

AGRI-FACTS

Practical Information for Alberta's Agriculture Industry

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Varieties of Pulse Crops for Alberta

Variety testing procedures


Staff of the Agricultural Research and Extension Council of Alberta (ARECA) and the Pulse Program of Alberta Agriculture's Crop Diversification Centre North did the compilation and co-ordination of the pea, lentil, chickpea and fababean tests. Staff of Agriculture and Agri-Food Canada, Lethbridge, conducted the dry bean trials.

Funding was provided by seed companies (field pea entries only), the Alberta Pulse Growers Commission, the Alberta Crop Industry Development Fund, the Alberta Barley Commission and Alberta Agriculture and Food.

Data and information contributed by the following:

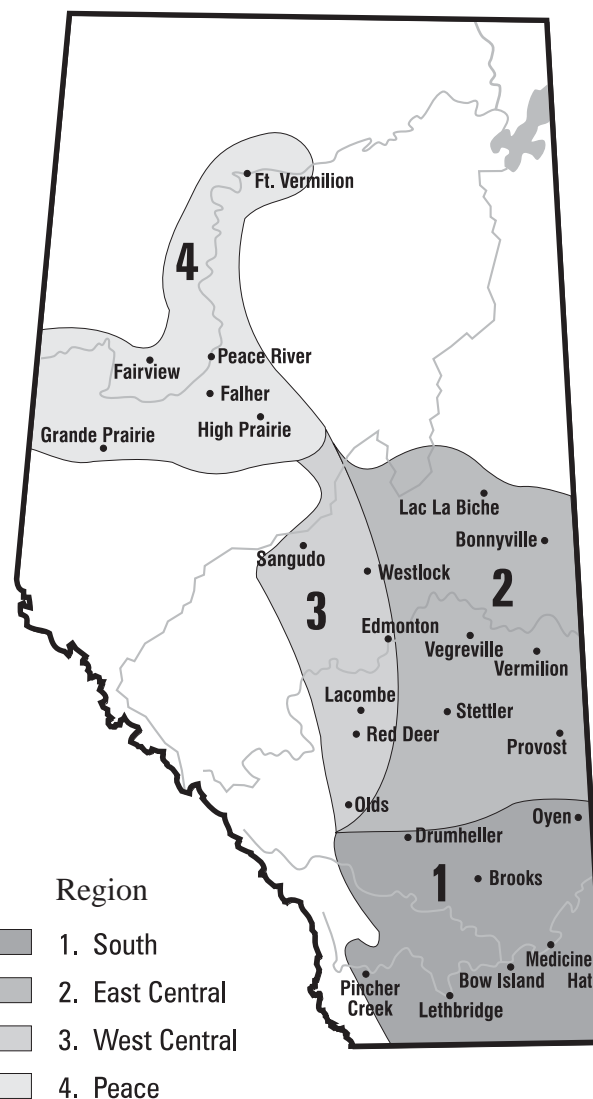
- Applied Research Associations
- Agriculture and Agri-Food Canada
- Alberta Agriculture and Food
- BC Grain Producers Association
- Three Links AgResearch Inc.
- EMD Crop Biosciences – field pea inoculant

Plant Breeder's Rights

The use of the logo  indicates the variety is protected by law, and the seed of this cultivar cannot be sold for seed purposes without permission and royalty payment.

2007 data

In 2007, there were 15 sites grown of the green and yellow pea. Two sites from British Columbia were used as part of Region 4. Fourteen of the yellow and twelve of the green pea trials were used in the final report of the regional variety trials. Only sites with



coefficient of variances (cv's) less than 15% were used for field peas and less than 20% for other pulses were included in the final report of pulse crop summaries.

Fully tested varieties

Fully tested varieties were not tested in 2007. Direct comparisons between field pea fully tested and the 2000 - 2005 data cannot be made.

First-year entries

Please use caution interpreting relative yield % when overall station years are below 25 sites for green and yellow pea.

For more information, contact:

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FIELD PEA – YELLOW

Variety	Average of all regions from 2003-2007													
	Relative yield % of Cutlass 2003-2007						Average of all regions from 2003-2007							
	Region (see map)													
1-Irri. Sty* %	1-Dryland		2		3		4		Total station years	Yield as % of Cutlass	Relative maturity rating (Early, Medium, Late)	Vine length (cm)	Seed weight (g/1000)	Standability (1E-9F)**
	Sty	%	Sty	%	Sty	%	Sty+	%						
Cutlass ***	1	100	15	100	22	100	16	100	82	100	E	65	232	3.9
AC Reward ◊ ***	-	-	4	81	8	108	6	106	26	102	M	76	248	2.5
Agassiz (A) ***	-	-	2	99	4	101	3	107	14	102	E	72	235	2.8
APCM 9.71.07 (NR) (A) ***	-	-	2	94	4	100	3	91	14	92	VE	70	257	4.4
Canstar ◊ ***	-	-	4	96	8	107	6	103	26	101	E	72	244	3.1
CDC Meadow ***	-	-	6	105	10	110	8	102	37	108	E	77	220	3.0
CDC Centennial ***	-	-	4	103	8	104	6	108	26	103	E	61	259	4.8
Eclipse ◊ ***	1	108	13	106	20	106	14	100	73	104	M	62	256	2.9
Noble ◊ (A)	-	-	2	84	4	95	3	102	14	94	M	73	242	2.9
Polstead ◊ ***	-	-	4	99	8	102	6	103	26	102	E	61	263	3.5
SW Marquee ◊ ***	-	-	6	82	10	101	8	95	37	94	E	75	202	2.4
SW Midas ◊ ***	-	-	10	103	17	106	11	91	55	101	E	66	212	3.2
Thunderbird (A) ***	-	-	2	77	4	98	3	104	14	99	M	74	228	1.8
Tudor ◊ ***	-	-	10	92	17	107	11	101	55	99	M	74	279	3.1
Cutlass – Yield kg/ha		4003		2870		2892		5525		4543				

FULLY TESTED VARIETIES

Variety	Fully Tested Varieties													
	Relative yield % of Cutlass 2003-2006													
Cutlass ***	1	100	13	100	18	100	13	100	23	100	Fully Tested	64	231	3.9
AC Miser ◊ ***	-	-	6	96	11	108	6	99	7	99	Fully Tested	66	205	5.4
DS-Admiral ◊ ***	1	91	13	97	18	108	13	98	23	104	Fully Tested	68	246	3.2

FIELD PEA – YELLOW (c o n t i n u e d)

Relative yield % of Carrera 2000-2005

Average of all regions from 2000-2005

Variety	Region (see map)												Total station years	Yield as % of Carrera	Relative maturity rating (Early, Medium, Late)	Vine length (cm)	Seed weight (g/1000)	Standability (1E-9F)**
	1-Irri.		1-Dryland		2		3		4		Total							
	Sty*	%	Sty	%	Sty	%	Sty	%	Sty+	%								
FULLY TESTED VARIETIES																		
Carrera ◊	6	100	14	100	28	100	15	100	33	100	Fully Tested	100	E	52	257	4.6		
Carneval ◊	2	103	2	95	8	102	2	86	7	104	Fully Tested	101	M	73	222	4.0		
CDC Bronco ***	1	93	11	91	16	100	8	94	15	117	Fully Tested	102	M	63	220	4.1		
CDC Golden ***	1	109	11	101	14	105	8	102	15	109	Fully Tested	105	M	68	224	3.4		
CDC Handel ***	2	116	8	95	17	94	7	87	14	102	Fully Tested	96	L	67	201	6.2		
CDC Minuet ***	5	115	12	97	26	100	11	92	22	111	Fully Tested	102	M	64	192	4.9		
CDC Mozart ***	2	110	8	108	17	100	7	97	14	105	Fully Tested	103	M	61	241	5.9		
DS Stalwarth ***	5	120	8	98	19	93	10	94	23	107	Fully Tested	101	M	69	231	3.4		
Eiffel ◊	4	98	5	106	6	103	5	95	7	112	Fully Tested	103	M	77	268	4.4		
Profi ◊	2	97	2	112	4	98	2	91	2	87	Fully Tested	98	M	86	260	4.7		
SW BRAVO	4	101	3	100	14	101	5	101	13	89	Fully Tested	97	M	68	249	3.3		
SW CAPRI ◊	3	102	6	98	11	101	8	100	18	108	Fully Tested	103	E	61	215	2.5		
SW CIRCUS ◊	1	95	11	87	14	107	10	92	20	109	Fully Tested	101	E	61	239	3.2		
SW SALLUTE ◊ ***	3	108	6	109	11	102	8	103	18	111	Fully Tested	107	M	62	224	3.9		
Swing ◊	5	104	12	103	25	103	13	95	27	107	Fully Tested	103	E	63	238	4.0		
Topeka ◊ ***	3	110	10	103	18	96	11	97	22	101	Fully Tested	100	E	53	255	5.3		

Remarks: Varieties marked with (A) are first year entries in 2007, (NR) not registered with CFIA, ◊ have Plant Breeders Rights.

* sty – station years

** standability – 1 = erect, 9 = flat

*** powdery mildew resistant

Fully tested varieties not tested in 2007.

– no data

FIELD PEA – GREEN

Average of all regions from 2000-2007

Variety	Relative yield % of Nitouche 2000-2007												Total station years	Yield as % of Nitouche	Relative maturity rating (Early, Medium, Late)	Vine length (cm)	Seed weight (g/1000)	Standability (1E-9F)**
	Region (see map)																	
	1-Irri.		1-Dryland		2		3		4		Total							
Sty*	%	Sty	%	Sty	%	Sty	%	Sty	%	Sty	%	Sty	%	Sty	%	Sty	%	
Nitouche	6	100	14	100	38	100	21	100	42	100	121	100	M	68	265	3.4		
Camry ◊ ***	-	-	8	97	16	93	11	110	18	100	53	100	M	57	255	3.2		
Cooper ◊ ***	-	-	8	101	16	100	11	115	18	107	53	106	L	69	280	3.0		
CDC Sage ***	-	-	5	80	8	86	8	97	13	91	34	90	M	71	199	3.1		
Tamora ◊ ***	-	-	3	88	6	97	6	114	10	96	25	100	M	67	267	2.8		
Nitouche – Yield kg/ha	4586		2487		2675		4795		3860									

FULLY TESTED VARIETIES

CDC Striker	1	71	8	90	17	95	8	95	15	98	Fully Tested	95	M	66	243	3.1
Cruiser	2	90	1	99	5	98	4	89	8	89	Fully Tested	92	M	60	225	2.8
Madoc ◊	3	84	4	87	14	100	8	99	20	104	Fully Tested	99	E	54	251	3.0
Millennium ◊	5	89	6	95	22	98	10	92	23	100	Fully Tested	97	E	50	243	3.7
Stratus ◊ ***	3	97	9	96	24	103	13	100	28	96	Fully Tested	99	M	55	260	4.4
SW PARADE ◊ ***	4	89	3	96	14	105	5	91	11	96	Fully Tested	98	M	64	197	4.5
Toledo ◊	4	89	3	98	15	99	7	96	19	93	Fully Tested	95	M	65	272	3.1

Remarks: ◊ have Plant Breeders Rights. All green peas in this table are registered with CFIA.

* sty – station years

** standability – 1 = erect, 9 = flat

*** Powdery mildew resistant

Fully tested varieties not tested in 2007.

- no data.

DRY BEANS – NARROW ROW

Variety	Station years		Yield as % of check	Days to bloom*	Maturity (days +/-) check	Seed weight (g/1000)	Plant height (cm)	Lodge (1-5) 1 = erect
	1997-07	Type						
AC Black Diamond (check)	22	black	100	56	0	262	35	2.0
AC Black Violet	9	black	122	60	3	179	38	1.6
CDC Jet	12	black	107	60	2	177	35	1.7
AC Black Diamond – maturity = 103 days from seeding, yield 2702 kg/ha								
AC Polaris (check)	22	great northern	100	52	0	316	40	3.2
AC Alert	18	great northern	83	56	1	333	45	2.6
AC Resolute	12	great northern	79	53	-3	337	38	2.4
AC Polaris – maturity = 102 days from seeding, yield 2833 kg/ha								
CDC Pintium (check)	29	pinto	100	52	0	365	39	1.9
AC Agrinto (B)	7	pinto	118	53	5	321	48	2.2
AC Island (A)	3	pinto	104	55	7	333	45	2.9
CDC Minto	19	pinto	94	54	8	429	40	3.0
CDC Pintium – maturity = 98 days from seeding, 2550 yield kg/ha								
AC Redbond (check)	25	small red	100	54	0	305	38	2.3
AC Redbond – maturity = 104 days from seeding, yield 2083 kg/ha								
Viva (check)	25	pink	100	53	0	250	30	3.3
AC Early Rose	16	pink	107	55	-4	308	35	2.8
Viva – maturity = 106 days from seeding, 2090 yield kg/ha								
Arikara Yellow	18	Canario Mexicano	100	50	0	383	34	1.8
Arikara Yellow – maturity = 101 days from seeding, 2098 yield kg/ha								

Remarks: * Days form seeding. (A) = First year entry. (B) = Second year entry in 2007

DRY BEANS – WIDE ROW

Variety	Type	Station years		Yield as % of check	Days to bloom*	Maturity (days +/-) check	Seed weight (g/1000)	Plant height (cm)	Lodge (1-5) 1 = erect
		1997-07							
AC Black Diamond (check)	black	29	100	56	0	263	39	2.3	
AC Black Violet	black	27	92	60	4	180	41	2.3	
CDC Jet	black	27	85	59	6	182	41	2.3	
AC Black Diamond – maturity = 102 days from seeding, yield 2799 kg/ha									
AC Polaris (check)	great northern	29	100	56	0	310	41	3.8	
AC Alert	great northern	27	90	57	1	344	49	2.8	
AC Resolute	great northern	13	86	52	-4	337	41	2.4	
CDC 1006S-1 (B)	great northern	9	97	53	0	365	44	3.5	
AC Polaris – maturity = 101 days from seeding, yield 3269 kg/ha									
Viva (check)	pink	41	100	54	0	255	35	3.7	
AC Early Rose	pink	27	96	54	-7	305	36	3.0	
Viva – maturity = 102 days from seeding, yield 2821 kg/ha									
Othello (check)	pinto	41	100	55	0	351	35	3.3	
AC Agrinto (B)	pinto	9	101	54	-2	337	50	2.5	
AC Island (A)	pinto	5	111	54	-2	348	49	3.1	
CDC Minto	pinto	26	111	54	0	418	39	3.1	
Pecos (A)	pinto	5	96	56	1	323	50	2.2	
Winchester	pinto	16	99	49	-2	349	41	2.4	
Othello – maturity = 102 days from seeding, yield 2961 kg/ha									
AC Redbond (check)	small red	29	100	52	0	252	41	2.3	
AC Redbond – maturity = 101 days from seeding, yield 2991 kg/ha									

Remarks: * Days from seeding. (A) = First year entry. (B) = Second year entry in 2007

LENTIL - EARLY

Relative yield % of Milestone 2003-2006

Variety	Region (see map)																				
	1				2				3				4								
	Sty*	%			Sty	%			Sty	%			Sty	%							
CDC Milestone (R)	7	100	1	100	1	100	1	100	2	100	2	100	2	100	11	100	E	41	35	S	G
CDC Blaze (R) +	7	87	1	72	1	114	2	85	2	85	11	88	11	88	11	88	E	39	35	S	R
CDC Impact (R) (CL)	2	98	-	-	-	-	-	-	-	-	2	98	2	98	2	98	E	34	-	S	R
CDC Imperial (R) (CL)	2	76	-	-	-	-	-	-	-	-	2	76	2	76	2	76	E	29	-	S	R
CDC Lemay (R) +	1	73	-	-	-	-	-	-	1	128	2	101	2	101	2	101	E	-	35	S	G
CDC Red Rider (1308M-7)	2	91	-	-	-	-	-	-	-	-	2	91	2	91	2	91	E	43	-	S	R
CDC Redberry (R)	5	88	1	167	1	173	1	111	1	111	8	112	8	112	8	112	E	44	41	S	R
CDC Robin (R)	5	78	1	95	1	112	1	78	1	78	8	85	8	85	8	85	E	41	27	S	R
CDC Rouleau (R)	3	89	1	87	1	136	1	130	1	130	6	103	6	103	6	103	M	42	37	S	R
CDC Viceroy (R) +	7	96	1	104	1	162	2	133	2	133	11	110	11	110	11	110	E	41	31	S	G
Crimson (R) +	5	84	1	70	1	73	2	95	2	95	9	84	9	84	9	84	E	27	39	S	R
Eston (R)	3	88	-	-	-	-	-	-	1	77	4	85	4	85	4	85	E	39	33	S	G
CDC Milestone - Yield (kg/ha)		1879		658		2335		1477													

Remarks: Varieties marked with (A) are first year entries in 2007.

* sty - station years

** Seed size - S = small, M = medium, L = large

***Seed coat color G = green, R = red

++ Maturity E=early, M=mid, L=late

CL Clearfield variety.

- no data.

+ not entered in 2007.

Early trials failed in 2007.

LENTIL – L A T E

Relative yield % of Laird 2003-2007

Variety	Region (see map)												Total station years	Yield as % of Laird	Relative maturity rating (Early, Medium, Late) + +	Height (cm)	Weight (g/1000)	Seed size *	Seed color ***
	1		2		3		4												
	Sty*	%	Sty	%	Sty	%	Sty	%											
Laird (R)	8	100	-	-	-	-	2	100	10	100	L	35	77	L	G				
CDC Impress (2471 (A) (CL)	1	94	-	-	-	-	-	-	1	94	-	-	59	M	G				
CDC Glamis (R) +	5	102	-	-	-	-	2	103	7	102	L	35	71	L	G				
CDC Grandora (R) +	3	101	-	-	-	-	-	-	3	101	L	46	69	L	G				
CDC Greenland (1196D-5)	3	113	-	-	-	-	-	-	3	113	L	45	64	L	G				
CDC Improve (LGBC) (CL)	3	114	-	-	-	-	-	-	3	114	L	43	70	L	G				
CDC Meteor (R) +	5	113	-	-	-	-	1	91	6	110	M	45	51	M	G				
CDC Plato (R)	8	121	-	-	-	-	2	100	10	116	L	33	70	L	G				
CDC Richlea (R)	4	128	-	-	-	-	-	-	4	128	M	43	53	M	G				
CDC Sedley (R) +	5	111	-	-	-	-	-	-	6	110	M	46	75	M	G				
CDC Sovereign (R) +	7	96	-	-	-	-	2	102	9	97	L	47	64	L	G				
CDC Vantage (R) +	5	113	-	-	-	-	2	99	7	109	L	32	59	M	G				
Laird – Yield (kg/ha)	1647											1583							

Remarks: Varieties marked with (A) are first year entries in 2007.

- * sty – station years
- ** Seed size – S = small, M = medium, L = large
- ***Seed coat color G = green, R = red
- ++ Maturity E=early, M=mid, L=late
- CL Clearfield variety.
- no data.
- + not entered in 2007.
- Early trials failed in 2007.

F A B A B E A N

Relative yield % of Earlibird 2000-2007

Variety	Station years	Yield as	Relative maturity	Plant height	Weight	Flower
		% of Earlibird	(Early, Medium, Late)	(cm)	(g/1000)	color**
Earlibird ☉	27	100	E	86	543	C
CDC Blitz (R)	37	98	M-L	96	463	C
CDC Fatima (R)	31	94	M	92	533	C
Snowbird ☉	24	105	E	93	526	W
Earlibird – Yield (kg/ha)		5462				

FULLY TESTED VARIETIES

Aladin (R)	Fully Tested	82	L	100	431	C
Ben ☉	Fully Tested	110	E	101	584	C
Cresta	Fully Tested	98	M	86	591	W
Hertz Freya	Fully Tested	80	L	111	398	C
Orion (R)	Fully Tested	84	M	77	347	C
Outlook	Fully Tested	92	L	100	373	C
Pegasus	Fully Tested	88	L	99	393	C
Scirocco	Fully Tested	104	M-L	89	576	C

Remarks: Varieties with more than 10 station years are fully tested. Varieties with (R) are registered with CFIA, ☉ have Plant Breeder's Rights.

** W – white flowered, zero tannin, C – colored flower, tannin.

Fully tested varieties not tested in 2007.

C H I C K P E A – D E S I

Relative yield % of Myles 2003-2006

Variety	Region (see map)						Total station years	Yield as % of Myles	Relative maturity rating (Early, Medium, Late)	Height (cm)	Seed weight (g/1000)
	1		2		4						
	Sty*	%	Sty	%	Sty	%					
Myles	11	100	3	100	2	100	16	100	E	38	223
CDC Anna	11	114	3	113	2	75	16	109	M	52	197
CDC Cabri	11	111	3	94	2	88	16	105	E	54	305
CDC Desiray	11	106	3	93	2	109	16	104	M	48	202
CDC Nika	11	114	3	103	2	72	16	107	E	53	318
CDC Vanguard	2	115	–	–	–	–	2	115	M	51	219
Myles – Yield in kg/ha		2584		1752		1427		2284			

C H I C K P E A – K A B U L I

Relative yield % of Sanford 2003-2006

Variety	Region (see map)						Total station years	Yield as % of Sanford	Relative maturity rating (Early, Medium, Late)	Height (cm)	Seed weight (g/1000)
	1		2		4						
	Sty*	%	Sty	%	Sty	%					
Sanford	11	100	3	100	2	100	16	100	L	54	412
Amit ☉ (R)	11	148	3	148	2	163	16	150	M	54	270
CDC Chichi	7	126	2	120	–	–	9	125	M	52	362
CDC Chico	7	149	2	151	–	–	9	150	E	51	246
CDC Diva	11	99	3	86	2	153	16	104	L	50	458
CDC Frontier	11	171	3	155	2	180	16	169	L	53	361
CDC Xena	11	106	3	100	2	123	16	107	L	50	455
CDC Yuma	11	114	3	96	2	124	16	112	L	54	426
Sanford – Yield in kg/ha		2456		1312		748					

Remarks: Two trials failed in 2007. Varieties with (R) are registered with CFIA, ☉ have Plant Breeder's Rights.

*sty – station years.

– no data.