



Prairie Canola Variety Trials

2004 Test Results



The Prairie Canola Variety Trials (PCVT) were conducted across western Canada according to a standard protocol. Trials were conducted by seed companies, government researchers and independent contractors in three growing zones across the prairies – short season, mid-season and long season. Two replicated tests were conducted at each site to group together varieties with similar maturity and to ensure that valid statistical comparisons could be made between varieties.

The test plots were kept weed-free using conventional herbicides depending on the weeds at each site. Herbicide-tolerant varieties were not sprayed with their companion herbicide. Each zone has been identified in the map on page 26. Variety characteristics appear in one table (page 27), and trial results at the individual sites are presented in tables according to the three growing season zones and the two tests (pages 28-30).

Here are some guidelines to aid in variety selection:

Weed control system

a. What are the weeds on the field chosen to grow canola?

b. What is the weed spectrum of the different herbicides in each weed control system (Roundup, Liberty, Clearfield or conventional)?

c. What is the current herbicide rotation? Remember to rotate herbicides between different groups to delay the development of weed resistance.

d. Is there potential herbicide carryover (especially Group 2) that would influence crop or variety choice?

Blackleg resistance

Choose a variety that is MR (moderately

resistant) or R (resistant to blackleg). A new strain of blackleg (PG3) has been confirmed in western Canada and not all varieties will have resistance to this new strain. Blackleg cankers from this new strain may develop on varieties rated as resistant.

Yield potential

Check the PCVT results for information on yield. Look at locations across the growing zone and at the zone average. Ask a seed dealer for more information on the varieties. Review data on the Canola Performance On-line Database at www.canola-council.org/POD. Consider other information such as maturity, lodging resistance and cost.

Interpreting PCVT information

Use the site map to identify the closest growing zone and the trial locations. But don't limit the analysis to the closest growing areas. Compare local results to other locations within the same zone.

Zone tables show the actual yield of the check (*Brassica napus* - 46A65, *B. rapa* - AC Sunbeam) and other variety yields relative to the check. Two tests were conducted at each site. Compare each variety to the check

variety—not to other varieties. Comparisons between varieties in different tests are not statistically valid, even if they were at the same location. Although variety trials are carefully conducted, small percentage differences in yield are usually meaningless.

Check the Least Significant Difference (LSD) of the test. If the difference between two varieties is less than the LSD, the varieties are not considered different. The Coefficient

of Variation (CV) gives an indication of the random variability in the test. The smaller the CV, the better the test.

The characteristics table, (page 27) includes yield and additional information on maturity, resistance to lodging, blackleg resistance, varietal type (open-pollinated, hybrid, synthetic) and herbicide tolerance. Use this information in addition to yield to choose a variety.





All season zone summary

VARIETY	2003 Yield % of 46A65 All Zones Average	2004 Yield % of 46A65 Zones (Station Years)				Days to Maturity +/- 46A65 Zones				Height Lodging Compared to 46A65 All Zones		Blackleg rating	Type	Organization
		Short (8)	Mid (16)	Long (12)	All Zones Average	Short	Mid	Long	All Zones	+/- inches	Rating +="better"			
Conventional														
46A65	100	100	100	100	100	0	0	0	0	0	0	R	OP	Pioneer Hi-Bred
46H02	116	117	113	112	113	-3	-1	-1	-1	-1	0	R	Hyb	Pioneer Hi-Bred
Clearfield														
163-12*	104	104	104	104	104		2	2	2	-1	-1	MS	OP	Quality Assured Seeds
45H72		118	113	108	112	-3	-2	-2	-2	1	0	R	Hyb	Pioneer Hi-Bred
46A76	98	101	101	97	100	2	2	2	2	1	0	R	OP	Pioneer Hi-Bred
46H70		100	104	104	103	-1	-1	-1	-1	1	0	R	Hyb	Pioneer Hi-Bred
AV 9289		100	94		96	-3	-2		-2	3	-1	R		Advanta Seeds
Cougar CL	95	99	91		94	-2	-1		-1	-2	0	R	OP	Sask Wheat Pool
SP 442 CL			95		95		-3		-3	-1	-1	MR	Hyb	Sask Wheat Pool
SP Deliver CL		91	85		87	-4	-1		-2	-3	0	MR	OP	Sask Wheat Pool
SP Distinction CL		84	79		81	7	3		5	-4	1	MR	OP	Sask Wheat Pool
Liberty Link														
5020	125	133	126	116	124	-4	-3	-2	-3	-3	0	R	Hyb	Bayer CropScience
5030	126	133	132	120	128	-4	-1	-1	-2	3	0	R	Hyb	Bayer CropScience
5070		132	129	123	128	-3	0	0	-1	3	0	R	Hyb	Bayer CropScience
LBD 2393LL			99		99		3		3	4	0	MS	OP	Brett-Young Seeds
Roundup Ready														
1841			111	108	110		1	1	1	2	0	R	Hyb	Canterra Seeds Ltd.
1896		104	99		101	-6	-4		-4	-2	-1	R	Hyb	Canterra Seeds Ltd.
3235		97			97	-4			-4	-5	0	MR	OP	Monsanto Canada Inc.
9451		108	102	99	102	-4	-3	-1	-3	1	-1	MR	Syn	PROVEN SEED
9550		105	105	97	103	-2	-1	-1	-1	0	0	R	OP	PROVEN SEED
3140_01*		98	93	92	94	-1	-2	1	-1	0	-1	R	OP	Brett-Young Seeds
33-95		100	96		97	-3	-2		-2	-3	0	R	OP	Monsanto Canada Inc.
34-55	97	102	100	95	99	1	1	1	1	0	0	MR	OP	Monsanto Canada Inc.
3458_01*		104	98		96	0	1	1	1	0	0	R	OP	Brett-Young Seeds
35-85	98			94	94			2	2	1	0	R	OP	Monsanto Canada Inc.
43A56	96	105	93	87	94	-11	-7	-7	-8	-3	-1	MR	OP	Pioneer Hi-Bred
45H21	119	122	116	114	116	-4	-2	-1	-2	0	0	R	Hyb	Pioneer Hi-Bred
45H24		123	114	115	116	-4	-3	-2	-2	1	0	R	Hyb	Pioneer Hi-Bred
46H23	111	111	109	107	109	-3	-2	-1	-2	-1	0	R	Hyb	Pioneer Hi-Bred
AV 9505			104	102	103		0	1	1	3	0	R	Hyb	Advanta Seeds
Fortune RR	96	97	93	91	93	-2	-1	0	-1	0	0	R	OP	Secan
SW GladiatoRR	109		101		101		-2		-2	-1	0	MR	Syn	Quality Assured Seeds
LBD 588RR	95	100	94	89	94	-2	-1	-1	-1	-1	0	R	OP	Brett-Young Seeds
SP 451 RR			111	107	109		-2	-2	-2	0	0	MR	Hyb	Sask Wheat Pool
SP Banner	102	107	103	93	101	-4	-2	-1	-2	-1	0	R	OP	Sask Wheat Pool
SP Desirable RR			108	104	107		-3	-2	-3	-1	0	R	Syn	Sask Wheat Pool
SW 6802		114	105	100	105	-4	-3	-2	-3	-1	-1	MR	Syn	ProMark Seed
SW 9803		111	101	101	103	-5	-3	0	-3	-2	-1	MR	Hyb	Svalof Weibull

*not registered yet; For additional information on 2003 trials visit www.canola-council.org

B. napus (Specialty Oils)

VARIETY	2004 Yield % of 46A65 Zones (Station Years)			Maturity +/- 46A65 Zones				Height Lodging Compared to 46A65 All Zones		Blackleg rating	Type	Organization	
	Mid (16)	Long (12)	All Zones Average	Short	Mid	Long	All Zones	+/- inches	Rating +="better"				
Clearfield													
NEX 824 CL	93	99	96		1	2	1		0	0	R	OP	Dow AgroSciences
NEX 830 CL	97	103	100		3	3	3		4	0	R	OP	Dow AgroSciences
Roundup Ready													
CNH1505R*	104		104		-3		-3		-1	0	MS	Hyb	Cargill Specialty Oils
IMC209RR	89		89		1		1		2	0	MR	OP	Cargill Specialty Oils
v1031	105	108	106		-1	-1	-1		2	-1	MR	Hyb	Cargill Specialty Oils
v1032	102	98	100		-1	-1	-1		2	0	MR	Hyb	Cargill Specialty Oils
SP Craven RR	83		83		0		0		-3	-1	R	OP	Sask Wheat Pool

*not registered yet

B. rapa (Polish)

VARIETY	2003 Yield % of AC Sunbeam All Zones Average	2004 Yield % of AC Sunbeam Zones (Station Years)			Days to Maturity +/- AC Sunbeam Zones			Height Lodging Compared to AC Sunbeam All Zones		Rating rating	Blackleg Type	Organization	
		Short (7)	Mid (3)	All Zones Average (10)	Short	Mid	All Zones	+/- inches	+="better"				
AC Sunbeam	100	100	100	100	0	0	0		0	0	NA	OP	AAFC
AC Parkland	-	96	82	92	2	4	2		2	0	NA	OP	AAFC
ACS-C7	102	96	94	96	2	2	2		3	0	NA	Syn	AAFC
SW Spirit River	101	97	69	90	5	5	5		2	0	NA	OP	Peace Pedigreed Seed

Site specific information

SHORT SEASON ZONE TEST 1

VARIETY	2004 Average Yield	Bonnyville, AB	Dawson Creek, BC	Didsbury, AB	Fairview, AB	Fort St. John, BC	Rycroft, AB	Shellbrook, SK	Thorhild, AB	Westlock, AB
B. napus (ARGENTINE)										
Conventional										
46A65	100		100	100		100	100	100	100	100
Clearfield										
AV 9289	100		94	94		88	80	107	117	116
45H72	118		104	106		104	118	151	124	121
Cougar CL	99		105	92		91	91	119	103	89
SP Deliver CL	91		97	87		92	75	111	86	98
SP Distinction CL	84		67	84		79	101	106	82	86
Liberty Link										
5020	133		132	120		113	94	191	144	147
Roundup Ready										
LBD 588RR	100		76	99		94	95	120	98	114
1896	104		88	103		94	93	132	106	119
3235	97		81	98		95	84	119	100	109
43A56	105		100	94		95	106	136	107	118
45H21	122		103	113		111	104	159	130	136
SW 6802	114		98	107		99	124	144	122	113
SP Banner	107		108	98		100	114	118	106	107
SW 9803	111		107	109		102	90	133	116	123
46A65 Yield (bu/ac)										
CV	9		14	5		6	13	6	10	6
LSD .05 (as % of 46A65)	13		19	8		9	22	11	15	9

B. rapa

(POLISH)	2004 Average Yield	Bonnyville, AB	Dawson Creek, BC	Didsbury, AB	Fairview, AB	Fort St. John, BC	Rycroft, AB	Shellbrook, SK	Thorhild, AB	Westlock, AB
AC Sunbeam	100	100	100	100	100	100	100	100	100	100
AC Parkland	96	94	97	101	112	91		82		92
ACS-C7	96	98	87	100	109	96		86		95
SW Spirit River	97	108	107	113	98	97		55		99
AC Sunbeam (bu/ac)										
CV	9	7	9	5	15	11		6		6
LSD .05 (as % of AC Sunbeam)	13	12	14	9	24	16		8		10

Site specific information

SHORT SEASON ZONE TEST 2

VARIETY	2004 Average Yield	Dawson Creek, BC	Didsbury, AB	Fort St. John, BC	Rimber, AB	Rycroft, AB	Shellbrook, SK	Thorhild, AB	Westlock, AB
B. napus (ARGENTINE)									
Conventional									
46A65	100	100	100	100	100	100	100	100	100
46H02	117	101	115	112	102	100	154	110	143
Clearfield									
46A76	101	95	102	105	87	100	98	110	110
46H70	100	90	101	103	84	92	125	87	118
Liberty Link									
5030	133	109	133	121	120	118	185	134	140
5070	132	120	128	128	116	114	182	134	136
Roundup Ready									
3140_01*	98	94	106	108	86	81	96	101	113
3458_01*	104	100	107	112	109	74	105	114	112
33-95	100	97	98	104	92	79	119	92	116
34-55	102	91	101	99	100	97	115	102	108
45H24	123	103	123	114	120	91	171	121	143
46H23	111	114	95	106	104	80	154	104	130
9451	108	93	119	111	102	86	137	101	116
9550	105	102	104	96	102	85	136	103	113
Fortune RR	97	82	101	102	95	79	118	95	105
*not registered yet									
46A65 Yield (bu/ac)									
CV	9	9	6	6	11	15	7	10	5



Site specific information

MID SEASON ZONE TEST 1

VARIETY	2004 Average Yield																
<i>B. napus</i> (ARGENTINE)	Aberdeen, SK	Arborg, MB	Camrose, AB	Canora, SK	Fl. Sask, AB	Kelvington, SK	Killam, AB	Lake Lenore, SK	Melfort, SK	N. Battleford, SK	Rosthern, SK	Saskatoon, SK	Scott, SK	Trochu, AB	Kitscoty, AB	Watrous, SK	Yorkton, SK
Conventional																	
46A65	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Clearfield																	
45H72	113	126	119	117	96	108	114	124	105	97	129	122	117	98	128	100	104
AV 9289	94	93	87	105	100	88	85	94	82	80	111	102	96	99	106	86	95
Cougar CL	91	95	80	97	99	72	96	98	88	84	104	84	101	82	97	87	89
SP 442 CL	95	88	70	110	87	89	87	94	90	86	116	100	108	83	111	89	110
SP Deliver CL	85	84	68	96	96	78	93	93	79	78	90	76	96	78	87	78	90
SP Distinction CL	79	82	66	86	81	63	80	86	86	103	94	72	83	70	81	49	80
Liberty Link																	
5020	126	113	98	139	133	145	133	123	112	120	144	121	131	113	148	121	125
Roundup Ready																	
1896	99	89	87	100	114	98	105	95	84	92	110	96	118	90	113	96	102
9451	102	93	90	115	96	101	86	100	97	98	125	96	115	105	121	89	103
33-95	96	86	87	109	102	92	106	94	92	107	104	86	105	81	109	84	99
43A56	93	95	85	107	87	85	121	93	82	96	96	92	106	78	100	72	98
45H21	116	122	113	117	120	110	119	120	111	110	123	105	118	106	138	115	103
45H24	114	113	102	119	128	130	105	98	111	111	127	115	113	109	128	102	110
CNH1505R**	104	105	96	122	93	101	110	103	94	88	116	105	106	99	119	92	117
Fortune RR	93	91	82	98	88	97	111	89	85	98	112	90	104	76	108	71	94
LBD 588RR	94	82	84	108	87	83	101	89	90	79	105	88	98	99	114	97	101
SP 451 RR	111	105	98	111	122	118	119	110	100	102	123	99	108	104	129	110	111
SP Banner	103	101	89	108	121	101	113	95	96	108	119	97	101	86	113	102	102
SP Desirable RR	108	107	80	116	123	121	113	111	99	115	121	92	114	95	131	87	109
SW 6802	105	101	96	118	94	100	106	112	102	89	121	96	112	99	120	105	108
SW 9803	101	109	98	108	88	101	85	103	88	88	127	93	104	102	117	106	99
*low linolenic; **not registered yet																	
46A65 Yield (bu/ac)																	
CV	10	8	11	6	10	8	12	9	9	13	5	7	6	7	8	15	7
LSD .05 (as % of 46A65)	14	13	14	10	14	12	18	13	11	18	8	10	10	9	13	23	11
*low linolenic																	
B. rapa (POLISH)																	
AC Sunbeam	100								100	100		100					
AC Parkland	82								89	67		91					
ACS-C7	97								97	92		102					
SW Spirit River	73								80	60		80					
AC Sunbeam (bu/ac)																	
CV	29								39	14		34					
LSD .05 (as % of 46A65)	8								8	10		7					
LSD .05 (as % of 46A65)	12								12	12		7					

Site specific information

MID SEASON ZONE TEST 2

VARIETY	2004 Average Yield																
<i>B. napus</i> (ARGENTINE)	Aberdeen, SK	Arborg, MB	Camrose, AB	Canora, SK	Fl. Sask, AB	Kelvington, SK	Killam, AB	Lake Lenore, SK	Melfort, SK	N. Battleford, SK	Rosthern, SK	Scott, SK	Trochu, AB	Vermilion, AB	Watrous, SK	Yorkton, SK	
Conventional																	
46A65	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
46H02	113	119	131	110	110	120	125	137	113	104	111	93	114	109	113	88	103
Clearfield																	
163-12*	104	110	121	105	103	90	109	131	98	81	105	78	103	106	105	119	99
46A76	101	121	105	100	95	106	104	124	104	102	95	77	94	98	103	97	97
46H70	104	126	123	103	97	111	119	121	92	83	98	99	103	96	104	97	96
NEX 824 CL°	93	113	101	87	104	86	91	116	79	45	107	87	83	102	101	100	88
NEX 830 CL°	97	131	93	95	90	113	113	79	94	77	107	71	107	109	92	95	91
Liberty Link																	
5030	132	159	142	117	147	165	146	141	121	118	138	115	122	119	135	109	123
5070	129	152	133	119	134	150	147	146	127	116	132	106	127	131	129	103	113
LBD 2393LL	99	118	107	103	74	116	120	104	110	83	95	59	104	104	99	98	95
Roundup Ready																	
9550	105	88	130	113	95	112	108	138	109	109	108	68	105	96	106	101	101
3140_01*	93	93	103	92	80	102	89	91	96	66	102	82	101	103	106	87	90
34-55	100	101	88	103	97	111	109	120	91	91	100	84	109	98	107	105	84
3458_01*	98	101	100	102	85	94	107	106	95	77	98	84	101	112	105	101	101
46H23	109	133	121	110	113	113	126	112	94	112	98	88	103	104	114	106	102
AV 9505	104	107	138	110	95	83	80	126	118	102	108	65	108	126	105	100	98
Gladiator	101	109	102	101	96	115	119	120	79	111	93	82	109	97	107	91	92
IMC209RR°	89	106	95	104	81	84	83	96	81	66	107	60	95	99	88	86	98
SP Craven°	83	80	89	92	60	80	90	96	74	46	88	80	97	95	101	82	85
v1031°	105	133	96	114	85	104	94	112	106	73	114	104	114	118	118	99	103
v1032°	102	105	116	111	94	106	105	121	91	79	103	84	101	104	111	95	105
°low linolenic; *not registered yet																	
46A65 Yield (bu/ac)																	
CV	10	12	15	6	12	7	10	12	10	14	9	9	8	9	7	15	8
LSD .05 (as % of 46A65)	14	19	29	9	17	11	16	21	14	18	14	11	12	13	11	24	12



Site specific information

LONG SEASON ZONE TEST 1

VARIETY	2004 Average Yield	Arden, MB	Barnsley, MB	Boissevain, MB	Brandon, MB	Eigin, MB	High Bluff, MB	La Salle, MB	Outlook, SK	Rosebank, MB	Stonewall, MB	Thornhill, MB	Treherne, MB
B. napus (ARGENTINE)													
Conventional													
46A65	100	100	100	100	100	100	100	100	100	100	100	100	100
46H02	112	102	111	134	96	118	112	107	103	106	128	121	103
Clearfield													
45H72	108	104	121	112	93	119	115	93	103	102	117	115	107
Liberty Link													
5020	116	123	119	136	95	135	118	97	105	112	123	125	108
Roundup Ready													
LBD 588RR	89	94	93	89	81	99	88	91	82	82	90	89	89
v1032*	98	96	95	98	89	119	102	94	98	87	102	104	92
43A56	87	88	92	73	61	103	92	73	87	89	96	101	82
45H21	114	111	102	121	100	126	114	108	110	100	136	114	121
45H24	115	113	112	123	125	131	113	100	105	108	125	113	114
SW 6802	100	103	88	101	84	116	105	98	96	95	112	98	105
9451	99	99	89	99	85	113	107	100	93	92	108	104	102
SP 451 RR	107	108	104	112	101	116	115	89	103	92	120	115	112
SP Banner	93	100	92	91	90	91	99	75	94	84	104	104	92
SP Desirable RR	104	109	92	138	99	106	108	94	101	91	103	109	102
Fortune RR	91	93	84	100	90	98	94	93	99	81	82	93	83
SW F5207 RR*	101	105	98	92	83	131	107	98	93	97	118	104	91
*low linolenic; *not registered yet													
46A65 YIELD (bu/ac)	63	78	57	24	84	54	89	51	88	74	63	41	56
CV	8	5	11	14	14	8	4	8	4	8	10	7	7
LSD .05 (as % of 46A65)	8	8	16	26	19	13	6	10	6	10	19	11	10

Site specific information

LONG SEASON ZONE TEST 2

VARIETY	2004 Average Yield	Arden, MB	Barnsley, MB	Boissevain, MB	Brandon, MB	Eigin, MB	High Bluff, MB	La Salle, MB	Outlook, SK	Rosebank, MB	Stonewall, MB	Thornhill, MB	Treherne, MB
B. napus (ARGENTINE)													
Conventional													
46A65	100	100	100	100	100	100	100	100	100	100	100	100	100
Clearfield													
NEX 824 CL°	99	97	88	139	97	101	90	101	94	83	91	95	106
NEX 830 CL°	103	98	87	164	112	104	102	101	96	95	93	90	99
46A76	97	100	88	119	93	100	100	93	89	88	92	92	107
46H70	104	109	108	106	98	118	103	96	99	91	108	106	112
Liberty Link													
5030	120	130	125	166	98	88	122	105	112	113	136	114	127
5070	123	134	119	159	111	114	121	116	113	119	131	114	132
Roundup Ready													
AV 9505	102	105	108	118	91	103	98	97	88	96	111	97	116
3140_01*	92	93	98	94	83	92	84	98	92	88	98	83	97
3458_01*	96	99	111	96	98	96	89	91	99	92	92	88	102
1841	108	111	92	150	99	102	108	96	98	105	115	104	113
v1031°	108	110	124	104	86	124	114	97	107	98	114	105	108
34-55	95	101	88	103	85	101	94	92	101	89	100	85	107
35-85	94	98	89	108	99	89	90	90	101	92	92	84	95
46H23	107	111	109	120	88	116	110	103	101	94	111	102	115
9550	97	103	96	100	89	105	98	94	91	91	97	101	101
*low linolenic; *not registered yet													
46A65 YIELD (bu/ac)	63	76	51	21	69	61	89	57	84	76	69	40	56
CV	8	4	11	15	11	7	4	8	7	8	5	5	9
LSD .05 (as % of 46A65)	8	6	16	31	15	11	7	11	10	11	8	7	14

