

# 2023 PULSE AND SOYBEAN VARIETY GUIDE



This publication features the results from MPSG-sponsored trials.

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The independent evaluation of soybean, dry bean, field pea and faba bean varieties found within this publication were made possible by your continued support through the Manitoba Pulse & Soybean Growers (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.

Soybean and dry bean trials were sponsored and co-ordinated by MPSG. Field pea and faba bean trials were co-ordinated by the Manitoba Crop Variety Evaluation Team (MCVET) and co-sponsored by MPSG, MCVET and Manitoba Agriculture.

## SOYBEANS

Herbicide tolerant soybean varieties were evaluated at 13 locations in 2023, reported by eastern and western regions in Manitoba. In eastern Manitoba, early- and mid-season varieties were tested at early sites, including Arborg, Beausejour and Stonewall, and all types of varieties were tested at core sites, including Carman, Portage la Prairie, Morris and St. Adolphe. In western Manitoba, varieties were tested at Dauphin, Hamiota, Cypress River, Melita, Souris and Swan River.

Herbicide tolerant first-year entry trials were also carried out at three of the eastern sites, including Carman, St. Adolphe and Morris.

Conventional (non-GM) soybean varieties were tested at all sites listed for eastern Manitoba and at Melita and Swan River in western Manitoba.

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

## DRY BEANS

Variety evaluations were conducted under wide- (>24 inches) and narrow-row (<12 inches) trials, and are reported separately in this guide.

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

Narrow-row trials were conducted at five locations – Melita, Morden, Portage la Prairie, Souris and Swan River.

Dry bean varieties are also reported by market class. These include navy, black, pinto, Mayocoba (yellow), Great Northern, dark red kidney, light red kidney, white kidney and cranberry.

## FIELD PEAS

Trials were conducted at 10 locations in Manitoba, including Arborg, Carberry, Hamiota, Cypress River, Melita, Morden, Stonewall, Roblin, Souris and Swan River. Field pea varieties are reported by yellow, green, maple and forage market classes.

## FABA BEANS

Regional faba bean trials were conducted at Dauphin, Morden and Swan River.

## LUPINS

Lupin trials were conducted for the first time in 2023 at Melita and Carberry.

Market classes included blue lupins and sweet white lupins, compared to yellow peas.

## USING THIS GUIDE

There are two types of data tables found in this guide – *Variety Descriptions* and *Yields by Location*. Variety description 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 individual 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 variety table keys in each section.

*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.

**TSW (g/1000 seeds)** – The thousand seed 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

**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.

# Manitoba Soybean Maturity Zones

(A guideline for choosing varieties)

## Map Elements

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

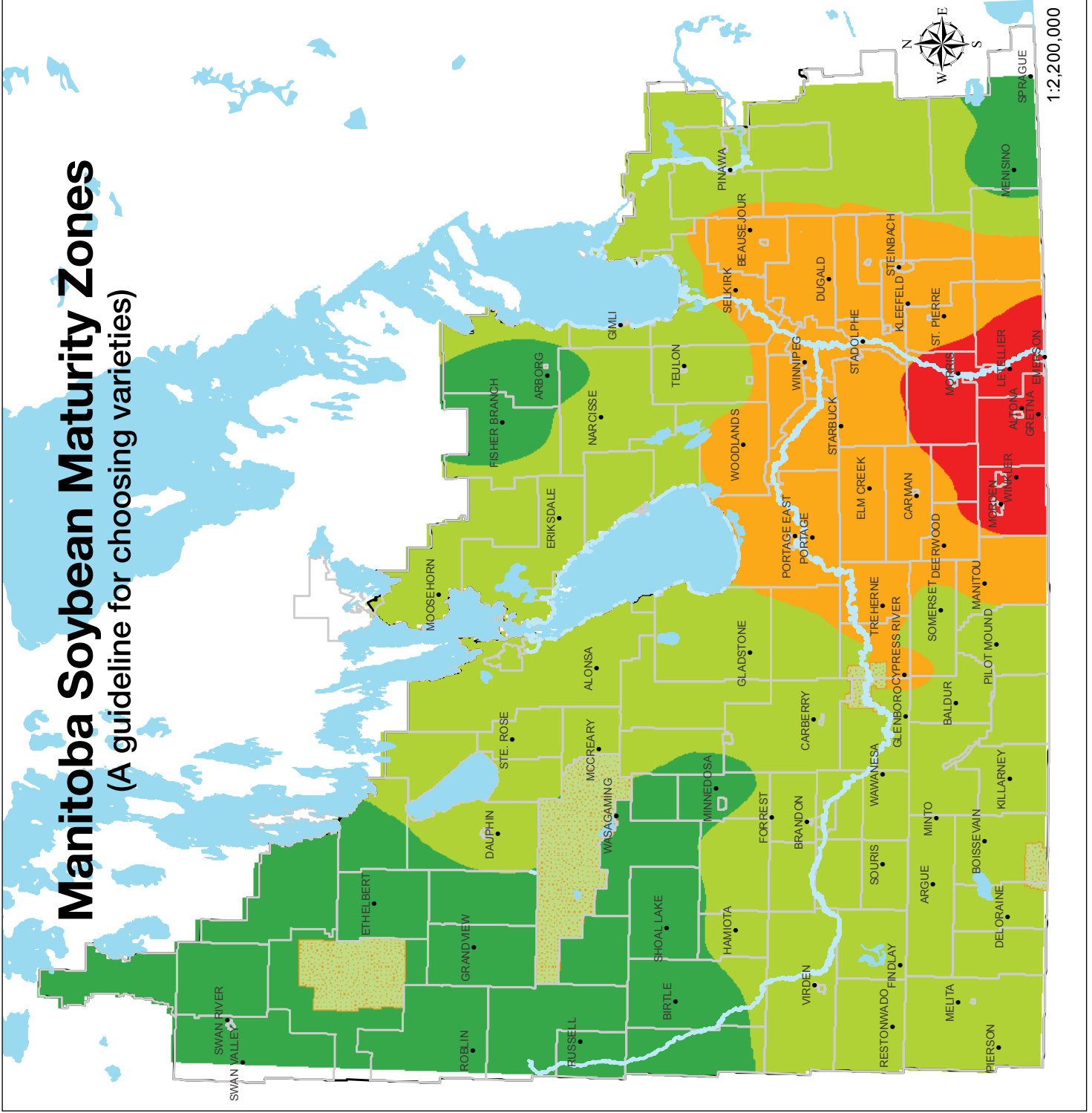
## Maturity Zones

-  Very Early
-  Early
-  Mid
-  Long

Maturity Zone	CHU	FFP (days)	Maturity Group
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 T<sub>min</sub> > 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 *Pulse and Soybean Variety Guide*, which outlines varieties according to maturity zones.



1:2,200,000

## 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 (page 2), 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).

### Type

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).

**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.

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

### IDC Ratings

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

### 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](http://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.

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

Race of <i>P. sojae</i>	Rps Gene				
	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



IDC Rating 1



IDC Rating 1.7



IDC Rating 2.1



IDC Rating 2.5



IDC Rating 3.5



IDC Rating 4.0

# HERBICIDE TOLERANT SOYBEANS ♦ VARIETY DESCRIPTIONS ♦ EASTERN MANITOBA

Manitoba Maturity Zone	Company Maturity Group	Variety	Type	Average DTM +/- Check <sup>†</sup>	Long-Term Yield % Check	Site-Years Tested	Hilum Colour	IDC		Resistance		
								Rating (1-5)	Group	SCN	PRR	
Very Early-Season Zone	00.2	Major R2X	R2X	-8	79	5	BR	2.0	ST	-	1c	
	0.01	S001-D8X	R2X	-7	82	21	IY	2.0	ST	-	1c	
	0.03	S003-R5X	R2X	-6	89	7	IY	2.1	ST	-	1c	
	00.4	Bomber R2X	R2X	-5	83	5	BL	2.1	ST	-	1k	
	00.3	P003A97X	R2X	-5	90	20	GR	1.8	ST	yes	1k	
	000.9	PV S0009X84	R2X	-5	90	5	BL	1.8	ST	yes	-	
Early-Season Zone	00.3	PV S004XF13	R2X	-4	88	5	BL	2.3	S	yes	1c	
	00.1	BY Hector XT	R2X	-3	84	5	BL	1.9	ST	-	1c	
	00.2	P002A42E	E3	-3	84	5	Y	1.7	T	-	1c	
	00.4	B0041RX	R2X	-3	93	15	GR	1.7	T	-	1k	
	00.5	PV 25s005R2X	R2X	-3	90	2	IY	1.9	ST	-	1c	
	00.2	TH84002X	R2X	-2	90	5	BL	1.9	ST	yes	1c	
	00.5	Hart R2X	R2X	-2	90	12	BR	1.9	ST	-	1c	
	00.2	NSC Arden RR2X	R2X	-2	88	9	BL	1.8	ST	-	1c	
	00.3	Akras R2	R2Y	-2	95	32	BL	1.7	T	-	1c	
	00.3	BY Deno XT	R2X	-2	90	5	BL	2.0	ST	yes	1c	
	00.4	NSC Holland RR2X	R2X	-2	92	15	BR	1.9	ST	-	1c	
	000.9	Young R2X	R2X	-2	89	15	BL	1.7	T	yes	1c	
	0.05	S005-C9X	R2X	-2	89	21	BL	2.4	S	-	1c	
	00.1	PV 28s001R2X	R2X	-2	85	9	BL	1.8	ST	yes	1c	
	Experimental lines that are being tested/proposed for registration in Canada											
		00.1	CP00121WPX	WPX	-3	84	9	BL	1.9	ST	-	-
	00.1	CP00123WPX	WPX	-2	92	5	BR	2.0	ST	yes	1c	
Mid-Season Zone	000.7	Briggs R2X	R2X	-1	81	5	BL	2.0	ST	yes	1c	
	00.2	DKB002-32	R2X	-1	92	18	BR	1.9	ST	yes	1k	
	00.5	P005A59E	E3	0	91	9	BR	1.8	ST	-	1c	
	<b>00.6</b>	<b>P006A37X</b>	<b>R2X</b>	<b>0</b>	<b>100</b>	<b>32</b>	<b>BR</b>	<b>1.8</b>	<b>ST</b>	-	<b>1c</b>	
	00.3	Mahony R2	R2Y	0	91	16	BL	2.4	S	-	-	
	00.4	Bourke R2X	R2X	0	94	29	BL	1.8	ST	-	1k	
	00.3	Sunna R2X	R2X	0	92	32	GR	1.7	T	yes	1c	
	00.5	BY Rainier XT	R2X	1	92	6	BL	1.7	T	-	1c	
	00.5	Mako R2X	R2X	1	100	6	GR	1.9	ST	-	1c	
	00.3	Merino R2X	R2X	1	87	6	BL	1.7	T	yes	1k	
	00.2	PV 22s002 R2X	R2X	1	90	15	BL	2.0	ST	yes	1k	
	00.4	PV 16s004 R2X	R2X	1	92	29	BL	1.8	ST	yes	1k	
	00.3	SI 00323XT	R2X	1	101	5	BL	1.9	ST	-	1c	
	00.6	BY Robson XT	R2X	2	105	2	BL	2.1	ST	-	1c	
	00.6	SI 00623XT	R2X	2	98	5	BL	2.1	ST	-	1c	
	00.6	Mao R2X	R2X	2	99	7	BL	1.7	T	yes	1c	
00.4	TH83004X	R2X	2	99	5	BL	1.8	ST	-	1k		
00.7	NSC EXP007LX	R2X	2	99	2	BR	1.8	T	-	1c, 3a		
Experimental lines that are being tested/proposed for registration in Canada												
	-	SV193025-10-01	R2X	-1	81	5	BL	2.1	ST	-	-	
	00.5	CP005WPRX	WPX	2	94	9	BL	1.9	ST	-	1k, 1c, 3a	
Long-Season Zone	00.6	Badger R2X	R2X	3	95	6	BL	1.7	T	-	1k	
	0.07	S007-A2XS	R2X	3	98	15	GR	1.8	ST	-	-	
	00.7	B0073EE	E3	3	93	5	IB	1.7	T	yes	1c	
	00.7	PV 26s007R2X	R2X	4	93	3	BL	1.9	ST	yes	1c	
	00.9	P00A49X	R2X	4	98	19	BR	1.7	T	yes	1c	
	00.6	DKB006-80	R2X	4	101	3	BL	1.9	ST	yes	1c	
	00.5	Barker R2X	R2X	4	95	18	BL	1.7	T	yes	1k	
	00.7	P007A68E	E3	4	102	5	BF	1.8	ST	-	1c	
	00.5	TH82005 R2X	R2X	4	98	15	BR	1.9	ST	-	1k	
	00.8	DKB008-48	R2X	4	100	9	BL	1.8	ST	yes	1c, 1k	
	00.5	Kudo R2X	R2X	5	97	13	BL	1.8	ST	-	-	
	00.8	ND21008GT20 *	RR1	5	83	2	BL	1.7	T	-	-	
	00.7	TH81007 R2XN	R2X	5	100	7	BR	1.7	T	yes	1c	
	00.8	TH82008XF	R2XF	5	88	3	BL	2.1	ST	yes	1c	
	00.9	Triquet R2X	R2X	6	96	2	BI	1.7	T	yes	1k	
	00.1	Rico R2X	R2X	6	95	2	GR	2.3	S	-	1c	
00.7	SI 00723XFN	R2X	8	97	5	BL	1.7	T	yes	1c		
00.9	NSC ENGage E3	E3	11	82	2	BL	1.7	T	-	1c		
Experimental lines that are being tested/proposed for registration in Canada												
	00.5	CP00523WPX	WPX	3	99	2	BL	2.1	ST	-	1k, 1c	
	00.7	CP00722WPX	WPX	4	93	3	BL	1.9	ST	-	1k, 1c, 3a	
	00.8	EXP008-23XF	R2XF	6	93	2	Y	1.9	ST	-	1c, 3a	
	-	SV194090-03	R2X	6	78	5	BL	2.5	S	-	-	

### CHECK CHARACTERISTICS

**P006A37X**

115

51

32

DTM

bu/ac

site-years

<sup>†</sup> Maturity ratings were averaged across the Carman, Morris, Portage and St. Adolphe core sites over multiple years.

\* 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 ♦ YIELDS BY LOCATION ♦ EASTERN MANITOBA

2023 Yield % Check

Manitoba Maturity Zone	Variety	Average DTM +/- Check†	2023 Yield % Check				
			Early Sites†			Core Sites	
			Arborg	Beausejour	Stonewall	Carman	St. Adolphe
Very Early-Season Zone	Major R2X	-8	79	80	78	83	74
	S001-D8X	-7	83	86	87	94	83
	S003-R5X	-6	82	92	83	90	89
	Bomber R2X	-5	88	88	80	78	82
	P003A97X	-5	91	78	87	93	93
Early-Season Zone	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
	NSC Arden RR2X	-2	91	91	85	90	91
	Akras R2	-2	93	107	100	94	102
	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
<b>Experimental lines that are being tested/proposed for registration in Canada</b>							
	CP00121WPX	-3	91	83	93	83	92
	CP00123WPX	-2	97	90	89	92	88
Mid-Season Zone	Briggs R2X	-1	89	68	81	90	75
	DKB002-32	-1	104	89	84	87	100
	P005A59E	0	97	97	89	75	90
	<b>P006A37X</b>	<b>0</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
	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
	Merino R2X	1	86	79	84	94	89
	PV 22s002R2X	1	86	89	85	93	90
	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 EXP007LX	2	-	-	-	108	89	
<b>Experimental lines that are being tested/proposed for registration in Canada</b>							
	SV193025-10-01	-1	86	73	75	82	86
	CP005WPRX	2	101	103	91	92	97
Long-Season Zone	Badger R2X	3	98	94	93	87	101
	S007-A2X5	3	-	-	-	102	93
	B0073EE	3	91	97	96	89	91
	PV 26s007R2X	4	-	-	-	90	100
	P00A49X	4	-	-	-	99	107
	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
	Kudo R2X	5	96	107	94	100	96
	ND21008GT20*	5	-	-	-	84	81
	TH81007 R2XN	5	-	-	-	97	100
	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	
<b>Experimental lines that are being tested/proposed for registration in Canada</b>							
	CP00523WPX	3	-	-	-	101	97
	CP00722WPX	4	-	-	-	89	92
	EXP008-23XF	6	-	-	-	93	93
	SV194090-03	6	75	88	76	78	72
<b>CHECK CHARACTERISTICS</b>							
	<b>P006A37X</b>	115 DTM	67	60	59	66	57
			bu/ac				
		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

† 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

Manitoba Maturity Zone	Company Maturity Group	Variety	Average DTM +/- Check <sup>†</sup>	Long-Term Yield % Check	Site-Years Tested	IDC		Resistance		2023 Yield % Check				
						Rating (1-5)	Group	SCN	PRR	Dauphin	Hamiota	Souris	Swan River	
Very Early-Season Zone	000.5	BY Rundle XT *	-5	88	16	2.1	ST	yes	1c, 3a	100	78	95	94	
	000.9	S0009-F2X	-4	91	16	1.9	ST	-	1c	93	88	94	95	
	0.007	S0007-S1X	-4	85	10	2.3	S	-	1c, 3a	92	87	91	85	
	000.3	Wolf R2X *	-1	90	10	1.9	ST	yes	3a	96	90	97	101	
	0.01	S001-D8X	-1	91	16	2.0	ST	-	1c	96	91	97	90	
	00.2	Major R2X	-1	92	10	2.0	ST	-	1c	92	94	97	112	
	0.01	B0012RX	-1	99	16	1.7	T	-	1k, 6	101	97	107	102	
	00.1	Polo R2X	-1	94	10	1.8	ST	-	-	102	97	96	96	
	000.7	Gecko R2X	-1	103	4	1.8	ST	-	1c	103	101	103	104	
	000.8	NSC EXP0008CX	-1	104	4	1.8	ST	-	1c	108	106	101	99	
	<b>0.03</b>	<b>S003-R5X</b>	<b>0</b>	<b>100</b>	<b>16</b>	<b>2.1</b>	<b>ST</b>	<b>-</b>	<b>1c</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	
	000.7	PV S0007X74	0	103	4	1.8	ST	-	1c, 3a	105	91	117	98	
	000.7	Briggs R2X	0	94	10	2.0	ST	yes	1c	88	96	99	104	
	00.3	PV S004XF13	0	95	4	2.3	S	yes	1c	93	96	96	97	
	000.5	DKB0005-03	1	93	10	1.8	ST	-	1c	108	106	112	92	
	00.2	P002A42E	1	95	4	1.7	T	-	1c	98	90	104	88	
	00.4	Bomber R2X	1	99	4	2.1	ST	-	1k	98	91	108	96	
	000.9	Young R2X	1	98	16	1.7	T	yes	1c	106	103	115	117	
	000.6	PV S0006X24	1	99	4	1.8	ST	yes	-	98	102	98	97	
	Early-Season Zone	00.2	NSC Arden RR2X	1	94	10	1.8	ST	-	1c	102	97	105	94
000.9		S0009-J5X	1	99	4	1.8	ST	-	1c, 3a	103	85	108	96	
00.1		PV 28s001R2X	2	95	10	1.8	ST	yes	1c	102	102	107	112	
000.9		PV S0009X84	2	106	4	1.8	ST	yes	-	105	94	103	121	
00.5		PV 25s005R2X	2	100	3	1.9	ST	-	1c	96	96	110	-	
000.9		TH830009X	2	95	10	2.1	ST	-	1c	97	91	111	112	
000.8		DKB0008-87	2	96	16	1.9	ST	yes	1c, 1k	100	94	100	117	
00.3		P003A97X	2	99	16	1.8	ST	yes	1k	104	98	110	111	
00.3		Sunna R2X	3	94	15	1.7	T	yes	1c	101	99	98	-	
00.5		Hart R2X	3	97	14	1.9	ST	-	1c	103	106	106	-	
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	-	
00.1		DKB001-07	3	105	4	1.7	T	yes	1k	101	93	104	124	
Experimental lines that are being tested/proposed for registration in Canada														
00.1		CP00123WPX	2	103	3	2	ST	yes	1c	100	95	113	-	
00.1		NSC EXP001CX	4	101	4	1.8	ST	-	1c	97	96	109	102	
00.4		NSC Holland RR2X	4	94	8	1.9	ST	-	1c	96	92	112	-	
00.4		B0041RX	4	101	14	1.7	T	-	1k	101	104	116	115	
00.5		P005A59E	4	99	10	1.8	ST	-	1c	103	106	103	108	
00.1		BY Hector XT	4	103	4	1.9	ST	-	1c	96	99	107	113	
00.3	SI 00323XT	4	111	4	1.9	ST	-	1c	109	114	110	113		
00.3	Akras R2	4	96	16	1.7	T	-	1c	99	106	106	114		
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	-		
Mid-Season Zone	00.3	Merino R2X	5	98	8	1.7	T	yes	1k	100	98	106	-	
	00.4	Bourke R2X	5	95	13	1.8	ST	-	1k	101	94	105	-	
	00.5	Badger R2X	5	108	3	1.7	T	-	1k	105	107	113	-	
	00.2	TH84002X	5	111	4	1.9	ST	yes	1c	103	102	117	127	
	00.2	DKB002-32	5	102	10	1.8	ST	yes	1k	100	99	121	118	
	00.7	NSC EXP007LX	6	109	3	1.7	T	-	1c, 3a	108	107	111	-	
	00.4	PV 16s004 R2X	6	98	13	1.8	ST	yes	1k	98	103	116	-	
	00.7	P007A68E	7	111	3	1.8	ST	-	1c	103	110	121	-	
	00.7	B0073EE	7	106	3	1.7	T	yes	1c	105	104	107	-	
	00.5	Mako R2X	8	101	8	1.9	ST	-	1c	99	109	112	-	
	00.5	TH82005 R2X	8	101	13	1.9	ST	-	1k	104	95	119	-	
	00.5	TH84005XF	9	106	3	1.7	T	yes	1c	106	95	117	-	
Experimental lines that are being tested/proposed for registration in Canada														
00.1	CP00121WPX	3	104	3	1.9	ST	-	-	102	96	113	-		
<b>CHECK CHARACTERISTICS</b>														
<b>S003-R5X</b>			117	67	16					76	61	65	58	
			DTM	bu/ac	site-years					bu/ac				
									CV %	4.2	4.8	6.0	10.1	
									LSD %	7	8	10	17	
									Sign. Diff.	yes	yes	yes	yes	
									Seeding Date	May 30	May 24	May 25	May 25	
									Harvest Date	Oct 10	Sep 27	Sep 29	Sep 19	

<sup>†</sup> Maturity ratings were averaged across the Dauphin, Hamiota and Melita sites over multiple site years.

\* (P) 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 ♦ YIELDS BY LOCATION ♦ EASTERN FIRST YEAR ENTRIES

Manitoba Maturity Zone	Variety	Average DTM +/- Check†	IDC		2023 Yield % Check	
			Rating 1-5	Group	Carman	St. Adolphe
Early-Season Zone	NSC EXP001CX	-2	1.8	ST	90	103
	<b>Experimental lines that are being tested/proposed for registration in Canada</b>					
	PR170314Z-06	-3	2.0	ST	84	98
	Oslo XF	0	1.8	ST	112	99
Mid-Season Zone	<b>P006A37X</b>	<b>0</b>	<b>1.7</b>	<b>T</b>	<b>100</b>	<b>100</b>
	TH84005XF	0	1.7	T	94	108
	NSC EXP003CX	2	1.7	T	113	108
	NSC EXP005CX	2	1.7	T	109	112
	<b>Experimental lines that are being tested/proposed for registration in Canada</b>					
	PR23X2350	0	1.8	ST	106	91
	PR171382Z-08	2	1.9	ST	96	95
	SX233006X	2	1.8	ST	89	98
Long-Season Zone	<b>Experimental lines that are being tested/proposed for registration in Canada</b>					
	EXP007-23XF	4	1.9	ST	106	115
	SX238008XF	7	1.8	ST	106	110
	SX238007XF	7	1.8	ST	111	111
	SX237009EN	8	1.7	T	99	109
<b>CHECK CHARACTERISTICS</b>						
	<b>P006A37X</b>	110 DTM			68 bu/ac	54
				CV %	6.9	7.4
				LSD %	12	13
				Sign. Diff.	yes	yes
				<b>Seeding Date</b>	May 24	May 24
				<b>Harvest Date</b>	Oct 10	Sep 27

† Maturity ratings were averaged from the Carman and St. Adolphe sites in 2023.



Photo: AYOS Technologies

## Phytophthora Root Rot Field Tolerance Ratings *Stay Tuned!*

### Phytophthora Root Rot (PRR) Resistance Comes In Two Forms

- 1 major gene (rps) resistance listed in the soybean tables above and
- 2 field tolerance or partial resistance controlled by several minor genes.

With major gene resistance, varieties containing specific genes are resistant to specific races of PRR throughout all stages of the plant's life cycle. In order to take advantage of these rps resistance genes, you need to know which PRR races are present in your field's soil. This can be done using a commercial soil test at select labs. MSPG collected soil from 24 soybean fields in 2023 for PRR race identification. Of those fields, rps gene 1a was overcome in 100% of fields, rps 6 in 92% of fields, rps 1c and 1k in 67% of fields and rps 3a in 29% of fields tested.

Regarding PRR field tolerance or partial resistance, it is the plant's ability to tolerate PRR infection and continue growing without severe symptoms developing. Soybean varieties differ in their field tolerance to PRR and these genes are only expressed once the first true leaves unfurl (VC).

To assess variety field tolerance to PRR, MSPG has sponsored testing at an independent laboratory. Companies have the option to submit soybean varieties to this testing when they submit varieties to the regional variety trials. Varieties are grown in a hydroponic system, allowed to establish and then flushed with a cocktail of PRR races to overcome any major gene resistance. Then, they are compared to susceptible and tolerant control varieties and rated for field tolerance. In 2023, 94 soybean varieties were tested.

Once results from field tolerance testing are available, they can be found at [manitobapulse.ca/variety-evaluation-guide](http://manitobapulse.ca/variety-evaluation-guide).

Percent of Varieties Tested in 2023	PRR Field Tolerance Rating
3%	Highly Resistant
7%	Resistant
30%	Moderately Resistant
35%	Susceptible
22%	Highly Susceptible
2%	Inconclusive

## CONVENTIONAL SOYBEANS ♦ VARIETY DESCRIPTIONS

Manitoba Maturity Zone	Company Maturity Group	Variety	Average DTM +/- Check <sup>†</sup>	Long-Term Yield % Check	Site-Years Tested	Hilum Colour	IDC		
							Rating (1-5)	Group	
Very Early-Season Zone	00.9	AAC Halli *	-8	89	19	Y	1.8	ST	
	00.2	Siberia	-6	92	19	IY	2.0	ST	
	Experimental lines that are being tested/proposed for registration in Canada								
	00.5	CRGS 21.3	-6	90	5	Y	1.7	T	
Early-Season Zone	00.3	Amistar	-4	94	9	Y	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	
	<b>00.3</b>	<b>Liska *</b>	<b>0</b>	<b>100</b>	<b>19</b>	<b>IY</b>	<b>2.3</b>	<b>S</b>	
	00.6	Kebek	0	94	19	Y	1.7	T	
	00.4	Abaca *	0	113	14	IY	1.8	ST	
	Experimental lines that are being tested/proposed for registration in Canada								
		00.5	OT23-01	-4	103	5	Y	1.7	T
		00.5	PR190209-11	-2	100	5	IY	2.4	S
		00.5	OT22-04	-2	103	5	Y	2.0	ST
		00.5	CRGS 18.1	-2	104	7	Y	2.0	ST
		00.5	OT23-02	-1	98	5	Y	1.7	T
		00.5	OT23-03	0	106	5	GR	1.7	T
Mid-Season Zone	00.8	Jador	1	103	6	Y	1.7	T	
	00.7	Mozart	2	102	8	Y	2.0	ST	
	00.7	Koa *	2	100	3	IY	1.7	T	
	00.7	Dufferin	2	99	7	IY	2	ST	
	00.6	Aurelina *	3	105	14	IY	1.9	ST	
	00.6	Maya *	4	89	8	Y	1.7	T	
	Experimental lines that are being tested/proposed for registration in Canada								
		00.8	OT20-06	2	105	5	Y	2.3	S
		00.7	Jago	5	103	16	Y	2.3	S
		00.9	Hana	6	97	5	Y	2.0	ST
Long-Season Zone	0.0	Stanley	6	101	11	IY	2.1	ST	
	Experimental lines that are being tested/proposed for registration in Canada								
		00.7	SVX23T00S48	5	111	5	IY	1.9	ST
		00.1	SVX24T00S64	6	105	5	IY	2.3	S
		00.9	PR171862Z-02	6	93	2	IY	2.3	S
		00.7	DL21-3007	6	103	11	Y	2.1	ST
		00.5	CRGS 16.1	7	99	7	BR	2.3	S
		00.7	SVX24T00S65	9	109	5	Y	2.3	S
<b>CHECK CHARACTERISTICS</b>									
	<b>Liska</b>	118 DTM	50 bu/ac	19 site-years					

<sup>†</sup> Maturity ratings were averaged across the Carman, Morris, Portage and St. Adolphe core sites over multiple years.

\* Indicates 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 ♦ YIELDS BY LOCATION ♦ EASTERN MANITOBA

Manitoba Maturity Zone	Variety	Average DTM +/- Check <sup>†</sup>	2023 Yield % Check				
			Early Sites <sup>‡</sup>			Core Sites	
			Arborg	Beausejour	Stonewall	Carman	St. Adolphe
Very Early-Season Zone	AAC Halli *	-8	99	102	94	72	89
	Siberia	-6	108	100	60	85	92
	Experimental lines that are being tested/proposed for registration in Canada						
	CRGS 21.3	-6	97	91	90	76	94
Early-Season Zone	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
	<b>Liska *</b>	<b>0</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
	Kebek	0	82	104	95	85	94
	Abaca *	0	116	125	115	109	108
	Experimental lines that are being tested/proposed for registration in Canada						
		OT23-01	-4	112	101	106	90

continued ►



CONVENTIONAL SOYBEANS ♦ YIELDS BY LOCATION continued

Manitoba Maturity Zone	Variety	Average DTM +/- Check <sup>†</sup>	2023 Yield % Check					
			Early Sites <sup>†</sup>			Core Sites		
			Arborg	Beausejour	Stonewall	Carman	St. Adolphe	
Early-Season Zone	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	
Mid-Season Zone	Jador	1	108	111	111	95	104	
	Mozart	2	111	105	103	106	102	
	Koa *	2	-	-	-	98	108	
	Dufferin	2	-	-	-	104	98	
	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	
Long-Season Zone	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							
	SVX23T00S48	5	116	120	114	108	98	
	SVX24T00S64	6	114	109	99	95	105	
	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	
<b>CHECK CHARACTERISTICS</b>								
<b>Liska</b>		118 DTM	60	56	45	57	54	
			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	

<sup>†</sup> Maturity ratings were averaged across the Carman, Morris and St. Adolphe core sites over multiple years. <sup>‡</sup> Dashes indicate that varieties were not tested at the early sites.

\* (P) Indicates 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 ♦ YIELDS BY LOCATION ♦ WESTERN MANITOBA

Manitoba Maturity Zone	Company Maturity Group	Variety	Average DTM +/- Check <sup>†</sup>	Long-Term Yield % Check	Site-Years Tested	Hilum Colour	IDC		2023 Yield % Check		
							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 Zone	00.9	AAC Halli *	-4	96	12	Y	1.8	ST	78	98	
	00.2	Siberia	-4	95	10	IY	2.0	ST	73	103	
	00.4	Abaca *	0	107	2	IY	1.8	ST	97	112	
Mid-Season Zone	<b>00.3</b>	<b>Liska *</b>	<b>0</b>	<b>100</b>	<b>8</b>	<b>IY</b>	<b>2.3</b>	<b>S</b>	<b>100</b>	<b>100</b>	
	00.5	Rosser	0	100	2	IY	1.9	ST	92	104	
	00.2	Pamela	1	91	4	IY	1.7	T	76	97	
	Experimental lines that are being tested/proposed for registration 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		
<b>CHECK CHARACTERISTICS</b>											
<b>Liska</b>		118 DTM	46	8					34	58	
			bu/ac	site-years					bu/ac		
		CV %							6.3	8.3	
		LSD %							9	14	
		Sign. Diff.							yes	yes	
		Seeding Date							May 15	May 25	
		Harvest Date							Sep 3	Sep 19	

<sup>†</sup> Maturity ratings were averaged across the Melita and Swan River sites over multiple years.

\* (P) Indicates a variety that is protected by, or has been applied for and pending, Plant Breeder's Rights legislation that complies with UPOV 1991.

## 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 (DTM) 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 (R9).

## DRY BEANS ♦ VARIETY DESCRIPTIONS

Market Class/Variety	Average DTM +/- Check <sup>1</sup>	Long-Term Yield % Check	Site-Years Tested	TSW (g/1000 seeds)	Lodging (1–5)	Plant Height (cm)	Pod Height (% > 5 cm)	CBB Severity (0–5)	CBB Incidence (%)	WM Incidence (%)
<b>NAVY</b>	+/- T9905	% T9905								
Valiant	-6	99	7	183	1	64	95	2	11	0
Indi	-4	98	35	169	1	63	98	2	15	0
OAC Seal	-4	92	2	197	1	68	97	2	10	0
Armada	-3	101	11	197	2	64	95	2	17	0
Blizzard	-3	98	6	191	2	64	92	2	14	0
AAC Shock	-2	94	15	199	2	58	95	2	15	0
OAC Charm	-1	85	2	189	2	72	97	1	8	0
SV1893GH*	0	96	19	199	2	64	93	1	11	0
<b>T9905</b>	<b>0</b>	<b>100</b>	<b>43</b>	<b>178</b>	<b>2</b>	<b>62</b>	<b>95</b>	<b>2</b>	<b>13</b>	<b>0</b>
AAC Argosy	1	101	19	191	2	64	90	2	13	0
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>										
HMS Victory	-2	102	13	197	2	57	95	2	15	0
<b>CHECK CHARACTERISTICS</b>										
<b>T9905</b>	99 DTM	2426 lbs/ac	43 site-years							
<b>BLACK</b>	+/- Eclipse	% Eclipse								
CDC Blackstrap*	-6	95	24	207	1	51	94	2	15	0
CDC Superjet	-2	89	36	202	2	51	93	2	18	0
CDC Jet	-1	89	48	202	2	53	95	2	16	0
<b>Eclipse**</b>	<b>0</b>	<b>100</b>	<b>52</b>	<b>192</b>	<b>2</b>	<b>58</b>	<b>98</b>	<b>2</b>	<b>17</b>	<b>0</b>
Black Tails	1	102	13	201	2	58	94	3	19	0
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>										
Ace	-1	101	9	179	2	57	98	3	14	0
B3033350	-1	106	6	192	2	59	95	2	13	0
B3036381	1	104	6	195	2	60	95	2	15	0
<b>CHECK CHARACTERISTICS</b>										
<b>Eclipse</b>	95 DTM	2462 lbs/ac	52 site-years							
<b>PINTO</b>	+/- Vibrant	% Vibrant								
Cowboy*	-1	97	13	328	2	59	92	2	14	0
Windbreaker	0	92	24	362	3	47	79	2	12	0
SV6139GR*	0	98	23	321	2	52	91	2	11	0
<b>Vibrant</b>	<b>0</b>	<b>100</b>	<b>24</b>	<b>335</b>	<b>2</b>	<b>62</b>	<b>89</b>	<b>2</b>	<b>17</b>	<b>0</b>
Gleam	1	94	7	310	2	56	89	2	13	0
Mystic	4	102	7	372	2	60	91	2	9	0

continued ►

Market Class/Variety	Average DTM +/- Check <sup>†</sup>	Long-Term Yield % Check	Site-Years Tested	TSW (g/1000 seeds)	Lodging (1-5)	Plant Height (cm)	Pod Height (% > 5 cm)	CBB Severity (0-5)	CBB Incidence (%)	WM Incidence (%)
<b>PINTO continued</b>										
ND Palomino*	7	94	13	342	3	60	87	2	15	0
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>										
Rustler	-2	85	6	331	2	53	85	2	14	0
Bronco	0	82	6	339	3	59	85	2	17	0
USDA Rattler	4	100	6	371	2	63	92	2	10	0
Charro	6	103	6	335	3	67	90	2	15	0
USDA Diamondback	6	85	6	339	2	56	92	2	13	0
<b>MAYOCOBA (YELLOW)</b> +/- Vibrant % Vibrant										
CDC Sunburst	0	65	7	376	2	49	94	2	14	0
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>										
Claim Jumper	8	80	7	349	3	46	91	2	14	0
<b>CHECK CHARACTERISTICS</b>										
<b>Vibrant</b>	94 DTM	2803 lbs/ac	24 site-years							
<b>GREAT NORTHERN</b> +/- Pink Panther % Pink Panther										
Andromeda	-4	130	7	363	4	42	74	3	19	0
Aries	0	136	17	344	4	54	81	3	24	0
Virgo	3	144	9	442	3	63	92	2	15	0
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>										
Lyra	-3	129	3	410	3	50	80	3	20	0
Eiger	1	165	5	446	2	61	92	3	15	0
<b>DARK RED KIDNEY</b> +/- Pink Panther % Pink Panther										
Cabernet	1	73	17	499	2	57	89	3	30	0
Rampart	4	110	5	428	2	61	92	3	18	0
Dynasty	5	108	12	499	2	63	93	2	15	0
Gallantry	8	125	6	497	2	59	95	2	17	0
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>										
161156	-3	86	5	453	2	58	93	3	25	0
Red Rover	4	63	9	483	2	55	87	3	30	0
181021	6	91	5	466	3	57	89	2	11	0
<b>LIGHT RED KIDNEY</b> +/- Pink Panther % Pink Panther										
Red Dawn	-6	97	13	515	2	52	90	3	19	0
Big Red	-3	99	29	521	2	54	91	2	22	0
Clouseau	-2	97	17	610	2	52	88	3	27	0
<b>Pink Panther</b>	<b>0</b>	<b>100</b>	<b>60</b>	<b>478</b>	<b>2</b>	<b>54</b>	<b>92</b>	<b>3</b>	<b>20</b>	<b>0</b>
<b>WHITE KIDNEY</b> +/- Pink Panther % Pink Panther										
OAC Snowshoe	-1	127	2	424	2	64	93	2	15	0
Yeti	9	101	4	459	2	55	92	2	17	0
<b>CHECK CHARACTERISTICS</b>										
<b>Pink Panther</b>	97 DTM	1959 lbs/ac	62 site-years							
<b>CRANBERRY</b> +/- Etna % Etna										
OAC Navabi	-2	109	5	515	2	52	90	3	25	0
Krimson	0	100	27	493	4	46	81	2	19	0
<b>Etna</b>	<b>1</b>	<b>95</b>	<b>25</b>	<b>505</b>	<b>2</b>	<b>48</b>	<b>88</b>	<b>4</b>	<b>30</b>	<b>0</b>
OAC Candycane	5	129	4	460	1	50	92	2	11	0
OAC Firestripe	5	128	5	511	2	56	90	2	23	0
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>										
Amaranto	-3	107	6	514	2	48	88	4	30	0
<b>CHECK CHARACTERISTICS</b>										
<b>Etna</b>	96 DTM	1824 lbs/ac	27 site-years							

This long-term data is based on results from wide-row trials. \* Indicates a variety that is protected by, or has been applied for and pending, Plant Breeder's Rights legislation that complies with UPOV 1991

\*\* Indicates a variety that is protected by Plant Breeder's Rights legislation that complies with UPOV 1978.

## DRY BEANS ♦ YIELDS BY LOCATION ♦ WIDE ROW

Market Class/ Variety	Average DTM +/- Check	2023 Yield % Check	
		Carman	Winkler
<b>NAVY</b>	+/- T9905	% T9905	
Valiant	-6	90	91
Indi	-4	86	90
AAC Shock	-2	85	90
Armada	-3	98	97
Blizzard	-3	91	97
OAC Charm	-1	84	86
OAC Seal	-4	88	97
<b>T9905</b>	<b>0</b>	<b>100</b>	<b>100</b>
AAC Argosy	1	90	96
SV1893GH*	0	95	94
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>			
HMS Victory	-2	95	104
<b>CHECK CHARACTERISTICS</b>			
<b>T9905</b>	102	2468	2419
	DTM	lbs/ac	
	CV %	13	9
	LSD %	20	12
	Sign. Diff.	yes	yes
	<b>Seeding Date</b>	May 25	May 25
	<b>Harvest Date</b>	Sep 13	Sep 7
<b>BLACK</b>	+/- Eclipse	% Eclipse	
CDC Blackstrap*	-6	103	110
<b>Eclipse**</b>	<b>0</b>	<b>100</b>	<b>100</b>
Black Tails	1	101	90
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>			
Ace	-1	123	99
B3033350	-1	110	89
B3036381	1	123	93
<b>CHECK CHARACTERISTICS</b>			
<b>Eclipse</b>	98	1939	2284
	DTM	lbs/ac	
	CV %	13.3	9
	LSD %	25	12
	Sign. Diff.	yes	yes
	<b>Seeding Date</b>	May 25	May 25
	<b>Harvest Date</b>	Sep 13	Sep 7
<b>PINTO</b>	+/- of Vibrant	% of Vibrant	
Cowboy*	-1	102	104
Windbreaker	0	81	77
SV6139GR*	0	109	108
<b>Vibrant</b>	<b>0</b>	<b>100</b>	<b>100</b>
Gleam	1	89	96
Mystic	4	94	103
ND Palomino*	7	98	91
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>			
Rustler	-2	84	87
Bronco	0	87	76
USDA Rattler	4	90	98
Charro	6	103	99
USDA Diamondback	6	83	88
<b>MAYOCOBA (YELLOW)</b>	+/- Vibrant	% Vibrant	
CDC Sunburst	0	96	76
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>			
Claim Jumper	8	89	72
<b>CHECK CHARACTERISTICS</b>			
<b>Vibrant</b>	96	1756	2131
	DTM	lbs/ac	
	CV %	9.2	9.3
	LSD %	14	14
	Sign. Diff.	yes	yes
	<b>Seeding Date</b>	May 25	May 25
	<b>Harvest Date</b>	Sep 13	Sep 7
<b>GREAT NORTHERN</b>	+/- Pink Panther	% Pink Panther	
Virgo	3	124	158
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>			
Eiger	1	147	170

continued ▶

DRY BEANS ♦ YIELDS BY LOCATION ♦ WIDE ROW continued

Market Class/ Variety	Average DTM +/- Check	2023 Yield % Check	
		Carman	Winkler
<b>DARK RED KIDNEY</b>	+/- Pink Panther		% Pink Panther
Rampart	4	88	120
Dynasty	5	94	128
Gallantry	8	101	128
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>			
161156	-3	97	129
181021	6	89	127
<b>LIGHT RED KIDNEY</b>	+/- Pink Panther		% Pink Panther
Red Dawn	-6	91	109
Big Red	-3	121	125
<b>Pink Panther</b>	<b>0</b>	<b>100</b>	<b>100</b>
<b>WHITE KIDNEY</b>	+/- Pink Panther		% Pink Panther
OAC Snowshoe	-1	130	124
<b>CHECK CHARACTERISTICS</b>			
<b>Pink Panther</b>	99 DTM	1704	1617
		lbs/ac	
		CV %	8.6
		LSD %	18
		Sign. Diff.	Yes
	<b>Seeding Date</b>	May 25	May 25
	<b>Harvest Date</b>	Sep 13	Sep 7
<b>CRANBERRY</b>	+/- Krimson		% Krimson
OAC Navabi	-2	116	103
<b>Krimson</b>	<b>0</b>	<b>100</b>	<b>100</b>
OAC Firestripe	5	143	98
<b>CHECK CHARACTERISTICS</b>			
<b>Krimson</b>	100 DTM	1288	1772
		lbs/ac	
		CV %	8.6
		LSD %	17
		Sign. Diff.	yes
	<b>Seeding Date</b>	May 25	May 25
	<b>Harvest Date</b>	Sep 13	Sep 7

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DRY BEANS ♦ YIELDS BY LOCATION ♦ NARROW ROW

Market Class/ Variety	Average DTM +/- Check	Long-Term Yield % Check	Site-Years Tested	2023 Yield % Check	
				Melita	Souris
<b>NAVY</b>	+/- CDC Blackstrap	% CDC Blackstrap		% CDC Blackstrap	
Indi	7	88	15	78	93
AAC Shock	8	86	18	81	88
SV1893GH*	8	89	10	70	84
OAC Charm	10	89	2	75	99
OAC Seal	8	88	2	78	94
AAC Argosy	10	89	13	76	97
T9905	10	87	20	85	93
<b>BLACK</b>	+/- CDC Blackstrap	% CDC Blackstrap		% CDC Blackstrap	
<b>CDC Blackstrap*</b>	<b>0</b>	<b>100</b>	<b>31</b>	<b>100</b>	<b>100</b>
Eclipse**	4	100	19	90	103
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>					
Ace	4	97	2	86	105
B3033350	6	97	5	82	90
B3036381	9	95	5	82	100
<b>CHECK CHARACTERISTICS</b>					
<b>CDC Blackstrap</b>	93 DTM	2690 lbs/ac	31 site-years	1976	2745
				lbs/ac	
				CV %	6.8
				LSD %	11
				Sign. Diff.	yes
			<b>Seeding Date</b>	May 16	May 23
			<b>Harvest Date</b>	Aug 30	Sep 13
<b>PINTO</b>	+/- Windbreaker	% Windbreaker		% Windbreaker	
SV6139GR*	-1	107	16	115	133
<b>Windbreaker</b>	<b>0</b>	<b>100</b>	<b>23</b>	<b>100</b>	<b>100</b>

continued >

Market Class/ Variety	Average DTM +/- Check	Long-Term Yield % Check	Site-Years Tested	2023 Yield % Check	
				Melita	Portage
<b>PINTO continued</b>					
Vibrant	1	113	5	110	180
ND Palomino*	5	95	11	97	103
<b>Varieties that are registered in the US or being tested or proposed for registration in Canada</b>					
Bronco	2	92	5	89	115
USDA Rattler	4	111	5	122	118
Charro	5	107	5	95	109
USDA Diamondback	5	100	5	94	110
<b>MAYOCOBA</b>					
CDC Sunburst	-4	95	2	96	94
<b>CHECK CHARACTERISTICS</b>					
<b>Windbreaker</b>	98	2430	23	1658	2317
	DTM	lbs/ac	site-years	lbs/ac	
			CV %	5.9	6.8
			LSD %	10	13
			Sign. Diff.	yes	yes
			<b>Seeding Date</b>	May 16	May 23
			<b>Harvest Date</b>	Aug 30	Sep 13

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### Key for Faba Bean Variety Table

**Tannin vs. Zero-Tannin Varieties** – Tannin varieties with coloured flowers and tan-coloured seed coats are desired for human consumption. Zero-tannin varieties with white flowers and seed coats may be used for both human and animal consumption.

**DTM** – The number of days from planting to swathing. Days to maturity (DTM) may vary depending on the planting date.

## FABA BEANS ♦ VARIETY DESCRIPTIONS AND YIELDS BY LOCATION

Market Class/ Variety	Average DTM*	Long-Term Yield % Check	Site-Years Tested	TSW (g/1000 seeds)	2023 Yield % Check		
					Dauphin	Morden	Swan River
<b>COLOURED FLOWER (TANNIN)</b>							
Dosis*	103	89	3	480	70	97	97
Allison*	110	99	6	465	101	106	66
Casanova	111	95	3	503	102	101	80
<b>Fabelle*</b>	<b>111</b>	<b>100</b>	<b>8</b>	<b>492</b>	<b>100</b>	<b>100</b>	<b>100</b>
Victus*	111	93	8	401	115	103	75
Futura	112	99	3	489	115	106	73
<b>CHECK CHARACTERISTICS</b>							
<b>Fabelle*</b>	111	5073	8		6503	3503	4780
	DTM	lbs/ac	site-years		lbs/ac		
				CV %	3.0	9.9	14.0
				LSD %	5	15	-
				Sign. Diff.	yes	yes	no
<b>WHITE FLOWER (ZERO TANNIN)</b>							
<b>DL Nevado*</b>	<b>107</b>	<b>100</b>	<b>7</b>	<b>421</b>	<b>100</b>	<b>100</b>	<b>100</b>
CDC 1089*	110	100	3	386	98	112	94
CDC 1142*	114	87	3	358	92	88	76
<b>Experimental lines that are being tested/proposed for registration in Canada</b>							
DL20.8703	106	103	3	403	100	112	101
DL19.7202	107	95	3	388	95	93	97
<b>CHECK CHARACTERISTICS</b>							
<b>DL Nevado*</b>	107	4233	7		6160	2810	3667
	DTM	lbs/ac	site-years		lbs/ac		
				CV %	3	9.9	14
				LSD %	8	19	-
				Sign. Diff.	yes	yes	no
				<b>Seeding Date</b>	May 19	May 23	May 24
				<b>Harvest Date</b>	Sep 19	Oct 20	Sep 19

† Maturity ratings are based on days until swathing, but will vary depending on seeding date.

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legislation that complies with UPOV 1991

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## Key for Field Pea Variety Tables

**Maturity Ratings** – early = -3 days relative to the check  
mid = -2 to -1 days late = 0 to +3 days

**Relative Vine Length** – S = short M = medium L = long  
VL = very 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*.

**Mycosphaerella Blight** – All pea varieties listed have “fair”  
resistance to Mycosphaerella (Ascochyta) blight.

**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 <sup>†</sup>	Long-Term Yield % Check	Site-Years Tested	Relative Vine Length	TSW (g/1000 seeds)	Resistance							
						Green Seed Coats	Seed Coat Breakage	Seed Coat Dimpling	Seed Coat Bleaching	Lodging	Powdery Mildew	Mycosphaerella Blight	Fusarium Wilt
<b>YELLOW</b>													
AAC Aberdeen*	Long	101	22	M	250	G	F	F	<i>n/a</i>	VG	VG	F	F
AAC Beyond*	Mid	96	22	M	210	–	F	–	<i>n/a</i>	G	VG	F	G
<b>AAC Carver*</b>	<b>Early</b>	<b>100</b>	<b>52</b>	<b>L</b>	<b>240</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>n/a</b>	<b>G</b>	<b>VG</b>	<b>F</b>	<b>F</b>
AAC Chrome*	Long	105	10	M	240	G	G	G	<i>n/a</i>	G	VG	F	F
AAC Delhi*	Mid	100	28	M	290	G	F	F	<i>n/a</i>	G	VG	F	F
AAC Julius*	Mid	97	23	M	210	–	G	–	<i>n/a</i>	G	VG	F	G
AAC Lacombe**	Long	98	42	L	270	F	F	G	<i>n/a</i>	G	VG	F	F
AAC McMurphy*	Long	100	8	L	270	G	G	G	<i>n/a</i>	VG	VG	F	G
AAC Planet*	Long	101	14	L	231	G	F	G	<i>n/a</i>	G	VG	F	G
AAC Profit**	Mid	99	27	M	230	G	F	G	<i>n/a</i>	G	VG	F	F
Boost*	Early	97	14	M	230	G	VG	G	<i>n/a</i>	G	VG	F	G
Caphorn*	Long	93	14	M	260	G	G	G	<i>n/a</i>	G	VG	F	G
CDC Amarillo	Long	98	50	M	230	G	F	F	<i>n/a</i>	VG	VG	F	G
CDC Athabasca*	Long	94	34	L	300	G	F	F	<i>n/a</i>	VG	VG	F	G
CDC Citrine*	Mid	101	8	L	230	G	G	G	<i>n/a</i>	G	VG	F	G
CDC Hickie*	Mid	100	14	M	230	G	G	G	<i>n/a</i>	VG	VG	F	G
CDC Inca*	Mid	102	48	L	230	F	G	G	<i>n/a</i>	G	VG	F	F
CDC Lewochko*	Long	100	42	L	230	G	G	G	<i>n/a</i>	VG	VG	F	F
CDC Spectrum*	Long	93	42	L	240	G	G	G	<i>n/a</i>	VG	VG	F	F
CDC Tollefson*	Long	102	14	L	240	G	G	G	<i>n/a</i>	VG	VG	F	G
ProStar*	Early	97	14	M	240	G	VG	G	<i>n/a</i>	G	VG	F	G
<b>Experimental lines that are being tested/proposed for registration in Canada</b>													
CDC 5845-2	Long	101	8	L	236	–	G	–	<i>n/a</i>	VG	VG	F	G
CDC 5791-9	Long	99	8	L	246	G	VG	G	<i>n/a</i>	G	VG	F	G
<b>GREEN</b>													
CDC Forest*	Long	99	34	L	230	<i>n/a</i>	G	G	G	G	VG	F	F
CDC Limerick	Long	94	43	M	210	<i>n/a</i>	VG	G	G	VG	VG	F	F
CDC Rider*	Long	93	23	M	220	<i>n/a</i>	G	G	G	VG	VG	F	G
CDC Huskie*	Long	101	8	M	220	<i>n/a</i>	G	G	G	G	VG	F	G
CDC Spruce*	Long	96	19	L	240	<i>n/a</i>	F	F	G	G	VG	F	F
<b>MAPLE</b>													
AAC Lorlie	Long	84	14	M	226	<i>n/a</i>	G	<i>n/a</i>	<i>n/a</i>	G	VG	F	<i>n/a</i>
<b>FORAGE</b>													
CDC Jasper*	Mid	82	22	L	180	G	G	G	<i>n/a</i>	F	VG	F	<i>n/a</i>
DL Delicious*	Long	75	21	VL	220	<i>n/a</i>	VG	F	<i>n/a</i>	P	<i>n/a</i>	F	<i>n/a</i>
DL Lacross	Mid	88	28	VL	190	F	VG	G	<i>n/a</i>	F	<i>n/a</i>	F	<i>n/a</i>
<b>CHECK CHARACTERISTICS</b>													
<b>AAC Carver*</b>	84	77	52										
	DTM	bu/ac	site-years										
	LSD% 5												


<sup>†</sup> Maturity ratings were averaged across Hamiota, Melita, Morden and Swan River.  
that complies with UPOV 1991.

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\*\* Indicates a variety that is protected by Plant Breeder's Rights legislation that complies with UPOV 1978.

## FIELD PEAS ♦ YIELDS BY LOCATION

Market Class/Variety	2023 Yield % Check							
	Arborg	Carberry	Hamiota	Melita	Morden	Souris	Stonewall	Swan River
<b>YELLOW</b>								
AAC Beyond*	103	104	100	100	88	95	110	96
<b>AAC Carver*</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
AAC Julius*	107	84	94	99	86	80	110	96
AAC McMurphy*	108	95	101	93	88	99	118	113
AAC Planet*	119	86	104	106	92	104	113	107
Boost*	93	114	94	107	83	92	101	105
Caphorn*	90	90	91	105	83	104	100	100
CDC Citrine*	116	104	101	101	86	102	105	111
CDC Hickie*	107	96	109	100	87	101	112	108
CDC Lewochko*	123	90	100	108	84	100	116	97
CDC Spectrum*	100	89	92	103	74	104	111	102
CDC Tollefson*	114	96	104	112	97	106	122	106
ProStar*	96	79	100	108	97	93	99	100
<b>Experimental lines that are being tested/proposed for registration in Canada</b>								
CDC 5845-2	118	91	109	108	93	106	117	101
CDC 5791	116	90	99	110	82	111	114	102
<b>GREEN</b>								
CDC Rider*	99	96	95	99	84	92	120	96
CDC Huskie*	119	89	98	108	93	105	125	104
<b>MAPLE</b>								
AAC Lorlie	93	74	72	98	65	79	118	94
<b>CHECK CHARACTERISTICS</b>								
<b>AAC Carver*</b>	81	77	101	60	93	98	59	57
	bu/ac							
CV %	6.3	6.0	4.0	5.1	8.6	5.1	4.6	4.7
LSD %	11	9	7	9	12	8	9	8
Sign. Diff.	yes	yes	yes	yes	yes	yes	yes	yes
<b>Seeding Date</b>	May 15	May 9	May 10	May 3	May 23	May 16	May 22	May 10
<b>Harvest Date</b>	Aug 28	Aug 31	Aug 17	Aug 3	Sep 10	Aug 30	Aug 30	Aug 15

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Varieties of sweet white lupins (*Lupinus albus*) and narrow-leaved blue lupins (*Lupinus angustifolius*) were tested for the first time in Manitoba in 2023. White lupins are longer-season with indeterminate growth habits, while blue lupins exhibit determinant growth and require fewer days to maturity. Lupins are not drought tolerant. Under higher moisture conditions than occurred at Melita in 2023, lupins may be expected to yield similarly to field peas.

## LUPINS ♦ VARIETY DESCRIPTIONS AND YIELDS BY LOCATION

Market Class/ Variety	Average DTM <sup>†</sup>	Long-Term Yield % Check	Site-Years Tested	TKW (g/1000 seeds)	Average Height (cm)	Average Lodging Score (1–9) <sup>††</sup>	2023 Yield (bu/ac)
							Melita
<b>BLUE</b>							
Boregine	71	–	1	159	40	2	32
Probor	71	–	1	137	37	2	26
Lunabor	69	–	1	149	41	1	36
<b>SWEET WHITE</b>							
Dieta	94	–	1	266	73	1	38
Volos	93	–	1	279	68	1	36
Bonus	93	–	1	270	72	1	42
Snowbird	94	–	1	268	72	1	39
Periwinkle	95	–	1	272	69	1	42
<b>FIELD PEAS</b>							
AAC Carver	75	–	1	216	66	1	71
AAC Chrome	76	–	1	232	66	1	68
CDC Lewochko	76	–	1	203	76	1	61
						CV %	6.9
						LSD bu/ac	5
						Sign. Diff.	yes
						<b>Seeding Date</b>	May 16
						<b>Blue, Pea Harvest Date</b>	Aug 17
						<b>White Harvest Date</b>	Sep 8

<sup>†</sup> Days to maturity are averaged from Melita in 2023.

<sup>††</sup> Lodging Score 1 = upright, 9 = flat