 00.7 B0073EE 106 3 1.7 Т yes 1c 105 104 107 00.5 Mako R2X 8 101 8 1.9 ST 1c 99 109 112 ST 104 00.5 TH82005 R2X 8 101 13 1.9 1k 95 119 3 1.7 00.5 TH84005XF 106 Т 1c 106 95 117 yes Experimental lines that are being tested/proposed for registration in Canada 00.1 CP00121WPX 104 1.9 ST 102 96 113 **CHECK CHARACTERISTICS** 67 65 58 S003-R5X 76 117 16 61 DTM bu/ac site-years bu/ac

CV%

LSD%

Sign. Diff.

Seeding Date

Harvest Date

4.2

7

yes

May 30

Oct 10

4.8

8

yes

May 24

Sep 27

6.0

10

yes

May 25

Sep 29

10.1

17

yes

May 25

Sep 19

[†] Maturity ratings were averaged across the Dauphin, Hamiota and Melita sites over multiple site years.

[•] Modicates a variety that is protected by, or has been applied for and pending, Plant Breeder's Rights legislation that complies with UPOV 1991.

CONVENTIONAL SOYBEANS • VARIETY DESCRIPTIONS

Manitoba	Company		Average	Long-Term			IC	C				
Maturity Zone	Maturity Group	Variety	DTM +/- Check†	Yield % Check	Site-Years Tested	Hilum Colour	Rating (1–5)	Group				
	00.9	AAC Halli *	-8	89	19	Y	1.8	ST				
Very Early-	00.2	Siberia	-6	92	19	IY	2.0	ST				
Season		al lines that are being test			17	''	2.0	31				
Zone	00.5	CRGS 21.3	-6	90	5	Υ	1.7	Т				
	00.3	Amistar	-4	94	9	Ү	1.8	ST				
	00.5	Rosser	-3	95	16	IY	1.9	ST				
	00.5	Prostar *	-2	94	9	Y	1.9	ST				
	00.5	Howden	-2	101	10	IY	2.1	ST				
	00.3	Reynolds	0	93	19	IY	2.1	ST				
	00.3	Liska *	0	100	19	IY	2.3	S				
Early-	00.6	Kebek	0	94	19	Υ	1.7	Т				
Season	00.4	Abaca *	0	113	14	IY	1.8	ST				
Zone	Experimental lines that are being tested/proposed for registration in Canada											
	00.5	OT23-01	-4	103	5	Υ	1.7	Т				
	00.5	PR190209-11	-2	100	5	IY	2.4	S				
	00.5	OT22-04	-2	103	5	Υ	2.0	ST				
	00.5	CRGS 18.1	-2	104	7	Υ	2.0	ST				
	00.5	OT23-02	-1	98	5	Υ	1.7	T				
	00.5	OT23-03	0	106	5	GR	1.7	T				
	8.00	Jador	1	103	6	Υ	1.7	T				
	00.7	Mozart	2	102	8	Υ	2.0	ST				
Mid-	00.7	Koa *	2	100	3	IY	1.7	T				
Season	00.7	Dufferin	2	99	7	IY	2	ST				
Zone	00.6	Aurelina *	3	105	14	IY	1.9	ST				
ZONE	00.6	Maya *	4	89	8	Υ	1.7	T				
	Experimental lines that are being tested/proposed for registration in Canada											
	8.00	OT20-06	2	105	5	Υ	2.3	S				
	00.7	Jago	5	103	16	Υ	2.3	S				
	00.9	Hana	6	97	5	Υ	2.0	ST				
	0.0	Stanley	6	101	11	IY	2.1	ST				
Long-	•	al lines that are being test		stration in Canada								
Season	00.7	SVX23T00S48	5	111	5	IY	1.9	ST				
Zone	00.1	SVX24T00S64	6	105	5	IY	2.3	S				
_0.10	00.9	PR171862Z-02	6	93	2	IY	2.3	S				
	00.7	DL21-3007	6	103	11	Υ	2.1	ST				
	00.5	CRGS 16.1	7	99	7	BR	2.3	S				
	00.7	SVX24T00S65	9	109	5	Υ	2.3	S				
HECK CHAR	ACTERISTICS											
		Liska	118	50	19							
			DTM	bu/ac	site-years							

[†] Maturity ratings were averaged across the Carman, Morris, Portage and St. Adolphe core sites over multiple years.

CONVENTIONAL SOYBEANS * YIELDS BY LOCATION * EASTERN MANITOBA

2023 Yield % Check

		_	2023 Field /0 Circle									
Manitoba		Average		Early Sites [‡]	Core	e Sites						
Maturity Zone	Variety	DTM +/- Check [†]	Arborg	Beausejour	Stonewall	Carman	St. Adolphe					
Manu Faulu	AAC Halli *	-8	99	102	94	72	89					
Very Early-	Siberia	-6	108	100	60	85	92					
Season Zone	Experimental lines that are being tested/proposed for registration in Canada											
Zone	CRGS 21.3	-6	97	91	90	76	94					
	Amistar	-4	102	91	89	86	93					
	Rosser	-3	101	108	94	92	91					
	Prostar *	-2	93	93	88	88	94					
	Howden	-2	110	99	95	95	87					
	Reynolds	0	110	92	93	89	97					
	Liska *	0	100	100	100	100	100					
Early-	Kebek	0	82	104	95	85	94					
Season	Abaca *	0	116	125	115	109	108					
Zone	Experimental lines that are being tested/proposed for registration in Canada											
	OT23-01	-4	112	101	106	90	105					
	PR190209-11	-2	106	103	85	100	103					
	OT22-04	-2	106	109	101	99	99					
	CRGS 18.1	-2	116	113	95	96	103					
	OT23-02	-1	97	102	96	94	100					
	OT23-03	0	110	102	118	96	108					
							continue					

^{*} ndicates a variety that is protected by, or has been applied for and pending, Plant Breeder's Rights legislation that complies with UPOV 1991.

2023 Yield % Check

Manitoba		Average		Early Sites [‡]		Core	Sites				
Maturity Zone	Variety	DTM +/- Check [†]	Arborg	Beausejour	Stonewall	Carman	St. Adolphe				
	Jador	1	108	111	111	95	104				
	Mozart	2	111	105	103	106	102				
Mid-	Koa *	2	-	-	-	98	108				
Season	Dufferin	2	-	-	-	104	98				
Zone	Aurelina *	3	105	111	110	107	107				
	Maya *	4	_	_	-	87	96				
	Experimental lines that are being tested/proposed for registration in Canada										
	OT20-06	2	-	-	-	108	118				
	Jago	5	96	115	110	109	108				
	Hana	6	_	_	_	102	96				
	Stanley	6	_	_	_	111	100				
	Experimental lines that are being tested/proposed for registration in Canada										
Long-	SVX23T00S48	5	116	120	114	108	98				
Season	SVX24T00S64	6	114	109	99	95	105				
Zone	PR171862Z-02	6	-	-	-	94	92				
	DL21-3007	6	104	103	109	116	90				
	CRGS 16.1	7	101	94	101	101	100				
	SVX24T00S65	9	116	108	110	105	107				
CHECK CHARA	CTERISTICS										
	Liska	118	60	56	45	57	54				
		DTM		bu	/ac						
		CV %	8.2	8.2	5.9	5.9	5.2				
		LSD %	14	14	10	9	8				
		Sign. Diff.	yes	yes	yes	yes	yes				
		Seeding Date	May 15	May 23	May 22	May 24	May 23				
		Harvest Date	Sep 27	Oct 16	Sep 27	Oct 10	Sep 27				

[†] Maturity ratings were averaged across the Carman, Morris and St. Adolphe core sites over multiple years.

^{*} ndicates a variety that is protected by, or has been applied for and pending, Plant Breeder's Rights legislation that complies with UPOV 1991.

		CONVENTIONAL S	OYBEANS •	YIELDS	BY LOCAT	ION + W	ESTERN N	MANITOBA		
Manitoba	Company		Average	Long-Term	ER.		ID	ic	2023 Yie	ld % Check
Maturity Zone	Maturitý Group	Variety	DTM +/- Check [†]	Yield % Check	Site-Years Tested	Hilum Colour	Rating (1–5)	Group	Melita	Swan River
Very Early- Season Zone	00.2	Ambella	-11	85	8	BR	2.1	ST	80	69
Early-Season	00.9	AAC Halli *	-4	96	12	Υ	1.8	ST	78	98
Zone	00.2	Siberia	-4	95	10	IY	2.0	ST	73	103
	00.4	Abaca *	0	107	2	IY	1.8	ST	97	112
	00.3	Liska *	0	100	8	IY	2.3	S	100	100
Mid-	00.5	Rosser	0	100	2	IY	1.9	ST	92	104
Season	00.2	Pamela	1	91	4	IY	1.7	Т	76	97
Zone	Experiment	tal lines that are being test	ed/proposed for re	gistration in	Canada					
	00.1	SZDT4244	-3	93	2	IY	1.7	T	80	101
	00.5	PR190209-11	0	97	2	IY	2.3	S	87	103
CHECK CHARA	ACTERISTICS									
		Liska	118	46	8				34	58
			DTM	bu/ac	site-years			_	bu	ı/ac
						CV %			6.3	8.3
						LSD %			9	14
						Sign. Diff.			yes	yes
						Seeding Date	1		May 15	May 25
						Harvest Date	<u> </u>		Sep 3	Sep 19

 $^{\ \, 1\,} Maturity\ ratings\ were\ averaged\ across\ the\ Melita\ and\ Swan\ River\ sites\ over\ multiple\ years.$

[‡] Dashes indicate that varieties were not tested at the early sites.

^{*} ndicates a variety that is protected by, or has been applied for and pending, Plant Breeder's Rights legislation that complies with UPOV 1991.