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## NOTES FOR ALL SOYBEAN TABLES

**Manitoba Variety Zone** – Soybean varieties have been organized into four maturity zones – very early, early, mid and long-season. These zones reflect the Manitoba Soybean Maturity Map, which displays soybean maturity zones based on long term heat unit and frost-free period data. Varieties fall into certain zones based on their average relative days to maturity. The zone indicates the longest variety zone that varieties should be selected from for each region.

**Company Maturity Grouping** – Maturity grouping is the ranking of maturity provided by seed suppliers.

**Relative days to maturity (dtm)** – This value is the number of days from seeding to plant maturity (R-8 or 95% of pods on the main stem have turned color) and is expressed as + or – days relative to the check variety. Actual days to maturity for the check variety is found in the grey box at the bottom of the table. Relative days to maturity is shown as an average of three previous years as well as by individual year. Maturity can vary by year which is why it is important to use long term data when making variety selection decisions.

**Yield % Check** – This value indicates the average yield across all site-years that the variety has been tested relative to the check.

**Site Years Tested** – this value indicates the total number of individual site-years that a variety has been tested at. For example, if a variety was tested at 5 sites in 2 years, the total site-years would be 10. The higher the number, the more environments the variety has been tested in. Typically, a variety is tested at 2–5 sites per year.

**Hilum Colour** – Hilum colour be Clear (CL), Yellow (Y), Imperfect Yellow (IY), Grey (G), Brown (BR), Buff (BF), Tan (TN) Imperfect Black (IB) or Black (BL). The hilum is the point of attachment on the soybean seed where it attaches to the pod. Hilum colour is a marketing factor.

**Relative seeds/lb** – This is the seed number/weight of the varieties as provided by the seed suppliers. Soybean seed size can vary greatly between varieties as well as between seed lots of the same variety. Seed number/weight for individual seed lots should be used when calculating seeding rates.

**Lodging** is rated at harvest; 1 = standing upright, 5 = flat on the ground.

**Iron Deficiency Chlorosis (IDC)** ratings are given to each variety based on the following scale: 1 = green leaves, 2 = yellowish leaves, 3 = green veins with yellow leaves, 4 = brown dead tissue between green veins, 5 = severe chlorosis and a stunted growing point. Ratings provided are the three-year average from a site near Winnipeg that is prone to iron chlorosis. Lower IDC ratings generally perform better on soils prone to iron chlorosis. Groupings are also provided based on the following scale: T = Tolerant, ST = Semi-Tolerant and S = Susceptible.

**Coefficient of Variation (CV)** is the statistical measure of random variation in a trial. CV less than 15% generally indicates a more uniform trial and conclusive data.

**Least Significant Difference (LSD)** is the numerical value that two varieties must differ before it can be said with a 95% chance of certainty that a true yield difference exists.





# Manitoba Soybean Maturity Zones

(A guideline for choosing varieties)

## Map Elements

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

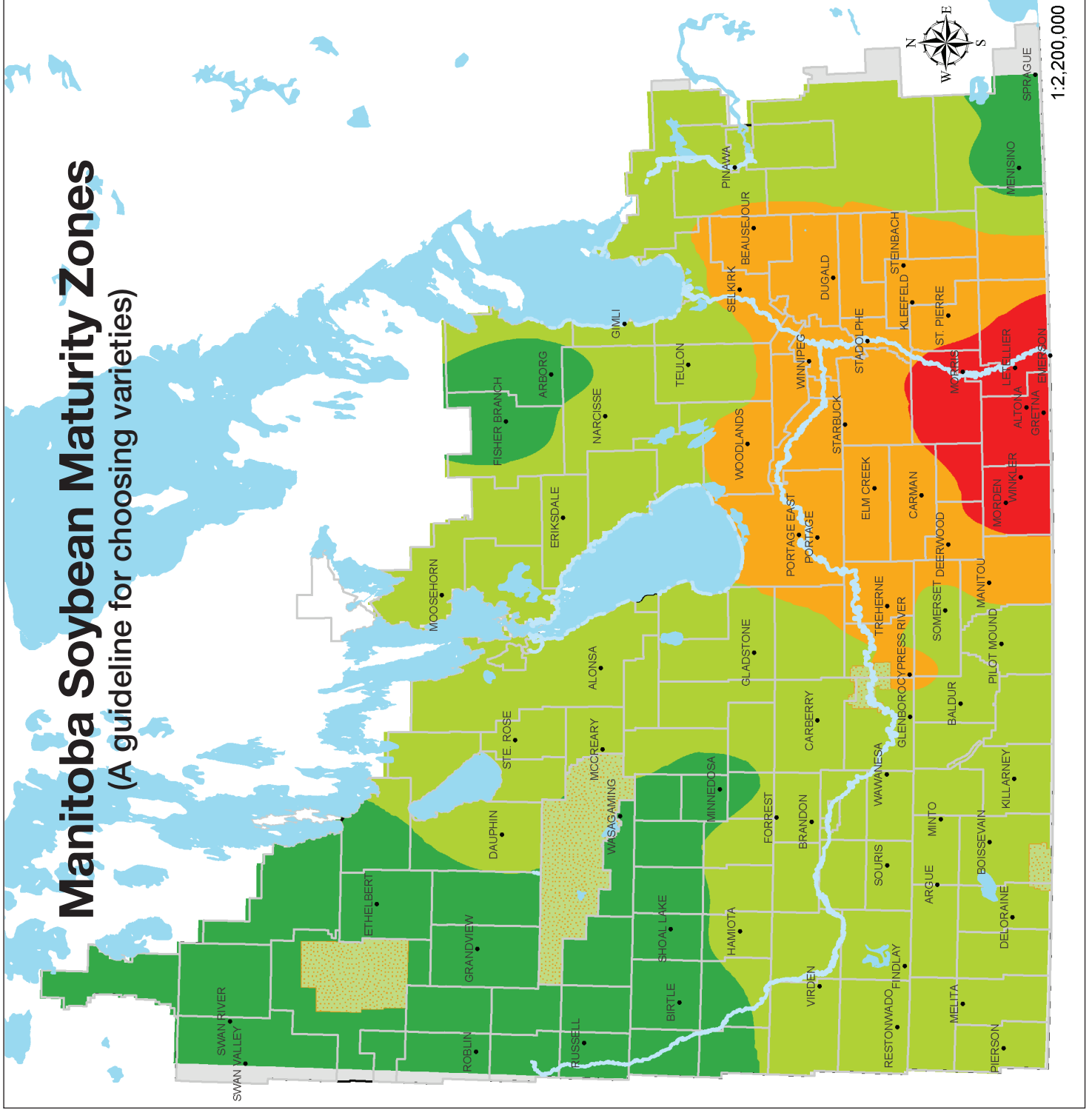
## Maturity Zones

-  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  $T_{min} > 0^{\circ}C$ ).

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



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# EASTERN MANITOBA ROUNDUP READY SOYBEAN TRIALS — YIELD BY LOCATION

Manitoba Variety Zone	Company Maturity Grouping	Variety	2016 Yield: % of 24-10RY							
			Early Sites			Core Sites		Late Sites		
			Arborg	Beausejour	Stonewall	Morris	St. Adolphe	Morden	Rosebank	
Very Early Season Zone	000.6	NSC LEROY RR2Y	95	82	92	68	77	-	-	
	00.2	P002T04R	95	81	95	93	88	-	-	
	000.9	22-60RY	96	89	102	84	83	-	-	
	000.9	S0009-M2	91	91	90	83	86	-	-	
	000.8	NSC Watson RR2Y	81	78	93	88	87	-	-	
	00.1	NSC Reston RR2Y	101	74	93	86	89	-	-	
	00.2	LS Northwester	99	71	89	83	89	-	-	
	00.2	Bishop R2	98	96	89	85	85	-	-	
	000.9	23-11RY	106	97	103	97	96	-	-	
	00.1	Notus R2	102	91	104	85	91	-	-	
Early Season Zone	00.3	Mahony R2	100	102	105	100	91	-	-	
	00.1	S001-B1	98	96	103	94	99	-	-	
	00.3	McLeod R2	95	92	96	98	87	-	-	
	00.5	S007-Y4	112	106	114	92	94	-	-	
	000	Torro R2 PR1418113R2	96	99	97	84	88	-	-	
	00.2	23-60RY	98	109	109	98	95	-	-	
	00.3	S003-L3	96	101	103	96	96	-	-	
	00.6	P006T78R	101	88	105	95	107	-	-	
	00.3	PS 0035 NR2	95	114	106	99	104	-	-	
	00.3	NSC Austin RR2Y	111	100	99	88	96	-	-	
	00.4	TH 32004R2Y	105	117	106	106	87	-	-	
	<b>Experimental lines that are being tested / proposed for registration in Canada</b>									
	000	CF516.3.01R2	88	105	94	93	81	-	-	
	000.9	EXP 000917R2	98	-	94	59	90	-	-	
	Mid Season Zone	00.4	PS 0055 R2	110	90	98	97	99	-	-
00.3		Akras R2	113	118	111	91	105	-	-	
00.3		NSC Gladstone RR2Y	100	114	101	109	99	-	-	
00.2		TH 35002R2Y	95	114	97	100	88	-	-	
00.2		LS 002R24N	104	117	108	106	101	-	-	
00.6		P006T46R	108	107	110	94	96	-	-	
00.6		Chadburn R2	108	107	110	106	94	-	-	
00.6		S006-W5	-	-	-	108	117	110	112	
00.3		LS 003R24N	-	-	-	108	101	102	106	
00.5		Lono R2	108	114	112	89	102	-	-	
00.5		P005T13R	92	84	99	86	95	-	-	
00.5		TH 33005R2Y	-	-	-	98	98	102	104	
00.5		24-10RY	100	100	100	100	100	100	100	
00.8		P008T70R	104	80	102	88	87	-	-	
00.6		TH 34006R2Y	-	-	-	116	99	107	104	
00.7		HS 007RY32	-	-	-	110	99	106	105	
00.5		Gray R2	98	110	110	113	108	-	-	
00.3		LS Maidan	-	-	-	106	94	102	99	
00.4		NSC Tilston RR2Y	108	108	99	93	97	-	-	
00.6		HS 006RYS24	103	105	99	106	101	-	-	
00.4		Hero R2	121	104	110	100	108	-	-	
00.8		P008T22R2	112	110	112	109	100	-	-	
000		Kosmo R2	98	88	94	75	88	-	-	
00.3		TH 33003R2Y	111	107	108	105	98	95	96	
00.6		PRO 2525R2	-	-	-	106	98	99	103	
00.7	NSC Richer RR2Y	-	-	-	111	93	106	110		
00.5	24-12RY	98	99	104	117	96	-	-		
<b>Experimental lines that are being tested / proposed for registration in Canada</b>										
00.4	CW1410185	112	116	104	94	95	-	-		
00.2	LS SOLAIRE	101	87	100	88	91	-	-		
Long Season Zone	00.5	TAMULA R2	112	101	103	90	104	-	-	
	00.5	LS 005R22	-	-	-	109	93	94	105	
	00.8	Currie R2	-	-	-	107	100	104	100	
	00.6	DS0067Z1	107	121	115	119	104	-	-	
	00.5	LS Eclipse	-	-	-	121	91	93	107	
	00.7	PS 0074 R2	-	-	-	107	103	103	112	
	00.8	Podaga R2	-	-	-	97	104	92	102	
	0.1	HYDRA R2	-	-	-	109	101	101	99	
	00.8	Astro R2	-	-	-	124	102	113	115	
	00.7	TH 36007R2Y	-	-	-	103	104	87	109	
	00.9	PRO 2535R2	-	-	-	110	99	100	107	
	<b>Experimental lines that are being tested / proposed for registration in Canada</b>									
	00.4	EXP TH 37004R2Y	100	106	99	105	103	-	-	
	00.4	LS MISTRAL	-	-	-	109	110	115	117	
	00.7	AR1215342	-	-	-	102	107	108	106	
00.9	NSC Jordan RR2Y	-	-	-	93	114	108	105		
<b>CHECK CHARACTERISTICS</b>			24-10RY (bu/acre)	63	52	59	62	59	58	53
			CV%	7	10	6	7	5	7	4
			LSD	11	17	10	11	8	12	7
			Sign Dif	Yes	Yes	Yes	Yes	Yes	Yes	Yes
			Seeding Date	24-May	19-May	24-May	24-May	17-May	30-May	24-May
			Harvest Date	13-Oct	14-Oct	29-Sep	13-Oct	28-Sep	03-Oct	28-Sep

## WESTERN MANITOBA ROUNDUP READY SOYBEAN TRIALS

In 2016, trials were located at Boissevain, Dauphin, Carberry, Hamiota, Melita

### MATURITY & YIELD BY LOCATION

Company Maturity Grouping	Variety	Yield % Check	Site Years Tested	Relative Days to Maturity <sup>1</sup> + / - of Check				2016 Yield % of NSC Reston RR2Y					
				Average	2016	2015	2014	Boissevain	Carberry	Dauphin	Hamiota	Melita	
000.6	NSC LEROY RR2Y	83	5	-7	-7	-	-	69	77	85	89	90	
00.2	P002T04R	92	14	-4	-3	-3	-5	98	79	84	75	107	
000.9	S009-M2	101	10	-3	-1	-5	-	67	80	108	98	119	
000.8	NSC Watson RR2Y	99	10	-2	0	-4	-	98	82	105	103	126	
000.9	22-60 RY	96	14	-1	-1	-1	-1	65	86	97	91	110	
00.1	S001-B1	104	5	-1	-1	-	-	113	94	100	100	120	
00.1	NSC Reston RR2Y	100	20	0	0	0	0	100	100	100	100	100	
00.2	LS NorthWester	98	14	0	2	0	-1	88	82	94	87	98	
00.2	23-60RY	105	19	1	4	2	-4	108	97	99	98	119	
000.9	23-11 RY	99	14	2	1	1	3	89	90	100	94	109	
00.3	NSC AUSTIN RR2Y	99	5	2	2	-	-	108	93	90	96	119	
00.2	Bishop R2	99	20	2	2	3	1	90	79	98	86	122	
00.2	22-61RY	95	5	3	3	-	-	99	77	97	102	101	
00.2	LS 002R24N	107	19	3	6	3	0	96	102	99	101	131	
00.3	Mahony R2	108	14	3	3	3	3	85	93	101	107	124	
00.6	P006T78R	107	10	3	4	2	-	103	99	99	92	144	
00.3	McLeod R2	107	20	3	4	3	2	108	104	95	89	130	
00.4	PS 0055 R2	98	5	3	3	-	-	89	90	100	103	107	
00.5	S007-Y4	112	14	4	6	3	2	102	104	99	101	143	
00.2	TH 35002R2Y	99	14	4	4	4	3	107	112	86	90	141	
00.4	TH 32004R2Y	111	20	4	6	4	1	106	89	93	94	167	
00.3	S003-L3	104	5	4	4	-	-	92	91	100	107	137	
00.3	Akras R2	107	14	4	4	5	3	87	100	106	99	136	
00.3	TH 33003R2Y	104	20	4	7	5	1	106	86	96	93	140	
00.3	PS 0035 NR2	103	19	4	7	5	1	102	87	98	98	139	
00.6	S006-W5	109	5	4	4	-	-	111	112	102	98	132	
00.3	NSC Gladstone RR2Y	106	19	5	7	6	2	102	98	93	91	146	
00.4	NSC Tilston RR2Y	105	20	5	7	5	3	96	84	93	89	137	
00.5	Lono R2	109	14	6	7	5	5	108	106	108	110	130	
00.4	Hero R2	111	14	6	7	6	4	122	102	108	92	184	
00.5	TH 33005R2Y	105	19	6	7	6	5	100	86	102	89	153	
00.6	P006T46R	109	5	6	6	-	-	115	93	105	96	155	
00.6	HS 006RYS24	101	15	7	10	6	4	90	91	100	99	144	
00.5	P005T13R	94	5	7	7	-	-	102	68	94	90	130	
00.5	TAMULA R2	107	5	8	8	-	-	94	107	102	108	132	
<b>Experimental lines that are being tested / proposed for registration in Canada</b>													
000	CFS16.3.01R2	97	5	0	0	-	-	104	81	94	96	120	
000.9	EXP 000917 R2	92	5	0	0	-	-	88	75	102	93	98	
00.4	EXP TH 37004R2Y	110	5	7	7	-	-	125	93	104	96	150	
00.2	LS SOLAIRE	101	5	9	9	-	-	95	88	99	91	150	
<b>CHECK CHARACTERISTICS</b>													
NSC Reston RR2Y		52	20	123	123	118	129	44	54	69	66	38	
		bu/acre	site years	days to maturity									
								CV%	7	10	5	7	7
								LSD	12	16	7	11	12
								Sign Diff	Yes	Yes	Yes	Yes	Yes
								Seeding Date	21-May	17-May	18-May	20-May	18-May
								Harvest Date	15-Oct	18-Oct	19-Oct	12-Oct	27-Sep

<sup>1</sup> Maturity based on data from Boissevain, Dauphin, Melita

## ROUNDUP READY SOYBEANS

### New varieties for 2016

Variety	Previous Code	Distributor	Variety	Previous Code	Distributor
HYDRA R2	CFS13.3.01 R2	Brett Young	NSC LEROY RR2Y	NSC LEROY RR2Y	Northstar Genetics Manitoba
TAMULA R2	TAMULA R2	Brett Young	NSC Watson RR2Y	NSC Watson RR2Y	Northstar Genetics Manitoba
DS0067Z1	DS0067Z1	Dow Seeds	S001-B1	CW1410087	Syngenta Canada
24-12RY	24-12RY	DEKALB	S003-L3	AR1215503	Syngenta Canada
P005T13R	P005T13R	DuPont Pioneer	S006-W5	AR1210501	Syngenta Canada
P006T46R	P006T46R	DuPont Pioneer	Torro R2	PR1418113R2	Quarry Seed Ltd.
NSC Austin RR2Y	AR1310870	Northstar Genetics Manitoba	Kosmo R2	PR9010RR2Y.43	Quarry Seed Ltd.

## CONVENTIONAL SOYBEANS – VARIETY DESCRIPTIONS

Manitoba Variety Zone	Company Maturity Grouping	Variety	Relative Days to Maturity <sup>1</sup> + / - of Check				Yield % Check	Site Years Tested	Hilum Colour	Relative Seeds/ lb	Lodging <sup>2</sup>	IDC <sup>3</sup>		
			Average	2016	2015	2014						Rating (1–5)	Grouping	
Early Season Zone	00.3	AAC Edward	-3	-4	-1	-4	103	22	IY	3122	1.3	1.8	ST	
	000.9	AAC Halli	-2	-1	-1	-3	99	15	Y	2340	2.4	2.5	S	
	00.2	AAC Springfield	-1	0	-1	-2	90	15	Y	2930	1.8	1.8	ST	
	<b>Experimental lines that are being tested / proposed for registration in Canada</b>												-	-
	000	GS 1001	-6	-5	-6	-	79	9	CL	2500	1.5	2.4	S	
	000	SVX17T000S1	-3	-3	-	-	91	3	IY	2150	1.6	-	-	
Mid – Long Season Zone	00.3	OAC Prudence	0	0	0	0	100	108	Y	2515	2.9	1.6	T	
	00.3	AAC Mandor	4	4	2	4	109	35	Y	2250	1.9	2.3	ST	
	00.5	OAC Morden	4	4	2	5	106	30	Y	3077	1.5	2.0	ST	
	<b>Experimental lines that are being tested / proposed for registration in Canada</b>												-	-
	00.2	SVX17T00S13	1	1	-	-	105	3	BF	2500	3.4	-	-	
	00.5	OT13-08	4	5	4	3	105	16	IY	2340	2.0	2.6	S	
	00.3	SVX16T00S2	4	4	5	-	109	9	IY	2500	2.1	2.3	S	
	00.2	SVX17T00S21	5	5	-	-	117	3	BR	2150	1.0	-	-	
	00.6	Bravado	7	7	-	-	121	4	CL	3600	2.3	2.4	S	
	00.6	SR006HP	7	7	-	-	103	4	CL	2650	1.8	3.3	S	
	0.1	JARI	8	10	7	8	108	16	IY	2236	2.1	2.2	ST	
	00.9	OT13-04	9	10	8	9	107	16	Y	2735	2.6	2.9	S	
	00.8	DH404	9	9	-	-	88	13	IY	2250	1.8	-	-	
	00.6	DH863	9	9	-	-	92	13	IY	2250	1.9	-	-	
	00.7	OAC 11-02C	10	12	-	8	111	11	Y	2686	2.3	-	-	
	00.9	OAC 13-05C	10	10	-	-	126	7	IY	2225	1.9	3.5	S	
	0.1	OT15-02	10	10	-	-	109	4	IY	1932	2.3	2.5	S	
	00.8	SVX15T00S2	11	11	-	-	99	3	IY	2000	1.9	-	-	
	00.9	EXPSR009G	16	16	-	-	90	4	CL	4500	2.9	2.9	S	
	<b>CHECK CHARACTERISTICS</b>													
OAC Prudence			113	117	108	115	49	108						
			days to maturity				bu/acre	site years						

<sup>1</sup> Maturity ratings for 2016 are average across Morris, St. Adolphe

<sup>2</sup> Lodging ratings are average across Morris and St. Adolphe sites

<sup>3</sup> Iron Deficiency Chlorosis (IDC) Ratings – 1 = Green, 3 = Interveinal Chlorosis, Groupings – T = Tolerant, ST = Semi-Tolerant, S = Susceptible

## YIELD BY LOCATION – CONVENTIONAL SOYBEANS

Manitoba Variety Zone	Variety	2016 Yield: % of OAC Prudence				
		Early Sites	Core Sites		Late Sites	
		Beausejour	Morris	St. Adolphe	Morden	Rosebank
Early Season Zone	AAC Edward	95	80	100	-	-
	AAC Halli	122	64	98	-	-
	AAC Springfield	96	85	94	-	-
	<b>Experimental lines that are being tested / proposed for registration in Canada</b>					
	GS 1001	77	78	92	-	-
	SVX17T000S1	104	71	101	-	-
Mid-Long Season Zone	OAC Prudence	100	100	100	100	100
	AAC Mandor	135	103	114	-	-
	OAC Morden	-	105	113	105	109
	<b>Experimental lines that are being tested / proposed for registration in Canada</b>					
	SVX17T00S13	111	100	106	-	-
	OT13-08	-	99	107	124	117
	SVX16T00S2	119	99	105	-	-
	SVX17T00S21	115	110	126	-	-
	Bravado	-	123	116	114	135
	SR006HP	-	95	109	97	113
	JARI	-	98	112	107	123
	OT13-04	-	95	104	112	112
	DH404	127	80	107	-	-
	DH863	129	77	113	-	-
	OAC 11-02C	125	109	105	-	-
	OAC 13-05C	-	117	113	119	134
	OT15-02	-	105	111	103	117
SVX15T00S2	126	68	108	-	-	
EXPSR009G	-	85	78	89	115	
<b>CHECK CHARACTERISTICS</b>						
OAC Prudence (bu/acre)		49	57	54	50	42
CV%		5	9	6	8	5
LSD		9	14	9	13	8
Sign Diff		Yes	Yes	Yes	Yes	Yes
Seeding Date		20-May	24-May	17-May	30-May	24-May
Harvest Date		14-Oct	13-Oct	28-Sep	03-Oct	28-Sep