

2018 PULSE AND 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.

The independent evaluation of soybean, dry bean, field pea and lentil varieties found within this publication were made possible by your continued support through the MPSG check-off. The objective of these trials is to provide the Manitoba pulse and soybean industry with independent, scientific information on variety performance and agronomic characteristics.

Lentil and field pea variety evaluations were coordinated with the Saskatchewan Regional Variety Testing Program. Lentil, field pea and faba bean variety evaluations were conducted by MCVET and partially sponsored by Manitoba Pulse & Soybean Growers.

SOYBEANS

Roundup Ready soybean varieties were evaluated at 15 locations in 2017, reported by eastern and western Manitoba. In eastern Manitoba, there are short-, mid- and long-season location categories. Long-season sites included Morden and Rosebank, which tested late- and mid-season varieties. Mid-season sites included Morris, St. Adolphe, Carman and Portage la Prairie. These sites are also referred to as core sites due to testing of all varieties at these locations.

Short-season sites included Arborg, Beausejour and Stonewall, which tested early- and mid-season varieties. In western Manitoba, sites included Carberry, Dauphin, Hamiota, Melita and Swan River. Conventional (non-GM) soybean varieties were tested at all sites in eastern Manitoba and at Melita and Carberry.

All soybean varieties are reported by very early-, early-, mid- and long-season maturity. Western Manitoba trials do not test long-season varieties, as they are generally ill-suited to the region.

DRY BEANS

Variety evaluations were conducted under wide- (>60 cm) and narrow-row (<40 cm) trials, and are reported separately in this guide.

Wide-row trials were conducted at four locations, including Carman, Morden, Portage la Prairie and Winkler.

Narrow-row trials were conducted at five locations, including Carberry, Melita, Minto, Morden, Portage la Prairie and Stonewall. Dry bean varieties are also reported by market class – navy, black, pinto, yellow, pink, Great Northern, light red kidney, dark red kidney, white kidney, cranberry and Flora de Janeiro.

LENTILS

Trials were located at two sites in Manitoba – Hamiota and Melita. Lentil varieties are reported by extra small green, small green, medium green, large green, Spanish brown, French green, green cotyledon, extra small red, small red and large red market classes.

FIELD PEAS

Trials were conducted at eight locations in Manitoba, including Arborg, Boissevain, Carberry, Hamiota, Melita, Portage la Prairie, Swan River and Morden. Field pea varieties are reported by yellow, green and maple market classes.

FABA BEANS

Trials were conducted at two locations in Manitoba – Roblin and Stonewall. Unfortunately, 2018 growing conditions resulted in unsuitable faba bean data.

USING THIS GUIDE

There are two types of data tables found in this guide – *Variety Descriptions* and *Yields by Location*. Variety descriptions tables summarize long-term data, including maturity, yield and agronomic characteristics (e.g., disease resistance, lodging score). Yields by location tables summarize yield data from the current year at each location.

All variety trials were randomized with three replicates to allow for statistical analysis.

Statistical yield differences can be evaluated using only single-site year data, found in all *Yields by Location* tables. To compare yields, look at the least significant difference (LSD) value at the bottom of these tables. The LSD value represents the yield quantity (%) by which two varieties must differ, to conclude with 95% confidence that a true yield difference exists due to genetics.

For more information on how to use these tables, refer to the general and crop-specific keys.

We acknowledge the contributions of all companies that submitted varieties and partners involved in planting, maintenance, note-taking, harvesting and data organization. Special thanks to staff at Manitoba Agriculture, AAFC, WADO, PCDF, PESAI, CMCDC and the private research companies that play an integral role in making this publication possible.

Key for All Variety Tables

Yield % Check – The average yield across all site years that the variety has been tested, relative to the check variety.

Site Years Tested – The total number of individual site years that a variety has been tested. For example, if a variety was tested at five sites for two years, the total site years would be 10. The greater the number, the more a variety has been tested under a greater range of environments. A variety is typically tested at two to five sites per year.

TKW (g/1000 seeds) – The thousand kernel weight, referring to the seed weight in grams per 1000 seeds.

Resistance Rating – VG = very good G = good F = fair
P = poor VP = very poor

Coefficient of Variation (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.

Least Significant Difference (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.

Significant Difference (Sign. Diff.) – Yes = at least one variety is significantly different from another within one site No = varieties are not significantly different within one site




Manitoba Soybean Maturity Zones

(A guideline for choosing varieties)

Map Elements

-  Water Bodies
-  Rural Municipalities
-  Prov/Nat. Parks

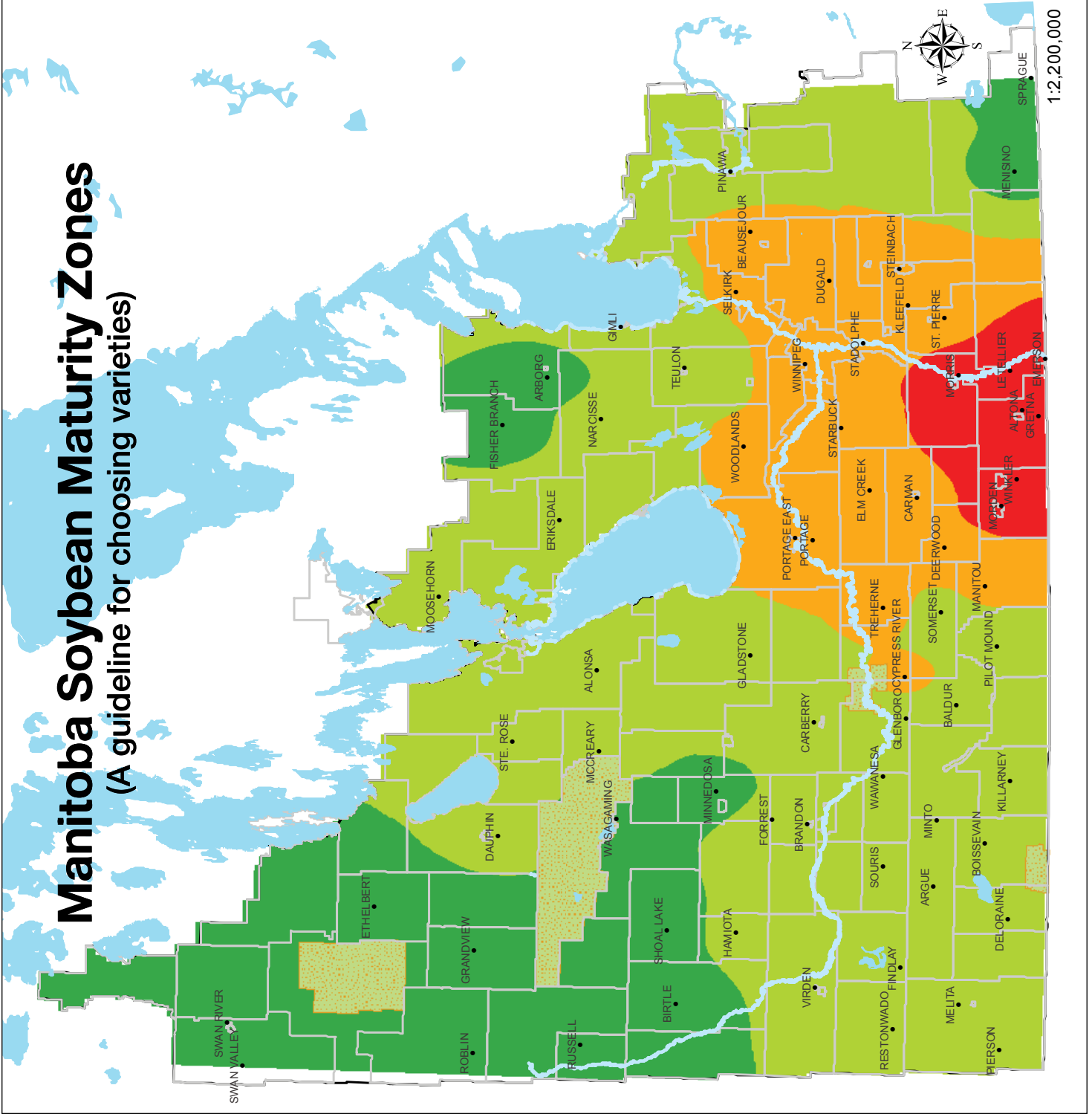
Maturity Zones

-  Very Early
-  Early
-  Mid
-  Long

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

This map is based on 1981-2010 Climate Normal Data for cumulative Corn Heat Units (CHU, May 15 - Sept 20) and average frost-free period (FFP, days Tmin > 0°C).

The map outlines the longest maturity suggested for each production area, but earlier varieties can also perform well. Use in conjunction with the *Soybean Variety Guide*, which outlines varieties according to maturity zones.



Key for Soybean Variety Tables

Manitoba Variety 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, 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.

Type

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

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 for the check variety is found in the shaded area at the bottom of the table. Average days to maturity is calculated from three previous years. Maturity can vary by year, which is why it is important to use long-term data for variety selection.

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).

Iron Deficiency Chlorosis (IDC) Rating & Grouping – The IDC rating at the V2 to V3 (2nd to 3rd trifoliolate) stage on a scale of one to five for soybeans. Ratings are conducted over three to five weeks, or until the symptoms dissipate. The greater the value, the more severe and persistent the IDC symptoms. Lower IDC ratings perform better on soils prone to IDC. Ratings are reported as the three-year average from one site near Winnipeg that is prone to IDC. Each variety is also given an IDC grouping to indicate the overall level of tolerance.

IDC Ratings

- | | |
|------------------------------------|--|
| 1 = green leaves | 4 = brown dead tissue |
| 2 = yellowish leaves | between green veins |
| 3 = green veins with yellow leaves | 5 = severe chlorosis and a stunted growing point |

IDC Groupings

T = tolerant ST = semi-tolerant S = susceptible

SCN – Variety resistance to soybean cyst nematode (SCN). Cases of SCN have been confirmed in the United States near the border with Canada. No confirmed cases of SCN have been reported yet in Manitoba.

PRR – Phytophthora root rot (PRR) resistance genes for each variety. Resistance genes that correspond with the four most prevalent races of PRR in Manitoba are listed in Table 2. For example, resistance genes 1a, 1c and 1k are effective against Race 25, the most prevalent PRR race identified in Manitoba, according to Agriculture and Agri-Food Canada research.

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

Soluble Salt (mmhos/cm)	Carbonate (%)		
	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	High	Very high	Extreme

Source: Agvise Laboratories

Table 2. Soybean resistance genes currently available in Manitoba for control of Phytophthora root rot.

Race of <i>P. sojae</i>	Soybean Resistance Gene				
	1a	1c	1k	3a	6
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: Manitoba Agriculture



IDC Rating 1



IDC Rating 1.7



IDC Rating 2.1



IDC Rating 2.5



IDC Rating 3.5



IDC Rating 4.0

ROUNDUP READY SOYBEANS ♦ VARIETY DESCRIPTIONS

Manitoba Maturity Zone	Variety	Type	Average DTM +/- Check†	Yield % Check	Site Years Tested	Hilum Colour	IDC			
							Rating (1–5)	Grouping	SCN	PRR
Very Early- Season Zone	TH890005 R2XN	R2X	-12	87	6	BL	1.8	ST	Yes	1c,1k
	S0007-B7X	R2X	-10	90	6	BF	1.7	T	–	1c
	NocomaR2	R2Y	-9	95	12	BL	2.1	ST	–	1c
	S0009-M2	R2Y	-9	89	23	IY	2.0	ST	–	6
	PS 00095 R2	R2Y	-8	89	16	BL	1.7	T	–	–
	P002A19X	R2X	-8	96	6	TN	1.6	T	–	1k
	PS 00078 XRN	R2X	-8	95	6	BL	2.0	ST	Yes	1c
	Dayo R2X	R2X	-8	94	6	BL	1.6	T	Yes	1k
	NSC Watson RR2Y	R2Y	-8	88	23	IY	2.1	ST	–	6
	S0009-D6	R2Y	-7	97	12	IY	2.3	S	–	–
Devo R2X	R2X	-7	97	6	BR	1.9	ST	–	–	
Early- Season Zone	PV 11s001 RR2	R2Y	-6	93	12	Y	1.8	ST	–	1c
	RX00218	R2X	-6	90	6	BR	1.9	ST	–	–
	Notus R2	R2Y	-6	96	24	BL	1.6	T	–	1c
	Torro R2	R2Y	-5	96	23	BL	2.2	ST	–	–
	RX Cedo	R2X	-5	97	6	IY	1.8	ST	–	–
	P002A63R	RR1	-4	101	12	TN	1.9	ST	–	1c
	PV 15s0009 R2X	R2X	-4	98	6	BL	1.9	ST	Yes	1c
	S003-L3	R2Y	-4	97	23	BR	2.0	ST	–	–
	Lono R2	R2Y	-4	105	30	Y	2.0	ST	–	1k
	Dinero R2X	R2X	-4	97	6	IY	1.6	T	–	–
	LS 001XT	R2X	-4	106	6	BL	1.8	ST	Yes	1k
	23-60RY	R2Y	-3	102	36	BL	1.7	T	–	–
	P005A27X	R2X	-3	105	6	BR	1.8	ST	–	1c
	Dario R2X	R2X	-3	88	12	BR	2.4	S	–	–
	S006-M4X	R2X	-3	96	6	IY	1.9	ST	–	1c
	S007-Y4	R2Y	-3	105	36	IY	2.0	ST	–	1c
	PS 0035 NR2	R2Y	-3	100	30	BL	1.9	ST	Yes	–
	P006T46R	RR1	-3	99	17	BR	1.9	ST	–	1c
	Prince R2X	R2X	-3	92	6	BL	1.8	ST	–	1k
	Mahony R2	R2X	-3	102	30	BL	2.9	S	–	–
Akras R2	R2X	-3	105	41	BL	1.7	T	–	1k	
Mid- Season Zone	S006-W5	R2X	-2	107	20	IY	2.5	S	–	1a,3a
	Footo R2	R2X	-2	98	17	IY	1.8	ST	–	1c
	Sunna R2X	R2X	-2	103	6	GR	1.7	T	Yes	1c
	TH 33005R2Y	R2Y	-2	105	31	IB	1.9	ST	–	1c
	24-10RY	R2X	-1	102	50	BL	1.9	ST	–	1k
	P007A90R	RR1	-1	100	11	BL	1.8	ST	Yes	1c
	PS 0044 XRN	R2X	-1	98	12	BL	1.9	ST	Yes	1a,1k
	LS Solaire	R2Y	-1	96	17	BL	2.3	S	Yes	1c,1k
	Bourke R2X	R2X	-1	107	6	BL	1.8	ST	–	1k
	PS 0068 XR	R2X	-1	103	4	BL	1.7	T	–	1c
	DKB003-29	R2X	-1	102	12	BL	1.7	T	Yes	–
	P006A37X	R2X	-1	105	6	BR	1.8	ST	–	1c
	TH 87003 R2X	R2X	0	104	12	BL	1.7	T	Yes	1c
	Gray R2	R2Y	0	99	37	BL	1.9	ST	–	1c
	NSC Newton RR2X	R2X	0	99	12	BR	2.0	ST	–	–
	TH 33003R2Y	R2Y	0	100	50	BR	1.9	ST	–	1c
	B0040L1	R2Y	0	93	6	BR	1.7	T	–	–
	TH 37004 R2Y	R2Y	0	100	17	BL	1.8	ST	–	1c
	Dugaldo R2X	R2X	0	98	9	IY	2.3	S	–	1c,1a,6
	NSC Sperling RR2Y	R2Y	0	105	6	IY	1.7	T	–	1a
	TH 34006R2Y	R2Y	1	105	20	BL	1.9	ST	–	1c
	Dylano R2X	R2X	1	90	12	GR	2.3	S	–	1c,6
	PV 14s008 RR2	R2Y	1	96	4	IY	1.7	T	–	–
	LS 004XT	R2X	1	95	11	BL	1.9	ST	–	–
	DKB005-52	R2X	1	101	11	BL	1.9	ST	Yes	1c
	Barker R2X	R2X	1	102	9	BL	1.8	ST	Yes	1k
	RX Acron	R2X	1	103	4	BL	1.8	ST	–	–
	B0066L1	R2Y	1	91	4	Y	1.9	ST	Yes	1k
	TH 88008 R2X	R2X	2	106	10	BL	1.8	ST	Yes	1k
	S008-N2	R2Y	2	103	13	IY	1.7	T	–	–
TH 88005R2XN	R2X	2	100	10	BL	1.8	ST	Yes	1c	
DKB006-99	R2X	2	102	4	BL	1.8	ST	Yes	3a	
LS Eclipse	R2X	2	106	12	BL	2.2	ST	Yes	1c	
P00A49X	R2X	2	96	4	BR	1.7	T	Yes	1c	
B0067Z1	R2Y	2	102	15	TN	1.7	T	–	–	
PV 16s004 R2X	R2X	2	98	6	BL	1.9	ST	Yes	1k	
TH 88007R2X	R2X	2	103	10	BL	1.9	ST	–	1c	

CHECK CHARACTERISTICS

TH 33003R2Y	117	50	50
	DTM	bu/ac	site years

† Maturity ratings were averaged across the past three years at core sites only, including Carman, Morris, Portage and St. Adolphe.

continued ➤

ROUNDUP READY SOYBEANS ♦ VARIETY DESCRIPTIONS continued

Manitoba Maturity Zone	Variety	Type	Average DTM +/- Check [†]	Yield % Check	Site Years Tested	Hilum Colour	IDC				
							Rating (1-5)	Grouping	SCN	PRR	
Long-Season Zone	LS 006XT	R2X	3	99	9	BL	1.7	T	-	-	
	RX00797	R2X	3	99	9	BL	1.7	T	Yes	1c	
	LS 007XT	R2X	3	109	4	BL	1.9	ST	Yes	1c	
	NSC Starbuck RRX2	R2X	3	101	12	BL	1.9	ST	Yes	1c	
	NSC Greenridge RR2Y	R2Y	3	102	4	GR	1.8	ST	Yes	1c,3a	
	PV 12s007 R2X	R2X	3	103	11	BL	1.8	ST	-	-	
	NSC Jordan RR2Y	R2Y	3	105	8	BL	2.1	ST	-	1c	
	DKB007-67	R2X	3	103	4	BL	1.7	T	Yes	3a	
	PRO 2525R2	R2Y	3	106	26	BL	1.7	T	Yes	-	
	PV 10s005 RR2	R2Y	3	108	11	BL	1.8	ST	-	-	
	PS 0074 R2	R2Y	3	107	28	BR	1.7	T	-	-	
	DKB006-29	R2X	3	102	9	BL	1.6	T	-	1k	
	NSC Winkler RR2X	R2X	4	106	4	BL	1.8	ST	Yes	1c	
	LS Mistral	R2Y	4	110	14	BL	1.7	T	-	1c	
	Domingo R2X	R2X	5	97	9	IY	1.8	ST	-	1a,6	
	PRO 03X74	R2X	5	107	4	BR	1.8	ST	-	1c	
	Astro R2	R2Y	5	109	30	BL	1.7	T	-	1k	
	Hydra R2	R2Y	5	103	16	BL	2.1	ST	-	-	
	PRO 2535R2	R2Y	6	108	16	BL	1.7	T	Yes	1k	
	Vidar R2X	R2X	7	100	6	BL	1.8	ST	Yes	1c	
	Woden R2X	R2X	9	114	4	BL	1.7	T	Yes	1k	
	RX0247	R2X	12	104	3	BL	1.6	T	Yes	1c	
	PRO 2625 R2	R2Y	13	105	4	BL	1.7	T	Yes	-	
	Experimental lines that are being tested/proposed for registration in Canada										
	CFS18.08 R2D	R2X	5	103	4	BL	2.0	ST	-	-	
	EXP00918XR	R2X	3	108	4	BL	1.8	ST	-	1k	

CHECK CHARACTERISTICS

TH 33003R2Y	117	50	50
	DTM	bu/ac	site years

[†] Maturity ratings were averaged across the past three years at core sites only, including Carman, Morris, Portage and St. Adolphe.

ROUNDUP READY SOYBEANS ♦ YIELDS BY LOCATION ♦ EASTERN MANITOBA

Manitoba Maturity Zone	Variety	Average DTM +/- Check [†]	2018 Yield % Check					
			Early Sites		Core Sites			
			Arborg	Stonewall	Carman	Morris	Portage	St. Adolphe
Very Early-Season Zone	TH890005 R2XN	-12	87	80	83	90	83	97
	S0007-B7X	-10	91	83	97	86	87	89
	NocomaR2	-9	92	94	104	94	99	92
	S0009-M2	-9	87	104	88	81	93	96
	PS 00095 R2	-8	105	103	96	78	105	82
	P002A19X	-8	93	92	100	96	100	88
	PS 00078 XRN	-8	91	91	87	100	96	104
	Dayo R2X	-8	89	75	109	94	90	94
	NSC Watson RR2Y	-8	87	79	94	79	87	90
	S0009-D6	-7	112	92	98	94	101	96
	Devo R2X	-7	100	97	98	94	95	96
	Early-Season Zone	PV 11s001 RR2	-6	102	93	84	95	90
RX00218		-6	98	98	80	79	97	95
Notus R2		-6	112	79	96	97	104	109
Torro R2		-5	106	103	97	100	108	101
RX Cedo		-5	104	82	84	104	101	98
P002A63R		-4	111	87	107	100	100	99
PV 15s0009 R2X		-4	100	94	106	87	98	100
S003-L3		-4	113	113	100	98	104	95
Lono R2		-4	107	118	93	102	111	110
Dinero R2X		-4	97	97	106	91	104	86
LS 001XT		-4	105	101	106	104	114	98
23-60RY		-3	116	102	105	94	98	97
P005A27X		-3	111	114	109	97	103	102
Dario R2X		-3	87	82	92	85	87	90
S006-M4X		-3	93	93	99	87	107	99
S007-Y4		-3	116	111	101	89	111	108
PS 0035 NR2		-3	102	103	99	96	106	105
P006T46R		-3	103	98	107	84	112	96
Prince R2X		-3	100	66	95	92	97	88
Mahony R2		-3	111	109	102	92	102	100
Akras R2	-3	130	118	105	85	108	104	

continued ►

Manitoba Maturity Zone	Variety	Average DTM +/- Check†	2018 Yield % Check					
			Early Sites			Core Sites		
			Arborg	Stonewall	Carman	Morris	Portage	St. Adolphe
Mid-Season Zone	S006-W5	-2	99	99	90	94	95	97
	Foote R2	-2	103	102	94	81	106	90
	Sunna R2X	-2	105	98	98	106	108	99
	TH 33005R2Y	-2	119	112	86	86	110	95
	24-10RY	-1	111	95	113	83	105	90
	P007A90R	-1	117	88	97	82	106	99
	PS 0044 XRN	-1	93	97	105	85	100	88
	LS Solaire	-1	115	93	102	100	105	95
	Bourke R2X	-1	111	109	114	98	105	102
	PS 0068 XR	-1	-	-	99	102	111	98
	DKB003-29	-1	98	118	110	88	100	101
	P006A37X	-1	98	113	109	96	112	110
	TH 87003 R2X	0	95	104	103	93	107	98
	Gray R2	0	-	-	99	85	102	95
	NSC Newton RR2X	0	96	102	83	102	102	93
	TH 33003R2Y	0	100	100	100	100	100	100
	B0040L1	0	92	86	94	96	94	91
	TH 37004 R2Y	0	110	98	107	97	108	93
	Dugaldo R2X	0	-	-	100	89	105	100
	NSC Sperling RR2Y	0	105	121	90	98	127	104
	TH 34006R2Y	1	-	-	109	96	113	94
	Dylano R2X	1	89	85	87	97	95	88
	PV 14s008 RR2	1	-	-	105	77	112	88
	LS 004XT	1	98	98	88	78	104	86
	DKB005-52	1	90	94	99	96	94	92
	Barker R2X	1	-	-	110	81	113	95
	RX Acron	1	-	-	104	95	108	104
	B0067Z1	1	-	-	100	96	120	92
	TH 88008 R2X	2	-	-	105	120	109	104
	S008-N2	2	-	-	88	97	112	100
TH 88005R2XN	2	-	-	107	86	99	106	
DKB006-99	2	-	-	105	107	97	94	
LS Eclipse	2	-	-	106	84	111	106	
P00A49X	2	-	-	84	86	124	90	
B0066L1	2	-	-	78	90	109	92	
PV 16s004 R2X	2	105	113	103	80	102	94	
TH 88007R2X	2	-	-	95	98	107	100	
Long-Season Zone	LS 006XT	3	-	-	110	86	102	93
	RX00797	3	-	-	90	93	94	99
	LS 007XT	3	-	-	110	106	112	107
	NSC Starbuck RRX2	3	103	79	103	100	105	85
	NSC Greenridge RR2Y	3	-	-	101	106	101	100
	PV 12s007 R2X	3	106	107	101	98	104	104
	NSC Jordan RR2Y	3	-	-	117	85	113	93
	DKB007-67	3	-	-	108	97	104	100
	PRO 2525R2	3	-	-	109	90	106	95
	PV 10s005 RR2	3	115	120	103	101	128	98
	PS 0074 R2	3	-	-	102	99	124	99
	DKB006-29	3	-	-	100	94	107	102
	NSC Winkler RR2X	4	-	-	111	93	120	100
	LS Mistral	4	-	-	113	82	115	105
	Domingo R2X	5	-	-	104	92	102	89
	PRO 03X74	5	-	-	110	97	125	92
	Astro R2	5	-	-	101	108	116	104
	Hydra R2	5	-	-	110	83	107	95
	PRO 2535R2	6	-	-	116	92	106	101
	Vidar R2X	7	105	92	108	99	103	84
Woden R2X	9	-	-	131	102	116	100	
RX0247	12	-	-	111	94	106	-	
PRO 2625 R2	13	-	-	126	101	106	75	
Experimental lines that are being tested/proposed for registration in Canada								
CFS18.08 R2D	5	-	-	91	100	122	101	
EXP00918XR	3	-	-	116	99	113	100	
CHECK CHARACTERISTICS								
TH 33003R2Y	117	49	20	56	50	45	32	
	DTM	bu/ac						
	CV %	9	12	13	8	7	8	
	LSD %	15	18	20	12	12	13	
	Sign. Diff.	Yes	Yes	Yes	Yes	Yes	Yes	
	Seeding Date	May 22	May 27	May 25	May 16	May 25	May 12	
	Harvest Date	Oct 12	Oct 12	Oct 1	Oct 2	Oct 9	Sep 12	

†Maturity ratings were averaged across the past three years at core sites only, including Carman, Morris, Portage and St. Adolphe.

ROUNDUP READY SOYBEANS ♦ YIELDS BY LOCATION ♦ WESTERN MANITOBA

Manitoba Maturity Zone	Variety	Average DTM +/- Check†	Yield % Check	Site Years Tested	2018 Yield % Check					IDC			
					Carberry	Dauphin	Hamiota	Melita	Swan River‡	Rating (1-5)	Grouping	SCN	PRR
Very Early-Season Zone	NSC Leroy RR2Y	-7	84	15	95	83	88	89	86	2.2	ST	-	-
	NocomaR2	-3	96	10	84	88	91	111	96	2.1	ST	-	1c
	S0009-M2	-2	99	20	90	88	96	109	100	2.0	ST	-	6
	S0009-D6	-2	96	10	98	105	100	108	115	2.3	S	-	-
	NSC Watson RR2Y	-2	97	20	95	91	91	95	117	2.1	ST	-	6
Early-Season Zone	PS 00095 R2	-1	98	15	101	106	105	112	117	1.7	T	-	-
	TH890005 R2XN	-1	83	5	76	82	77	91	89	1.8	ST	Yes	1c,1k
	TH 87000 R2X	-1	87	10	81	104	87	88	92	1.8	ST	-	-
	DKB0005-44	0	92	5	99	88	88	95	91	1.7	T	Yes	1c
	RX00218	0	104	5	88	120	105	94	105	1.9	ST	-	-
	Barron R2X	0	94	10	94	108	90	93	101	2.5	S	-	-
	P002A63R	0	103	10	103	106	102	99	107	1.9	ST	-	1c
	NSC Reston RR2Y	0	100	30	100	100	100	100	100	2.6	S	-	1k
	LS TRI7XT	0	88	10	83	98	78	82	83	2.3	S	-	-
	Dario R2X	0	89	10	88	101	85	85	88	2.4	S	-	-
	PV 17s0007 R2X	1	87	5	93	90	72	106	83	1.7	T	Yes	1k
	LS TRI9R2Y	1	91	10	83	82	85	92	96	2.3	S	-	-
	PV 11s001 RR2	1	90	10	92	90	82	97	87	1.8	ST	-	1c
	RX Cedo	1	101	5	99	103	98	95	104	1.8	ST	-	-
	22-60RY	1	97	24	92	109	83	101	100	2.1	ST	Yes	1c
	S003-L3	1	104	15	101	97	97	107	121	2.0	ST	-	-
	Torro R2	2	98	10	101	97	94	99	94	2.2	ST	-	-
	PS 00078 XRN	2	94	5	84	92	88	104	102	2.0	ST	Yes	1c
	P002A19X	2	93	5	92	94	93	91	93	1.6	T	-	1k
	RX000918	3	95	5	101	83	91	87	107	-	-	Yes	1c
	23-60RY	3	104	29	112	93	91	98	95	1.7	T	-	-
	NSC Melfort RR2X	3	92	5	91	87	85	89	102	1.9	ST	Yes	1k
	S006-W5	3	105	14	104	100	93	104	-	2.5	S	-	1a,3a
	Lassa R2X	3	91	5	92	87	91	101	89	2.1	ST	Yes	1c
	Notus R2	3	99	14	99	96	103	104	103	1.6	T	-	1c
	McLeod R2	3	104	29	96	90	92	96	-	1.8	ST	-	-
	PV 15s0009 R2X	4	102	4	107	105	90	110	-	1.9	ST	Yes	1c
	LS 001XT	4	105	5	114	126	95	93	96	1.8	ST	Yes	1k
	TH 87003 R2X	4	105	9	101	100	98	91	-	1.7	T	Yes	1c
	P005A27X	4	107	5	117	110	102	97	107	1.8	ST	-	1c
Mahony R2	4	106	23	100	95	108	103	-	2.9	S	-	-	
PS 0044 XRN	4	99	10	102	106	98	83	91	1.9	ST	Yes	1a,1k	
Kosmo R2	4	94	9	101	99	101	85	-	1.9	ST	-	-	
Mid-Season Zone	LS TRI8XT	5	96	5	87	104	90	95	102	-	-	Yes	1c
	DKB0009-89	5	98	5	100	108	99	93	92	1.7	T	Yes	1c,1k
	Akras R2	5	107	24	104	107	109	103	103	1.7	T	-	1k
	Sunna R2X	5	103	4	112	117	88	93	-	1.7	T	Yes	1c
	Foote R2	5	102	9	107	108	97	81	-	1.8	ST	-	1c
	P006T46R	5	107	15	96	110	99	100	104	1.9	ST	-	1c
	DKB003-29	5	98	9	98	102	99	92	-	1.7	T	Yes	-
	Dylano R2X	5	93	9	98	114	88	79	-	2.3	S	-	1c,6
	PS 0035 NR2	5	104	29	112	107	104	96	111	1.9	ST	Yes	-
	S007-Y4	5	108	25	98	104	100	99	102	2.0	ST	-	1c
	NSC Newton RR2X	5	90	9	96	92	88	93	-	2.0	ST	-	-
	Prince R2X	5	93	4	88	105	86	93	-	1.8	ST	-	1k
	TH 33003R2Y	5	103	29	118	102	90	96	-	1.9	ST	-	1c
	Dugaldo R2X	6	98	4	101	104	98	85	-	2.3	S	-	1c,1a,6
	NSC Redvers RR2X	6	89	4	94	81	85	100	-	1.9	ST	-	-
	P006A37X	6	114	4	110	127	112	102	-	1.8	ST	-	1c
	TH 37004 R2Y	6	104	14	99	103	89	89	-	1.8	ST	-	1c
	LS Solaire	6	104	14	91	114	106	93	-	2.3	S	Yes	1c,1k
	PV 16s004 R2X	7	98	4	103	98	103	82	-	1.9	ST	Yes	1k
	PV 10s005 RR2	7	108	9	106	120	92	100	-	1.8	ST	-	-
	DKB005-52	8	105	4	112	118	92	98	-	1.9	ST	Yes	1c
	B0067Z1	8	99	9	99	100	102	89	-	1.7	T	-	-
CHECK CHARACTERISTICS													
NSC Reston RR2Y		119	51	30	36	40	44	26	55				
		DTM	bu/ac	site years	bu/ac								
					CV %	9	10	5	8	5			
					LSD %	14	16	8	13	9			
					Sign. Diff.	Yes	Yes	Yes	Yes	Yes			
					Seeding Date	May 22	May 20	May 23	May 23	May 22			
					Harvest Date	Oct 12	Oct 12	Sep 27	Sep 28	Oct 10			


† Maturity ratings were averaged across the past three years at Carberry, Dauphin, Hamiota and Melita sites only.

‡ Varieties with missing data points from Swan River did not reach maturity.

CONVENTIONAL SOYBEANS ♦ VARIETY DESCRIPTIONS

Manitoba Maturity Zone	Variety	Average DTM +/-Check [†]	Yield % Check	Site Years Tested	Hilum Colour	IDC		
						Rating (1-5)	Grouping	
Early-Season Zone	AAC Edward	-5	104	35	IY	1.8	ST	
	Fjord	-5	96	6	IY	2.0	ST	
	AAC Halli	-2	101	28	Y	2.3	S	
	Experimental lines that are being tested/proposed for registration in Canada							
	CFS 18.60	-6	106	6	-	1.6	T	
	SVX17T000S1	-5	96	9	IY	2.1	ST	
	OT 16-01	-3	108	13	IY	-	-	
CMSB13-ME	-2	101	6	LB	-	-		
Mid-Season Zone	OAC Prudence	0	100	125	Y	1.6	T	
	Maxus	0	97	12	IY	2.1	ST	
	OAC Carman	0	109	22	IY	1.8	ST	
	Experimental lines that are being tested/proposed for registration in Canada							
	PR110524Z023	-1	106	12	IY	1.7	T	
	OT 18-09	-1	114	6	Y	-	-	
	OT 16-02	-1	112	13	Y	2.3	S	
	SVX17T00S15	0	114	6	IY	2.1	ST	
	CMSB13-SP	0	105	6	Y	-	-	
	SC10-11.97	2	112	6	Y	-	-	
Long-Season Zone	OAC Morden	3	106	36	Y	2.0	ST	
	Kebek	4	100	6	Y	1.7	T	
	Meteor	6	100	6	IY	2.4	S	
	DH401	6	99	6	IY	2.3	S	
	Opus	6	103	12	IY	2.2	ST	
	DH863	7	95	18	IY	2.2	ST	
	Jari	9	108	22	IY	2.0	ST	
	Astor	12	116	6	IY	1.6	T	
	Panorama	14	113	6	Y	1.9	ST	
	Experimental lines that are being tested/proposed for registration in Canada							
	SVX17T0S12	3	114	6	IY	1.7	T	
	SVX16T00S2	3	111	15	IY	2.3	S	
	OT 16-06	4	122	12	Y	2.4	S	
	OT 18-10	6	109	6	Y	-	-	
	OT 18-13	6	111	6	Y	-	-	
	OT 18-01	6	122	6	Y	-	-	
	OT 18-02	7	121	6	Y	-	-	
	CFS18.1.01	7	102	6	Y	2.0	ST	
	OT 18-12	7	122	6	Y	-	-	
	OT 18-11	8	112	6	Y	-	-	
OT15-02	8	117	16	IY	2.5	S		
OT 18-14	8	135	6	Y	-	-		
OT 18-03	8	116	6	Y	-	-		
OAC 11-02C	12	110	17	Y	1.8	ST		
CHECK CHARACTERISTICS								
	OAC Prudence	115 DTM	48 bu/ac	125 site years				

[†] Maturity ratings were averaged across the past three years at core sites only, including Carman, Morris, Portage and St. Adolphe.

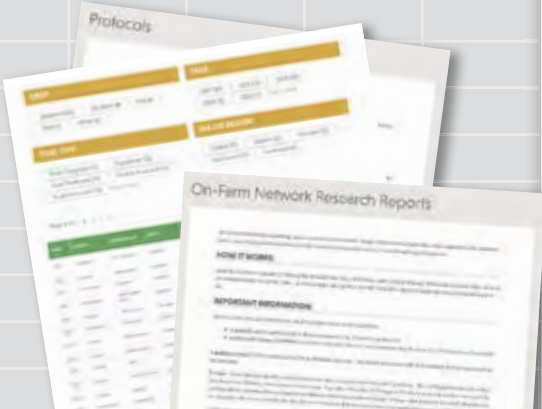


on-farm network

PARTICIPATORY • PRECISE • PROACTIVE

Research Report Database

- **Over 200 independent, on-farm trial research reports available at your fingertips!**
- Reports contain essential **TRIAL INFORMATION, YIELD DATA** and **FIELD IMAGERY**
- View results for seeding rates, seed treatment, inoculant and fungicide use in soybeans, and more
- Search the database to find trial results in your area.



Project details and results available at
manitobapulse.ca

CONVENTIONAL SOYBEANS ♦ YIELDS BY LOCATION ♦ EASTERN MANITOBA

Manitoba Maturity Zone	Variety	Average DTM +/- Check†	2018 Yield % Check								
			Early Sites			Core Sites			Late Sites		
			Arborg	Stonewall	Carman	Morris	Portage	St. Adolphe	Morden	Rosebank	
Early-Season Zone	AAC Edward	-5	105	99	109	120	95	122	-	-	
	Fjord	-5	80	88	98	115	87	113	-	-	
	AAC Halli	-2	110	104	103	115	101	121	-	-	
	Experimental lines that are being tested/proposed for registration in Canada										
	CFS 18.60	-6	110	86	104	111	108	107	-	-	
	SVX17T00S1	-5	84	89	111	107	93	112	-	-	
	OT 16-01	-3	97	116	114	125	111	113	-	-	
	CMSB13-ME	-2	-	-	112	107	90	100	99	95	
	OAC Prudence	0	100	100	100	100	100	100	100	100	
	Maxus	0	-	-	88	109	79	105	129	89	
OAC Carman	0	-	-	119	107	112	119	126	103		
Mid-Season Zone	Experimental lines that are being tested/proposed for registration in Canada										
	PR110524Z023	-1	-	-	111	126	109	112	123	88	
	OT 18-09	-1	103	125	114	118	111	129	-	-	
	OT 16-02	-1	117	105	118	124	120	118	-	-	
	SVX17T00S15	0	110	103	111	120	115	125	-	-	
	CMSB13-SP	0	-	-	105	108	107	107	124	90	
	SC10-11.97	2	104	116	109	121	111	119	-	-	
	OAC Morden	3	-	-	108	101	110	118	115	113	
	Kebek	4	92	84	108	105	98	105	-	-	
	Meteor	6	89	107	107	103	92	113	-	-	
Long-Season Zone	DH401	6	95	94	93	98	104	112	-	-	
	Opus	6	-	-	104	93	89	116	90	106	
	DH863	7	-	-	99	100	97	114	123	101	
	Jari	9	105	107	112	110	107	119	-	-	
	Astor	12	-	-	116	117	109	97	148	119	
	Panorama	14	-	-	126	103	100	104	125	119	
	Experimental lines that are being tested/proposed for registration in Canada										
	SVX17T0S12	3	114	119	109	117	113	121	-	-	
	SVX16T00S2	3	123	97	112	116	108	120	-	-	
	OT 16-06	4	-	-	112	118	119	132	145	133	
OT 18-10	6	103	113	112	103	113	116	-	-		
OT 18-13	6	-	-	114	108	109	119	114	106		
OT 18-01	6	-	-	113	126	114	113	151	126		
OT 18-02	7	-	-	105	108	120	130	152	128		
CFS18.1.01	7	105	95	105	106	89	110	-	-		
OT 18-12	7	-	-	132	113	116	120	153	106		
OT 18-11	8	-	-	114	104	109	113	123	115		
OT15-02	8	-	-	122	102	111	121	137	122		
OT 18-14	8	-	-	129	121	132	159	153	131		
OT 18-03	8	-	-	110	95	124	109	140	123		
OAC 11-02C	12	-	-	109	110	98	98	135	109		
CHECK CHARACTERISTICS											
OAC Prudence	115	49	21	47	38	39	26	23	40		
	DTM	bu/ac									
	CV %	7	11	7	6	7	7	13	10		
	LSD %	13	18	13	11	12	13	28	19		
	Sign. Diff.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
	Seeding Date	May 16	May 27	May 25	May 16	May 25	May 12	May 17	May 17		
	Harvest Date	Oct 10	Oct 12	Oct 01	Oct 02	Oct 10	Sep 12	Sep 05	Sep 18		

† Maturity ratings were averaged across the past three years at core sites only, including Carman, Morris, Portage and St. Adolphe.

CONVENTIONAL SOYBEANS ♦ YIELDS BY LOCATION ♦ WESTERN MANITOBA

Manitoba Maturity Zone	Variety	Average DTM +/- Check†	Yield % Check	Site Years Tested	2018 Yield % Check			
					Carberry	Melita	Hilum Colour	
Early-Season Zone	Alaska	-2	90	2	87	92	IY	
Mid-Season Zone	OAC Prudence	0	100	5	100	100	Y	
	Maxus	4	94	2	86	101	IY	
	Experimental lines that are being tested/proposed for registration in Canada							
	CMSB13-ME	1	100	2	93	107	LB	
	CMSB13-SP	1	96	2	94	98	Y	
PR110524Z023	0	117	3	110	109	IY		
CHECK CHARACTERISTICS								
OAC Prudence	112	36	5	33	26			
	DTM	bu/ac	site years	bu/ac				
	CV %			6	8			
	LSD %			10	15			
	Sign. Diff			Yes	No			
	Seeding Date			May 22	May 23			
	Harvest Date			Oct 12	Sep 27			

† Maturity ratings were averaged across the past three years at Carberry and Melita only.

Key for Lentil Variety Table

CL – Clearfield lentil varieties are tolerant to the herbicide Odyssey (imazamox + imazethapyr). These varieties are identified by “CL” at the end of the name.

Anthraco nose Race 1 – The resistance rating of lentil varieties to anthracnose Race 1 (Ct1). There are no available varieties with resistance to Race 2 (Ct0).

Cotyledon Colour – Green lentils have a yellow cotyledon; red lentils have a red cotyledon.

LENTILS ♦ VARIETY DESCRIPTIONS AND YIELDS BY LOCATION

Market Class/Variety	Maturity Rating [†]	Yield % Check	Site Years Tested	TKW (g/1000 seeds)	Cotyledon Colour	Resistance Level		2018 Yield % Check	
						Ascochyta Blight	Anthraco nose Race 1	Hamiota	Melita
EXTRA SMALL GREEN									
CDC Asterix	early	94	9	26	yellow	G	F	107	97
SMALL GREEN									
CDC Imvincible CL	early	83	18	35	yellow	G	G	109	101
CDC Kermit	early/medium	105	2	34	yellow	G	G	110	98
MEDIUM GREEN									
CDC Imigreen CL	medium	63	11	63	yellow	G	F	–	–
LARGE GREEN									
CDC Greenland	medium/late	63	10	64	yellow	G	VP	–	–
CDC Greenstar	medium/late	91	7	73	yellow	G	F	93	88
CDC Impower CL	medium	69	12	74	yellow	G	P	68	95
SPANISH BROWN									
CDC SB-3 CL	early	75	2	38	yellow	F	G	70	80
FRENCH GREEN									
CDC Peridot CL	early	78	11	40	yellow	G	P	–	–
CDC Marble	early/medium	103	9	32	yellow	F	G	103	90
GREEN COTYLEDON									
CDC QG-2	early/medium	85	7	33	green	F	G	94	94
CDC QG-3 CL	early/medium	84	2	46	green	F	G	82	85
EXTRA SMALL RED									
CDC Rosebud	early	87	10	29	red	G	G	–	–
CDC Rosie	early/medium	87	6	30	red	G	G	–	–
CDC Ruby	early	92	2	29	red	G	G	–	–
CDC Roxy	early/medium	96	2	32	red	G	G	96	95
SMALL RED									
CDC Dazil CL	early/medium	96	10	35	red	G	F	82	106
CDC Imax CL	medium	84	18	50	red	G	G	98	108
CDC Maxim CL	early/medium	100	20	40	red	G	G	100	100
CDC Proclaim CL	early/medium	103	4	40	red	G	G	108	110
CDC Redmoon	early/medium	108	4	41	red	G	G	111	96
CDC Scarlet	early/medium	103	9	36	red	G	F	103	94
CDC Impulse CL	early/medium	106	3	44	red	G	G	107	98
LARGE RED									
CDC-KR I	medium	79	12	56	red	G	G	–	–
CDC KR2 CL	medium	104	3	55	red	G	G	107	104
CHECK CHARACTERISTICS									
CDC Maxim		3175	20					3183	2866
		lbs/ac	site years					lbs/ac	
							CV %	10	5
							LSD %	17	8
							Sign. Diff.	Yes	Yes
							Seeding Date	May 5	May 8
							Harvest Date	Aug 16	Aug 9

[†] Maturity ratings were determined under Saskatchewan growing conditions.

Key for Field Pea Variety Tables

Relative Vine Length

S = short M = medium L = long

Green Seed Coats

G = 0–10% green seed coats F = 11–25% green seed coats

Seed Coat Dimpling

VG = 0–5% of seeds dimpled G = 6–20% of seeds dimpled
F = 21–50% of seeds dimpled

Bleaching – The resistance rating of green pea to bleaching. Bleaching does not apply to other market classes of peas, indicated by *n/a*.

Fusarium Wilt – Varieties with good resistance to one strain of fusarium wilt may be susceptible to other strains.

FIELD PEAS ♦ VARIETY DESCRIPTIONS

Market Class/Variety	Maturity Rating	Yield % Check	Site Years Tested	Relative Vine Length	TKW (g/1000 seeds)	Resistance Level							
						Green Seed Coats	Seed Coat Breakage	Seed Coat Dimpling	Bleaching	Lodging	Powdery Mildew	Mycosphaerella Blight	Fusarium Wilt
YELLOW													
AAC Ardill	medium	99	22	M	240	<i>n/a</i>	G	<i>n/a</i>	<i>n/a</i>	G	VG	F	G
AAC Asher	medium	104	6	S	260	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	G	VG	F	F
AAC Carver	medium	108	16	L	240	<i>n/a</i>	G	<i>n/a</i>	<i>n/a</i>	G	VG	F	F
AAC Chrome	medium	112	12	M	240	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	G	VG	F	F
AAC Lacombe	medium	103	20	L	270	F	G	G	<i>n/a</i>	G	VG	F	F
Abarth	early	101	10	M	280	G	F	G	<i>n/a</i>	VG	VG	F	F
Agassiz	medium	102	59	M	230	G	G	F	<i>n/a</i>	G	VG	F	F
CDC Amarillo	medium	103	22	M	230	G	F	F	<i>n/a</i>	VG	VG	F	G
CDC Athabasca	medium	97	6	L	300	G	F	F	<i>n/a</i>	VG	VG	F	G
CDC Canary	early	96	6	L	230	F	G	F	<i>n/a</i>	VG	VG	F	F
CDC Golden	medium	93	64	M	230	G	G	G	<i>n/a</i>	G	VG	F	S
CDC Inca	medium	107	20	L	230	F	G	G	<i>n/a</i>	G	VG	F	F
CDC Lewochko	medium	107	6	L	230	G	G	G	<i>n/a</i>	VG	VG	F	F
CDC Meadow	early	100	72	M	220	G	G	G	<i>n/a</i>	G	VG	F	F
CDC Saffron	medium	101	36	M	250	G	G	F	<i>n/a</i>	G	VG	F	F
CDC Spectrum	medium	97	6	L	240	G	G	G	<i>n/a</i>	VG	G	F	F
Experimental lines that are being tested/proposed for registration in Canada													
AAC Profit	medium	104	6	M	230	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	G	VG	F	F
Hyline	early	101	6	M	240	G	G	G	<i>n/a</i>	G	VG	F	F
GREEN													
AAC Comfort	medium	96	11	M	260	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	G	G	VG	F	F
CDC Forest	medium	107	6	L	230	<i>n/a</i>	G	G	G	G	VG	F	F
CDC Greenwater	late	99	21	M	220	<i>n/a</i>	VG	G	G	G	VG	F	G
CDC Limerick	late	99	21	M	210	<i>n/a</i>	VG	G	G	VG	VG	F	F
CDC Spruce	medium	97	6	L	240	<i>n/a</i>	F	F	G	G	VG	F	F
CDC Striker	medium	90	76	M	230	<i>n/a</i>	VG	G	G	VG	P	F	G
COOPER	late	95	47	M	270	<i>n/a</i>	F	G	G	G	VG	F	F
MAPLE													
AAC Liscard	medium	92	11	M	180	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	G	VG	F	<i>n/a</i>
CHECK CHARACTERISTICS													
CDC Meadow	95	73	72	34									
	DTM	bu/ac	site years	inches									

FIELD PEAS ♦ YIELDS BY LOCATION

Market Class/Variety	2018 Yield % Check					
	Boissevain	Hamiota	Melita	Morden	Portage	Swan River
YELLOW						
AAC Ardill	103	93	104	104	106	106
AAC Asher	110	98	101	122	120	115
AAC Carver	105	92	110	107	122	117
AAC Chrome	126	111	116	133	132	118
AAC Lacombe	109	85	107	114	109	109
Agassiz	136	97	98	113	109	113
CDC Amarillo	112	89	109	97	110	107
CDC Athabasca	103	73	97	108	105	115
CDC Canary	104	98	101	103	104	107
CDC Golden	113	95	93	104	96	105
CDC Inca	104	82	111	110	118	122
CDC Lewochko	126	97	113	121	119	118
CDC Meadow	100	100	100	100	100	100
CDC Saffron	108	81	107	108	105	109
CDC Spectrum	109	85	108	110	105	114
Experimental lines that are being tested/proposed for registration in Canada						
AAC Profit	112	96	111	124	119	115
Hyline	116	92	104	106	107	105
GREEN						
AAC Comfort	99	84	103	112	109	108
CDC Forest	123	102	106	114	119	123
CDC Greenwater	108	98	106	107	109	113
CDC Limerick	108	95	106	108	103	105
CDC Spruce	110	89	108	111	110	104
CDC Striker	90	75	98	92	90	103
MAPLE						
AAC Liscard	103	80	108	103	97	103
CHECK CHARACTERISTICS						
CDC Meadow	48	72	62	64	82	82
	bu/ac					
CV %	6	6	7	5	4	4
LSD %	11	9	11	9	7	8
Sign. Diff.	Yes	Yes	Yes	Yes	Yes	Yes
Seeding Date	May 9	May 5	May 1	May 7	May 16	May 15
Harvest Date	Aug 23	Aug 23	Aug 7	Aug 21	Aug 22	Aug 31

Key for Dry Bean Variety Tables

DTM (+/- Check) – The number of days from planting to full maturity (90% of plants ready for harvest). It is expressed as + or – days relative to the check variety. Actual days to maturity for the check variety is found in the shaded area at the bottom of the table.

Lodging (1–5) – The lodging rating at harvest on a scale of one to five. The greater the value, the more lodged the crop. For example, 1 = standing upright, 5 = flat on the ground.

Plant Height (cm) – The distance measured from the soil surface to the top of the plant at flowering.

Pod Height (% >5 cm) – The visual estimation of the % of pods greater than 5 cm from the soil surface at harvest.

CBB Severity (0–5) – The average visual rating of common bacterial blight (CBB) on 10 plants per plot at the yellow pod (R7) stage.

0 = No observable lesions or other signs of infection

1 = < 5% of plant area (leaf and stem hypocotyls) diseased

2 = 5–10% of plant area diseased

3 = 10–25% of plant area diseased

4 = 25–50% of plant area diseased

5 = 50–100% of plant area diseased or death of seedling

CBB Incidence (%) – The average visual rating of % leaf tissue infected by CBB on 10 plants per plot at the R7 stage.

WM Incidence (%) – The average visual rating of the % of plants infected by white mould (WM) on 10 plants per plot at full maturity (R8).

DRY BEANS ♦ VARIETY DESCRIPTIONS

Market Class/ Variety	DTM +/- Check	Yield % Check	Site Years Tested	TKW (g/1000 seeds)	Lodging (1-5)	Plant Height (cm)	Pod Height (% > 5 cm)	CBB Severity (0-5)	CBB Incidence (%)	WM Incidence (%)
NAVY	+/- of T9905	% of T9905								
Envoy	-5	74	30	192	2	32	76	2	20	0
Portage	-5	91	30	200	1	45	94	2	20	0
AAC Shock	-4	99	4	222	1	51	92	2	24	0
Cargo	-4	80	24	197	2	42	93	2	31	0
Indi	-3	100	22	184	1	55	94	2	18	0
AAC Argosy	-2	103	8	216	2	53	94	2	23	0
Bolt	-2	92	15	213	1	50	93	2	21	0
Nautica	-1	90	14	169	1	51	95	2	27	0
T9905	0	100	30	203	1	50	94	2	18	0
CHECK CHARACTERISTICS										
T9905	102 DTM	2401 lbs/ac	30 site years							
BLACK	+/- Eclipse	% Eclipse								
CDC Blackstrap	-5	89	13	231	1	41	93	2	15	0
CDC Jet	-1	88	39	207	1	47	95	2	19	0
CDC Superjet	-1	87	27	211	2	49	96	2	19	0
Eclipse	0	100	39	189	1	52	94	3	24	0
Zenith	4	98	4	197	1	51	93	3	34	0
Zorro	4	90	4	188	1	50	92	3	33	0
Varieties that are registered in the US or being tested or proposed for registration in Canada										
13505	0	99	8	182	1	55	94	2	28	0
GTS1103	2	94	12	200	2	49	94	2	10	0
CHECK CHARACTERISTICS										
Eclipse	98 DTM	2475 lbs/ac	39 site years							
PINTO	+/- of Windbreaker	% of Windbreaker								
Vibrant	-2	104	11	308	2	53	86	3	40	0
Windbreaker	0	100	50	339	3	52	80	3	31	0
La Paz	5	96	15	305	2	57	79	3	36	0
YELLOW	+/- of Windbreaker	% of Windbreaker								
CDC Sol	2	77	26	365	1	45	80	3	46	0
Varieties that are registered in the US or being tested or proposed for registration in Canada										
YE4607	-1	59	1	430	2	45	76	3	48	0
PINK	+/- of Windbreaker	% of Windbreaker								
Floyd	-4	89	25	298	4	45	64	3	50	0
CHECK CHARACTERISTICS										
Windbreaker	96 DTM	2671 lbs/ac	50 site years							
GREAT NORTHERN	+/- of Pink Panther	% of Pink Panther								
Varieties that are registered in the US or being tested or proposed for registration in Canada										
14164	-3	129	3	389	2	52	89	2	31	0
13151	-2	122	3	416	2	48	87	3	32	2
Beryl R	-2	112	32	407	4	42	78	2	33	2
Powderhorn	-2	137	6	347	2	53	89	3	27	3
13172	-1	136	3	353	2	51	92	3	26	4
LIGHT RED KIDNEY	+/- of Pink Panther	% of Pink Panther								
Big Red	0	100	19	500	1	49	90	3	39	0
Pink Panther	0	100	51	486	1	49	89	3	50	0
DARK RED KIDNEY	+/- of Pink Panther	% of Pink Panther								
Dynasty	7	104	3	539	2	61	84	3	34	0
Montcalm	7	78	3	401	2	55	84	3	36	0

continued ▶

DRY BEANS ♦ VARIETY DESCRIPTIONS continued

Market Class/ Variety	DTM +/- Check	Yield % Check	Site Years Tested	TKW (g/1000 seeds)	Lodging (1-5)	Plant Height (cm)	Pod Height (% > 5 cm)	CBB Severity (0-5)	CBB Incidence (%)	WM Incidence (%)
WHITE KIDNEY	+/- of Pink Panther	% of Pink Panther								
Varieties that are registered in the US or being tested or proposed for registration in Canada										
COB-228-03	5	56	3	415	1	43	84	3	48	0
CHECK CHARACTERISTICS										
Pink Panther	100	1979	51							
	DTM	lbs/ac	site years							
CRANBERRY	+/- of Etna	% of Etna								
Etna	-2	100	53	501	1	45	83	3	43	0
AAC Scotty	5	112	12	463	1	45	85	3	25	0
Varieties that are registered in the US or being tested or proposed for registration in Canada										
Krimson	0	101	16	508	2	47	83	3	33	0
Vero	0	89	3	440	1	48	83	3	48	0
CHECK CHARACTERISTICS										
Etna	100	1752	53							
	DTM	lbs/ac	site years							

DRY BEANS ♦ YIELDS BY LOCATION ♦ WIDE ROW

Market Class/ Variety	DTM +/- Check	2018 Yield % Check			
		Carman	Morden	Portage	Winkler
NAVY	+/- of T9905	% of T9905			
Envoy	-5	113	89	77	88
Portage	-5	99	110	91	99
AAC Shock	-4	102	96	108	94
Cargo	-4	115	88	79	75
Indi	-3	101	114	101	101
AAC Argosy	-2	109	120	103	105
Bolt	-2	107	97	96	94
Nautica	-1	83	97	88	83
T9905	0	100	100	100	100
CHECK CHARACTERISTICS					
T9905	102	1771	2201	2239	3272
	DTM	lbs/ac			
	CV %	8	8	10	9
	LSD %	13	14	15	14
	Sign. Diff.	Yes	Yes	Yes	Yes
	Seeding Date	May 29	May 30	May 23	May 30
	Harvest Date	Sep 6	Sep 5	Oct 11	Sep 10
BLACK	+/- of Eclipse	% of Eclipse			
CDC Blackstrap	-5	98	96	115	116
CDC Super Jet	-1	91	91	108	102
CDC Jet	-1	80	76	100	98
Eclipse	0	100	100	100	100
Zorro	4	107	78	76	101
Zenith	4	107	91	81	109
Varieties that are registered in the US or being tested or proposed for registration in Canada					
13505	0	94	89	108	105
GTS-1103	2	91	83	80	92
CHECK CHARACTERISTICS					
Eclipse	98	1871	2518	1935	2827
	DTM	lbs/ac			
	CV %	8	8	10	9
	LSD %	12	13	18	16
	Sign. Diff.	Yes	Yes	Yes	Yes
	Seeding Date	May 29	May 30	May 23	May 30
	Harvest Date	Sep 6	Sep 5	Oct 11	Sep 10

continued ▶

Market Class/ Variety	DTM +/- Check	2018 Yield % Check			
		Carman	Morden	Portage	Winkler
PINTO	+/- of Windbreaker			% of Windbreaker	
Vibrant	-2	107	-	-	-
Windbreaker	0	100	-	-	-
La Paz	5	101	-	-	-
YELLOW	+/- of Windbreaker			% of Windbreaker	
CDC Sol	2	54	-	-	-
Varieties that are registered in the US or being tested or proposed for registration in Canada					
YE4607	-1	59	-	-	-
PINK	+/- of Windbreaker			% of Windbreaker	
Floyd	-4	85	-	-	-
CHECK CHARACTERISTICS					
Windbreaker	96	1926	-	-	-
	DTM		lbs/ac		
	CV %	11	-	-	-
	LSD %	17	-	-	-
	Sign. Diff.	Yes	-	-	-
	Seeding Date	May 29	May 30	May 23	May 30
	Harvest Date	Sep 6	Sep 5	Oct 11	Sep 10
GREAT NORTHERN	+/- of Pink Panther			% of Pink Panther	
Varieties that are registered in the US or being tested/proposed for registration in Canada					
14164	-3	120	134	-	131
13151	-2	105	117	-	139
Beryl R	-2	114	116	-	137
Powderhorn	-2	128	115	-	154
13172	-1	127	130	-	147
LIGHT RED KIDNEY	+/- of Pink Panther			% of Pink Panther	
Pink Panther	0	100	100	-	100
Big Red	0	92	90	-	99
DARK RED KIDNEY	+/- of Pink Panther			% of Pink Panther	
Dynasty	7	128	88	-	99
Montcalm	7	89	63	-	83
WHITE KIDNEY	+/- of Pink Panther			% of Pink Panther	
Varieties that are registered in the US or being tested or proposed for registration in Canada					
COB-228-03	5	58	55	-	56
CHECK CHARACTERISTICS					
Pink Panther	100	1735	1880	-	2252
	DTM		lbs/ac		
	CV %	8	9	-	12
	LSD %	14	13	-	21
	Sign. Diff.	Yes	Yes	-	Yes
	Seeding Date	May 29	May 30	May 23	May 30
	Harvest Date	Sep 6	Sep 5	Oct 11	Sep 10
CRANBERRY	+/- of Etna			% of Etna	
Etna	-2	100	100	-	100
AAC Scotty	5	97	113	-	104
Varieties that are registered in the US or being tested/proposed for registration in Canada					
Krimson	0	106	112	-	107
Vero	0	89	90	-	88
CHECK CHARACTERISTICS					
Etna	100	1678	1362	-	2026
	DTM		lbs/ac		
	CV %	8	9	-	12
	LSD %	15	18	-	24
	Sign. Diff.	Yes	Yes	-	Yes
	Seeding Date	May 29	May 30	May 23	May 30
	Harvest Date	Sep 6	Sep 5	Oct 11	Sep 10

DRY BEANS ♦ YIELDS BY LOCATION ♦ NARROW ROW

Market Class/ Variety	DTM +/- Check	Yield % Check	Site Years Tested	2018 Yield % Check	
				Melita	Stonewall
NAVY	+/- of Envoy	% of Envoy		% of Envoy	
Envoy	0	100	51	100	100
Portage	1	101	18	119	93
AAC Shock	2	119	5	118	120
Blizzard	2	112	2	89	143
Cargo	2	87	7	93	92
Indi	2	105	2	94	121
Bolt	3	106	9	106	113
AAC Argosy	4	114	2	102	131
T9905	5	109	7	98	121
Nautica	6	113	4	90	111
Varieties that are registered in the US or being tested or proposed for registration in Canada					
3458-7	-4	107	15	116	77
NA08077	0	99	2	89	114
BLACK	+/- of Envoy	% of Envoy		% of Envoy	
CDC Blackstrap	-1	127	18	153	104
CDC Jet	1	109	42	103	105
CDC SuperJet	2	117	21	116	94
Zenith	3	92	2	85	102
Zorro	3	87	2	89	85
Eclipse	4	123	6	103	131
CHECK CHARACTERISTICS					
Envoy	100	1942	51	1151	829
	DTM	lbs/ac	site years	lbs/ac	
			CV %	9	10
			LSD %	16	17
			Sign. Diff.	Yes	Yes
			Seeding Date	May 10	May 27
			Harvest Date	Aug 30	Oct 12
PINTO	+/- of CDC Pintium	% of CDC Pintium		% of CDC Pintium	
CDC Pintium	0	100	51	100	100
CDC WM-2	2	115	23	111	77
Medicine Hat	2	113	15	130	130
Windbreaker	3	128	10	139	107
Varieties that are registered in the US or being tested or proposed for registration in Canada					
NN11-2	0	120	2	134	98
YELLOW	+/- of CDC Pintium	+/- of CDC Pintium		% of CDC Pintium	
CDC Sol	4	98	7	125	76
Varieties that are registered in the US or being tested or proposed for registration in Canada					
4510-3-1	3	100	2	108	88
CRANBERRY	+/- of CDC Pintium	+/- of CDC Pintium		% of CDC Pintium	
Varieties that are registered in the US or being tested or proposed for registration in Canada					
7ab-3bola-3	6	83	5	83	76
FLORA DE JANEIRO	+/- of CDC Pintium	% of CDC Pintium		% of CDC Pintium	
CDC Ray	6	108	5	127	101
CHECK CHARACTERISTICS					
CDC Pintium	96	2079	51	1115	755
	DTM	lbs/ac	site years	lbs/ac	
			CV %	9	10
			LSD %	17	18
			Sign. Diff.	Yes	Yes
			Seeding Date	May 10	May 27
			Harvest Date	Aug 30	Oct 12