



## Quality of western Canadian canola varieties 2011

Data was obtained from the Grain Research Laboratory's 2011 Harvest survey of Western Canadian Canola. This is an annual voluntary program. Canola samples were submitted to the Canadian Grain Commission throughout the harvest period by producers, grain companies and oilseed crushing companies.

Results are based on the analyses of composite samples made by combining Canola No. 1 samples from the same variety within a province. Quality parameters shown are oil, protein, chlorophyll, glucosinolates and fatty acid composition.

Large variation in the numbers and the distribution of samples from various varieties in any given year may not be completely representative of a given variety's performance. These data are possible indicators of variety performance but are not a "quality description" of any registered variety.

### Quality of composites of canola, No. 1 Canada - Brassica napus, by province and variety

#### Manitoba

Table contains variety, number of samples, data on oil, protein and chlorophyll content as well as glucosinolates.

Variety <sup>1</sup>	No. of samples	Oil content % <sup>2</sup>	Protein content % <sup>3</sup>	Chlorophyll content mg/kg <sup>4</sup>	Glucosinolates, µmoles/g <sup>5</sup>
5440	60	43.6	20.4	11	11
5770	10	44.3	20.0	10	12
73-55 RR	8	45.7	20.5	13	7
73-65 RR	8	44.9	21.0	15	10
L130	9	44.2	20.4	10	10
L150	14	45.2	19.5	9	11

#### Saskatchewan

Table contains variety, number of samples, data on oil, protein, chlorophyll, oil-free-meal protein content and Glucosinolate

Variety <sup>1</sup>	No. of samples	Oil content % <sup>2</sup>	Protein content % <sup>3</sup>	Chlorophyll content mg/kg <sup>4</sup>	Glucosinolates, µmoles/g <sup>5</sup>
45H29	14	45.8	19.5	15	12
5030	13	44.0	19.9	13	9
5440	85	45.5	18.8	10	11
5525 CL	10	46.9	18.3	13	7
5770	12	45.8	18.9	17	11
6040 RR	11	44.9	19.7	12	11
6060 RR	8	45.4	20.1	15	11
72-65 RR	15	46.6	19.3	19	10
73-45 RR	21	47.4	18.5	17	8
73-55 RR	8	47.8	18.7	16	8
73-65 RR	9	46.5	19.4	19	10
8440	17	44.2	19.6	15	11
L130	34	45.1	19.1	11	10

L150	33	46.3	19.1	12	10
VR 9553 G	25	47.5	19.4	16	11
VT Barrier	9	47.5	18.2	11	9
VT Remarkable	16	47.0	18.3	12	10

## Alberta

Table contains variety, number of samples, data on oil, protein, chlorophyll, oil-free-meal protein content and glucosinolate

Variety <sup>1</sup>	No. of samples	Oil content % <sup>2</sup>	Protein content % <sup>3</sup>	Chlorophyll content mg/kg <sup>4</sup>	Glucosinolates, $\mu$ moles/g <sup>5</sup>
5020	10	44.8	19.6	20	10
5440	61	44.6	19.2	14	10
72-65 RR	15	48.0	18.5	19	10
73-45 RR	21	46.9	18.8	19	8
73-55 RR	12	47.9	18.6	17	8
9590	10	46.0	19.1	16	9
L130	36	44.3	19.8	13	10
L150	26	46.1	19.1	14	9
VR 9553 G	11	47.3	19.9	19	9

## Means

Table contains means for areas by number of samples, data on oil, protein and chlorophyll content as well as glucosinolates.

Area	No. of samples	Oil content % <sup>2</sup>	Protein content % <sup>3</sup>	Chlorophyll content mg/kg <sup>4</sup>	Glucosinolates, $\mu$ moles/g <sup>5</sup>
Manitoba	109	44.7	20.3	11	10
Saskatchewan	340	46.1	19.1	14	10
Alberta	202	46.2	19.2	17	9
Western Canada	651	45.9	19.3	14	10

## Fatty acid composition of composites of canola, No. 1 Canada - Brassica napus, by province and variety

### Manitoba

Table contains variety, number of samples, data on fatty acid composition, total saturates (SATS) and iodine value (I.V.).

Variety <sup>1</sup>	No. of Samples	Fatty acid composition <sup>6</sup>						Total SATS <sup>7</sup>	I.V. <sup>8</sup>
		C16:0 %	C18:0 %	C18:1 %	C18:2 %	C18:3 %	C22:1 %		
5440	60	3.6	1.8	62.4	18.9	9.9	0.00	6.7	114
5770	10	3.7	1.9	64.3	18.0	8.7	0.00	6.9	111
73-55 RR	8	4.2	1.8	63.0	18.8	8.9	0.00	7.1	112
73-65 RR	8	4.1	1.8	64.1	18.7	8.0	0.00	7.0	110
L130	9	3.7	1.8	63.0	18.9	9.3	0.00	6.7	113
L150	14	3.8	1.7	62.2	19.6	9.5	0.00	6.7	114

### Saskatchewan

Table contains variety, number of samples, data on fatty acid composition, total SATS and I.V.

Variety <sup>1</sup>	No. of Samples	Fatty acid composition <sup>6</sup>						Total SATS <sup>7</sup>	I.V. <sup>8</sup>
		C16:0 %	C18:0 %	C18:1 %	C18:2 %	C18:3 %	C22:1 %		
45H29	14	4.0	1.7	63.2	19.1	8.6	0.00	7.0	111
5030	13	4.0	1.9	61.5	18.6	10.7	0.00	7.2	114
5440	85	3.6	1.8	62.1	18.6	10.7	0.00	6.7	115
5525 CL	10	3.9	1.8	61.8	17.9	11.3	0.00	6.9	115
5770	12	3.7	1.8	64.1	17.9	9.3	0.00	6.8	112
6040 RR	11	3.9	1.9	61.8	19.7	9.5	0.00	7.0	114
6060 RR	8	3.8	1.9	64.9	18.1	8.0	0.00	7.0	110
72-65 RR	15	4.1	1.9	61.3	21.2	8.7	0.00	7.0	113
73-45 RR	21	4.6	1.6	60.5	20.5	9.7	0.02	7.2	114
73-55 RR	8	4.1	1.8	63.1	18.4	9.5	0.00	7.0	112
73-65 RR	9	4.2	1.8	61.9	19.7	9.4	0.00	7.1	113
8440	17	3.7	2.0	63.6	17.9	9.5	0.00	6.9	112
L130	34	3.7	1.8	62.6	18.6	9.9	0.00	6.8	113
L150	33	3.8	1.6	61.8	19.7	10.0	0.00	6.5	115
VR 9553 G	25	4.0	1.7	62.2	19.5	9.4	0.00	6.9	113
VT Barrier	9	3.6	1.7	60.6	21.1	9.7	0.00	6.5	115
VT Remarkable	16	3.8	1.8	61.6	18.8	10.7	0.00	6.7	115

## Alberta

Table contains variety, number of samples, data on fatty acid composition, total SATS and I.V.

Variety <sup>1</sup>	No. of Samples	Fatty acid composition <sup>6</sup>						Total SATS <sup>7</sup>	I.V. <sup>8</sup>
		C16:0 %	C18:0 %	C18:1 %	C18:2 %	C18:3 %	C22:1 %		
5020	10	3.9	1.8	60.9	19.0	10.9	0.00	7.0	115
5440	61	3.6	1.8	61.9	18.1	11.1	0.00	6.6	115
72-65 RR	15	4.1	1.9	62.0	20.6	8.4	0.00	7.0	112
73-45 RR	21	4.4	1.6	60.5	20.1	10.1	0.00	7.1	115
73-55 RR	12	4.1	1.7	62.7	18.5	9.8	0.00	6.9	113
9590	10	3.6	1.8	63.1	17.8	10.5	0.00	6.6	114
L130	36	3.7	1.8	62.0	18.3	10.7	0.00	6.7	115
L150	26	3.7	1.6	61.5	19.2	10.6	0.00	6.5	115
VR 9553 G	11	3.9	1.6	61.9	19.3	9.7	0.00	6.7	114

## Means

Table contains area, number of samples, means of fatty acid composition, total SATS and I.V.

Area	No. of Samples	Fatty acid composition <sup>6</sup>						Total SATS <sup>7</sup>	I.V. <sup>8</sup>
		C16:0 %	C18:0 %	C18:1 %	C18:2 %	C18:3 %	C22:1 %		
Manitoba	109	3.9	1.8	63.2	18.8	9.1	0.00	6.9	112
Saskatchewan	340	3.9	1.8	62.3	19.1	9.7	0.00	6.9	113
Alberta	202	3.9	1.7	61.8	19.0	10.2	0.00	6.8	114
Western Canada	651	3.9	1.8	62.3	19.0	9.7	0.00	6.9	113

<sup>1</sup> as designated by producer

<sup>2</sup> 8.5% moisture

<sup>3</sup> (N x 6.25) 8.5% moisture basis

<sup>4</sup> as is seed basis

<sup>5</sup> total of all glucosinolates; whole-seed, 8.5% m.b

<sup>6</sup> % of fatty acids including: Myristic (C14:0), Palmitic (C16:0), Palmitoleic (C16:1), Stearic (C18:0), Oleic (C18:1), Linoleic (C18:2), Linolenic (C18:3), Arachidic (C20:0), Eicosenoic (C20:1), Eicosadienoic (C20:2), Behenic (C22:0), Erucic(C22:1), Lignoceric (C24:0), and Nervonic (C24:1)

<sup>7</sup> Sum of C14:0, C16:0, C18:0, C20:0, C22:0, and C24:0

<sup>8</sup> Calculated from fatty acid composition