

## Varieties of Pulse Crops for Alberta

The Alberta Regional Variety Testing (RVT) Trials are a key source of information for the agriculture industry regarding the yield potential and field performance of new pulse varieties.

The trials are managed by a team of research experts to minimize variability. These trials provide unbiased, comprehensive information that helps producers make better cropping decisions and higher profits.

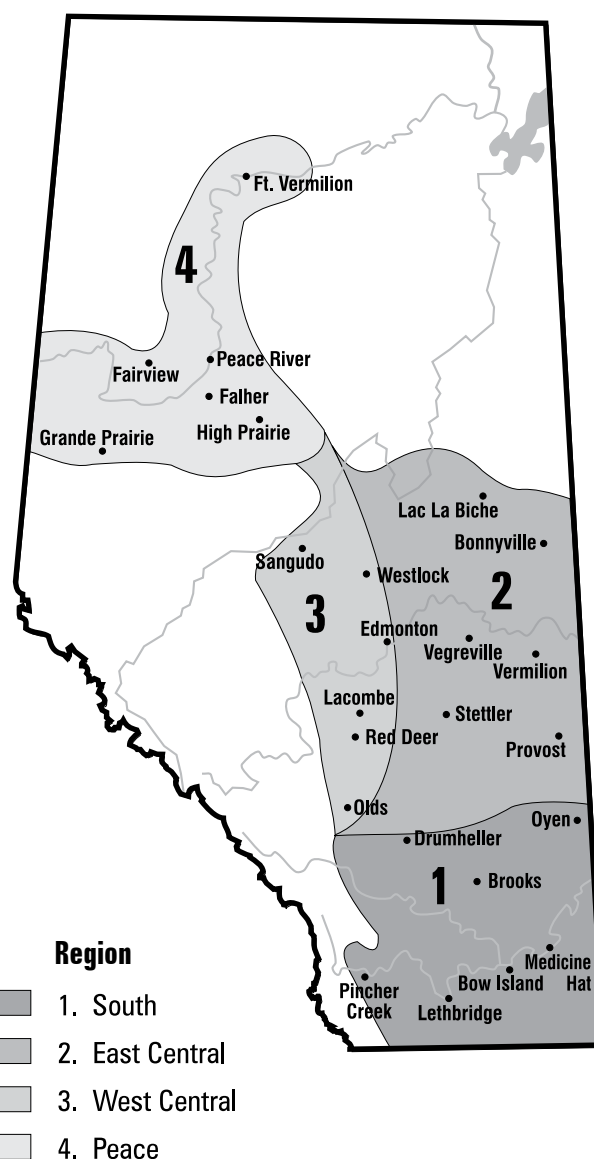
### Variety testing

Agronomic and quality data collected at each location include seed yield, plant height, standability at physiological maturity, disease reaction and thousand seed weight. The RVT trials are arranged in a randomized complete block design. All tests have four replications per site. Varieties within each table are arranged in alphabetical order.

The check variety for each crop type is determined by the Crop Co-ordinator and displayed in bold at the top of the table. Cultivar yield data is shown as per cent of the check, and the station years of testing column is located beside the yield. Caution is advised when interpreting the data with respect to new varieties that have not been fully tested.

The CV stands for coefficients of variation (CV) in the trial and is expressed as a percentage. Large CVs mean a large amount of variation could not be attributed to differences between varieties. The lower the CV, the better the quality of data. Acceptable coefficient of variation for seed yield is 15 per cent.

There were 18 green and yellow pea sites established across Alberta and two sites in northeastern British Columbia. Sites in Alberta consisted of four green plus a check (CDC Patrick) and five yellow plus a check (CDC Meadow) cultivars. Only three green and four yellow variety trials failed due to various reasons.



Nine chickpea varieties plus a check (CDC Frontier) were grown at Bow Island, Brooks, Lethbridge and Medicine Hat. All the trials were successfully harvested. Yield results for the trial at Medicine Hat were not added to the database due to high CV.

The year 2013 was a good one for growing lentil trials. Twenty varieties plus a check (CDC Redberry) were grown at Bow Island, Brooks, Lethbridge and Medicine Hat. Yield results for the trial at Medicine Hat were not added to the database due to high CV.

Wide row dry bean trials were grown at Bow Island, Lethbridge and Vauxhall, and the narrow row dry beans were grown at two sites, Lethbridge and Vauxhall. There were 12 varieties including checks in both trials and all grown under irrigation. The wide row locations had a complete set of data; however, only the Lethbridge narrow data set was included in the database.

The fababean regional trials were resumed in 2013 after five years of no trials. Four fababean varieties plus a check (Snowbird) were grown at nine locations across Alberta. Results of all the trials except the Barrhead site, which was hailed out, were added to the database.

And new crop, soybean, has been added to the Regional Variety Testing program this year. Sixteen soybean varieties plus a check (NSC Warren) were grown at eight funded and two volunteer sites. Seven sites were harvested; however, only five locations were added to the database. CVs for the other two trials were too high.

## Plant Breeder's Rights

Varieties displaying the symbol  $\phi$  are subject to Plant Breeder's Rights (PBR). Any unauthorized sale of seed of these varieties is an infringement under the legislation. Under PBR, producers are allowed to save seed of the variety for their own use, to plant on their own farms.

## Acknowledgements

The hard work of all the people who seed, maintain, take field data, harvest and process grain samples from the variety trials must be acknowledged. The research organizations involved in the testing are as follows:

- Agricultural Research and Extension Council of Alberta
- Battle River Research Group
- Chinook Applied Research Association
- Farming Smarter
- Lakeland Agricultural Research Association
- MacKenzie Applied Research Association

- North Peace Applied Research Association
- Smokey Applied Research Demonstration Association
- Agriculture and Agri-Food Canada, Lacombe and Lethbridge Research Stations
- Agriculture and Rural Development, Research Stations in Brooks and Edmonton
- British Columbia Grain Producers Association.

As well, the hard work of the crop co-ordinators, Alberta Pulse Growers staff, Alberta Agriculture and Rural Development staff and pulse breeders who reviewed the results of the testing, updated diseases and other agronomic information is appreciated.

A sincere thank you goes also to the following:

- Alberta Pulse Growers Commission for contributing to the Pulse Science Cluster Project that is run under Agriculture and Agri-Food Canada's Growing Forward program
- Breeders and seed companies for paying testing fees (Alliance Seed Corporation, Crop Development Centre at University of Saskatchewan, Hadland Seed Farm Ltd. and Seed Net.)
- Association of Alberta Co-op Seed Cleaning Plants
- Alberta Seed Growers' Association

Finally, more than two thirds of the trials were grown at Alberta producers' fields, and their co-operation and dedication are sincerely appreciated as well.

### Factsheet and data preparation co-ordinated by

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### More information

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### Variety tables

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# FIELD PEA – YELLOW

Variety	South			East Central			West Central			Peace			Agronomic Characteristics					
	Site years	Yield %	Site years	Yield %	Site years	Yield %	Site years	Yield %	Site years	Yield %	Site years	Yield %	Total site years	Overall yield (%)	Maturity rating <sup>1</sup>	Vine length (cm)	TSW <sup>2</sup> (g)	Standability <sup>3</sup> (1 – 9)
<b>Varieties tested in the 2013 trials (Relative Yield as % of CDC Meadow)</b>																		
CDC Meadow (kg/ha)	3821			4262			6082			5478			4868					
CDC Meadow	100	100	100	100	100	100	100	100	100	100	100	101	100	100	E	82	209	3.6
AAC Peace River (A)	4	98	5	95	1	97	6	96	6	96	16	16	96	96	VE	78	212	3.7
Abarth ▲	8	113+	10	104	3	107	11	99	11	99	32	32	105	105	M	79	248	4.1
CDC Amarillo	8	108	10	100	3	114	11	109+	11	109+	32	32	106+	106+	M	86	222	3.4
CDC Saffron	13	108	14	101	4	100	16	101	16	101	47	47	103	103	M	84	236	4.3
AAC Lacombe (A)	4	124+	5	110	1	126	6	115+	6	115+	16	16	116+	116+	M	83	259	3.7
<b>Fully Tested Varieties (Relative Yield as % of CDC Meadow)</b>																		
Hugo ◊	11	102	14	83-	5	90	17	96	17	96	47	47	93-	93-	M	73	210	5.2
Stella ◊ NR F	11	76-	14	80-	5	83-	15	81-	15	81-	45	45	80-	80-	M	95	213	3.9
<b>Fully Tested Varieties (Relative Yield as % of Cutlass: 2003 - 2011)</b>																		
Cutlass (kg/ha) ◊	3243			3485			5665			4684			4292					
Cutlass ◊	26	100	38	100	25	100	61	100	61	100	151	151	100	100	M	71	228	4
Agassiz ◊	6	100	11	102	9	102	20	104	20	104	46	46	103	103	M	77	236	2.9
Argus ◊	7	100	9	114+	3	103	14	101	14	101	33	33	105+	105+	M	89	227	4.1
CDC Centennial	5	101	12	99	9	104	14	100	14	100	40	40	101	101	E	61	259	4.8
CDC Hornet	10	101	12	116+	6	110	15	103	15	103	43	43	107+	107+	M	89	215	3.7
CDC Prosper NR	6	93	12	97	8	97	19	98	19	98	45	45	97-	97-	E	73	149	4
CDC Treasure NR	6	96	12	105	8	98	19	100	19	100	45	45	101	101	E	81	217	3.5
DS-Admiral ◊	13	97	18	108	13	98	24	104	24	104	69	69	102	102	M	68	246	3.1
Eclipse ◊	17	103	27	103	20	99	33	103	33	103	98	98	102	102	M	64	255	3.2
Polstead ◊	5	97	12	99	9	99	16	104	16	104	42	42	101	101	E	62	262	3.7
Reward ◊	5	86	12	106	9	102	13	101	13	101	39	39	101	101	M	76	248	2.5
SW Midas ◊	10	103	17	106	11	91-	21	99	21	99	59	59	100	100	E	65	213	3.1
Thunderbird	6	89	11	96	9	99	14	99	14	99	40	40	97	97	M	76	229	2.1

**Remarks:** Stella is a silage type pea; ◊ = Protected by Plant Breeder's Rights (PBR); ▲ = Applied for PBR protection; A = First year entries (2013); NR = Variety not registered with CFIA; F = Forage type; XX = No data available.

<sup>1</sup>Maturity: E = early, M = medium, L = Late; <sup>2</sup>Thousand Seed Weight: g; <sup>3</sup>Standability: 1 = erect, 9 = flat; <sup>4</sup>Tolerance to: P = poor, F = fair, G = good, VG = very good; <sup>5</sup>Seed Coat Dimpling: VG = very good (0 - 5%), G = good (6 - 20%), F = fair (21 - 50%); <sup>6</sup>Green Seed Coat: G = good (0 - 10%), F = fair (11 - 25%).

## FIELD PEA – YELLOW (continued)

Variety	South			East Central			West Central			Peace			Agronomic Characteristics					
	Site years	Yield %	Site years	Yield %	Site years	Yield %	Site years	Yield %	Site years	Yield %	Site years	Yield %	Total site years	Overall yield (%)	Maturity rating <sup>1</sup>	Vine length (cm)	TSW <sup>2</sup> (g)	Standability <sup>3</sup> (1 - 9)
<b>Fully Tested Varieties (Relative Yield as % of Carrera: 2000 - 2005)</b>																		
Carrera (kg/ha)	2593			2926			5098			3986			3677					
Carrera $\Delta$	14	100	28	100	15	100	33	100	33	100	96	96	100	100	E	53	257	4.6
CDC Bronco	11	91	14	102	8	94	15	117	15	117	49	49	102	102	M	63	218	4.1
CDC Golden	11	101	14	105	8	102	15	109	15	109	49	49	105	105	M	68	224	3.4
CDC Minuet	12	97	26	100	11	92	22	111	22	111	76	76	102	102	M	64	192	4.9
CDC Mozart	8	108	17	100	7	97	14	105	14	105	48	48	103	103	M	62	241	5.9

**Remarks:** Stella is a silage type pea;  $\Delta$  = Protected by Plant Breeder's Rights (PBR);  $\blacktriangle$  = Applied for PBR protection; A = First year entries (2013); NR = Variety not registered with CFIA; F = Forage type; XX = No data available.

<sup>1</sup>Maturity: E = early, M = medium, L = Late; <sup>2</sup>Thousand Seed Weight: g; <sup>3</sup>Standability: 1 = erect, 9 = flat; <sup>4</sup>Tolerance to: P = poor, F = fair, G = good, VG = very good; <sup>5</sup>Seed Coat Dimpling: VG = very good (0 - 5%), G = good (6 - 20%), F = fair (21 - 50%); <sup>6</sup>Green Seed Coat: G = good (0 - 10%), F = fair (11 - 25%).

## FIELD PEA – YELLOW (continued)

	Tolerance to <sup>4</sup>					
	Powdery Mildew	Mycosphaerella Blight	Fusarium Wilt	Seed Coat Breakage	Seed Coat Dimpling <sup>5</sup>	Green Seed Coat <sup>6</sup>
<b>Varieties tested in the 2013 trials (Relative Yield as % of CDC Meadow)</b>						
<b>CDC Meadow</b>	<b>VG</b>	<b>F</b>	<b>F</b>	<b>G</b>	<b>G</b>	<b>G</b>
AAC Peace River (A)	VG	F	F	F	G	G
Abarth ▲	VG	F	F	F	G	G
CDC Amarillo	VG	F	G	F	F	G
CDC Saffron	VG	F	F	G	F	G
AAC Lacombe (A)	VG	F	P	G	F	G
<b>Fully Tested Varieties (Relative Yield as % of CDC Meadow)</b>						
Hugo ☉	VG	F	F	G	F	F
Stella ☉ NR F	VG	F	F	G	G	F
<b>Fully Tested Varieties (Relative Yield as % of Cutlass: 2003 - 2011)</b>						
<b>Cutlass ☉</b>	<b>VG</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>G</b>
Agassiz ☉	VG	F	F	G	VG	G
Argus ☉	VG	F	F	F	F	G
CDC Centennial	VG	F	G	G	G	F
CDC Hornet	VG	F	F	F	F	G
CDC Prosper NR	VG	F	G	G	F	G
CDC Treasure NR	VG	F	F	G	F	F
DS-Admiral ☉	VG	P	F	F	G	F
Eclipse ☉	VG	F	F	G	F	G
Polstead ☉	VG	P	P	F	VG	F
Reward ☉	VG	F	F	G	VG	F
SW Midas ☉	VG	P	F	G	G	G
Thunderbird	VG	F	F	G	VG	XX
<b>Fully Tested Varieties (Relative Yield as % of Carrera: 2000 - 2005)</b>						
<b>Carrera ☉</b>	<b>P</b>	<b>P</b>	<b>F</b>	<b>F</b>	<b>G</b>	<b>XX</b>
CDC Bronco	VG	F	F	G	G	G
CDC Golden	VG	F	F	G	G	G
CDC Minuet	VG	F	F	F	G	F
CDC Mozart	VG	F	F	G	G	F

**Remarks:** Stella is a silage type pea; ☉ = Protected by Plant Breeder's Rights (PBR); ▲ = Applied for PBR protection; A = First year entries (2013); NR = Variety not registered with CFIA; F = Forage type; XX = No data available.

<sup>1</sup>Maturity: E = early, M = medium, L = Late; <sup>2</sup>Thousand Seed Weight: g; <sup>3</sup>Standability: 1 = erect, 9 = flat; <sup>4</sup>Tolerance to: P = poor, F = fair, G = good, VG = very good; <sup>5</sup>Seed Coat Dimpling: VG = very good (0 - 5%), G = good (6 - 20%), F = fair (21 - 50%); <sup>6</sup>Green Seed Coat: G = good (0 - 10%), F = fair (11 - 25%).

# FIELD PEA – GREEN

Variety	South			East Central			West Central			Peace			Agronomic Characteristics			
	Site years	Yield %	Site years	Yield %	Site years	Yield %	Site years	Yield %	Site years	Yield %	Total site years	Overall yield (%)	Maturity rating <sup>1</sup>	Vine length (cm)	TSW <sup>2</sup> (g)	Standability <sup>3</sup> (1 – 9)
<b>Varieties tested in the 2013 trials (Relative Yield as % of CDC Patrick)</b>																
CDC Patrick	20	100	27	100	13	100	6232	4522	4688	93	100	4688	M	81	188	4.6
CDC Patrick	9	106	10	107+	3	98	100	100	100	34	104	105+	L	79	211	3.8
CDC Limerick	14	100	14	94	5	91	96	96	96-	52	96	96-	M	82	170	6
CDC Pluto	14	95	14	116+	5	103	104	104	105	52	104	105	M	89	227	4.2
CDC Raezer	14	104	14	111+	5	98	106	106	106	52	106	106	L	91	215	4.4
CDC Tetris																
<b>Fully Tested Varieties (Relative Yield as % of Cooper: 2004 - 2012)</b>																
Cooper (kg/ha)	4111			3843		5979	4793	4609				4609	L	75	270	3.5
Cooper $\phi$	100			100		100	100	100				100	L	75	270	3.5
CDC Sage	5	79-	8	83-	8	81-	85-	85-	82	36	82	82	M	72	198	3.1
CDC Striker	5	96	12	108	5	104	95-	95-	100	44	100	100	M	70	253	2.9
Mendel $\phi$	6	85-	11	95	4	92	90-	90-	91	38	91	91	M	78	205	3.9

**Remarks:** CDC Tetris is an Espace type with blocky seed shape;  $\phi$  = Protected by Plant Breeder's Rights (PBR); XX = No data available.

<sup>1</sup>Maturity: E = Early, M = Medium, L = Late; <sup>2</sup>Thousand Seed Weight: g; <sup>3</sup>Standability: 1 = Erect, 9 = Flat; <sup>4</sup>Tolerance to: P = Poor, F = Fair, G = Good, VG = Very Good; <sup>5</sup>Seed Coat Dimpling: VG = Very Good (0 - 5%), G = Good (6 - 20%), F = Fair (21 - 50%).

## FIELD PEA – GREEN (continued)

Variety	Tolerance to <sup>4</sup>					
	Powdery Mildew	Mycospharella Blight	Fusarium Wilt	Bleaching	Seed Coat Breakage	Seed Coat Dimpling <sup>5</sup>
<b>Varieties tested in the 2013 trials (Relative Yield as % of CDC Patrick)</b>						
CDC Patrick	VG	F	G	G	G	G
CDC Patrick	VG	F	F	G	VG	G
CDC Limerick	VG	F	F	G	G	G
CDC Pluto	VG	F	G	G	G	G
CDC Raezer	VG	F	G	G	G	G
CDC Tetris	VG	F	G	G	G	G
<b>Fully Tested Varieties (Relative Yield as % of Cooper: 2004 - 2012)</b>						
Cooper (kg/ha)	VG	F	F	G	F	G
Cooper $\diamond$	VG	F	G	G	VG	G
CDC Sage	P	F	G	G	G	F
CDC Striker	VG	F	F	G	F	G
Mendel $\diamond$	P	F	G	G	G	F

**Remarks:** CDC Tetris is an Espace type with blocky seed shape;  $\diamond$  = Protected by Plant Breeder's Rights (PBR); XX = No data available.

<sup>1</sup>Maturity: E = Early, M = Medium, L = Late; <sup>2</sup>Thousand Seed Weight: g; <sup>3</sup>Standability: 1 = Erect, 9 = Flat; <sup>4</sup>Tolerance to: P = Poor, F = Fair, G = Good, VG = Very Good; <sup>5</sup>Seed Coat Dimpling: VG = Very Good (0 - 5%), G = Good (6 - 20%), F = Fair (21 - 50%).

## DRY BEANS – NARROW ROW

Variety	Type	Site years 1997-2013	Yield (% of check)	Days to bloom <sup>1</sup>	Days to maturity	TSW <sup>2</sup> (g)	Plant height	Lodging <sup>3</sup> (1-5)	Growth habit <sup>4</sup>
<b>AC Black Diamond (kg/ha)</b>			<b>2898</b>						
AC Black Diamond	Black Shiny	18	100	56	102	247	38	2.4	II
CDC Blackcomb (A)	Black Matte	2	89	64	-1	200	39	1.8	II
<b>Island (kg/ha)</b>			<b>2838</b>						
Island	Pinto	8	100	60	103	322	43	2.9	II
2537-12 (A)	Pinto	1	67	53	-6	429	35	1.8	II
CDC WM-2	Pinto	5	72	60	1	326	43	2.5	II
L09PT129 (A)	Pinto	1	111	58	-3	373	44	1.8	II
Medicine Hat	Pinto	4	96	63	4	313	46	2	II
Winchester	Pinto	5	80	58	2	302	45	2.6	II
<b>AC Resolute (kg/ha)</b>			<b>2602</b>						
AC Resolute	Great Northern	14	100	54	102	323	40	2.4	II
AAC Tundra	Great Northern	2	110	64	-4	342	43	2	II
AC Polaris	Great Northern	14	117	58	4	293	41	3.5	II
L08GN743 (A)	Great Northern	1	115	52	-8	349	45	2.3	II
<b>AC Redbond (kg/ha)</b>			<b>2569</b>						
AC Redbond	Small Red	17	100	51	100	303	39	2.3	II
<b>CDC Sol (kg/ha)</b>			<b>1333</b>						
CDC Sol	Yellow	4	100	51	114	347	32	2.0	I
<b>Viva (kg/ha)</b>			<b>2307</b>						
Viva	Pink	15	100	52	99	249	32	3.5	III

Remarks: A = First year entries; <sup>1</sup>Days to bloom from seeding; <sup>2</sup>Thousand Seed Weight; <sup>3</sup>Lodging: 1 = erect, 5 = flat. <sup>4</sup>Growth Habit: I = determinate bush, II = indeterminate bush, III = indeterminate prostrate.

## DRY BEANS – WIDE ROW

Variety	Type	Site years 1997-2013	Yield (% of check)	Days to bloom <sup>1</sup>	Days to maturity	TSW <sup>2</sup> (g)	Plant height	Lodging <sup>3</sup> (1-5)	Growth habit <sup>4</sup>
<b>AC Black Diamond (kg/ha)</b>			<b>2978</b>						
AC Black Diamond	Black Shiny	42	100	57	104	261	39	2.1	II
CDC Blackcomb	Black Matte	6	79	63	-1	171	35	1.8	II
<b>Island (kg/ha)</b>			<b>3642</b>						
Island	Pinto	16	100	57	101	364	41	2.8	II
CDC WM-2	Pinto	11	75	60	0	359	41	1.5	II
Medicine Hat	Pinto	9	87	68	3	341	41	1.3	II
Othello	Pinto	8	90	58	0	353	36	3.5	III
Winchester	Pinto	16	86	55	0	336	40	2.3	II
<b>AC Resolute (kg/ha)</b>			<b>2814</b>						
AC Resolute	Great Northern	22	100	53	101	338	42	2.3	II
AAC Tundra	Great Northern	6	116	61	-3	340	39	2.3	II
AC Polaris	Great Northern	25	116	57	4	316	40	3.5	II
L08GN743 (A)	Great Northern	3	121	52	-3	364	41	2.7	II
<b>AC Redbond (kg/ha)</b>			<b>3203</b>						
AC Redbond	Small Red	39	100	53	101	316	41	2.4	II
<b>CDC Sol (kg/ha)</b>			<b>1936</b>						
CDC Sol	Yellow	9	100	66	105	365	32	1.0	I
Myasi	Yellow	6	91	67	6	342	31	1.0	I
<b>Viva (kg/ha)</b>			<b>3090</b>						
Viva	Pink	39	100	55	104	255	36	3.6	III

Remarks: A = First year entries; <sup>1</sup>Days to bloom from seeding; <sup>2</sup>Thousand Seed Weight; <sup>3</sup>Lodging: 1 = erect, 5 = flat. <sup>4</sup>Growth Habit: I = determinate bush, II = indeterminate bush, III = indeterminate vine.



# LENTILS

Market Class	Variety	Overall Yield	Station Years of Testing	Agronomic Characteristics					Disease Tolerance <sup>6</sup>	
				TSW <sup>2</sup> (g)	Plant height (cm)	Maturity rating <sup>3</sup>	Cotyledon colour <sup>4</sup>	Seed coat colour <sup>5</sup>	Ascochyta	Anthracnose
<b>Varieties tested in the 2013 trials</b>										
	<b>CDC Redberry (kg/ha)</b>	<b>3116</b>								
	<b>CDC Redberry<sup>1</sup></b>	<b>100</b>	<b>22</b>	<b>43</b>	<b>36</b>	<b>E</b>	<b>R</b>	<b>GR</b>	<b>G</b>	<b>G</b>
Extra small red	CDC Impala (CL)	95	12	31	34	E	R	GR	G	G
	CDC Imperial (R; CL)	82*	15	30	37	E	R	GR/BR	G	G
	CDC Redbow	104	12	32	35	E	R	GR	G	G
	CDC Rosebud	100	12	30	35	E	R	T	G	G
	CDC Rosetown	102	15	31	38	E	R	GR	G	G
	CDC Rosie (A)	123	3	31	34	EM	R	GR	G	G
	CDC Ruby	96	10	29	33	E	R	GR	G	G
Small red	CDC Dazil (CL)	95	10	36	36	E-M	R	GR	G	F
	CDC Imax (CL)	97	11	45	37	E-M	R	GR	G	F
	CDC Maxim (R; CL)	104	12	42	35	E-M	R	GR	G	G
	CDC Redcliff	112*	10	39	36	E-M	R	GR	G	F
	CDC Redcoat	100	12	42	35	E	R	GR	G	G
	CDC Scarlet (A)	124	3	40	36	EM	R	GR	G	F
Large red	CDC KR-1	109	7	54	39	M	R	GR	G	G
Small green	CDC Invincible (CL)	100	11	34	36	E	Y	G	G	G
Medium green	CDC Imigreen (CL)	78*	7	60	41	M	Y	G	G	VP
	CDC Impress (R; CL)	86*	7	51	37	M	Y	G	G	P
Large green	CDC Greenland (R)	82*	7	66	37	M-L	Y	G	G	VP
	CDC Impower (CL)	77*	7	71	37	ML	Y	G	G	VP
	CDC Improve (R; CL)	83	7	74	39	M	Y	G	F	VP
<b>Previously tested varieties</b>										
Extra small red	CDC Robin (R)	87*	15	28	34	E	R	BR	G	G
Small red	CDC Blaze (R)	85*	10	38	30	E-M	R	GR	G	P
	CDC Cherie	108	3	41	35	E-M	R	G	G	F
	CDC Impact (R; CL)	84*	8	36	37	E	R	GR	G	P
	CDC Rouleau (R)	106	5	37	37	M	R	GR	G	G
	Crimson (R)	75	10	39	27	E	Y	BR	VP	VP
Small green	CDC Milestone (R)	101	18	39	32	E	Y	G	G	VP
	CDC Viceroy (R)	107	13	35	33	E	Y	G	G	G
	Eston (R)	89	5	34	35	E	Y	G	VP	VP
French green	CDC Peridot (CL)	116	1	37	XX	E	Y	MRB	F	P
Spanish brown	Pardina	106	1	40	XX	X	Y	GR/DT	VP	VP

**Remarks:** Weight, diameter and thickness of lentil seeds will vary depending on environmental conditions and agronomic factors. Note yield results for the new varieties (2013; A) are not significantly different, due to limited years of testing. All four trials: Bow Island, Brooks, Lethbridge and Medicine Hat were grown in Area 1. R = Registered with CFIA; CL=Clearfield variety; XX = No data.

<sup>1</sup>Yields are reported relative to CDC Redberry. CDC Redberry belongs to Small Red Market Class. \*Seed yields are statistically significant from that of CDC Redberry at p=0.05 level. No symbol after the yield figure indicates that there is no statistical difference. <sup>2</sup>Thousand Seed Weight: g; <sup>3</sup>Maturity: E = Early, M = Medium, L = Late, VL = Very Late. <sup>4</sup>Cotyledon Color: R = Red, Y = Yellow, G = Green; <sup>5</sup>Seed Coat Color/Patterns: G = Green, GR = Grey, BR = Brown, FG = French Green, T = Tan, MRB = Marbled, DT = Dotted; <sup>6</sup>Disease resistance: VP = Very Poor, P = Poor, F = Fair and G = Good.

## F A B A B E A N

Variety	Overall Yield	Station Years of Testing	Type	Relative maturity <sup>1</sup>	Plant height (cm)	Thousand seed weight (g)	Flower colour <sup>2</sup>
<b>Varieties tested in the 2013 trials</b>							
<b>Snowbird (KG/HA)</b>	<b>7650</b>						
Snowbird ☉	100	22	Zero Tannin	E	92	480	W
FB18-20	103	8	Tannin	M	77	670	C
Imposa ☉	99	8	Zero Tannin	L	80	540	W
Malik	98	8	Tannin	M	80	610	C
Snowdrop ☉	85-	8	Zero Tannin	E	84	297	W
<b>Fully Tested Varieties: 2000-2007</b>							
<b>Earlibird ☉ KG/HA<sup>1</sup></b>	<b>7300</b>						
Earlibird ☉	100	Fully Tested	Tannin	E	93	520	C
Ben ☉	112+	Fully Tested	Tannin	E	101	580	C
CDC Blitz R	102	Fully Tested	Tannin	ML	96	460	C
CDC Fatima R	97	Fully Tested	Tannin	M	92	530	C
Cresta	96	Fully Tested	Zero Tannin	M	86	590	W
Scirocco	106	Fully Tested	Tannin	ML	89	580	C

**Remarks:** All colored flower types have seed coats that contain tannins and may be suitable for export food markets if seed size and quality match customer demand. Varieties with more than ten site years are Fully Tested. ☉ = Protected by Plant Breeders' Rights (PBR); R = Registered with CFIA.

New varieties: Malik (FB9-4) and FB18-20.

<sup>1</sup>Maturity: E = early, M = medium, ML = medium late, L = late; <sup>2</sup>Flower Colour: W = white flower, zero tannin, C = colored flower, tannin.

## C H I C K P E A

Variety	Type	Overall yield <sup>1</sup>	Station Years of Testing	Agronomic Characteristics			
				TSW <sup>2</sup>	Maturity rating <sup>3</sup>	Plant height (cm)	Tolerance to Ascochyta <sup>4</sup>
<b>Varieties tested in the 2013 trials</b>							
<b>CDC Frontier (kg/ha)</b>		<b>4699</b>					
CDC Frontier <sup>1</sup>	Kabuli	100	25	365	L	43	F
CDC Cabri	Desi	93*	21	330	E	45	F
CDC Corinne	Desi	113	6	255	M	47	F
CDC Cory	Desi	103	6	290	M	48	F
CDC Vanguard	Desi	95	9	237	ML	47	F
Amit (R)	Kabuli	90*	25	270	L	44	F
CDC Alma	Kabuli	84*	10	396	ML	39	VP
CDC Leader	Kabuli	100	6	409	ML	42	F
CDC Luna	Kabuli	85*	10	383	ML	41	P
CDC Orion	Kabuli	89*	10	460	ML	42	P
<b>Previously tested varieties</b>							
CDC Chichi	Kabuli	77	8	340	M	47	P
CDC Chico	Kabuli	87	8	250	E	46	VP
CDC Diva	Kabuli	71*	15	450	L	41	F
CDC Xena	Kabuli	72*	15	450	L	41	VP
CDC Yuma	Kabuli	73*	15	420	L	45	P
Sanford	Kabuli	69*	15	410	L	47	VP

**Remarks:** Note yield results for some varieties are not significantly different, due to limited years of testing. All four trials: Bow Island, Brooks, Lethbridge and Medicine Hat were grown in Area 1.

<sup>1</sup>Yields are reported relative to CDC Frontier. \*Seed yields are statistically significant from that of CDC Frontier at p=0.05 level. No symbol after the yield figure indicates that seed yields are statistically comparable. <sup>2</sup>Thousand Seed Weight: g; <sup>3</sup>Maturity Rating: E = Early, M = Medium, ML = Medium Late, L = Late; <sup>4</sup>Tolerance to Ascochyta: VP = Very Poor, P = Poor, F = Fair.

# SOYBEANS

Variety	Type	Overall yield <sup>1</sup>	Station years of testing	Agronomic Characteristics					
				Days to flowering	Pod height <sup>2</sup>	Plant height (cm)	Days to maturity <sup>3</sup>	TSW <sup>4</sup> (g)	Relative seeds, (lb)
<b>Varieties tested in the 2013 trials</b>									
<b>NSC Warren (kg ha<sup>1</sup>)</b>		<b>3028</b>							
<b>NSC Warren</b>	<b>RR</b>	<b>100</b>	<b>5</b>	<b>48</b>	<b>13</b>	<b>55</b>	<b>118</b>	<b>126</b>	<b>3600</b>
900Y61	RR	80	5	49	13	54	119	158	2870
900Y71	RR	99	5	49	14	55	116	159	2850
CFS12.3.02	RR2Y	121	5	53	18	57	119	146	3100
CFS13.2.02	RR2Y	92	5	48	17	62	118	171	2650
McLeod	RR2Y	110	5	51	17	65	117	163	2780
NSC Moosomin	RR2Y	98	5	48	13	48	112	148	3060
NSC Reston	RR2Y	110	5	48	14	56	114	143	3170
P001T34	RR	66*	5	48	10	41	107	143	3170
Pekko	RR2Y	94	5	53	16	57	117	155	2920
Sampsa	RR2Y	93	5	51	14	55	120	152	2980
SC2380	RR2Y	98	5	48	15	61	119	150	3020
TH 29002	RR	80*	5	49	13	53	114	131	3460
TH 32004	RR2Y	100	5	51	14	58	118	141	3210
TH 33003	RR2Y	117	5	48	16	67	117	143	3170
TH 33005	RR2Y	95	5	51	16	61	120	149	3040
Vito	RR2Y	87	5	48	13	68	118	146	3100

**Remarks:** Straight combining is the commonly used method of harvest. Swathing soybeans can result in excessive field losses (up to 25%) due to shattering. Approximately four beans or one to two pods per square foot represent a yield loss of "one bushel" per acre. In 2013, only five locations of a possible 10 had soybeans that were harvestable. These locations were: Bow Island, Brooks, Fahler, Medicine Hat and Vegreville.

<sup>1</sup>Yields are reported relative to NSC Warren. \*Indicates that seed yields are statistically significant from that of NSC Warren. No symbol after the yield figure indicates that there is no statistical difference. <sup>2</sup>Distance from the ground level to lowest pod. <sup>3</sup>Maturity - average days for the Brooks and Bow Island trials. <sup>4</sup>Thousand Seed Weight, g.