

# THE NEXT GENERATION IN VARIETY EVALUATION

Canola Performance Trials (CPT) represent the next generation in variety evaluation for western Canadian canola growers. The trials provide:

- Relevant, unbiased and timely performance data that reflects actual production practices.
- Comparative data on leading varieties and newly introduced varieties.

The CPT system includes both small plot and large field scale trials. Results in this booklet are based on 10 small plot trials and 45 field scale trials across the Prairies, including 26 standard trials, 12 straight cut trials and seven clubroot-resistant variety trials. Further information, CPT protocols and variety evaluation tools are available online at **canolaperformancetrials.ca**.

Site distribution is based on seeded acres in Manitoba, Saskatchewan, Alberta and British Columbia.

The small plot system ensures that:

- All varieties are treated with appropriate commercially associated herbicides and seed treatments.
- An independent third-party representative inspects all trials.
- Varieties are in blocks based on maturity. That way, harvest occurs at the appropriate time to minimize harvest losses due to maturity differences.

Field scale comparisons add extra perspective for assessing consistency in variety performance. Comparisons are based on harvested strips of 0.5 to 1.5 acres each. Field scale data is not necessarily replicated in all cases, but the data has been audited to make sure it complies with CPT protocols.

The CPT Technical Committee established protocols and developed research plot designs to ensure that the data is representative. Performance objectives were established to provide guidelines on timely field operations and data collection. All sites are inspected to verify these guidelines were followed to allow a fair comparison among the varieties tested.

Audits of field scale projects give growers the confidence that the protocol was conducted in a scientifically sound manner and that comparisons are appropriate. Qualified professionals with extensive background in conducting field scale research trials perform the audits.

This booklet is one of several sources of information to consider in making the best decisions for your farm.

Also check out the **Canola Variety Selection Guide: Featuring CPT Summary Data**, which was released in the fall of 2017.

## **CPT PROGRAM**

The three Prairie canola grower groups — Alberta Canola Producers Commission (Alberta Canola), the Saskatchewan Canola Development Commission (SaskCanola) and the Manitoba Canola Growers Association — funded the 2017 program. The provincial oilseed specialists and industry scientists provide expertise. The Canola Council of Canada delivers the program.

#### The B.C. Grain Producers Association conducted trials in the Peace region as its means of participation.

Haplotech (led by Dr. Rale Gjuric) coordinates the trials under the guidance of the CPT Governance Committee that oversees approval of varieties, protocol design, data collection, analysis and reporting, and financial management. CPT Governance Committee members include: representatives from Alberta Canola, SaskCanola, the Manitoba Canola Growers Association and the B.C. Grain Producers Association; provincial oilseed specialists from Manitoba, Saskatchewan and Alberta; three commercial Canadian Seed Trade Association representatives; and the Canola Council of Canada (CCC). The CCC delivers the program on their behalf. The CCC agronomy specialists provide guidance and assist with quality assurance.

Commercial canola varieties tested in small plot trials had seed provided by Bayer CropScience, BrettYoung Seeds, CANTERRA SEEDS, Cargill, DL Seeds, Proven Seed/CPS, DEKALB, Syngenta and DuPont Pioneer.





Results are organized by short, medium and long season zones. CPT uses the Western Canada Canola/Rapeseed Recommending Committee (WCC/RRC) season zones, which are based on typical frost free days, growing degree days and soil type. Grey wooded soils, for example, are in the short season zone. See Table A for specific numbers for each zone.

	Table A: Season Zones											
Season	Season Frost Free Days Growing Degree Days (Base 5°C)*											
Short	<b>Short</b> 75–95 1,100–1,450											
Medium	95-115	1,450-1,700										
Long	Long 115+ 1,700+											
*On a base 5°C scale, growing degree days only accumulate on days when highs are above 5°C.												

Small plot and field scale data are presented separately in the following tables. For more detailed performance results, growing conditions and production details for specific trial sites, use the online CPT database at **canolaperformancetrials.ca**.

The tables include yield, days to maturity, height and lodging scores for each variety. Lodging scores are between 1 and 5, with 1 being no lodging and 5 being completely lodged.

Gross revenue is based on yield multiplied by \$11.45/bu. This is based on \$503.60 per tonne, the March 2018 futures close on September 29, 2017 and a 50-pound bushel weight. Premiums are included in the calculations for specialty market varieties.

In the tables, varieties are listed numerically and alphabetically, starting with Clearfield (CL) varieties, followed by Liberty Link (LL) and Roundup Ready (RR).

Each zone and small plot location is identified on the map on page 5.

- 1. To begin, use the map on page 5. Identify your growing season zone and trial locations closest to your farm.
- 2. To evaluate yield potential, look at all small plot and field scale locations in your growing season zone and the average yield for your zone.
- 3. Consider other information such as maturity, lodging resistance and cost.
- 4. Ask your seed dealer for more information on specific varieties.

## TOOLS TO HELP YOU MAKE BETTER CHOICES

**CV** – For coefficient of variation (CV), the lower the CV value, the more reliable the test. For example, if comparing results from two test locations, one with a CV of 4% and the other with a CV of 8%, the test with the CV of 4% can be considered more reliable. There is always variability in research trials. The key is designing and managing experiments so CVs stay within a reasonable range. For the CPT, experience has shown that CVs below 15% indicate good test reliability.

**LSD** – The least significant difference (LSD at a 5% level of statistical significance) for each dataset indicates whether differences between varieties are statistically meaningful. Varieties should only be considered different in yield performance if the numerical difference between them is greater than the LSD value.

Using the sample table below, if the LSD is 5.0, varieties A and B are not statistically different, B and C are not statistically different, but A and C are statistically different. In the yield graphs for each season zone (see page 7), LSD for each variety group is given on the left.

Variety	Yield (bu./ac.)
А	52
В	54
C	58
LSD	5.0

#### **Small Plot Locations Throughout Western Canada**



#### **Average Results by Season Zone (small plot data)**

		Long Se	ason Zone	(3 trials)			Mid Sea	son Zone (	5 trials)			Short Se	ason Zone	(2 trials)			Overall	Average (A	II Zones)			
Variety	Yield (bu./ac.)	Yield (% 5440)	Days to Maturity	Lodging	Height (in.)	Yield (bu./ac.)	Yield (% 5440)	Days to Maturity	Lodging	Height (in.)	Yield (bu./ac.)	Yield (% 5440)	Days to Maturity	Lodging	Height (in.)	Yield (bu./ac.)	Yield (% 5440)	Days to Maturity	Lodging	Height (in.)	Disease Tolerance <sup>5</sup>	Distributor
Clearfield																						
5545 CL	58	89	97.3	1.3	49.7	65	96	97.2	1.7	42.4	64	106	98.8	1.0	52.2	63	96	98	1.5	46.6	BL	BrettYoung
CS2200 CL	58	90	98.1	1.1	50.6	59	89	99.8	1.6	42.2	58	96	100.8	1.0	49.5	59	90	100	1.4	46.2	BL	CANTERRA SEEDS
PV 200 CL	60	92	97.6	1.2	50.4	62	93	98.4	1.7	43.3	58	97	98.6	1.0	51.1	61	94	98	1.4	47.0	BL	Proven Seed/CPS
46H75	61	94	99.9	1.2	50.8	65	96	99.8	1.6	42.8	58	96	98.6	1.0	49.6	62	96	100	1.4	46.6	BL	Dupont Pioneer
LSD	9	14				9	13				7	12				9	13					
Liberty Link																						
5440	66	100	96.5	1.0	50.0	67	100	96.3	1.3	43.5	60	100	100.3	1.0	50.0	65	100	97	1.2	46.7	BL	Bayer CropScience
L252	70	106	98.1	1.1	47.8	70	105	95.9	1.4	43.2	62	104	102.0	1.0	49.8	68	105	98	1.3	45.9	BL	Bayer CropScience
L241C	64	97	95.9	1.0	48.2	65	97	95.8	1.3	42.0	60	100	97.9	1.0	48.5	64	98	96	1.2	45.1	BL/CR	Bayer CropScience
LSD	5	8				9	14				5	8				7	11					
Roundup Ready																						
6074 RR	62	95	96.0	1.0	50.6	67	99	99.8	1.7	40.1	63	104	101.0	1.0	45.5	64	99	99	1.4	44.3	BL/S	BrettYoung
6076 RR	61	94	98.0	1.0	53.1	63	95	97.9	1.5	44.0	60	99	99.3	1.0	51.3	62	95	98	1.3	48.2	BL/CR/S	BrettYoung
6080 RR	58	89	97.4	1.1	48.5	61	91	96.6	1.5	38.3	57	93	99.1	1.0	48.4	59	91	97	1.3	43.4	BL	BrettYoung
CS2000	60	92	96.1	1.0	51.0	63	94	97.6	1.7	41.4	59	98	98.5	1.0	51.5	61	94	97	1.4	46.3	BL/CR	CANTERRA SEEDS
CS2100	58	90	97.3	1.8	47.4	64	97	96.9	1.8	40.0	59	99	98.3	1.0	46.9	62	95	97	1.6	43.6	BL	CANTERRA SEEDS
V12-11	63	96	96.6	1.5	48.6	63	95	96.1	1.6	40.9	57	93	98.9	1.0	46.5	62	95	97	1.4	44.4	BL	Cargill — VICTORY Hybrid Canola
PV 540 G	65	99	97.0	1.1	48.8	62	94	96.4	1.6	39.7	59	97	97.0	1.0	47.9	62	96	97	1.3	44.1	BL	Proven Seed/CPS
PV 581 GC	60	93	97.1	1.3	52.9	64	97	99.0	1.5	43.2	58	95	101.5	1.0	52.1	62	95	99	1.3	47.9	BL	Proven Seed/CPS
74-44 BL	58	89	96.5	1.0	45.9	58	87	94.9	1.7	38.8	60	99	97.5	1.0	45.7	58	90	96	1.4	42.3	BL	DEKALB
CS2300 <sup>2</sup>	65	100	97.5	1.3	53.9	69	103	98.2	1.5	42.4	60	100	100.5	1.0	50.9	66	101	99	1.3	47.5	BL	CANTERRA SEEDS
6090 RR <sup>3</sup>	62	95	95.5	1.3	53.9	68	101	99.1	1.5	45.1	60	100	99.4	1.0	52.1	64	99	98	1.4	49.2	BL/CR	BrettYoung
DL1634 RR	60	92	98.6	1.0	54.7	64	96	99.9	1.5	43.4	61	101	101.5	1.0	51.3	62	96	100	1.3	48.4	BL/CR	DL Seeds
45H33	64	97	96.1	1.4	54.7	67	100	94.8	1.7	42.0	60	99	97.0	1.0	50.7	64	99	96	1.5	47.6	BL/CR	Dupont Pioneer
45M35	66	100	96.5	1.5	48.3	69	103	96.9	1.5	40.9	62	104	98.3	1.0	50.8	67	102	97	1.4	45.1	BL	Dupont Pioneer
4187 RR <sup>4</sup>	62	95	96.3	1.1	53.1	65	97	98.7	1.4	42.9	59	98	102.1	1.0	49.5	63	97	99	1.3	47.3	BL/CR	BrettYoung
LSD	7	11				7	10				4	7				6	10					

<sup>1</sup> Indicates varieties with specialty oil profiles and premiums associated with pricing. 2 Previously was DL1512RR, developed by DL Seeds. 3 Previously was DL1630RR, developed by DL Seeds. 4 Previously was SY4187, distributed by Syngenta.

<sup>5</sup> Indicates genetic disease resistance with an "R" or resistant rating to BL = Blackleg or CR = Clubroot and an improved tolerance to sclerotinia "S", as based on variety descriptions submitted to CFIA.

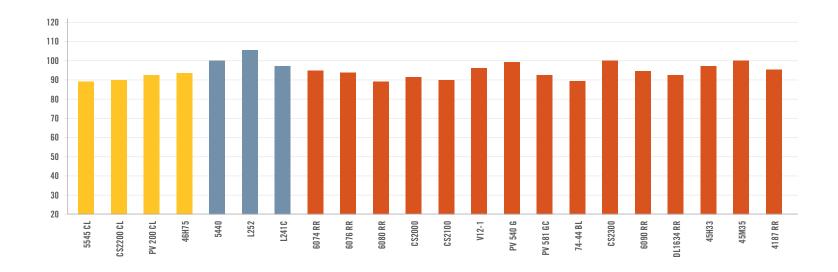
#### **Long Season Yield**

as % of 5440 (66 bu./ac.)



Liberty Link LSD: 8

Roundup Ready LSD: 11



#### Mid Season Yield

as % of 5440 (59 bu./ac.)



Roundup Ready LSD: 10



Only two sites from the short season zone qualified for the 2017 CPT small plot dataset, which is not sufficient to reliably represent variety performance. Therefore summary data for the short season zone is not included in a graph, but is included in the table on page 6. Please refer to the searchable database at canolaperformancetrials.ca for more short season zone data and to generate multi-year short season zone graphs.

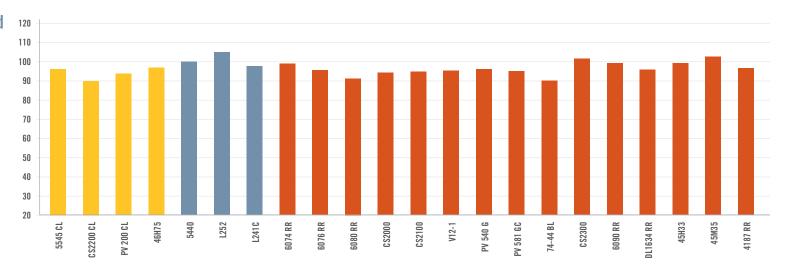
#### Average (All Zones) Yield

as % of 5440 (65 bu./ac.)



Liberty Link LSD: 11

Roundup Ready LSD: 10



#### Long Season Zone: Small plot results by location

			Elm Cr	eek, MB					Melit	a, MB					Lethbri	dge, AB			
Variety	Yield (bu./ac.)	Yield (% 5440)	Gross Revenue/ac.	Days to Maturity	Lodging	Height (in.)	Yield (bu./ac.)	Yield (% 5440)	Gross Revenue/ac.	Days to Maturity	Lodging	Height (in.)	Yield (bu./ac.)	Yield (% 5440)	Gross Revenue/ac.	Days to Maturity	Lodging	Height (in.)	Distributor
Clearfield					·					<u> </u>		1		<u> </u>	·				
5545 CL	52	71	\$601		1.7	45.0	58	102	\$665	101.8	1.0	52.0	63	95	\$719	92.8		52.2	BrettYoung
CS2200 CL	47	63	\$533		1.3	47.4	62	108	\$706	102.8	1.0	50.8	65	99	\$750	93.5		53.6	CANTERRA SEEDS
PV 200 CL	62	84	\$708		1.3	49.3	54	95	\$618	101.0	1.0	52.5	66	99	\$752	94.3		49.4	Proven Seed/CPS
46H75	61	82	\$693		1.3	46.9	54	94	\$614	102.8	1.0	51.9	70	106	\$800	97.0		53.7	DuPont Pioneer
LSD	11						11						6						
Liberty Link																			
5440	74	100	\$846		1.1	49.7	57	100	\$653	100.3	1.0	51.6	66	100	\$758	92.8		48.8	Bayer CropScience
L252	75	101	\$858		1.3	46.5	58	102	\$668	101.8	1.0	48.8	76	114	\$865	94.5		48.0	Bayer CropScience
L241C	68	91	\$774		1.0	46.4	58	101	\$658	100.0	1.0	48.2	66	100	\$755	91.8		50.0	Bayer CropScience
LSD	11						5						5						
Roundup Ready																			
6074 RR	64	86	\$729		1.0	47.5	59	104	\$678	101.0	1.0	50.5	63	95	\$724	91.0		53.6	BrettYoung
6076 RR	65	88	\$746		1.1	50.9	58	101	\$659	101.8	1.0	53.7	61	92	\$700	94.3		54.8	BrettYoung
6080 RR	62	84	\$707		1.3	46.9	55	97	\$632	100.8	1.0	49.0	58	87	\$661	94.0		49.5	BrettYoung
CS2000	64	87	\$733		1.0	48.7	62	108	\$707	100.5	1.0	52.5	53	80	\$605	91.8		51.7	CANTERRA SEEDS
CS2100	58	78	\$660		2.5	44.5	59	103	\$671	101.8	1.0	49.7	59	89	\$676	92.8		48.1	CANTERRA SEEDS
V12-1*	68	93	\$869		2.0	47.2	58	101	\$731	100.5	1.0	49.9	63	95	\$801	92.8		48.8	Cargill
PV 540 G	63	86	\$725		1.3	46.9	60	105	\$686	101.0	1.0	48.9	71	108	\$816	93.0		50.8	Proven Seed/CPS
PV 581 GC	65	87	\$740		1.6	52.8	58	102	\$665	101.8	1.0	53.3	59	89	\$672	92.5		52.7	Proven Seed/CPS
74-44 BL	55	74	\$626		1.0	44.3	58	102	\$668	100.8	1.0	49.4	61	92	\$697	92.3		43.9	DEKALB
CS2300	68	93	\$783		1.7	52.7	60	104	\$682	101.8	1.0	55.2	68	102	\$777	93.3		53.7	CANTERRA SEEDS
6090 RR	62	84	\$708		1.5	54.1	55	96	\$624	100.8	1.0	55.6	70	106	\$800	90.3		52.0	BrettYoung
DL1634 RR	61	82	\$697		1.0	52.3	54	95	\$622	102.0	1.0	55.1	66	100	\$755	95.3		56.8	DL Seeds
45H33	69	93	\$789		1.8	50.1	58	101	\$661	100.0	1.0	52.4	65	98	\$740	92.3		61.8	DuPont Pioneer
45M35	71	96	\$815		1.9	46.4	59	104	\$681	100.0	1.0	51.4	66	100	\$756	93.0		47.0	DuPont Pioneer
4187 RR	62	84	\$707		1.3	50.1	58	102	\$665	101.0	1.0	55.1	67	101	\$767	91.5		54.0	BrettYoung
LSD	8						5						9						
CV	9.3						8.5						9.2						

<sup>\*</sup>Indicates varieties with specialty oil profiles and premiums associated with pricing.

#### Mid Season Zone: Small plot results by location

			Hagu	ie, SK					Melfa	ort, SK					Foresth	urg, AB			
Variety	Yield (bu./ac.)	Yield (% 5440)	Gross Revenue/ac.	Days to Maturity	Lodging	Height (in.)	Yield (bu./ac.)	Yield (% 5440)	Gross Revenue/ac.	Days to Maturity	Lodging	Height (in.)	Yield (bu./ac.)	Yield (% 5440)	Gross Revenue/ac.	Days to Maturity	Lodging	Height (in.)	Distributor
Clearfield										'			'	'					
5545 CL	56	94	\$638	85.3	2.3	45.8	69	108	\$785	99.3	1.3	48.1	38	73	\$433		1.3	34.8	BrettYoung
CS2200 CL	51	87	\$584	90.5	2.0	45.1	62	98	\$709	98.8	1.3	59.8	43	83	\$493		1.2	26.2	CANTERRA SEEDS
PV 200 CL	58	98	\$660	89.0	2.3	47.8	67	105	\$763	95.8	1.5	50.5	37	72	\$427		1.5	35.4	Proven Seed/CPS
46H75	57	97	\$655	88.5	1.8	46.3	63	99	\$722	101.5	1.3	49.3	41	80	\$474		1.3	35.2	DuPont Pioneer
LSD	7						5						8						
Liberty Link																			
5440	59	100	\$675	87.3	1.3	47.1	63	100	\$727	98.0	1.0	49.1	52	100	\$591		1.0	38.3	Bayer CropScience
L252	65	110	\$740	86.8	1.8	48.4	66	103	\$750	98.8	1.0	49.3	51	100	\$589		1.1	37.2	Bayer CropScience
L241C	55	94	\$632	86.3	1.3	46.8	67	106	\$771	100.3	1.0	47.5	46	89	\$525		1.0	36.8	Bayer CropScience
LSD	5						6						7						
Roundup Ready																			
6074 RR	57	97	\$657	88.8	2.3	42.6	61	97	\$702	102.3	2.0	46.4	45	87	\$517		1.0	33.2	Brett Young
6076 RR	59	99	\$671	89.5	1.5	45.9	57	90	\$656	98.0	1.8	50.9	46	89	\$524		1.1	38.7	BrettYoung
6080 RR	56	96	\$647	87.8	1.8	41.8	57	90	\$651	97.5	1.3	46.6	44	86	\$507		1.5	24.0	BrettYoung
CS2000	59	100	\$677	88.5	2.0	46.3	60	95	\$693	95.8	1.8	49.6	45	88	\$518		1.4	27.8	CANTERRA SEEDS
CS2100	61	103	\$694	88.5	2.0	41.5	60	94	\$686	97.3	2.0	45.1	46	89	\$525		1.6	33.7	CANTERRA SEEDS
V12-1*	58	99	\$738	88.0	1.8	43.3	57	89	\$721	95.8	1.8	45.4	49	95	\$620		1.3	35.1	Cargill
PV 540 G	54	92	\$623	86.8	1.8	40.6	63	99	\$722	97.0	1.5	45.6	47	91	\$537		1.4	32.5	Proven Seed/CPS
PV 581 GC	58	98	\$660	90.0	1.5	45.1	59	94	\$680	98.0	1.8	49.8	51	99	\$585		1.1	36.3	Proven Seed/CPS
74-44 BL	51	86	\$584	90.0	1.8	40.1	62	98	\$709	95.5	2.0	45.0	43	82	\$488		1.6	32.7	DEKALB
CS2300	61	103	\$698	89.5	1.8	44.8	63	100	\$726	99.3	1.5	49.5	49	94	\$557		1.0	36.1	CANTERRA SEEDS
6090 RR	60	103	\$693	90.0	1.8	48.5	59	93	\$677	98.3	1.3	52.6	48	93	\$551		1.5	37.4	BrettYoung
DL1634 RR	59	99	\$671	90.5	1.8	46.4	62	97	\$706	103.0	1.5	51.4	46	88	\$523		1.0	36.1	DL Seeds
45H33	63	107	\$720	86.3	1.8	44.8	62	98	\$711	96.0	1.8	47.7	47	91	\$535		1.8	36.1	DuPont Pioneer
45M35	62	104	\$704	90.0	1.5	44.9	63	100	\$725	97.3	1.3	46.7	51	98	\$579		1.5	34.5	DuPont Pioneer
4187 RR	62	105	\$712	90.3	1.8	46.7	59	93	\$675	100.3	1.3	48.6	45	88	\$520		1.0	37.3	BrettYoung
LSD	6						5						5						
CV	6.9						7.1						10.5						

<sup>\*</sup>Indicates varieties with specialty oil profiles and premiums associated with pricing.

#### Mid Season Zone: Small plot results by location

			Josephl	ourg, AB					Vegre	rille, AB			
Variety	Yield (bu./ac.)	Yield (% 5440)	Gross Revenue/ac.	Days to Maturity	Lodging	Height (in.)	Yield (bu./ac.)	Yield (% 5440)	Gross Revenue/ac.	Days to Maturity	Lodging	Height (in.)	Distributor
Clearfield													
5545 CL	79	100	\$908	104.5	2.0	43.1	83	105	\$954	99.8	1.6	40.3	BrettYoung
CS2200 CL	74	94	\$852	107.0	2.0	43.0	67	85	\$766	102.8	1.6	37.2	CANTERRA SEEDS
PV 200 CL	78	98	\$893	105.0	2.0	43.6	71	90	\$811	104.0	1.5	39.2	Proven Seed/CPS
46H75	77	97	\$881	105.0	2.0	44.4	85	108	\$975	104.0	1.6	39.0	DuPont Pioneer
LSD	9						11						
Liberty Link		'	'										
5440	79	100	\$909	99.8	2.0	43.1	79	100	\$906	100.3	1.2	39.7	Bayer CropScience
L252	82	103	\$940	98.0	2.0	42.1	86	109	\$985	100.3	1.2	39.0	Bayer CropScience
L241C	80	100	\$910	97.3	2.0	39.4	77	97	\$882	99.3	1.2	39.3	Bayer CropScience
LSD	16						12						
Roundup Ready		'	'										
6074 RR	83	105	\$953	105.5	2.0	41.8	85	108	\$979	102.5	1.2	36.6	BrettYoung
6076 RR	79	100	\$906	102.5	2.0	44.8	75	95	\$863	101.5	1.2	39.5	BrettYoung
6080 RR	78	98	\$892	101.5	2.0	41.0	68	86	\$779	99.8	1.2	38.0	BrettYoung
CS2000	80	101	\$918	105.8	2.0	45.9	70	88	\$798	100.5	1.2	37.5	CANTERRA SEEDS
CS2100	82	104	\$943	102.5	2.0	41.6	73	93	\$841	99.3	1.2	38.1	CANTERRA SEEDS
V12-1*	77	97	\$974	101.0	2.0	42.3	76	97	\$970	99.8	1.2	38.5	Cargill
PV 540 G	76	96	\$876	101.5	2.0	40.6	71	89	\$810	100.5	1.2	39.2	Proven Seed/CPS
PV 581 GC	81	102	\$928	106.0	2.0	45.3	72	91	\$824	102.0	1.2	39.6	Proven Seed/CPS
74-44 BL	71	89	\$810	96.8	2.0	39.3	64	81	\$736	97.5	1.2	36.7	DEKALB
CS2300	85	107	\$971	102.0	2.0	43.3	86	108	\$981	102.0	1.2	38.2	CANTERRA SEEDS
6090 RR	83	105	\$954	105.5	2.0	47.0	87	110	\$993	102.5	1.2	40.1	BrettYoung
DL1634 RR	73	92	\$839	104.3	2.0	43.0	80	102	\$921	102.0	1.2	39.9	DL Seeds
45H33	82	103	\$937	97.5	2.0	42.5	79	100	\$908	99.3	1.2	39.0	DuPont Pioneer
45M35	89	112	\$1,019	101.0	2.0	40.7	81	102	\$923	99.5	1.2	37.7	DuPont Pioneer
4187 RR	76	96	\$870	102.3	2.0	43.1	83	105	\$948	102.0	1.2	38.8	BrettYoung
LSD	8						10						
CV	8.1						10.3						

<sup>\*</sup>Indicates varieties with specialty oil profiles and premiums associated with pricing.

#### **Short Season Zone: Small plot results by location**

			Code	tte, SK					Fort St.	John, BC			
Variety	Yield (bu./ac.)	Yield (% 5440)	Gross Revenue/ac.	Days to Maturity	Lodging	Height (in.)	Yield (bu./ac.)	Yield (% 5440)	Gross Revenue/ac.	Days to Maturity	Lodging	Height (in.)	Distributor
Clearfield													
5545 CL	78	104	\$898	97.0	1.0	52.9	49	107	\$560	100.5	1.0	51.6	BrettYoung
CS2200 CL	71	95	\$817	95.5	1.0	48.3	45	98	\$510	106.0	1.0	50.7	CANTERRA SEEDS
PV 200 CL	72	96	\$825	94.0	1.0	53.0	45	98	\$510	103.3	1.0	49.2	Proven Seed/CPS
46H75	72	96	\$826	94.3	1.0	50.7	44	97	\$505	103.0	1.0	48.4	DuPont Pioneer
LSD	7						3						
Liberty Link									'				
5440	75	100	\$860	96.0	1.0	51.3	45	100	\$521	104.5	1.0	48.8	Bayer CropScience
L252	77	102	\$881	97.0	1.0	51.2	48	105	\$548	107.0	1.0	48.4	Bayer CropScience
L241C	72	95	\$820	94.0	1.0	50.2	48	105	\$549	101.8	1.0	46.9	Bayer CropScience
LSD	5						3						
Roundup Ready													
6074 RR	76	102	\$875	95.3	1.0	48.7	49	107	\$557	106.8	1.0	42.3	BrettYoung
6076 RR	77	102	\$878	95.8	1.0	52.1	44	96	\$502	102.8	1.0	50.4	BrettYoung
6080 RR	72	96	\$829	93.5	1.0	47.0	41	90	\$469	104.8	1.0	49.7	BrettYoung
CS2000	73	97	\$832	94.3	1.0	51.9	45	100	\$520	102.8	1.0	51.1	CANTERRA SEEDS
CS2100	73	97	\$832	94.0	1.0	47.6	46	101	\$526	102.5	1.0	46.2	CANTERRA SEEDS
V12-1*	74	98	\$936	96.3	1.0	49.3	40	87	\$503	101.5	1.0	43.8	Cargill
PV 540 G	75	100	\$857	93.5	1.0	46.4	43	95	\$493	100.5	1.0	49.4	Proven Seed/CPS
PV 581 GC	72	96	\$830	99.0	1.0	52.2	43	94	\$490	104.0	1.0	52.0	Proven Seed/CPS
74-44 BL	75	100	\$862	91.3	1.0	45.5	44	97	\$506	103.8	1.0	46.0	DEKALB
CS2300	73	97	\$838	98.8	1.0	51.6	47	103	\$534	102.3	1.0	50.2	CANTERRA SEEDS
6090 RR	77	102	\$882	94.5	1.0	53.0	44	97	\$503	104.3	1.0	51.2	BrettYoung
DL1634 RR	77	102	\$881	100.0	1.0	50.9	45	100	\$521	103.0	1.0	51.7	DL Seeds
45H33	75	100	\$857	93.0	1.0	50.8	45	99	\$517	101.0	1.0	50.6	DuPont Pioneer
45M35	76	101	\$868	93.8	1.0	50.6	49	107	\$559	102.8	1.0	51.0	DuPont Pioneer
4187 RR	73	98	\$841	98.5	1.0	51.7	44	98	\$509	105.8	1.0	47.2	BrettYoung
LSD	4						4						
CV	4.5						7.5						

<sup>\*</sup>Indicates varieties with specialty oil profiles and premiums associated with pricing.

#### Field Scale Trial Yield Results

Field scale trials are managed by growers using their typical production practices. Trials are planted, swathed, harvested and, when necessary, sprayed by growers using the respective herbicide systems according to established protocols. Individual plots range from 0.5 to 1.5 acres. When comparing average results between varieties, consider the number of test sites for each variety. Field scale trials occasionally produce data that is above or below the expected range. If agronomic observations cannot explain these outliers, then they are checked against the statistical limits of deviation established by the CPT Technical Committee. If the data falls outside the limits, it is removed. For more details on individual trials and for interactive search and comparison tools on all final datasets since 2011, visit canolaperformancetrials.ca.

2017 Standard Yield Results (bu./ac.)								
	Roundup Ready	Liberty Link						
Location	45H33	L252						
Long Season Zone	55.9	61.2*						
Coaldale, AB	64.5	70.8						
Deloraine, MB	56.5	57.6						
Holland, MB	49.5	60.8						
Indian Head, SK	60.6	65.8						
Regina, SK	38.4	45.3						
St. Adolphe, MB	59.5	62.7						
Starbuck, MB	62.0	65.5						
Mid Season Zone	53.3	56.9*						
Carbon, AB	56.2	62.7						
Dauphin, MB	52.1	58.0						
Fulda, SK	58.9	59.0						
High River, AB	35.4	46.9						
Kinistino, SK	54.2	55.6						
Maskwacis, AB	67.9	66.5						
Minnedosa, MB	50.2	55.0						
Norquay, SK	65.5	65.3						
Porcupine Plain, SK	44.9	51.3						
Provost, AB	53.8	51.5						
Trochu, AB	62.3	68.8						
Unity, SK	47.4	48.9						
Vanscoy, SK	45.3	49.2						
Yorkton, SK	51.7	58.4						

2017 Star	ndard Yield Results (b	u./ac.) (con't)
	Roundup Ready	Liberty Link
Location	45H33	L252
Short Season Zone	49.6	53.2*
Athabasca, AB	68.0	66.9
Fairview, AB	38.5	43.9
Hawk Hills, AB	37.0	41.8
Nampa, AB	51.3	58.1
Swan River, MB	53.0	55.4
Total (all locations)	53.3	57.4*

2017 Clubroot	-Resistant Yield Resu	lts (bu./ac.)
	Roundup Ready	Liberty Link
Location	CS2000	L241C
Athabasca, AB	65.1	66.4
Bentley, AB	59.8	53.7
Maskwacis, AB	66.2	67.4
Namao, AB	77.5	75.5
Provost, AB	46.3	49.5
Trochu, AB	66.9	65.4
Wetaskiwin, AB	52.8	58.1
Total (all locations)	62.1	62.3 ns

A new straight cut (SC) protocol was utilized in 2017 to evaluate varieties recommended for straight cutting. The SC protocol requires that varieties are straight cut at ~12% moisture. For more details, see the CPT protocols at: canolaperformancetrials.ca/trial-protocol. As the first year with this SC protocol, eight CPT small plot sites were planted with varieties recommended for straight cutting. Throughout the growing season and the CPT Technical Committee review process, most of these sites were recommended for canceling or removal from the dataset, so in the end only one small plot SC trial site was approved for publishing. However, since one site isn't a sufficient number to accurately represent varieties, the data from this site is not included in this booklet. Field scale SC trials are below.

2017 Straight Cut Yield Results (bu./ac.)									
	Roundup Ready	Roundup Ready	Liberty Link						
Location	45M35	75-65 RR	L140P						
Long Season Zone	42.9	42.6	44.7**						
Arcola, SK	42.9	46.2	48.7						
Estevan, SK	44.1	40.8	45.1						
Milestone, SK	41.4	38.0	41.2						
Neville, SK	28.0	27.3	26.9						
Regina, SK	33.8	39.4	41.4						
Rosser, MB	60.6	60.2	60.8						
Russell, MB	53.0	50.9	55.3						
St. Adolphe, MB	53.3	51.8	57.1						
Swift Current, SK	29.2	28.9	26.3						
Mid Season Zone	60.4	61.9	63.0 ns						
Carbon, AB	53.8	55.1	61.1						
Eyebrow, SK	47.5	48.0	49.2						
Kyle, SK	79.9	82.6	78.7						
Total (all locations)	47.3	47.4	49.3**						

Please note that L140P and 75-65 RR are only shown in the field scale trial results (and not the standard small plot trial results) because they were only entered in the small plot trials with the straight cut protocol, which were not included in this booklet.

<sup>\*</sup>L252 yield was statistically higher than 45H33 (at a 5% confidence level).

<sup>\*\*</sup>L140P yield was statistically higher than 45M35 and 75-65RR (at a 5% confidence level) while the yields of 45M35 and 75-65RR were not statistically different. ns = not significant









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