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Quality of western Canadian canola 2007

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Table of contents

Tables

Figures

Acknowledgments

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Introduction

This report presents quality data and information based on the Canadian Grain Commission (CGC) 2007 harvest survey of western Canadian canola. Quality parameters included are oil, protein, chlorophyll, glucosinolates, free fatty acids and the fatty acid composition of harvest samples. Quality data are from analyses of canola samples submitted to the CGC throughout the harvest period by producers, grain companies and oilseed crushing companies. The map shows the traditional growing areas for canola in western Canada.

Figure 1 – Map of western Canada showing traditional growing areas for canola

Source: Canola Council of Canada

Summary

The 2007 western Canadian canola crop is near the ten-year averages for both oil content and protein content. Compared to the 10-year means, the oil content is 0.3% higher while the protein content is 0.1% higher. However, compared to 2006, the mean oil content of Canola, No. 1 Canada is 1.2% lower at 43.4%, while the mean protein content, 21.7%, is 0.7% higher. The mean chlorophyll content for Canola, No. 1 Canada is 15 mg/kg, similar to the 14 mg/kg in 2006. The 2007 canola crop is lower in oleic acid content, 61.5%, but similar in linolenic acid content, 9.8%. For Canola, No. 1 Canada seed, the total saturated fatty acid content remained at 7.0%. This results in an oil with a similar mean iodine value of 113 units. The erucic acid, 0.04%, and the total seed glucosinolates, 10 μmoles/gram, are similar to last year and well within canola specifications. The mean free fatty acid (FFA) level in Canola, No. 1 Canada seed is slightly higher than in the 2006 crop. The 2007 canola crop shows significant regional differences in oil, protein and fatty acid composition.

Table 1 – Canola, No. 1 Canada
Quality data for 2007 harvest survey

Quality parameter	2007	2006	1997-2006 Mean
Oil content [1], %	43.4	44.6	43.1
Protein content [2], %	21.7	21.0	21.6
Oil-free protein[2], %	41.2	41.0	40.8
Chlorophyll content, mg/kg in seed	15	14	14
Total glucosinolates[1], μmol/g	10	10	11
Free fatty acids, %	0.18	0.17	0.24
Erucic acid, % in oil	0.04	0.05	0.15
Linolenic acid, % in oil	9.8	9.9	9.9
Oleic acid, % in oil	61.5	62.0	61.2
Total saturated fatty acids[3], % in oil	7.0	7.0	7.1
Iodine value	113	113	113

[1] 8.5% moisture basis
[2] N x 6.25, 8.5% moisture basis
[3] Total saturated fatty acids are the sum of palmitic (C16:0), stearic (C18:0), arachidic (C20:0), behenic (C22:0), and lignoceric (C24:0).

Weather and production review

Weather review

Temperature and precipitation patterns for the 2007 western Canadian growing season can be found on the PFRA web site (http://www.agr.gc.ca/pfra/drought/drmaps_e.htm). The prairie provinces experienced wet spring weather to start the 2007 growing year. A drier and warmer than normal growing period eventually stressed many crops in the south, but also allowed for quicker crop maturity and an earlier than normal harvest. The Weather and Crop Surveillance department of the Canadian Wheat Board provided the majority of the detailed weather review for the 2007 crop year.

Seeding

Central Alberta and north-eastern Saskatchewan received heavy rains during the spring planting season which resulted in significant reduction in sown area. Late planting was also common in these areas, with significant acreage switched to earlier maturing crops. Planting in the northern areas wrapped-up during the first weeks of June, with significant cropped area left fallow in certain areas. The southern Prairies, conversely, were dry during the spring, which resulted in early planting in the region. The dryness also raised concerns about poor soil moisture levels, which have persisted since the 2006 growing season in the southern Prairies. Planting conditions in Manitoba were good across the province, with early planting reported in all areas except the north-western region.

Growing conditions

Precipitation during June was close to normal or above normal in most of the Prairie region, except in the southern areas of Alberta and Saskatchewan. These areas received enough moisture during June to sustain crop growth, but not enough to add to subsoil moisture reserves. Crop conditions at the end of June were mostly good to excellent. Above normal temperatures moved into the western areas of the Prairies during early July and migrated to eastern regions by the middle of the month. Temperature records were set in a number of locations in Alberta and Saskatchewan during July. The hot, dry conditions reduced yield expectations, especially in the southern growing areas of Alberta and Saskatchewan. In northern areas, the hot weather did help boost the development of crops that had been seeded later than normal. Cooler weather returned to the Prairies by the middle of August, with some scattered frosts reported in Alberta and Saskatchewan before the end of the month. The dry, hot conditions during July did help keep disease levels in check in most areas.

Harvest conditions

Canola harvesting started during mid August and was complete in the southern Prairies by the middle of September, due to mostly dry weather during the

month of August. Central and northern areas of the Prairies received cooler temperatures and more rainfall during August and September, which caused harvesting delays. The northern growing areas finished the harvest by mid-October. The delays were most acute in the Peace River district, where cool, wet conditions persisted through the growing season and into the harvest.

Production and grade information

Western Canadian farmers planted 5.9 million hectares of canola in 2007, which is an 11 percent increase from last year's area (Table 2). Statistics Canada's *Field Crop Reporting Series No. 7* reported that the 2007 western Canada mean yield of 1500 kg/ha was lower than the 1700 kg/ha reported for 2006 but similar to the 10-year mean of 1489 kg/ha.

With the decreases in yield, total canola production in western Canada decreased to 8.8 million tonnes, which is well above the 10-year average of 7.2 million tones. According to Statistics Canada's October 5th, 2007 estimate of provincial production, Manitoba, Saskatchewan, and Alberta/B.C. accounted for 19%, 45% and 36% respectively of the total canola production.

The grade pattern of the 2007 canola crop was similar to that in 2006 and considerably better than in 2004. Overall, distinctly green seed (DGR) levels were much less of a degrading factor than in the frost-affected 2004 crop. For the 2007 Saskatchewan canola crop, *Saskatchewan Agriculture, Food and Rural Revitalization Report Number 28* estimated the portion of Canola, No. 1 Canada to be 80% compared to 88% in 2006 and 76% for the ten-year mean. Poor harvest weather in September and October resulted in some regional downgrading in northern areas of Saskatchewan and Alberta.

Table 2 - Seeded area and production for western Canadian canola

	Seeded area		Production[1]		Average production[2]
	2007	2006	2007	2006	1997-2006
	thousand hectares		thousand tonnes		thousand tonnes
Manitoba	1133	1004	1701	1826	1558
Saskatchewan	2894	2419	3971	3697	3089
Alberta[3]	1849	1847	3130	3452	2491
Western Canada	**5876**	**5270**	**8802**	**8974**	**7139**

[1] Source: *Field Crop Reporting Series, No. 7*, October 5, 2007; Statistics Canada
[2] Source: *Field Crop Reporting Series*, revised final estimates for 1997-2006.
[3] Includes the part of the Peace River area that is in British Columbia

Harvest survey samples

Samples for the Canadian Grain Commission canola harvest survey are collected from producers, crushing plants and grain handling offices across western Canada. The samples are cleaned to remove dockage prior to testing. Harvest survey samples are analyzed for oil, protein, chlorophyll and total glucosinolates using a NIRS 6500 scanning near-infrared spectrometer. Grain Research Laboratory staff assign grade level based on chlorophyll content. Industry Services grain inspectors grade samples if they show significant levels of other visible damage.

Grades and chlorophyll content relationships are based on long-term data relating the chlorophyll content and green seed content of canola and the chlorophyll level of top quality crude canola oil as established in Canadian standards.

Canola, No. 1 Canada .....25 mg/kg or less

Canola, No. 2 Canada ..... 26 to 45 mg/kg

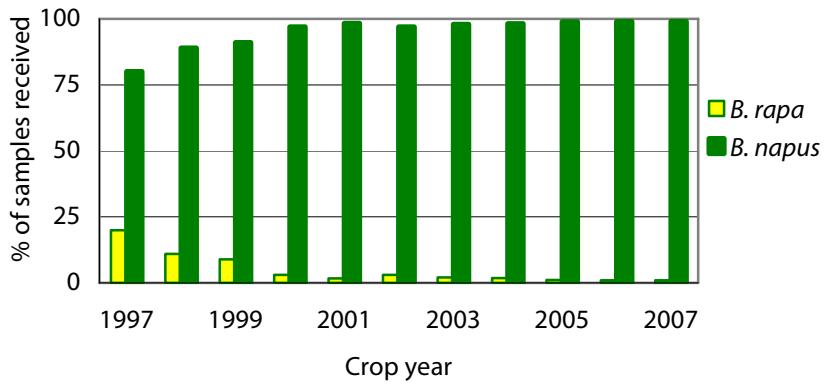
Canola, No. 3 Canada .....46 to 100 mg/kg

Composite samples are typically used for free fatty acids and fatty acid composition analyses. Composites are prepared by combining Canola, No. 1 Canada samples by provincial crop district; Canola, No. 2 and No. 3 Canada samples by province, and Canola, Sample Canada samples by western Canada.

This year's harvest survey report included 2,015 canola samples, less than the 2,278 in 2006. Specialty oil samples such as high oleic acid, low linolenic acid, and high erucic acid, were excluded from this report.

Saskatchewan contributed 947 samples, Alberta and British Columbia 530, and Manitoba 538 samples during the survey period, August 20 to November 1, 2007. Weighting factors used to calculate provincial and western Canadian means were derived from the previous five years average production for each crop district and the 2007 provincial production estimates in Statistics Canada's *Field Crop Reporting Series No.7*, October 5, 2007. Factors used to calculate grade distributions are taken from crop reports published by grain companies and provincial agriculture departments.

Figure 2 – 2007 harvest survey
Proportion of samples identified as *Brassica napus* and *Brassica rapa*



Quality of western Canadian canola—2007

Tables 3, 4 and 5 show detailed information on the quality of western Canadian canola harvested in 2007. Table 6 compares the quality of recent canola exports. The numbers of samples in each grade or province may not be representative of the total production or grade distribution. However, there were sufficient samples to provide good quality information for each province. Provincial means were calculated from results for each crop district, weighted by a combination of five-year average production by crop district, and an estimate of grade distribution from crop reports. To calculate western Canadian averages for each grade, provincial averages are weighted by the Statistics Canada production estimate and the estimate of grade distribution.

All oil and protein content values discussed below are presented using the CGC's historical 8.5% moisture basis in order to permit annual and regional comparisons. The dry weather associated with the harvest in the south compared to the wetter conditions in the north means that the moisture content of 2007-08 exports is likely to be different than the moisture contents of 2006-07 exports. The moisture content of canola exports from Vancouver was 8.0% in October 2007, 1.0% higher than the 2006-07 mean of 7.0% (Table 6). The moisture content of the Thunder Bay canola exports in October 2007 was 6.7%, 0.5% lower than the 2006-07 mean value of 7.2%. Moisture contents of the harvest survey samples are not discussed in this report, as there may have been significant changes during handling and storing of the survey samples.

Recent exports of commercially cleaned canola from Thunder Bay and Vancouver contained 2.3% and 2.0% dockage respectively, which will affect quality factors such as oil content, chlorophyll and FFA. Canola exports containing over 2.5% dockage are considered not commercially clean (NCC) and will have even greater reductions in measured quality components.

Table 3 – 2007 harvest survey
Canola quality data by grade and province

	Number of samples	Oil content[1] %			Protein content[2] %			Chlorophyll content mg/kg		
		mean	min.	max.	mean	min.	max.	mean	min.	max.
Canola, No. 1 Canada										
Manitoba	481	41.6	36.3	47.7	22.8	18.3	28.2	15	3	25
Saskatchewan	863	43.3	31.4	49.1	21.4	15.5	31.5	14	0	25
Alberta[3]	445	44.4	36.0	49.4	21.4	16.9	29.3	14	0	25
Western Canada[4]	1789	43.4	31.4	49.4	21.7	15.5	31.5	15	0	25
Canola, No. 2 Canada										
Manitoba	53	40.9	36.7	45.5	23.4	20.3	26.3	30	17	40
Saskatchewan	74	42.7	36.0	47.7	22.2	17.9	28.7	31	11	45
Alberta[3]	63	43.5	38.4	48.6	21.9	17.5	27.9	34	12	52
Western Canada[4]	190	42.7	36.0	48.6	22.3	17.5	28.7	32	11	52
Canola, No. 3 Canada										
Manitoba	4	41.5	40.6	42.5	22.9	21.2	25.4	23	1	60
Saskatchewan	9	42.4	40.0	44.7	22.5	19.7	23.8	59	46	67
Alberta[3]	18	44.2	39.5	47.1	20.5	18.2	23.2	62	48	87
Western Canada[4]	31	43.6	39.5	47.1	21.2	18.2	25.4	58	1	87
Canola, Sample Canada										
Western Canada[4]	5	44.6	41.1	48.1	19.7	18.0	22.2	89	19	131

[1] 8.5% moisture basis
[2] N x 6.25; 8.5% moisture basis
[3] Includes part of the Peace River area that is in British Columbia
[4] Values are weighted averages based on production by province as estimated by Statistics Canada.

Table 4 – 2007 Harvest survey
Canola quality data by grade and province

	Number of samples	Glucosinolates[1] mol/g			Free fatty acids %
		mean	min.	max.	
Canola, No. 1 Canada					
Manitoba	481	10	6	19	0.19
Saskatchewan	863	10	4	23	0.16
Alberta[2]	445	10	6	24	0.19
Western Canada[3]	1789	10	4	24	0.18
Canola, No. 2 Canada					
Manitoba	53	10	8	14	0.32
Saskatchewan	74	11	7	14	0.22
Alberta[2]	63	10	6	25	0.24
Western Canada[3]	190	10	6	25	0.25
Canola, No. 3 Canada					
Manitoba	4	11	8	15	-
Saskatchewan	9	11	8	14	-
Alberta[2]	18	9	6	12	-
Western Canada[3]	31	10	6	15	0.34
Canola, Sample Canada					
Western Canada[3]	5	10	4	25	0.19

[1] 8.5% moisture basis
[2] Includes part of the Peace River area that is in British Columbia
[3] Values are weighted averages based on production by province as estimated by Statistics Canada.

Table 5 – 2007 Harvest survey
Fatty acid composition by grade and province

	Fatty acid composition[1], %								
	C16:0	C16:1	C18:0	C18:1	C18:2	C18:3	C20:0	C20:1	C20:2
Canola, No. 1 Canada									
Manitoba	4.2	0.2	1.9	61.8	19.7	8.8	0.7	1.2	0.1
Saskatchewan	4.1	0.2	1.9	61.9	19.2	9.4	0.6	1.2	0.1
Alberta[2]	3.8	0.2	1.7	60.7	19.2	10.9	0.6	1.3	0.1
Western Canada[3]	**4.0**	**0.2**	**1.8**	**61.5**	**19.3**	**9.8**	**0.6**	**1.2**	**0.1**
Canola, No. 2 Canada									
Manitoba	4.1	0.2	1.8	59.6	20.2	10.4	0.6	1.3	0.1
Saskatchewan	4.0	0.2	1.8	59.8	19.8	10.8	0.6	1.3	0.1
Alberta[2]	3.9	0.2	1.7	58.4	20.3	11.8	0.6	1.4	0.1
Western Canada[3]	**4.0**	**0.2**	**1.7**	**59.1**	**20.1**	**11.2**	**0.6**	**1.3**	**0.1**
Canola, No. 3 Canada									
Western Canada[3]	**4.0**	**0.2**	**1.6**	**58.3**	**20.6**	**11.5**	**0.6**	**1.4**	**0.1**
Canola, Sample Canada									
Western Canada[3]	**4.1**	**0.2**	**1.7**	**58.2**	**20.7**	**11.6**	**0.6**	**1.3**	**0.1**

	Fatty acid composition[1], %					
	C22:0	C22:1	C24:0	C24:1	Total saturates[2]	Iodine value[3]
Canola, No. 1 Canada						
Manitoba	0.3	0.0	0.2	0.2	7.3	112
Saskatchewan	0.3	0.0	0.1	0.2	7.1	113
Alberta[2]	0.3	0.1	0.1	0.2	6.6	115
Western Canada[3]	**0.3**	**0.0**	**0.1**	**0.2**	**7.0**	**113**
Canola, No. 2 Canada						
Manitoba	0.4	0.0	0.2	0.2	7.1	115
Saskatchewan	0.3	0.0	0.1	0.2	7.0	115
Alberta[2]	0.4	0.0	0.1	0.3	6.8	118
Western Canada[3]	**0.4**	**0.0**	**0.1**	**0.2**	**6.9**	**116**
Canola, No. 3 Canada						
Western Canada[3]	**0.4**	**0.0**	**0.1**	**0.3**	**6.8**	**117**
Canola, Sample Canada						
Western Canada[3]	**0.4**	**0.0**	**0.1**	**0.2**	**6.9**	**118**

[1] Percentage of total fatty acids including: 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), nervonic (C24:1)

[2] Total saturated fatty acids are the sum of palmitic (C16:0), stearic (C18:0), arachidic (C20:0), behenic (C22:0), and lignoceric (C24:0)

[3] Calculated from fatty acid composition

[4] Includes part of the Peace River area that is in British Columbia

[5] Values are weighted averages based on production by province as estimated by Statistics Canada.

Table 6 – Canola, No. 1 Canada
Comparisons of quality data for 2007 harvest survey with data for recent export shipments

Quality parameter	2007 survey	October 2007 exports		2006–07 exports	
		Thunder Bay	Vancouver	Thunder Bay	Vancouver
Oil content[1], %	43.4	42.0	43.1	42.8	44.1
Protein content[2], %	21.7	22.0	21.6	21.3	20.9
Oil-free protein content[2], %	41.2	40.7	40.9	40.0	40.3
Chlorophyll, mg/kg in seed	15	16	16	15	17
Total glucosinolates, μmol/g	10	12	12	10	11
Free fatty acids, % in oil	0.18	0.50	0.41	0.56	0.38
Erucic acid, % in oil	0.04	0.03	0.04	0.04	0.08
Oleic acid, % in oil	61.5	61.8	61.3	61.1	61.3
Linolenic acid, % in oil	9.8	9.7	10.3	10.3	10.6
Total saturated fatty acids[3], % in oil	7.0	7.1	6.9	7.0	6.8
Iodine value	113	113	114	115	115
Loading moisture, %	n/a	6.7	8.0	7.2	7.0
Number of export samples	n/a	2	15	8	140

[1] 8.5% moisture basis
[2] N x 6.25; 8.5% moisture basis
[3] Total saturated fatty acids are the sum of palmitic (C16:0), stearic (C18:0), arachidic (C20:0), behenic (C22:0), and lignoceric (C24:0).

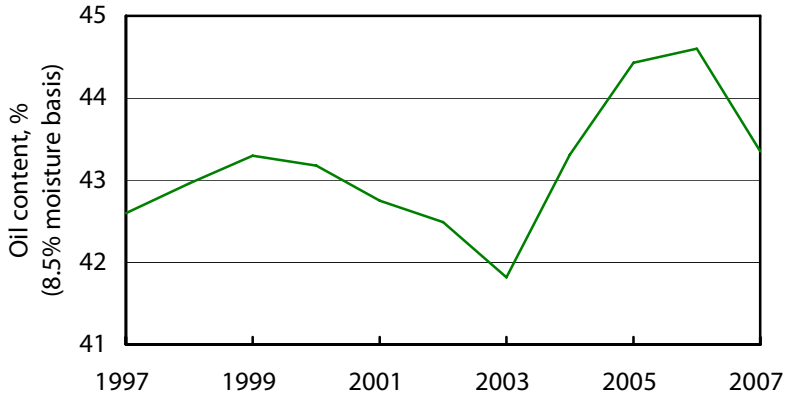
Oil content

For Canola, No.1 Canada, the 2007 mean oil content (43.4%) is 1.2% lower than the 2006 mean (44.6%) and 0.3% above the ten-year (1997-2006) mean of 43.1%. The mean oil content in Manitoba (41.6%) is significantly lower than in Saskatchewan (43.3%) and Alberta (44.4%). Compared to 2006, mean oil contents have changed by -1.8%, -1.6% and -0.7% respectively for Manitoba, Saskatchewan and Alberta. The oil content of Canola, No. 1 Canada from producers across western Canada ranged from 31.4% to 49.4%.

The decreased oil contents seen in the 2007 survey are a result of the generally hot and dry growing conditions experienced during July over much of the western Canadian canola growing area. In most of southern canola growing areas there was a high proportion of heat stressed canola that tends to significantly lower oil contents. In general, hot growing conditions at flowering tend to produce canola seed with lower oil contents but higher protein content. Weather summary maps of the 2007-growing season can be found at: http://www.agr.gc.ca/pfra/drought/drmaps_e.htm. The oil contents for Canola, No. 2 Canada are significantly lower than for Canola, No. 1 Canada (Table 3).

The oil content of canola exports from Vancouver was 43.1% in October 2007, 1.0% lower than the 2006-07 mean of 44.1% (Table 6). The mean oil content of the remaining Vancouver exports in the 2007-08 shipping season should remain near 43% on an 8.5% moisture basis. The mean oil content of the Thunder Bay exports in October 2007 decreased to 42.0% from the 2006-07 mean value of 42.8%.

Figure 3 – Canola, No. 1 Canada
Oil content of harvest survey samples, 1997-2007



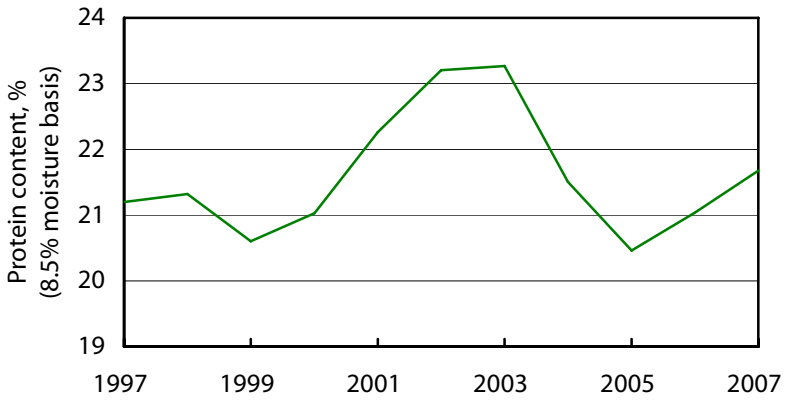
2007 average..... 43.4%
2006 average..... 44.6%
1997–2006 mean 43.1%

Protein content

The 2007 mean crude protein content (21.7%) is 0.7% higher than the 2006 average (21.0%) and 0.1% higher than the ten-year mean value of 21.6%. The 2007 protein content calculated to an oil-free, 8.5% moisture basis is 41.2% compared to 41.0 % in 2006. In Manitoba, protein contents (22.8%) are significantly higher than in Saskatchewan (21.4%) and Alberta (21.4%). Canola, No.1 Canada samples from producers across western Canada varied in protein content from 15.5% to 31.5%.

The mean protein content of canola exports from Vancouver averaged 21.6% in October 2007, 0.7% higher than the 2006-07 mean of 20.9% (Table 6). The protein content in Vancouver exports should remain near this level for the remainder of the 2007-08 shipping season. The mean protein content of the October 2007 Thunder Bay canola shipments was 22.0%, a 0.7% increase from the 2006-07 mean of 21.3%.

Figure 4 – Canola, No. 1 Canada
Protein content of harvest survey samples, 1997–2007



2007 average 21.7%
2006 average 21.0%
1997–2006 mean.....21.6%

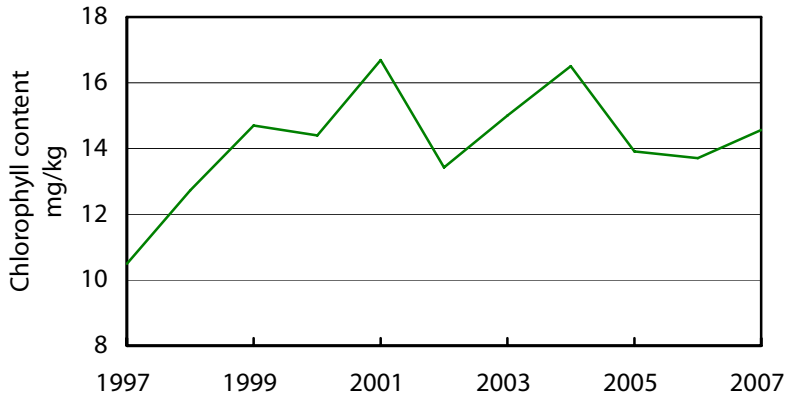
Chlorophyll content

Producer samples of Canola, No. 1 Canada averaged 15 mg/kg chlorophyll in the 2007 survey, similar to the 14 mg/kg in the 2006 harvest (Table 1). The mean chlorophyll level for Manitoba samples is slightly higher than for Alberta and Saskatchewan. Chlorophyll levels for Canola, No. 2 Canada samples averaged 32 mg/kg, similar to the 31 mg/kg for Canola, No. 2 Canada seed in 2006.

Based on discussions with producers and processors, distinctly green seed (DGR) levels were similar to those in 2006 and significantly less of a degrading factor than in the frost-affected 2004 crop. In some of the southern regions the crop was swathed during hot, dry conditions and this lead to higher chlorophyll from that seed. The enzymes that clear the chlorophyll from canola seeds had insufficient moisture to function properly. In addition, wet and cool conditions in the late fall hindered the harvesting of the 2007 canola crop in some parts of northern Alberta and northern Saskatchewan. Overall, the green seed count and the amount of chlorophyll per green seed is similar to that in the 2006 crop.

The October 2007 shipments of canola leaving both Vancouver and Thunder Bay had average chlorophyll levels of 16 mg/kg. Both of the October values were similar to the average chlorophyll levels in the 2006-07 exports. The levels of chlorophyll in Vancouver and Thunder Bay export shipments are expected to remain similar to the 2006-07 mean values (Table 6).

Figure 5 – Canola, No. 1 Canada
Chlorophyll content of harvest survey samples, 1997–2007

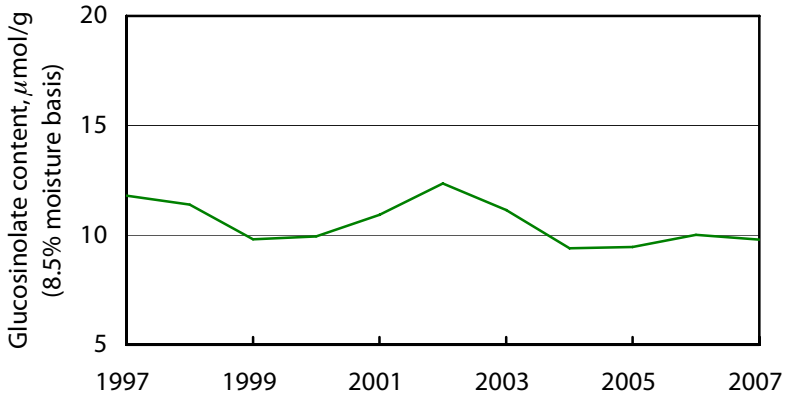


2007 average .....15 mg/kg
2006 average .....14 mg/kg
1997–2006 mean.....14 mg/kg

Glucosinolate content

The 2007 total seed glucosinolate level of 10 micromoles per gram is similar to the 10 micromoles per gram in 2006. The large proportion of *Brassica napus* samples in the 2007 crop contributed to the overall low glucosinolate levels for the crop. For 2007, heat stress caused a slight increase in some areas. The average level of total seed glucosinolates in the October 2007 Vancouver and Thunder Bay canola exports indicates glucosinolate levels in exports will be slightly higher than those in the 2006-07 shipping season.

Figure 6 – Canola, No. 1 Canada
Total seed glucosinolate content of harvest survey samples, 1997–2007

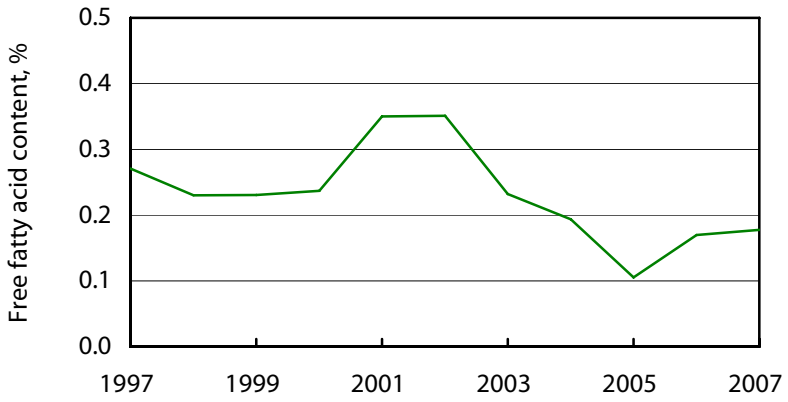


2007 average .....10 umol/g
2006 average .....10 umol/g
1997–2006 mean.....11 umol/g

Free fatty acids content

The 2007 harvest survey of Canola, No. 1 Canada has a mean free fatty acid (FFA) content of 0.18%. This level is similar to the 2006 value of 0.17% and below the long-term mean of 0.24%. However, the FFA levels may be elevated in seed that was subject to heat stress, particularly in the southern regions of the canola growing area. Individual producer samples from some areas are notably higher in FFA (*e.g.* 0.8% to 1.2%) than the reported western Canada mean of 0.18% for Canola, No. 1 Canada. For initial 2007-08 exports, FFA levels are expected to be around 0.5% for Canola, No. 1 Canada (Table 6). Because FFA levels tend to increase over time, the measured FFA levels towards the end of the shipping season will likely be higher than the values seen in October shipments.

Figure 7 – Canola, No. 1 Canada
Free fatty acid content of harvest survey samples, 1997–2007



2007 average.....0.18%
2006 average.....0.17%
1997–2006 mean.....0.24%

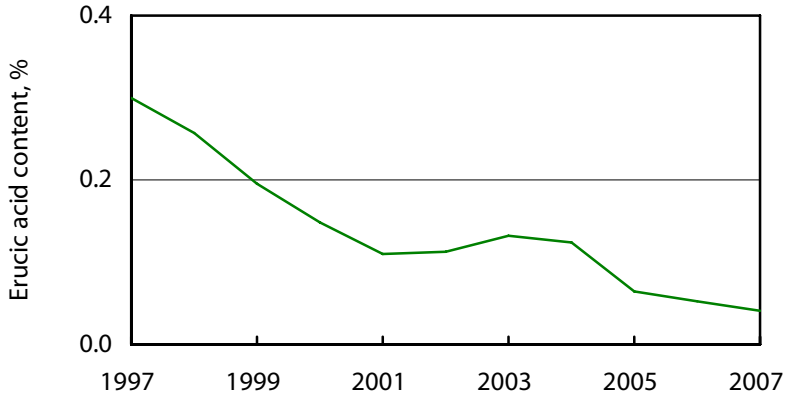
Fatty acid composition

The mean iodine value of the canola oil from 2007 harvest survey samples is 113 units compared to 113 units in 2006 (Table 2). The linolenic acid is 9.8% in 2007, which is slightly lower than the 9.9% in 2006 and the 10-year mean of 9.9%. At 10.9%, the linolenic acid in Alberta is notably higher than in Saskatchewan, 9.4%, and Manitoba, 8.8% (Table 5). The oleic acid content of the 2007 crop decreased to 61.5% from the 62.0% in 2006 while the linoleic acid content increased to 19.3% from 18.9%.

The average level of erucic acid in the 2007 crop is 0.04%, similar to the 0.05% in 2006 and well below the 10-year mean of 0.15%. The mean level of saturated fatty acids is 7.0% in 2007, similar to the 2006 value of 7.0%. The levels of saturated fatty acids are notably lower in Alberta, 6.6%, than in Saskatchewan, 7.1%, and Manitoba, 7.3%. In general, samples from the southern prairies had significantly higher saturated fatty acids than samples from the northern regions. The GRL harvest survey samples were comprised of over 99% *Brassica napus* types, similar to the 99% in 2006.

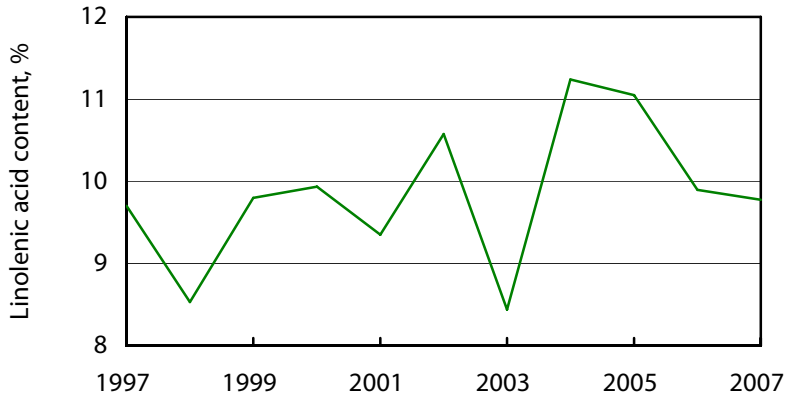
Based on the October 2007 data, the mean linolenic acid content for Canola, No. 1 Canada exports from Vancouver decreased by 0.3% to a mean value of 10.3% (Table 6). The October 2007 Thunder Bay exports decreased by 0.6% to a mean value of 9.7% linolenic acid content. At 114 units, the iodine value for October Vancouver canola exports decreased by 1 unit from the 2006-07 levels. The iodine value for the October Thunder Bay canola exports decreased by 2 units from the 2006-07 levels. The level of saturated fatty acids in October 2007 Vancouver and Thunder Bay canola exports increased by 0.1%. The levels of erucic acid in all exports during the 2007-08 shipping season will likely remain near 0.1%.

Figure 8 – Canola, No. 1 Canada
Erucic acid content of harvest survey samples, 1997–2007



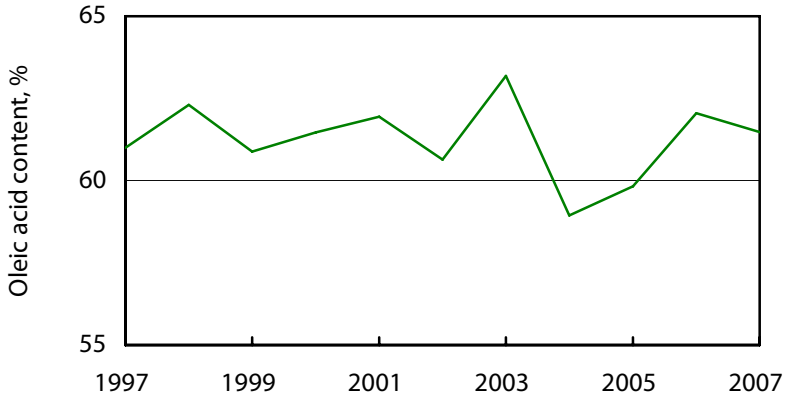
2007 average..... 0.04%
2006 average..... 0.05%
1997–2006 mean 0.15%

Figure 9 – Canola, No. 1 Canada
Linolenic acid content of harvest survey samples, 1997–2007



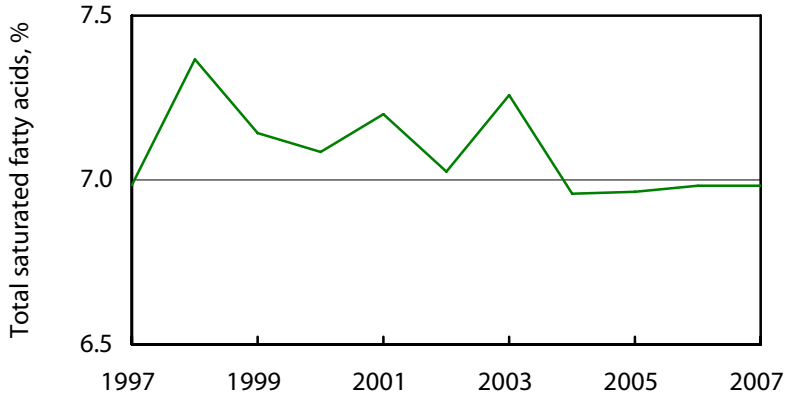
2007 average.....9.8%
2006 average.....9.9%
1997–2006 mean 9.9%

Figure 10 – Canola, No. 1 Canada
Oleic acid content of harvest survey samples, 1997–2007



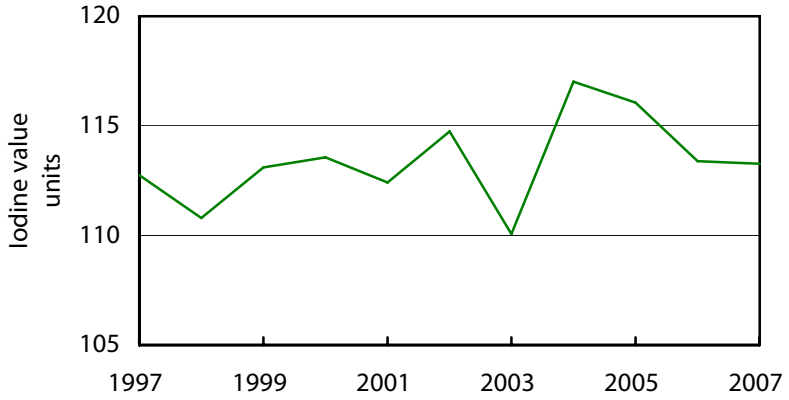
2007 average 61.5%
2006 average 62.0%
1997–2006 mean.....61.2%

Figure 11 – Canola, No. 1 Canada
Total saturated fatty acid content of harvest survey samples, 1997–2007



2007 average 7.0%
2006 average 7.0%
1997–2006 mean..... 7.1%

Figure 12 – Canola, No. 1 Canada
Iodine value of harvest survey samples, 1997–2007



2007 average 113
2006 average 113
1997–2006 mean.....113