



## Quality of western Canadian canola varieties 2012

Data were obtained from the Grain Research Laboratory's 2012 Harvest survey of western Canadian Canola. This is an annual voluntary program. Canola samples were submitted to the CGC 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	56	40.5	23.2	14	12
73-75 RR	10	43.6	21.8	21	9
L130	38	41.0	23.0	13	11
L150	72	41.7	23.1	18	12
VT 500 G	8	42.1	23.3	17	13
Mean	184	41.8	22.9	17	12

#### 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, µmoles/g <sup>5</sup>
45H29	12	44.9	20.4	18	12
45S52	16	44.1	20.5	16	10
5440	25	43.1	21.0	13	11
73-45 RR	38	45.5	20.0	22	9
L120	37	43.3	21.0	14	11
L130	79	43.5	20.7	14	10
L150	53	43.9	20.8	16	11
VT 500 G	25	44.2	21.6	16	11
VT Barrier	10	44.2	21.7	16	11
Mean	295	44.1	20.9	16	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, $\mu$ moles/g <sup>5</sup>
45H29	24	44.5	20.4	20	12
5440	58	43.0	21.1	16	11
5525 CL	11	47.1	18.3	10	8
6060 RR	11	44.6	19.9	24	12
73-45 RR	19	45.5	20.4	23	9
73-75 RR	11	44.3	21.3	22	10
D3153	13	44.2	20.6	17	10
L120	9	42.5	21.8	20	11
L130	61	43.1	21.0	18	11
L150	109	44.3	20.7	17	11
VR 9559 G	11	44.0	22.0	20	11
VT 500 G	30	43.8	21.7	19	12
VT Barrier	13	44.8	20.1	17	11
VT Remarkable	11	44.6	20.1	17	11
Mean	391	44.3	20.7	19	11

## 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	56	3.7	1.8	62.4	19.2	9.6	0.00	6.5	113
73-75 RR	10	4.0	1.7	64.7	17.9	8.6	0.00	6.7	110
L130	38	3.7	1.8	63.2	18.9	9.0	0.00	6.6	112
L150	72	3.9	1.6	62.2	20.1	9.0	0.00	6.5	113
VT 500 G	8	4.0	1.8	62.3	19.6	9.0	0.00	6.9	112
Mean	184	3.8	1.7	63.0	19.1	9.0	0.00	6.6	112

## Saskatchewan

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

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	24	3.9	1.6	63.0	19.3	8.9	0.00	6.6	112
5440	58	3.7	1.8	62.1	18.8	10.3	0.00	6.6	114
5525 CL	11	3.9	1.8	62.8	17.7	10.6	0.00	6.7	114
6060 RR	11	3.7	1.8	63.3	18.0	8.8	0.87	6.7	111
73-45 RR	19	4.4	1.5	61.1	20.3	9.7	0.00	6.9	114
73-75 RR	11	4.1	1.7	63.0	18.9	9.2	0.00	6.8	112
D3153	13	3.7	1.7	63.6	19.1	8.7	0.00	6.4	112
L120	9	3.7	1.7	61.4	19.3	10.5	0.00	6.5	115
L130	61	3.6	1.7	62.4	18.9	10.0	0.00	6.5	114
L150	109	3.8	1.6	61.3	20.3	9.9	0.00	6.4	115
VR 9559 G	11	3.6	1.7	62.7	18.8	9.9	0.00	6.4	114
VT 500 G	30	3.9	1.7	60.5	20.3	10.3	0.00	6.7	115
VT Barrier	13	3.6	1.7	61.2	20.9	9.2	0.00	6.4	114
VT Remarkable	11	3.7	1.7	62.2	18.7	10.4	0.00	6.5	114
Mean	391	3.8	1.7	62.2	19.2	9.7	0.06	6.6	114

## 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 %		
45H29	12	3.9	1.7	63.9	18.6	8.6	0.00	6.7	111
45S52	16	3.7	1.9	65.3	17.5	8.1	0.04	6.8	109
5440	25	3.5	1.9	63.2	17.9	10.2	0.00	6.5	113
73-45 RR	38	4.3	1.6	61.6	19.9	9.6	0.00	6.9	114
L120	37	3.6	1.8	62.6	18.5	10.1	0.00	6.5	114
L130	79	3.6	1.8	63.6	18.1	9.6	0.00	6.5	112
L150	53	3.7	1.6	62.3	19.3	9.7	0.00	6.4	114
VT 500 G	25	3.9	1.8	62.0	19.3	9.6	0.00	6.8	113
VT Barrier	10	3.6	1.6	61.8	20.3	9.2	0.00	6.3	114
Mean	295	3.8	1.7	62.9	18.8	9.4	0.00	6.6	113

## Means

Table contains variety, number of samples, data on 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 %		
Western Canada	870	3.8	1.7	62.6	19.1	9.5	0.03	6.6	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