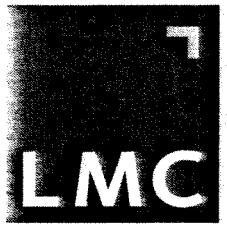
TAB 3



International

The Economic Impact of Canadian Grown Canola and its End Products on the Canadian Economy

Report for:

Canola Council of Canada
Winnipeg, Canada

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Research and analysis to inform your business decisions

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The Impact of the Canola Industry on the Canadian Economy

Summary

This report presents an analysis of the impact of the canola industry on the economy of Canada. For all data, we present an annual average of the quantified impact. This average is calculated by considering data for the three crop years from 2007-08 to 2009-10. The contribution of the canola sector to the Canadian economy can be summarised as follows:

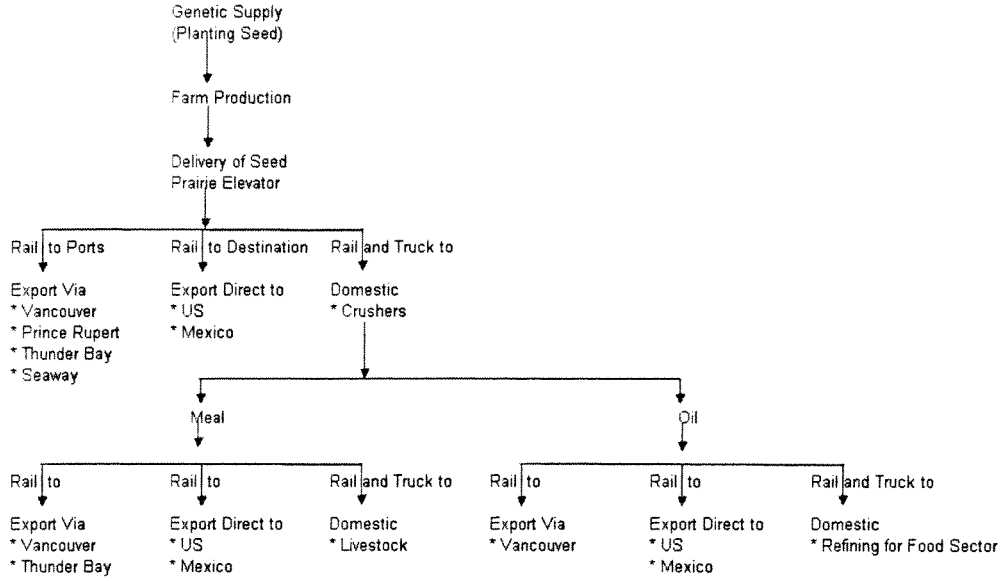
- The total economic benefit to the Canadian economy from the canola sector averages C$15.4 billion per year
- 228,000 Canadian jobs are attributable to the canola sector
- An annual average of C$8.22 billion was paid in wages to employees due to the canola sector.

We can disaggregate the total for the **direct** contribution to the Canadian economy of the canola industry as follows:

- **Farm Production**, which utilizes high value planting seed and a number of crop inputs to produce around 12 million tonnes of canola seed, **contributed an annual average of C$5,252 mn** to the Canadian economy between 2007/08 and 2009/10.
- **Canola Seed Crushing** enhances the value of the seed through production of oil for the food and biodiesel sectors, and meal for the livestock sectors. The domestic crushing sector **added value worth an annual average of C$430 mn** to the Canadian economy for the featured period.
- **Oil Refining**, which adds value to crude canola oil by refining and further processing for human consumption, **added a further annual average of C$184 mn** of value to the Canadian economy in the same period.
- **End uses of canola products**, including the benefits to the dairy sector from canola meal and use of canola oil in the food processing industry, contribute an **annual average of C$723 mn** to the Canadian economy.
- **Grain and Product Handling and Elevation**, which adds value to canola seed, meal and oil as they move from farm or crushing locations to ports for export or to domestic locations, **contributed an annual average of C$526 mn** to the Canadian economy.
- **Transportation** of canola seed and products, which adds value through movement of seed, meal and oil from production areas or areas of surplus and lower prices to deficit areas with higher prices, **contributed an annual average of C$505 mn** to the Canadian economy.
- **Employment,** which represents the people who are directly employed in each of these sectors (including end uses) and the wages that they earn, **contributed C$6.331 mn** in wages for approximately **116,000 jobs** linked directly to the canola sector in Canada.

Diagram CAN.1 describes the position of these sectors in the value chain through which canola increases in value from farm level to the seed crushing and oil refining industries.

Diagram CAN.1: Schematic model of the canola value chain



Scope and methodology

In addition to the direct impact of the canola industry on the Canadian economy, highlighted above, we also assess its indirect impact, which is the additional value accruing to the industry from other industries and jobs that support the sectors having direct impact. These indirect assessments are made using "economic multipliers" provided by Statistics Canada that specifically relate to each of the sectors listed above.

The report presents estimates of value addition in food processing beyond the oil refining industries, although data here is harder to come by. Estimates are also included for the value added by canola meal in the dairy sector. However, the report does not cover the various chemical and fuel inputs at the farm level.

Further processing

The further processing of refined canola oil into margarines, salad oils, snack foods, etc. makes a significant contribution to the Canadian economy. We have included an estimate of the food uses of canola oil in this study. However, this presents a number of difficulties making quantification less robust than in other sectors:

- Firstly, the actual formulations of processed foods are often sensitive, commercial information held by private companies.
- Secondly, a large part of the value added in these consumer product sectors is attributable to the marketing and branding of products. This is the difference between consumer products at this stage of the chain and the commodity products at earlier stages. Branding and marketing make it very difficult to quantify the value that canola can claim in the further processing chain, as the large mark-ups are not attached typically to canola oil — if canola were not available, many products would simply switch to an alternative oil without any price effect. The growing healthy oil market may be more closely associated with canola, but again the difficulty is in stripping out the part of the large value added in consumer and wholesale prices that is attributable to canola rather than branding and marketing effects.

Farm inputs

The analysis takes the farm sector as its starting point; this is for the sake of clarity. Before this stage, there are a number of farm input sectors, such as planting seed, fertiliser, fuel and chemical production. These inputs are purchased by the farm for the production of canola, but we capture their value in the total canola farm contribution to the Canadian economy, as we use total canola revenue generated (prices multiplied by seed output), rather than value added on the farm. In effect, the value of the inputs is incorporated into the total contribution of the farm sector.

In effect, in our method the farm contribution captures all value up to that point in the chain. To include value added in the farm input sectors also would mean double counting. For all sectors downstream of the farm stage — crushing, refining, elevation, transportation etc — the calculation is for value added, rather than for the total contribution. Farm level crop inputs are specified as "farm operating expenses" in Table CAN.11 in the Farm Production Sector Data sources.

Data sources used include Statistics Canada, Agriculture and Agri-Food Canada, Canadian Grains Commission, Quorum Corporation (an independent organization appointed by the Government of Canada to monitor the efficiency of the prairie grain transportation and handling system), Canadian Seed Trade Association, Canola Council of Canada, Canadian Pacific Railway, Railway Association of Canada, Port of Vancouver, USDA Foreign Agriculture Service, LMC Database, and interviews with members of the board of the Canola Council of Canada.

Overview of results: the direct impact of canola

The direct impact of the canola industry on the Canadian economy at the national level

Table CAN.1 and Diagram CAN.2 present the direct economic benefits to the Canadian economy by each major sector associated with the canola industry. The data are presented for each of the three years of 2007 to 2009, alongside the three year average.

- **The total direct benefits have grown from C$6,105 mn in 2007 to C$9,060 mn in 2009, averaging C$7,640 mn during the three year period.**

- The farming sector made the largest contribution, 76% of the total, and averaged C$5,252 mn over the three years. This figure is for the total farm contribution, and captures all of the input chain up to farm output. It does not therefore represent the value added on the farm, as we explain in the *Scope and Methodology* section above.

- Elevation, both for farm seed stored near to the production centres and later for seed stored at transfer terminals, adds over C$0.5 billion in value per year, averaging between 2007 and 2009. In combination with the similar amount added by the transportation of seed, oil and meal, and including port fees and fobbing costs, these sectors add over C$1 billion per year to the Canadian economy. These three categories are summed together as Handling and Transportation in Diagram CAN.2.

- Canola crushing adds an annual average of C$430 million, while refining adds a further C$184 million to the total direct contribution.

- End use sectors including food processing of oil and dairy use of canola meal add a further C$723 million on average per year.

- The canola industry provided direct employment for over 116,000 people, as Table CAN.2 reveals. The majority (96,000) were in farming.

Table CAN-1: Direct economic impact of canola as measured through the value chain, 2007-2009 (C$ '000)

	2007	2008	2009	Average 2007-2009
Canola Farming -- Operating Revenues	4,097,359	5,178,635	6,481,065	5,252,353
Subtotal	***4,097,359***	***5,178,635***	***6,481,065***	***5,252,353***
Prairie Elevator -- Canola Seed: Fees and Charges	233,703	276,117	269,768	259,863
Terminal/Transfer Elevator -- Canola Seed: Fees	198,893	306,319	291,969	265,727
Subtotal	***432,596***	***582,436***	***561,737***	***525,590***
Port -- Canola Seed: Fobbing Charges	11,548	13,458	14,648	13,218
Port -- Canola Meal: Fees and Fobbing Charges	245	165	1,454	621
Port -- Canola Oil: Fees and Fobbing Charges	7,467	3,791	9,620	6,959
Subtotal	***19,260***	***17,413***	***25,722***	***20,799***
Transportation -- Canola Seed: Rail to Ports or Export Destination	170,895	220,229	226,422	205,849
Transportation -- Canola Seed: Rail to Domestic Destinations	36,525	58,847	65,784	53,719
Transportation -- Canola Seed: Truck to Domestic Destinations	18,146	21,239	24,495	21,294
Transportation -- Canola Meal: Rail to Ports or Export Destination	88,732	125,282	113,854	109,289
Transportation -- Canola Meal: Rail to Domestic Destinations	37,729	26,412	54,697	39,613
Transportation -- Canola Oil: Rail to Ports or Export Destination	44,506	61,670	69,179	58,452
Transportation -- Canola Oil: Rail to Domestic Destinations	21,411	16,834	11,371	16,538
Subtotal	***417,943***	***530,514***	***565,803***	***504,753***
Canola Oilseed Processing -- Value Added	285,973	476,724	528,057	430,251
Subtotal	***285,973***	***476,724***	***528,057***	***430,251***
Canola Oil Refining -- Value Added	183,866	200,419	167,782	184,022
Subtotal	***183,866***	***200,419***	***167,782***	***184,022***
Dairy Milk Boost	161,590	129,292	227,463	172,782
Dairy Meal Cost Savings	37,944	38,766	49,806	42,172
Subtotal	***199,534***	***168,058***	***277,268***	***214,954***
Food Industry - Value Added	468,495	601,867	452,805	507,722
Subtotal	***468,495***	***601,867***	***452,805***	***507,722***
Grand Total Direct Impact	**6,105,027**	**7,756,065**	**9,060,238**	**7,640,444**

Diagram CAN.2: Direct contribution and value added by major sectors of the canola industry to the Canadian economy, annual average 2007-2009 (C$ '000)

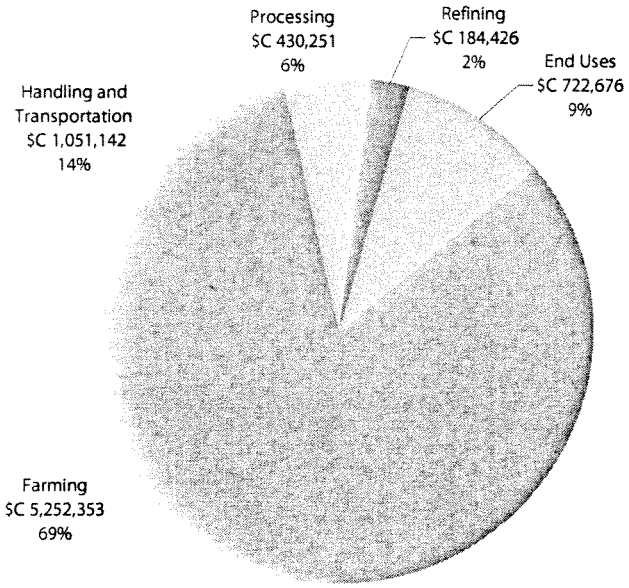


Table CAN.2: Number of people employed directly in Canadian canola value chain, 2007-2009

	2007	2008	2009	Average 2007-2009
Employment -- Wages ($C '000)				
Genetics Supply	78,150	78,150	78,150	78,150
Farming	4,097,359	5,178,635	6,481,065	5,252,353
Canola Seed Handling -- Elevator and Port	73,742	88,579	86,541	82,954
Transportation	78,073	105,651	102,397	95,374
Crushing	55,225	59,298	67,624	60,716
Refining	14,403	15,061	16,005	15,156
End Uses	725,402	740,143	774,249	746,598
Canada	**5,122,354**	**6,265,518**	**7,606,031**	**6,331,301**
Number of Employees				
Genetics Supply	582	582	582	582
Farming	95,386	95,960	96,942	96,096
Canola Seed Handling -- Elevator and Port	1,108	1,305	1,238	1,217
Transportation	1,084	1,433	1,358	1,292
Crushing	865	953	1,012	943
Refining	320	328	334	327
End Uses	16,136	16,136	16,136	16,136
Canada	**115,482**	**116,697**	**117,601**	**116,593**

Impact of the canola industry on the provincial economies

Table CAN.3 and Diagrams CAN. 3 and CAN.4 illustrate the contribution of each of the six provinces that participate directly in the canola industry.

Saskatchewan, Alberta and Manitoba, are the main producing and crushing provinces, and together accounted for 92% of the total direct impact.

Saskatchewan was the leading province, with an estimated C$2.7 bn of direct impact. Alberta and Manitoba followed with C$2.5 bn and C$1.6 bn, respectively.

The specific sectors that make the greatest contribution, farm production and handling and transportation, mirror those at the national level for these three producing provinces.

British Columbia, which is a minor producer and has no processing plants, makes its contribution primarily through its port facilities in Vancouver and Prince Rupert, through which the majority of sea shipments embark.

In the Eastern provinces of Ontario and Quebec, canola production is also limited, but dairy farming and some crushing takes place. Dairy use of canola meal makes the largest economic impact in the canola industry in the East.

We have apportioned value added by food industry end users in direct proportion to the refining sector in each province.

Table CAN.3: Direct economic impact of canola by province, annual average based on years 2007-2009 (C$ '000)

	Manitoba	Saskatchewan	Alberta	British Columbia	Ontario	Quebec	Canada
Canola Farming -- Operating Revenues	1,059,337	2,156,094	1,974,939	39,974	14,107	7,902	**5,252,353**
Subtotal	***1,059,337***	***2,156,094***	***1,974,939***	***39,974***	***14,107***	***7,902***	***5,252,353***
Prairie Elevator -- Canola Seed: Fees and Charges	57,873	98,015	87,442	2,164	14,369	-	**259,863**
Terminal/Transfer Elevator -- Canola Seed: Fees	-	-	-	235,727	24,962	5,038	**265,727**
Subtotal	***57,873***	***98,015***	***87,442***	***237,891***	***39,331***	***5,038***	***525,590***
Port -- Canola Seed: Fobbing Charges	-	-	-	12,473	630	115	**13,218**
Port -- Canola Meal: Fees and Fobbing Charges	-	-	-	621	-	-	**621**
Port -- Canola Oil: Fees and Fobbing Charges	-	-	-	6,418	-	541	**6,959**
Subtotal	-	-	-	***19,513***	***630***	***656***	***20,799***
Transportation -- Canola Seed: Rail to Ports or Export Destination	34,023	89,980	74,427	1,870	5,548	-	**205,849**
Transportation -- Canola Seed: Rail to Domestic Destinations	9,555	13,522	10,415	-	20,227	-	**53,719**
Transportation -- Canola Seed: Truck to Domestic Destinations	5,816	8,318	6,665	-	303	192	**21,294**
Transportation -- Canola Meal: Rail to Ports or Export Destination	26,522	27,375	47,749	1,751	5,743	150	**109,289**
Transportation -- Canola Meal: Rail to Domestic Destinations	11,148	22,429	1,699	-	4,042	295	**39,613**
Transportation -- Canola Oil: Rail to Ports or Export Destination	14,658	19,481	15,800	400	8,082	32	**58,452**
Transportation -- Canola Oil: Rail to Domestic Destinations	7,034	3,882	2,700	-	2,684	238	**16,538**
Subtotal	***108,755***	***184,986***	***159,455***	***4,021***	***46,629***	***907***	***504,753***
Canola Oilseed Processing -- Value Added	94,521	127,106	104,443	-	90,226	13,955	**430,251**
Subtotal	***94,521***	***127,106***	***104,443***	-	***90,226***	***13,955***	***430,251***
Canola Oil Refining -- Total Value Added	81,557	30,025	35,395	-	36,464	581	***184,022***
Subtotal	***40,428***	***54,364***	***44,671***	-	***38,590***	***5,969***	***184,022***
Dairy Milk Boost	8,591	5,456	16,042	13,880	59,875	68,937	***172,782***
Dairy Meal Cost Savings	2,086	1,366	3,946	3,268	14,697	16,808	***42,172***
Subtotal	***10,677***	***6,823***	***19,988***	***17,148***	***74,572***	***85,745***	***214,954***
Food Processing - Value Added	225,019	82,839	97,657	-	100,604	1,604	507,722
Subtotal	***225,019***	***82,839***	***97,657***	-	***100,604***	***1,604***	***507,722***
Grand Total Direct Impact	**1,596,609**	**2,710,226**	**2,488,595**	**318,547**	**404,690**	**121,776**	**7,640,444**

Diagram CAN.3: Direct economic impact of the canola industry by province, 2007-2009, C$ '000

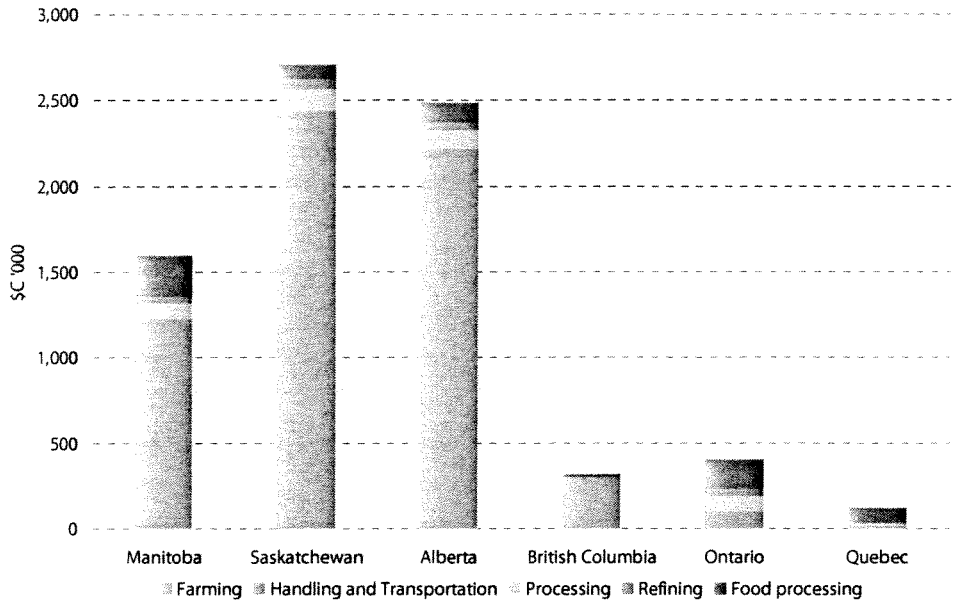
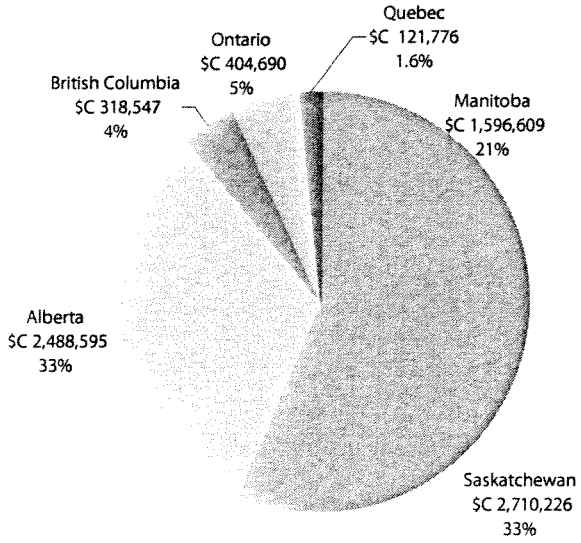


Diagram CAN.4: Provincial shares of direct economic impact of canola, annual average 2007-2009, C$ '000



Canola sector analysis

In this main body of the report, we present the detailed calculations and data utilised for the results summary shown above. We examine each of the major sectors of the canola industry in turn and consider the impact that they have on the national and provincial economies.

For each sector we describe our data sources, explain our methods of approaching the analysis together with assumptions regarding the data, present tables of data for both national and provincial levels, and interpret the data in light of its impact on the Canadian economy. The data are illustrated by diagrams that highlight the contributions for each sector on a provincial basis.

The calculations suggest the contribution of the canola sector to the Canadian economy can be summarised as follows:

- **The total direct benefits have averaged C$7,640 million (C$7.6 billion) per year in recent years**
- **Over 116,000 people have been employed in full-time equivalent work each year**
- **Adding the indirect benefits of the canola sector brings the total economic benefit to the Canadian economy to C$15.4 billion per year**
- **A further 112,000 jobs are created indirectly, meaning a total of over 228,000 Canadian jobs are attributable to the canola sector**
- **An annual average of C$6.33 billion were paid in wages to direct employees in canola, with indirect jobs brining the total to C$8.22 billion.**

In our opening Summary, we began our analysis by considering the total contribution made by the canola farming sector to the Canadian economy. We noted that this method in effect captured the value of all the inputs used on the farm by incorporating their value into the total farm contribution. One reason for this is that it can be argued that the fertiliser, chemical and fuel sectors at least would exist without the canola industry, and that they would merely divert their output to whatever crop substituted for canola in arable rotations in Canada.

However, the canola planting seed breeding (seed genetics) industry has an output directly related to canola, and we describe the impact of that sector in the first section below. Nonetheless, we remind readers that the value added in this sector is effectively captured by the farm production contribution. If we included the seed genetics value added as a separate item, we would have to deduct this from the farm production contribution; thus, the net addition to the total would be zero.

Impact of canola planting seed genetics supply on the Canadian economy

The genetics supply sector is the foundation for a large part of the success of the canola industry, providing canola farmers with high quality, high yielding varieties and hybrids that have value-added traits of improved oil profiles, herbicide resistance, and stress tolerance.

A number of genetics suppliers, including Bayer, Pioneer Hybrid International, Monsanto, Dow, Cargill, Viterra, DL Seeds and Brett Young, provide farmers with seed of hybrids and open pollinated varieties. The growing importance of canola in the Canadian economy has led several genetics suppliers to invest in breeding centers and seed manufacturing plants in the western provinces of Manitoba, Saskatchewan and Alberta where most of the production

takes place. The companies investing in new or expanded facilities include Monsanto, Bayer, DL Seeds, Cargill, Pioneer Hybrid International, and Dow AgroSciences.

Sources of data

Data was derived from LMC interviews with key stakeholders in the genetics supply industry as well as from annual reports and other public information provided by the genetics supply companies.

Highlights of the impact of the planting seed supply on the Canadian economy

- The planting seed supply sector added an annual average of C$570 mn per year to the Canadian economy in the 2007-2009 period.
- The seed supply sector employed almost 600 people, who earned about C$78 mn in annual wages.
- 35,000 to 40,000 tonnes of canola seed are used annually to plant the canola crop in Canada. The more valuable hybrid seed is taking an increasing share of the planting seed market, and is now over 80% of the planting seed market.
- Various special traits such as herbicide resistance, specialty oil profiles, or stress tolerance add further value to the seed. This revenue was estimated to average C$369 mn annually in 2007-2009.
- The genetics suppliers require farmers to pay license fees or technology fees for the privilege of using these traits, and these technology fees are another major source of revenue, estimated at an annual average of C$120 mn.
- An estimated average of C$ 7 mn per annum was generated through export of seed for planting, primarily to the US.

Table CAN.4: Impact of the canola planting seed industry on the Canadian economy, 2007-2009 (C$ '000)

	2007-08	2008-09	2009-10	Average 2007-2009
- Seed	*317,761*	*236,750*	*214,955*	*256,489*
- Added Value (Traits)	*282,535*	*394,294*	*430,738*	*369,189*
- Technology Fees	*107,186*	*117,262*	*135,552*	*120,000*
Total Domestic Revenue	707,482	748,306	781,245	745,678
Export Revenue	6,358	4,821	10,655	7,278
Total Revenue	**713,840**	**753,127**	**791,900**	**752,956**
Expenses	182,750	182,750	182,750	182,750
Value Added	**531,090**	**570,377**	**609,150**	**570,206**

Employment in the genetics supply sector

The genetics supply sector adds about 600 jobs to the Canadian economy, with wages totalling C$78 mn (Table CAN.5). Since an annual breakdown of jobs and wages in this sector was not available, these data represent an average for the 2007-2009 period.

Table CAN.5: Employment in the genetics supply and planting seed industry, 2007-2009

	2007-08	2008-09	2009-10	Average 2007-2009
Estimated Number of Employees				
Breeding Programs	175	175	175	175
Trait Development	64	64	64	64
Seed Production/Manufacturing	64	64	64	64
Seed Retailing - Territory Sales	120	120	120	120
Seed Retailing - Line Co, Independents, coops, etc	159	159	159	159
Total	**582**	**582**	**582**	**582**
Wages ($C '000)				
Breeding Programs	17,500	17,500	17,500	17,500
Trait Development	6,400	6,400	6,400	6,400
Seed Production/Manufacturing	6,400	6,400	6,400	6,400
Seed Retailing - Territory Sales	24,000	24,000	24,000	24,000
Seed Retailing - Line Co, Independents, coops etc	23,850	23,850	23,850	23,850
Total	**78,150**	**78,150**	**78,150**	**78,150**

Impact of canola farming on the Canadian economy

Canola farmers utilize high value planting seed and a number of crop inputs to produce around twelve million tonnes of canola seed that add value to the economy through exports and through crushing for meal and oil. These in turn are destined for export and domestic use.

Sources of data

From Statistics Canada, we sourced data from the following units: Farm Financial Statistics, Canadian Farm Financial Database, Statistics on Revenues and Expenses of Farms, Statistics on Income of Farm Families. Since data for Statistics on Revenues and Expenses of Farms was not available for 2009, the previous years' data was used to project 2009 data.

Highlights of the impact of the canola farming sector on the Canadian economy

- ***Canola farming contributed an average of C$5,252 mn per year to the Canadian economy from 2007 to 2009.***
- 32,000 farms produced canola during this period. Assuming that three people were employed or contributed their labour to canola farm operations on each, a total of 96,000 people were engaged in canola farming.
- Annual average canola farm revenues were highest for Saskatchewan followed by Alberta.

Farm operating revenues and expenses

Our methodology identifies the canola farm contribution to the Canadian economy as the total operating revenue from the sale of canola seed and by-products (e.g. straw) per annum.

- This is simply the price realised for a tonne of canola seed, multiplied by the number of tonnes produced per year.

This does not represent the canola farm *profitability*, as the farm has to pay operating expenses out of this revenue. If we were to deduct these farm expenses, we would isolate the *value added* by the canola farm to farm inputs. However, if we adopted this approach, we

would then need to look back at the value added in each farm input sector — fertiliser, planting seed, chemicals, fuel, machinery etc — to calculate the value they in turn have added to their basic raw materials. This would be an exceedingly challenging task, and would lead us deep into several non-agricultural sectors with their own complex value chains. It is far clearer to begin the analysis with the farm, and assume that total farm canola revenues ***reflect the accumulated value in the canola chain up to that point***.

Nonetheless, we include here some discussion and presentation of farm expenses, to give an indication to readers of the scale of canola farm profitability and the value added to farm inputs in the sector.

In order to estimate the contribution specifically for canola farms, we used the share of Canola Cash Receipts in the total Oilseed and Grain Cash Receipts to estimate the share of canola farm revenue and expenses within the Oilseed and Grain Revenues and Expenses. The 2007-2009 averages for revenue (the contribution to the Canadian economy) and expenses are presented in Tables CAN.6 and CAN.7, respectively.

Provincial revenues and expenses for individual years are given in Tables CAN.8 and CAN.9, respectively.

The farm revenue from canola totaled C$5,252 mn for the whole of Canada. This represented:

- 30% of the revenue and expenses of the Oilseed and Grain Farming sector,
- 17% of the Crop Farming sector, and
- 8% of the total Crop and Livestock Farming sectors.

Canola farm revenues were highest for Saskatchewan, with C$2,156 mn, and for Alberta, with C$1,975 mn.

- Even though canola farming revenues were highest for Saskatchewan, canola accounted for only 30% of oilseed and grain farming revenues because Saskatchewan is also a major producer of wheat and other grains.
- Canola farming in Manitoba and Alberta accounted for over 40% of oilseed and grain farming revenues.
- For Saskatchewan, Manitoba, and Alberta, canola farming accounted for an average of 17% of their respective total farm revenues.

Table CAN.6: Annual operating revenues for canola farming by province, in the context of other agriculture production, average 2007-2009 (C$ '000)

	Canada	Manitoba	Saskatchewan	Alberta	British Columbia	Ontario	Quebec
Crop production	**30,981,944**	**4,001,161**	**9,262,137**	**7,465,135**	**1,494,967**	**5,308,712**	**2,320,005**
Oilseed and grain farming	17,636,713	2,512,071	6,963,185	4,614,351	84,212	2,067,714	889,960
Canola	***5,252,353***	***1,059,337***	***2,156,094***	***1,974,939***	***39,974***	***14,107***	***7,902***
Potato farming	1,262,738	256,716	-	187,773	45,252	114,639	149,264
Other vegetable (except potato) and melon farming	899,435	15,519	-	46,729	70,966	435,108	332,911
Fruit and tree nut farming	1,014,915	-	-	4,825	350,964	307,334	212,125
Greenhouse, nursery and floriculture production	3,427,309	70,252	24,909	214,308	805,284	1,908,716	430,910
Other crop farming	1,488,481	87,267	117,950	422,210	98,315	461,095	296,933
Animal production	**28,096,879**	**2,129,654**	**1,955,489**	**7,719,077**	**1,756,103**	**6,554,696**	**6,851,514**
Beef cattle ranching and farming, including feedlots	11,401,880	724,858	1,414,512	6,223,404	314,933	1,460,609	1,055,353
Dairy cattle and milk production	6,263,477	265,266	141,623	444,316	577,369	2,057,456	2,429,119
Hog and pig farming	4,630,786	804,309	278,831	310,403	61,417	1,076,628	1,989,021
Poultry and egg production	4,432,306	227,938	-	347,467	720,760	1,488,410	1,192,328
Other animal production	1,368,430	107,283	120,523	393,486	81,625	471,593	185,693
Total	**59,078,823**	**6,130,815**	**11,217,627**	**15,184,212**	**3,251,070**	**11,863,409**	**9,171,519**
Canola Share of Oilseed and Grain Farming	*30%*	*42%*	*31%*	*43%*	*47%*	*1%*	*1%*
Canola Share of Crop Production	*17%*	*26%*	*23%*	*26%*	*3%*	*0%*	*0%*
Canola Share of Total Farming	*9%*	*17%*	*19%*	*13%*	*1%*	*0%*	*0%*

Table CAN.7: Annual operating expenses for canola farming by province, in the context of other agriculture production, 2007-2009 (C$ '000)

	Canada	Manitoba	Saskatchewan	Alberta	British Columbia	Ontario	Quebec
Crop production	**24,263,532**	**3,217,776**	**6,835,633**	**5,453,211**	**1,348,026**	**4,664,715**	**1,903,438**
Oilseed and grain farming	13,308,020	2,006,377	5,130,407	3,325,715	67,455	1,725,945	721,987
Canola	***3,904,158***	***845,295***	***1,585,740***	***1,422,878***	***32,053***	***11,776***	***6,418***
Potato farming	1,055,942	221,019	-	136,179	39,832	100,918	118,682
Other vegetable (except potato) and melon farming	788,903	11,808	-	36,112	61,479	380,364	299,194
Fruit and tree nut farming	873,176	-	-	4,826	302,618	281,471	158,296
Greenhouse, nursery and floriculture production	3,114,927	62,548	23,507	189,646	743,587	1,758,840	389,880
Other crop farming	1,218,407	70,730	95,980	337,854	101,004	405,402	208,980
Animal production	**25,273,600**	**2,002,367**	**1,851,282**	**7,144,665**	**1,654,744**	**5,775,754**	**5,888,495**
Beef cattle ranching and farming, including feedlots	10,717,018	687,182	1,321,822	5,826,212	323,434	1,445,830	951,015
Dairy cattle and milk production	4,841,675	210,275	123,408	352,305	500,047	1,555,534	1,841,182
Hog and pig farming	4,528,427	817,785	304,306	301,775	63,424	995,335	1,907,154
Poultry and egg production	3,880,883	196,158	-	318,628	656,141	1,296,294	1,023,344
Other animal production	1,305,597	90,967	101,747	345,745	111,699	482,762	165,801
Total	**49,537,132**	**5,220,143**	**8,686,916**	**12,597,876**	**3,002,770**	**10,440,470**	**7,791,932**
Canola Share of Oilseed and Grain Farming	*29%*	*42%*	*31%*	*43%*	*48%*	*1%*	*1%*
Canola Share of Crop Production	*16%*	*26%*	*23%*	*26%*	*2%*	*0%*	*0%*
Canola Share of Total Farming	*8%*	*16%*	*18%*	*11%*	*1%*	*0%*	*0%*

Table CAN.8: Operating expenses in canola farming by province, 2007-2009 (C$ '000)

Province	2007	2008	2009	Average 2007-2009
Manitoba	706,984	836,492	992,408	845,295
Saskatchewan	1,346,510	1,533,019	1,877,692	1,585,740
Alberta	1,120,192	1,449,216	1,699,225	1,422,878
British Columbia	22,126	32,415	41,617	32,053
Ontario	8,836	13,991	12,500	11,776
Quebec	5,192	8,113	5,948	6,418
Canada	**3,209,840**	**3,873,245**	**4,629,389**	**3,904,158**

Table CAN.9: Operating revenues in canola farming by province, 2007-2009 (C$ '000)

Province	2007	2008	2009	Average 2007-2009
Manitoba	862,530	1,045,284	1,270,196	1,059,337
Saskatchewan	1,718,988	2,069,336	2,679,957	2,156,094
Alberta	1,473,693	1,997,442	2,453,682	1,974,939
British Columbia	25,506	39,851	54,567	39,974
Ontario	10,586	16,761	14,975	14,107
Quebec	6,057	9,962	7,687	7,902
Canada	**4,097,359**	**5,178,635**	**6,481,065**	**5,252,353**

Employment in the canola farming sector

Farming is typically a family operation, and we estimated the number of "employees" per farm as an average of three individuals per family/unit. We based this number on our interviews in the sector and Statistics Canada data for Farm Family Size, which indicates that less than 50% of farm families have two members, and over 50% have three or more members.

Assuming three family members (or other individuals) are active in farming per farm, we derive the total farm employees as presented in Table CAN.10 from the number of farms engaged in canola production (Table CAN.11). ***An estimated 96,000 people worked on farms during 2007-2009***. Almost half of these were in Saskatchewan, with 47,000 people. We made the assumption that farm revenues represented the wages earned by these "employees".

Table CAN.10: Employment in canola farming, 2007-2009 (C$ '000)

Province	2007	2008	2009	Average 2007-2009
Manitoba	18,285	17,126	16,041	17,151
Saskatchewan	47,722	47,117	46,520	47,120
Alberta	28,225	30,110	32,122	30,152
British Columbia	339	476	669	495
Ontario	473	725	1,110	770
Quebec	342	405	479	409
Canada	**95,386**	**95,960**	**96,942**	**96,096**

Table CAN-11: Number of canola farms in agricultural enterprises by province, average 2007-2009

	Canada	Manitoba	Saskatchewan	Alberta	British Columbia	Ontario	Quebec
Crop production	**130,232**	**14,382**	**46,548**	**30,545**	**4,428**	**22,492**	**9,873**
Oilseed and grain farming	71,250	7,525	29,148	15,513	325	15,040	3,629
Canola	***32,032***	***5,717***	***15,707***	***10,051***	***165***	***257***	***136***
Potato farming	1,225	95	-	86	56	155	220
Other vegetable (except potato) and melon farming	2,394	17	-	45	325	1,160	727
Fruit and tree nut farming	4,596	-	-	95	1,841	1,230	833
Greenhouse, nursery and floriculture production	3,574	91	113	345	650	1,535	677
Other crop farming	15,161	938	1,580	4,409	1,065	3,115	3,650
Animal production	**84,187**	**7,028**	**11,755**	**21,851**	**4,844**	**22,785**	**14,564**
Beef cattle ranching and farming, including feedlots	51,553	5,314	10,445	18,479	2,518	10,200	4,510
Dairy cattle and milk production	13,262	391	175	492	562	4,945	6,173
Hog and pig farming	3,795	423	73	268	51	1,440	1,582
Poultry and egg production	4,178	281	-	280	770	1,745	905
Other animal production	11,400	621	1,062	2,332	943	4,455	1,395
Total	**214,419**	**21,411**	**58,304**	**52,395**	**9,272**	**45,277**	**24,437**
Canola Share of Oilseed and Grain Farming	*45%*	*76%*	*54%*	*65%*	*51%*	*2%*	*4%*
Canola Share of Crop Production	*25%*	*40%*	*34%*	*33%*	*4%*	*1%*	*1%*
Canola Share of Total Farming	*15%*	*27%*	*27%*	*19%*	*2%*	*1%*	*1%*

Impact of canola seed crushing on the Canadian economy

The canola seed crushing sector adds value to canola seed by processing it into oil and meal products, as well as other minor derivatives.

Sources of data

The data presented in this section is taken from Statistics Canada Manufacturing Industries statistics for the oilseed processing sector, and has been adjusted for canola seed processing. The share attributable to canola crushing was estimated using oilseed crush data from COPA, taking the share of canola seed crush in the total oilseed crush, and multiplying that percentage by the Statistics Canada Manufacturing Industries data. The canola share of oilseed crushing averaged 76% during 2007-2009, as shown in Table CAN.12.

Table CAN.12: Canola seed share of total Canadian oilseed crush, 2007-2009

	2007-08	2008-09	2009-10	Average 2007-2009
Canola Crush	4,144	4,280	4,289	4,238
Soybean Crush	1,377	1,282	1,291	1,317
Total	**5,521**	**5,562**	**5,580**	**5,554**
Canola % Share	*75%*	*77%*	*77%*	*76%*

Highlights of the impact of the canola seed crushing sector on the Canadian economy

- The ***canola seed crushing industry added an annual average value of C$430 mn*** to the Canadian economy during the 2007-2009 period.
- The industry employed up to 1,000 people each year during the period.
- Canola crushing now represents almost one-third of Canadian economic activity in the milling and grain processing sector.

Canola crushing at the national level

Table CAN.13 reveals that from 2007 to 2009, revenues earned by canola products substantially, growing by an average of over 60% in just three years as prices increased. However, much of this additional revenue was paid out in higher expenses, notably in the price of raw materials for crushing — canola seed.

The number of employees increased as the sector expanded, and total wage payments also grew. During 2007-2009, about 950 people were employed in the canola crushing sector, earning wages totalling about C$61 mn.

Examining the position of canola crushing in the context of the Food industry and the Grain and Oilseed Milling industry, Table CAN.13 further shows that canola processing contributes more than 3% of the total revenue generated by Canadian food manufacturing, and nearly a third of the revenue earned by the total Grain and Oilseed Milling industry.

Table CAN.13: Value added and other contributions by the canola seed crushing sector to the Canadian economy, 2007-2009

	2007	2008	2009	Average 2007-2009
Total Revenue ($C '000)	1,951,531	2,940,440	3,167,709	2,686,560
Total Expenses ($C '000)	1,665,558	2,463,716	2,639,653	2,256,309
- Raw Materials and Supplies ($C '000)	*1,603,853*	*2,394,766*	*2,566,734*	*2,188,451*
- Energy, Chemicals and Water Utility	*61,397*	*68,525*	*72,473*	*67,465*
- Vehicle Fuel	*308*	*425*	*446*	*393*
Value Added	**285,973**	**476,724**	**528,057**	**430,251**
Total Number of Employees (persons)	865	953	1,012	943
- Production workers	*692*	*732*	*807*	*744*
- Non-manufacturing employees	*173*	*221*	*205*	*200*
Total Wages	55,225	59,298	67,624	60,716
Canola Processing as % of Food Manufacturing in				
- Total Revenue	2.6%	3.7%	3.9%	3.4%
Canola Processing as % of Grain/Oilseed Milling				
- Total Revenue	28.5%	32.5%	33.4%	31.5%

Canola crushing at the provincial level

We turn now to examine the contributions of the canola oilseed processing industry on a provincial basis. To apportion the national data to the provincial level, we first estimated the canola annual crush capacity by province, as shown in Table CAN.14. We then multiplied each province's share of total crush capacity by the national level canola processing economic data. The results are presented in Tables CAN.15 and CAN.16.

As Table CAN.14 indicates, crushing capacity is expanding in Saskatchewan and Manitoba, but stable in Alberta and Ontario. In 2009, TRT-ETGO in Quebec began operation with annual capacity of 510,000 tonnes.

Table CAN.14: Estimated canola crushing capacity by province, 2007-2009 ('000 tonnes)

Province	2007	2008	2009	Average 2007-2009
Manitoba	1,037	1,224	1,224	1,162
Saskatchewan	1,105	1,296	2,278	1,560
Alberta	1,299	1,299	1,299	1,299
Ontario	1,122	1,122	1,122	1,122
Quebec	-	-	510	170
Total	**4,563**	**4,941**	**6,433**	**5,312**

Tables CAN.15 and CAN.16 show that the national revenue and expenses continue to increase year on year. However, since the provincial data is based on the proportion of crush capacity, the entry of TRT-ETGO in 2009 had the effect of lowering the share of each province in that year. As a result, the 2009 year showed a decline in revenue on a provincial basis except for Saskatchewan, which has had the largest growth in crush capacity during the period of this analysis.

Saskatchewan experienced the greatest benefit from the crushing industry in 2007-2009, with C$789 mn in revenue from goods manufactured and C$679 mn in expenses, for a total of C$1,468 mn in total impact.

Table CAN.15: Revenue from goods manufactured in the canola oilseed processing sector by province, 2007-2009 (C$ '000)

Province	2007	2008	2009	Average 2007-2009
Manitoba	443,530	728,408	602,735	591,558
Saskatchewan	472,614	771,404	1,121,758	788,592
Alberta	555,503	772,921	639,569	655,998
British Columbia				
Ontario	479,885	667,707	552,507	566,700
Quebec	0	0	251,140	83,713
Canada	**1,951,531**	**2,940,440**	**3,167,709**	**2,686,560**

Table CAN.16: Total expenses in the canola oilseed processing sector by province, 2007-2009 (C$ '000)

Province	2007	2008	2009	Average 2007-2009
Manitoba	378,536	610,313	502,260	497,036
Saskatchewan	403,358	646,339	934,761	661,486
Alberta	474,101	647,610	532,953	551,555
British Columbia	0	0	0	0
Ontario	409,563	559,454	460,405	476,474
Quebec	0	0	209,275	69,758
Canada	**1,665,558**	**2,463,716**	**2,639,653**	**2,256,309**

Employment in the canola crushing sector

On a national level, the crushing industry employed about 950 people during the 2007-2009 period, who earned about C$61 mn in wages (Table CAN.17). With employment exceeding 350 after recent expansions and total wages averaging now C$24 mn, Saskatchewan holds about 30% of the employment in canola processing. As the canola crushing sector continues to add capacity, the number of employees and wages earned are increasing in Saskatchewan, the province with the largest capacity.

Table CAN.17: Employment in the canola seed crushing sector, 2007-2009

Province	2007	2008	2009	Average 2007-2009
Manitoba	197	236	193	208
Saskatchewan	210	250	358	273
Alberta	246	250	204	234
British Columbia	0	0	0	0
Ontario	213	216	177	202
Quebec	0	0	80	27
Canada	**865**	**953**	**1,012**	**943**
Total salaries and wages ($C '000)				
Manitoba	12,551	14,689	12,867	13,369
Saskatchewan	13,374	15,556	23,947	17,626
Alberta	15,720	15,587	13,654	14,987
British Columbia	0	0	0	0
Ontario	13,580	13,465	11,795	12,947
Quebec	0	0	5,361	1,787
Canada	**55,225**	**59,298**	**67,624**	**60,716**

Investments in the canola crushing sector

As canola production expands and as demand for meal and oil grows, the industry is investing in additional crush capacity. Table CAN.18 reveals that an estimated C$790 mn has been invested during the 2007-2009 period for new or expanded crushing plants, particularly in Saskatchewan and Quebec.

Table CAN.18: Investments in the canola crushing sector, 2007-2009 (C$ '000)

	2007	2008	2009	Total
Manitoba				
Saskatchewan	190,000		360,000	550,000
Alberta				-
Ontario				-
Quebec	-	-	240,000	240,000
Total	**190,000**	**-**	**600,000**	**790,000**

Impact of canola oil refining in the Canadian economy

The oil refining and blending sector adds value to canola oil by refining, bleaching and degumming crude oil. Thereafter, the food processing sector adds further value to refined canola oil by processing refined oil into margarine, shortening and salad & cooking fats and oils for human consumption.

As we mention in the opening summary of this report, the further processing of refined canola oil into food end uses makes a significant contribution to the Canadian economy but is difficult to quantify. This is for a number of reasons:

- Firstly, the actual formulations of processed foods are often sensitive, commercial information held by private companies.
- Secondly, a large part of the value added in these consumer product sectors is attributable to the marketing and branding of products. This is the difference between consumer products at this stage of the chain and the commodity products at earlier stages. Branding and marketing make it very difficult to quantify the value that canola can claim in the further processing chain, as the large mark-ups are not attached typically to canola oil — if canola were not available, many products would simply switch to an alternative oil without any price effect. The growing healthy oil market may be more closely associated with canola, but again the difficulty is in stripping out the part of the large value added in consumer and wholesale prices that is attributable to canola rather than branding and marketing effects.

Sources of data

The data presented in this section are taken from Statistics Canada Manufacturing Industries statistics for the Fat and Oil Refining and Blending sector, and adjusted for canola oil refining.

To derive the share attributable to canola oil refining, we first took the Canadian vegetable oil demand data from USDA Foreign Agricultural Service statistics to estimate the share of canola oil in the total demand for vegetable oil, assuming that the canola oil used for domestic food consumption is refined. As Table CAN.19 shows, the canola share of vegetable oil demand for food averaged 49% per annum during 2007-2009. We then multiplied that share by the Statistics Canada Manufacturing Industries data to deduce the proportion of refining attributable only to canola oil.

Table CAN.19: Vegetable oil demand for food consumption in Canada, 2007-2009 ('000 tonnes)

Vegetable Oil	2007/08	2008/09	2009/10	Average 2007-2009
Coconut	6	5	6	6
Cottonseed	22	20	14	19
Canola	**405**	**385**	**380**	**390**
Soybean	305	245	228	259
Sunflowerseed	48	47	36	44
Olive	34	31	35	33
Palm	32	55	45	44
Total	**852**	**788**	**744**	795
Canola % Share	*48%*	*49%*	*51%*	49%

Highlights of the impact of the canola oil refining sector on the Canadian economy

- The ***canola oil refining sector contributed an average of C$184 mn per year*** to the economy during 2007-2009.
- The number of employees during 2007-2009 averaged about 330 people per year, who earned about C$15 mn annually.

Table CAN.20: Impact of the canola oil refining and blending sector on the Canadian economy, 2007-2009 (financial data in C$'000)

	2007	2008	2009	Average 2007-2009
Total Revenue	466,891	506,730	518,414	497,345
Total Expenses	283,025	306,311	350,633	313,323
- Raw Materials and Supplies	*270,000*	*292,378*	*336,706*	*299,695*
- Energy, Water Utility and Vehicle Fuel	*13,025*	*13,933*	*13,927*	*13,628*
Value Added	**183,866**	**200,419**	**167,782**	**184,022**
Total Number of Employees	320	328	334	327
- Production workers	255	260	269	261
- Non-manufacturing employees	66	68	64	66
Total Salaries and Wages	14,403	15,061	16,005	15,156
Canola Refining as % of Food Manufacturing				
- Total Revenue	0.6%	0.6%	0.6%	0.6%
Canola Refining as % of Grain and Oilseed Milling				
- Total Revenue	6.2%	5.2%	5.0%	5.5%

Canola oil refining at the provincial level

Data for refining capacity by province was not available. We therefore apportioned refining capacity according to the volume of refined canola oil shipped from each province during 2007-2009, as shown in Table CAN.21. By this estimation, Manitoba has about 45% of Canada's refining capacity, with Saskatchewan, Alberta, and Ontario sharing the remainder.

Using this apportionment of refining capacity and applying it to the data in Table CAN.24 above, we estimated the economic impact of canola oil refining in each province, as shown in Tables CAN.22 and CAN.23.

Table CAN.21: Refined canola oil shipments by province of origin

		2007-08	2008-09	2009-10	*Average 2007-2009*
Refined oil shipments by province of origin	Manitoba	417	468	431	439
	Saskatchewan	264	80	151	165
	Alberta	194	258	116	189
	British Columbia	-	-	-	-
	Ontario	168	209	211	196
	Quebec	-	-	10	3
	Total	**1,043**	**1,015**	**919**	**992**
Imputed share of refining capacity	Manitoba	40%	46%	47%	44%
	Saskatchewan	25%	8%	16%	17%
	Alberta	19%	25%	13%	19%
	British Columbia	0%	0%	0%	0%
	Ontario	16%	21%	23%	20%
	Quebec	0%	0%	1%	0%
	Total	**100%**	**100%**	**100%**	**100%**

Table CAN.22: Revenue from goods manufactured in the canola oil refining sector by province, 2007-2009 (C$ '000)

Province	2007	2008	2009	Average 2007-2009
Manitoba	186,766	233,534	243,340	221,213
Saskatchewan	118,409	40,111	85,212	81,244
Alberta	86,640	128,639	65,466	93,582
British Columbia	0	0	0	
Ontario	75,075	104,445	119,008	99,509
Quebec	0	0	5,388	1,796
Canada	**466,891**	**506,730**	**518,414**	**497,345**

Table CAN.23: Total expenses in the canola oil refining sector by province, 2007-2009 (C$ '000)

	2007	2008	2009	Average 2007-2009
Manitoba	113,216	141,168	164,585	139,656
Saskatchewan	71,779	24,247	57,634	51,220
Alberta	52,520	77,761	44,278	58,186
British Columbia	0	0	0	0
Ontario	45,510	63,136	80,492	63,046
Quebec	0	0	3,644	1,215
Canada	**283,025**	**306,311**	**350,633**	**313,323**

Employment in the canola oil refining sector

On a national level, the canola oil refining sector contributed about 330 jobs and C$15 mn in wages to the Canadian economy per year from 2007 to 2009 (Table CAN.24).

On a provincial basis, Manitoba provided the highest number of jobs and wages, followed by Saskatchewan, Alberta, and Ontario.

Table CAN.24: Employees and wages in the canola oil refining and blending sector, 2007-2009

	2007	2008	2009	Average 2007-2009
Number of Employees				
Manitoba	128	151	157	145
Saskatchewan	81	26	55	54
Alberta	59	83	42	62
British Columbia	0	0	0	0
Ontario	52	68	77	65
Quebec	0	0	3	1
Canada	**320**	**328**	**334**	**327**
Total salaries and wages ($C '000)				
Manitoba	5,762	6,941	7,512	6,738
Saskatchewan	3,653	1,192	2,631	2,492
Alberta	2,673	3,823	2,021	2,839
British Columbia	0	0	0	
Ontario	2,316	3,104	3,674	3,031
Quebec	0	0	166	55
Canada	**14,403**	**15,061**	**16,005**	**15,156**

Impact of canola seed and product handling on the Canadian economy

As canola seed moves from farms to prairie elevators and thence to terminal and transfer elevators for export, it incurs various ***handling charges and fees*** that add value to the seed. Exports of meal and oil through sea ports also incur handling charges and fees at the ports of embarkation.

Handling fees and charges include receiving, elevating and loading out; removal of dockage/terminal cleaning; and storage. Port fees include vessel demurrage and dispatch.

This section does not include transportation of canola seed and products — that is covered in the next section.

Sources of data

The data in this section were provided by Canadian Grains Commission and Quorum Corporation (an independent organization appointed by the Government of Canada to monitor the efficiency of the prairie grain transportation and handling system).

Handling charges and fees were reported individually for all grains, including canola. In the case of demurrage and dispatch, the fees were reported by Quorum as an annual total sum for western and eastern exports; the share of that attributable to canola seed was derived from the proportion of canola seed shipping through the system relative to other grains.

The volumes of canola seed shipping through the elevator systems to port were provided by Quorum and Canadian Grains Commission. These volumes were multiplied by the relevant fees and charges to arrive at the total handling charges and fees.

The volumes of meal and oil destined for export originated at crushing plants and moved by rail directly to the port of embarkation.

Highlights of the impact of canola seed and product handling on the Canadian economy

On a national level, the ***canola seed and product handling system, including charges and fees and wages, contributed C$546 mn per annum to the Canadian economy in 2007-2009.*** This was made up of:

- Prairie elevator handling charges, fees and wages, averaging C$260 mn per year
- Terminal and transfer elevator fees and charges, averaging C$266 mn per year
- Port fees and fobbing charges, averaging C$21 mn per year.

Prairie elevators

Prairie elevators are the focal point for delivery of most Canadian canola seed. During 2007-2009, handling charges, fees and wages averaged C$260 mn per annum (Table CAN.25).

- Saskatchewan was the largest canola producing province with 45% of output, and its prairie elevator system contributed the largest and fastest growing economic impact among the provinces' primary elevator system.

Table CAN.25: Prairie elevator fees and charges for canola seed shipments, by province, 2007-2009 (C$ '000)

Province of Origin	2007	2008	2009	Average 2007-2009
Manitoba	53,343	60,237	60,039	57,873
Saskatchewan	78,125	103,781	112,138	98,015
Alberta	86,728	94,744	80,855	87,442
British Columbia	2,362	1,839	2,291	2,164
Ontario	13,146	15,515	14,446	14,369
Quebec	0	0	0	0
Canada	**233,703**	**276,117**	**269,768**	**259,863**

Terminal/transfer elevators at ports for canola seed export shipments by sea

Over 60% of Canadian canola seed was exported during the 2007-2009 period.

As canola seed arrives in the terminal elevators (western ports) and transfer elevators (eastern ports), it incurs various fees and charges. These averaged C$266 mn per year for Canada during 2007-2009 (Table CAN.26).

- Most canola seed exports were shipped through the port of Vancouver, earning close to 85% of the total terminal/transfer elevator fees.
- Export shipments through Prince Rupert and Sorel (Seaway) were minor compared to Vancouver.
- Most shipments from Thunder Bay in Ontario were to domestic processors, with small volumes for onward export shipment through the Seaway.

Table CAN.26: Terminal and transfer elevator fees and charges for canola seed shipments, by province, 2007-2009 (C$ '000)

	2007	2008	2009	Average 2007-2009
Vancouver	166,352	254,448	252,718	224,506
Prince Rupert	8,506	13,370	11,787	11,221
Thunder Bay	22,382	26,679	25,825	24,962
Eastern Canada	1,652	11,822	1,640	5,038
Canada	**198,893**	**306,319**	**291,969**	**265,727**

Employment in the grain handling sector

Sources of data

The Canadian Grain Commission (CGC) provided the number of prairie, process, terminal and transfer elevators, by province and company ownership. The Quorum Corporation and the Canadian Grain Commission provided data for shipments of each type of grain through the various elevator networks. We determined the share of elevators participating in canola seed handling by multiplying the total in each category by the share of canola seed shipped through each level of the system.

Next we determined the number of employees participating in canola seed handling by assuming that an average of seven persons was employed at each prairie elevator, based on Viterra's reports on their prairie elevator network.

The number of employees at the terminal elevators at ports was taken from data provided by the British Columbia Maritime Employers Association, and proportionalised to the volume of canola shipped through British Columbia. This data was extrapolated to the Thunder Bay and Eastern Seaway transfer elevators based on their capacity and number of elevators.

Annual wage data was taken from the Vancouver Terminal Elevators' Association of the British Columbia Grain Workers' Union, and extrapolated to the Thunder Bay and Eastern Seaway transfer elevators based on their capacity and number of elevators.

Highlights of the impact of employment in the grain handling system

On a national level, an annual average of 1,200 people were employed in the grain handling system during 2007-2009 (Table CAN.27). Their annual wages were estimated to be C$83 mn.

On a provincial basis, British Columbia benefits most from employment in the canola grain handling sector, with Vancouver's leading role in the export of canola seed. About 350 people in British Columbia attribute their jobs to canola handling, and earn about C$24 mn in wages.

Saskatchewan follows British Columbia in number of employees and wages because of its importance in production and shipping of canola seed.

Table CAN.27: Employment attributable to canola seed handling at prairie, terminal and transfer elevators, average 2007-2009

	Primary elevators	Terminal elevators	Process elevators	Transfer elevators	Total
Manitoba	157	-	28	-	**185**
Saskatchewan	230	-	22	-	**252**
Alberta	156	-	23	-	**179**
British Columbia	11	347	-	-	**358**
Ontario	-	148	-	74	**221**
Quebec	-	-	-	21	**21**
Canada	**554**	**495**	**73**	**95**	**1,217**
Annual Wages ($C '000)					
Manitoba	10,682	-	1,925	-	**12,608**
Saskatchewan	15,706	-	1,515	-	**17,221**
Alberta	10,612	-	1,566	-	**12,178**
British Columbia	773	23,668	-	-	**24,441**
Ontario	-	10,055	-	5,028	**15,083**
Quebec	-	-	-	1,423	**1,423**
Canada	**37,774**	**33,724**	**5,006**	**6,451**	**82,954**

Port charges for canola seed export shipments by sea

Fobbing charges for canola seed exports by sea totalled C$13 mn, with about 90% of these fees generated at the port in Vancouver (Table CAN.28).

Table CAN.28: Port fobbing charges for canola seed shipments, by port, 2007-2009 (C$ '000)

	2007	2008	2009	Average 2007-2009
Vancouver	10,368	11,889	13,142	11,800
Prince Rupert	619	702	698	673
Thunder Bay	523	608	759	630
Eastern Canada	38	258	48	115
Canada	**11,548**	**13,458**	**14,648**	**13,218**

Port charges for canola meal and oil export shipments by sea

Although Canada exported an average of 65% of its canola meal and 73% of its canola oil in 2007-2009, only 1% of the meal exports and 34% of the oil exports were shipped by sea. This is reflected in their tiny contributions in port handling fees and charges: C$0.62 mn for meal shipments, solely from the port of Vancouver (Table CAN.29); and C$7 mn for oil shipments, primarily from Vancouver (Table CAN.30).

Table CAN.29: Port fees and fobbing charges for canola meal shipments, by port, 2007-2009 (C$ '000)

	2007	2008	2009	Average 2007-2009
Vancouver	245	165	1,454	621
Prince Rupert	-	-	-	-
Thunder Bay	-	-	-	-
Eastern Canada	-	-	-	-
Canada	**245**	**165**	**1,454**	**621**

Table CAN.30: Port fees and fobbing charges for canola oil shipments, by port, 2007-2009 (C$ '000)

	2007	2008	2009	Average 2007-2009
Vancouver	6,948	3,711	8,595	6,418
Prince Rupert	-	-	-	-
Thunder Bay	-	-	-	-
Eastern Canada	519	79	1,025	541
Canada	**7,477**	**3,791**	**9,620**	**6,963**

Impact of canola seed and product transportation on the Canadian economy

Transportation of canola seed and products adds value through movement of seed, meal and oil from production areas or areas of surplus and lower prices to deficit areas with higher prices.

This report addresses transportation costs of seed from farm level to FOB ports in the case of ocean shipments; to US destinations in the case of direct shipments; and to domestic crushers.

For meal and oil, the report covers transportation costs from crushers in the province of crushing to FOB ports, to destinations in the US, and to domestic destinations where oil and meal deficit centers are distant from the regions of crushing.

Sources of data

Rail freight rates were taken from Canadian Pacific Railway tariffs for canola seed, meal and oil shipping from elevators or crushers in provinces of origin to designated destinations.

Fuel surcharges are normally added to the freight tariff, but since buyers typically negotiate lower rates than those published in the tariff bulletins, we assumed that the higher published tariffs would compensate for the fuel surcharge and consequently we did not add fuel surcharges to the freight costs.

To estimate freight rates for canola seed, meal and oil shipped to Canadian ports or to US or Mexico (via Texas), we averaged the Canadian Pacific railway tariffs across origins within a province as well as across destinations, e.g., where multiple destination points were given in a given US state. Where freight tariffs were not provided for a particular US state, we substituted a rate for a destination that was roughly equidistant from the point of origin.

Trucking costs were taken from the Quorum Corporation 2008-2009 annual report.

Shipment of seed, meal and oil to ports or overland destination

The Quorum Corporation, the Canadian Grain Commission, and Statistics Canada provided data for the volumes of canola seed, meal and oil shipped by rail from prairie or transfer elevators to ports for export and to US states and Mexico destinations by rail.

Domestic transportation of seed, meal and oil from centers of surplus to centers of deficit

For delivery of seed to process elevators within each province, we assumed that seed was transported by truck.

For shipment of seed to crushers outside the provinces of major production (Ontario and Quebec), we assumed that transportation was by rail.

For delivery of oil and meal from a position of surplus in the provinces of crushing to the deficit provinces, we assumed that shipment was by rail.

To determine the canola oil demand by province, we first multiplied the 2009 Canada Food Statistics oils consumption per head by the provincial population. Canola oil that was excess to export destinations was allocated pro-rata to each province based on its total oil demand (Table CAN.31). Based on this demand requirement, the cost for shipping the surplus oil from each province with crushing plants to deficit provinces was calculated.

Table CAN.31: Estimated food demand for canola oil by province, 2007-2009
('000 tonnes)

	2007-08	2008-09	2009-10	Average 2007-2009
Manitoba	23	16	12	17
Saskatchewan	19	14	10	14
Alberta	68	49	35	51
British Columbia and Northern	83	59	43	62
Ontario	247	175	125	182
Quebec and Eastern Provinces	193	136	98	142
Total	**634**	**449**	**323**	**468**

A similar method was used to determine the provincial demand for canola meal. We assumed that only dairy cows would consume the meal, and we assumed that the dairy herd population in each province would consume 3 kg/head/day of canola meal.

Canola meal that was excess to export destinations was allocated pro-rata to each province based on its demand for canola meal for the dairy herd (Table CAN.36). Based on this demand requirement, the cost for shipping the surplus meal from each province with crushing plants to deficit provinces was calculated.

Table CAN.32: Estimated demand for canola meal for dairy cows by province, 2007-2009
('000 tonnes)

	2007-08	2008-09	2009-10	Average 2007-2009
Manitoba	42	34	58	45
Saskatchewan	28	22	37	29
Alberta	78	63	112	84
British Columbia	66	52	91	70
Ontario	301	235	406	314
Quebec	345	270	463	359
Total	**860**	**676**	**1,168**	**901**

Highlights of the impact of the transportation sector on the Canadian economy

Examination of Tables CAN.33, CAN.34 and CAN.35 reveal that ***truck and rail freight transportation for canola seed, meal and oil to their port of embarkation or destination of demand added an average C$504 mn per year to the Canadian economy during 2007-2009.***

- Transportation of canola seed contributed an average of C$281 mn per annum.
- Transportation of canola meal contributed C$149 mn per annum
- Transportation of canola oil contributed C$75 mn per annum

- Transportation of canola seed, meal and oil to export destinations added an average of C$374 mn per annum, or 74% of the total transportation contribution. Domestic destinations added C$131 mn per annum.
- Employment in the canola transportation sector added C$95 mn and 1,300 jobs to the economy.

Impact of the transportation sector at the provincial level

- Saskatchewan garnered the greatest benefit from transportation costs followed by Alberta
- Saskatchewan leads in transportation contributions for each product – seed, meal and oil

Table CAN.33: Transportation costs for shipment of canola seed to ports or to export or domestic destinations, 2007-2009 (C$ '000)

Province of Origin	2007	2008	2009	Average 2007-2009
Canola Seed: Rail to Ports or Export Destination				
Manitoba	17,793	33,295	50,980	34,023
Saskatchewan	69,401	95,950	104,589	89,980
Alberta	79,597	76,509	67,174	74,427
British Columbia	2,428	1,503	1,679	1,870
Ontario	1,675	12,971	1,999	5,548
Quebec	0	0	0	0
Canada	**170,895**	**220,229**	**226,422**	**205,849**
Canola Seed: Rail to Domestic Destinations				
Manitoba	5,142	12,247	11,275	9,555
Saskatchewan	5,339	13,439	21,787	13,522
Alberta	6,638	12,794	11,813	10,415
British Columbia	0	0	0	0
Ontario	19,406	20,367	20,909	20,227
Quebec				0
Canada	**36,525**	**58,847**	**65,784**	**53,719**
Canola Seed: Truck to Domestic Destinations				
Manitoba	5,225	6,365	5,859	5,816
Saskatchewan	5,921	7,274	11,759	8,318
Alberta	6,653	6,947	6,394	6,665
British Columbia	0	0	0	0
Ontario	209	394	305	303
Quebec	139	260	178	192
Canada	**18,146**	**21,239**	**24,495**	**21,294**
Total Seed Transportation				
Manitoba	28,159	51,906	68,114	49,393
Saskatchewan	80,661	116,663	138,135	111,820
Alberta	92,889	96,250	85,381	91,507
British Columbia	2,428	1,503	1,679	1,870
Ontario	21,290	33,732	23,213	26,078
Quebec	139	260	178	192
Canada	**225,566**	**300,316**	**316,701**	**280,861**

Table CAN.34: Transportation costs for shipment of canola meal to ports or to export or domestic destinations, 2007-2009 (C$ '000)

Province of Origin	2007	2008	2009	Average 2007-2009
Canola Meal: Rail to Ports or Export Destination				
Manitoba	22,343	28,927	28,295	26,522
Saskatchewan	20,098	34,857	27,169	27,375
Alberta	40,195	54,139	48,912	47,749
British Columbia	2,500	868	1,887	1,751
Ontario	3,298	6,383	7,547	5,743
Quebec	298	109	43	150
Canada	**88,732**	**125,282**	**113,854**	**109,289**
Canola Meal: Rail to Domestic Destinations				
Manitoba	10,978	12,814	9,652	11,148
Saskatchewan	17,785	8,673	40,829	22,429
Alberta	4,584	253	261	1,699
British Columbia	0	0	0	0
Ontario	4,353	4,217	3,555	4,042
Quebec	30	455	400	295
Canada	**37,729**	**26,412**	**54,697**	**39,613**
Total Meal Transportation				
Manitoba	33,320	41,741	37,947	37,669
Saskatchewan	37,882	43,530	67,998	49,804
Alberta	44,779	54,392	49,173	49,448
British Columbia	2,500	868	1,887	1,751
Ontario	7,651	10,600	11,102	9,785
Quebec	328	563	444	445
Canada	**126,460**	**151,694**	**168,552**	**148,902**

Table CAN.35: Transportation costs for shipment of canola oil to ports or to export or domestic destinations, 2007-2009 (C$ '000)

Province of Origin	2007	2008	2009	Average 2007-2009
Canola Oil: Rail to Ports or Export Destination				
Manitoba	10,962	16,246	16,766	14,658
Saskatchewan	13,116	20,247	25,079	19,481
Alberta	14,338	14,556	18,506	15,800
British Columbia	25	186	988	400
Ontario	6,015	10,410	7,821	8,082
Quebec	50	26	19	32
Canada	**44,506**	**61,670**	**69,179**	**58,452**
Canola Oil: Rail to Domestic Destinations				
Manitoba	7,452	7,296	6,354	7,034
Saskatchewan	9,531	8	2,108	3,882
Alberta	1,623	6,469	8	2,700
British Columbia	0	0	0	0
Ontario	2,641	2,743	2,669	2,684
Quebec	164	318	231	238
Canada	**21,411**	**16,834**	**11,371**	**16,538**
Total Oil Transportation				
Manitoba	18,414	23,542	23,119	21,692
Saskatchewan	22,646	20,255	27,187	23,363
Alberta	15,961	21,025	18,514	18,500
British Columbia	25	186	988	400
Ontario	8,656	13,153	10,490	10,767
Quebec	214	344	250	269
Canada	**65,917**	**78,504**	**80,550**	**74,990**

Employment in the transportation sector

Table CAN.36 presents the contributions of the transportation sector in jobs and wages during 2007-2009. The sector provided an average of 1,300 jobs per year directly relating to transportation of canola seed and products, with C$95 mn in wages.

Saskatchewan and Alberta, which are the origins for a major share of canola seed and products, contributed 60% of the jobs and wages in transportation.

Table CAN.36: Employees and wages in the rail transportation sector attributable to canola seed and products, 2007-2009

Province	2007	2008	2009	Average 2007-2009
Number of Employees				
Manitoba	228	333	327	296
Saskatchewan	299	447	485	410
Alberta	340	420	315	358
British Columbia	34	36	35	35
Ontario	29	39	34	34
Quebec	154	159	162	159
Canada	**1,084**	**1,433**	**1,358**	**1,292**
Annual Wages ($C '000)				
Manitoba	16,425	24,546	24,669	21,880
Saskatchewan	21,518	32,921	36,558	30,333
Alberta	24,493	30,926	23,778	26,399
British Columbia	2,452	2,664	2,605	2,573
Ontario	2,087	2,858	2,552	2,499
Quebec	11,098	11,736	12,236	11,690
Canada	**78,073**	**105,651**	**102,397**	**95,374**

The role of handling and transportation costs in adding value to canola seed, meal and oil

In Tables CAN.37 to CAN.46 we present 2007-2009 averages for shipments of canola seed, meal and oil to port and export destinations, as well as to domestic destinations. These data are the foundation for the discussions on grain handling and transportation, using the data sources as described in the sections above.

The purpose of these extensive tables is to shed some light on the value chain beginning with deliveries of canola seed to the prairie elevator, through to FOB export, or to destination in the US or Mexico, or to the domestic crusher. From the crushing plant, meal and oil are either exported or transported to demand centers with Canada.

Canola seed value chain from prairie elevator to port, export destination, or domestic crusher

The first three (Tables CAN.37 toCAN.39) of the set of ten tables deal with shipments of canola seed

- From farm gate to port of embarkation (Table CAN.37)
- Rail export shipments direct from prairie elevators to US and Mexico (Table CAN.38)
- Shipments to domestic process elevators (Table CAN.39)

The farm gate price is taken as the average basis price of canola seed for each major producing province as given in the Quorum Corporation data sets, with trucking and Canola Growers Association fees subtracted from that.

For seed delivered to crushers within the province of production, we assumed that the price is basis within the province less trucking costs and Canola Growers Association fees.

At each step we added the handling charges, fees and freight costs which the seed shipments encounter as they move from farm to destination. We provide both the total value the seed has accumulated at each point in the chain, along with a price per tonne figure that helps to clarify the value addition.

Canola oil value chain from crusher to port, export destination, or domestic oil processor

Four tables, Tables CAN.10 to CAN.43, provide insight into the value chain for crude and refined canola oil as it leaves the crushing plant to ports, export destinations in the US or Mexico, or to domestic oil processors. These tables present the

- Value chain of crude and refined canola oil shipped for export by rail from crushers to port of embarkation (Table CAN.40)
- Value chain of crude canola oil exported by rail directly from crushers to destinations in the us and Mexico (Table CAN.41)
- Value chain of refined canola oil exported by rail directly from crushers to destinations in the US and Mexico (Table CAN.42)
- Value chain of refined canola oil shipped by rail from crushers to domestic centers of demand (Table CAN.43)

In order to estimate value additions to canola oil from the crusher to FOB port or to destination, we needed the ex-crusher prices for crude and refined canola oil. Since these prices are not publicly available, we worked backward from the Vancouver export price to calculate the ex-crusher price. From Statistics Canada oil export data, we took the average export unit price of crude oil and of refined oil for each province of origin as the beginning point for calculations. From the export price, we subtracted freight costs, calculated as the average cost from each crushing province of origin to Vancouver. From that we subtracted LMC's crushing cost estimates for Canada canola, to derive the initial price of crude and refined canola oil. For the 2007-2009 period, these prices averaged C$1,392/tonne for refined canola oil, and C$636/tonne for crude canola oil.

Canola meal value chain from crusher to port, export destination, or domestic dairy feed manufacturer

Tables CAN.44 to CAN.46 describe the value chain of canola meal.

- Value chain of canola meal shipped by rail from crushers to port of embarkation (Table CAN.44)
- Value chain of canola meal exported by rail directly from crushers to destinations in the US and Mexico (Table CAN.45)
- Value chain of canola meal shipped by rail from crushers to domestic centers of demand (Table CAN.46)

With ex-crusher canola meal prices we faced the same difficulty as with canola oil, and approached the calculation of that price in the same way as with canola oil, described above.

Table CAN.37: Value chain of canola seed from farm gate to port of embarkation, average 2007-2009

			Value at Farm Gate		Value Added at Prairie Elevator		Value ex-Prairie Elevator		Rail Freight to Destination		Value Delivered to Port	
		Volume		Average Price/Tonne		Average Price/Tonne		Average Price/Tonne		Average/Tonne		Average Price/Tonne
	Origin	000 tonnes	$C '000	$C/tonne	$C '000	$C/tonne	$C '000	$C/tonne	$C '000	$C/tonne	$C '000	$C/tonne
Total Shipments from Prairie Elevators												
	Manitoba	1,917	817,132	426	45,957	24	863,089	450				
	Saskatchewan	3,311	1,401,976	423	79,497	24	1,481,473	447				
	Alberta	2,902	1,280,591	441	70,214	24	1,350,805	466				
	British Columbia	75	33,024	438	2,061	27	35,085	465				
	Ontario	0	0	0	0	0	0	0				
	Quebec	0	0	0	0	0	0	0				
	Total	8,205	3,532,723	431	197,729	24	3,730,452	455				
Shipments from Prairie Elevators to Ports by Rail												
	Origin											
Vancouver	Manitoba	453							17,189	38	220,963	488
	Saskatchewan	2,265							70,396	31	1,083,781	478
	Alberta	2,518							56,553	22	1,228,575	488
	British Columbia	61							1,389	23	29,609	488
	Total	5,296							145,527	27	2,562,928	484
Prince Rupert	Manitoba	19							716	38	9,166	488
	Saskatchewan	120							3,685	31	57,268	478
	Alberta	146							3,290	23	71,026	488
	British Columbia	18							410	23	8,763	488
	Total	302							8,102	27	146,223	484
Thunder Bay	Manitoba	565							9,272	16	263,840	467
	Saskatchewan	81							2,030	25	38,224	472
	Alberta	0							5	35	67	500
	British Columbia	0							0	0	0	0
	Total	646							11,306	17	302,132	467
Eastern Canada	**Thunder Bay**	128							5,548	43	64,995	508
Total		6,372							170,483	27	3,076,278	483
Shipments Loading on Ships at Terminal and Transfer Elevators												
	Vancouver	5,296										
	Prince Rupert	302										
	Thunder Bay	646										
	Eastern Canada	128										
	Total	6,372										

Table CAN.37 continued: Value chain of canola seed from farm gate to port of embarkation, average 2007-2009

		Terminal Elevator Fees		Value, ex-Terminal/Transfer Elevator		Vessel Demurrage and Dispatch		FOB Value at Port of Embarkation	
	Origin	$C '000	Average/Tonne $C/tonne	$C '000	Average Price/Tonne $C/tonne	$C '000	Average/Tonne $C/tonne	$C '000	Average Price/Tonne $C/tonne
Total Shipments from Prairie Elevators									
	Manitoba								
	Saskatchewan								
	Alberta								
	British Columbia								
	Ontario								
	Quebec								
	Total								
Shipments from Prairie Elevators to Ports by Rail									
	Origin								
Vancouver	Manitoba								
	Saskatchewan								
	Alberta								
	British Columbia								
	Total								
Prince Rupert	Manitoba								
	Saskatchewan								
	Alberta								
	British Columbia								
	Total								
Thunder Bay	Manitoba								
	Saskatchewan								
	Alberta								
	British Columbia								
	Total								
Eastern Canada	**Thunder Bay**								
Total									
Shipments Loading on Ships at Terminal and Transfer Elevators									
	Vancouver	224,506	42	2,787,434	526	11,800	2	2,799,234	529
	Prince Rupert	11,221	37	157,444	521	673	2	158,117	524
	Thunder Bay	24,962	39	327,094	506	630	1	327,724	507
	Eastern Canada	5,038	39	70,033	548	115	1	70,147	549
	Total	265,727	42	3,342,005	524	13,218	2	3,355,223	527

Table CAN.38: Value chain of canola seed rail export shipments direct from prairie elevators to US and Mexico, average 2007-2009

	Volume	Value at Farm Gate		Value Added at Prairie Elevator		Value ex-Prairie Elevator		Rail Freight to Destination		Value Delivered to Destination	
			Average Price/Tonne		Average Price/Tonne		Average Price/Tonne		Average/Tonne		Average Price/Tonne
Origin	000 tonnes	$C '000	$C/tonne	$C '000	$C/tonne	$C '000	$C/tonne	$C '000	$C/tonne	$C '000	$C/tonne
Rail Freight to US											
Manitoba	154	66,196	429	3,688	24	69,883	453	3,651	24	73,535	477
Saskatchewan	277	118,750	429	6,593	24	125,342	453	6,555	24	131,898	476
Alberta	281	124,327	442	6,770	24	131,098	466	6,647	24	137,744	490
British Columbia	3	1,240	417	81	27	1,321	444	71	24	1,392	468
Ontario	0	0	0	0	0	0	0	0	0	0	0
Quebec	0	0	0	0	0	0	0	0	0	0	0
Total	715	310,513	434	17,131	24	327,644	458	16,924	24	344,568	482
Rail Freight to Texas Border for Entry into Mexico											
Manitoba	50	22,301	447	1,199	24	23,500	471	3,195	64	26,695	535
Saskatchewan	89	39,821	446	2,121	24	41,942	469	7,314	82	49,256	551
Alberta	93	42,608	460	2,243	24	44,851	484	7,932	86	52,783	570
British Columbia	1	355	426	23	27	378	454	0	0	378	454
Ontario	0	0	0	0	0	0	0	0	0	0	0
Quebec	0	0	0	0	0	0	0	0	0	0	0
Total	233	105,085	452	5,585	24	110,671	476	18,441	79	129,112	555

Table CAN.39: Value chain of canola seed shipments to domestic process elevators, average 2007-2009

		Volume	Value at Farm Gate		Value Added at Prairie Elevator		Value ex-Prairie Elevator		Rail Freight to Crusher (or Thunder Bay, for ON delivery)	
				Average Price/Tonne		Average Price/Tonne		Average Price/Tonne		Average/Tonne
	Province of Origin	000 tonnes	$C '000	$C/tonne	$C '000	$C/tonne	$C '000	$C/tonne	$C '000	$C/tonne
By Rail to										
Manitoba	Manitoba	293	127,621	435	7,030	24	134,650	459	9,555	33
Saskatchewan	Saskatchewan	407	172,613	424	9,803	24	182,416	448	13,522	33
Alberta	Alberta	339	152,545	450	8,215	24	160,761	474	10,415	31
British Columbia	British Columbia	0	0	0	0		0	0	0	0
Ontario	Thunder Bay	600	256,721	428	14,369	24	271,090	452	20,227	34
Quebec		0	0	0	0		0	0	0	0
	Total	1,639	709,500	433	39,417	24	748,918	457	53,719	33
By Truck to		0	0	0					0	0
Manitoba	Manitoba	759	325,044	428					5,816	8
Saskatchewan	Saskatchewan	1,088	454,161	417					8,318	8
Alberta	Alberta	870	385,184	443					6,665	8
British Columbia	British Columbia	0	0	0					0	0
Ontario	Ontario	39	17,025	433					303	8
Quebec	Quebec	25	10,871	435					192	8
	Total	2,781	1,192,285	429					21,294	8
Total to Process Elevators		4,420								

Table CAN.39 continued: Value chain of canola seed shipments to domestic process elevators, average 2007-2009

		Value Delivered to Crusher (or Thunder Bay, for onward to ON crusher)		Terminal Elevator Fees		Value, ex-Terminal/Transfer Elevator		Freight Thunderbay to Ontario Crusher		Value Delivered to Ontario Crusher	
			Average Price/Tonne		Average/Tonne		Average Price/Tonne		Average/Tonne		Average Price/Tonne
	Province of Origin	$C '000	$C/tonne	$C '000	$C/tonne	$C '000	$C/tonne	$C '000	$C/tonne	$C '000	$C/tonne
By Rail to											
Manitoba	Manitoba	144,205	492								
Saskatchewan	Saskatchewan	195,938	482								
Alberta	Alberta	171,176	505								
British Columbia	British Columbia	0	0								
Ontario	Thunder Bay	291,318	486	8,703	15	300,020	500	19,986	33	320,006	534
Quebec		0	0								
	Total	802,637	490								
By Truck to											
Manitoba	Manitoba										
Saskatchewan	Saskatchewan										
Alberta	Alberta										
British Columbia	British Columbia										
Ontario	Ontario										
Quebec	Quebec										
	Total										

Table CAN.40: Value chain of crude and refined canola oil shipped for export by rail from crushers to port of embarkation, average 2007-2009

Origin Crusher	Volume 000 tonnes	Value of Oil $C '000	Average $/tonne	Crushing Cost $C '000	Average/ Tonne $/tonne	Value ex-Crusher $C '000	Average Price/ Tonne $/tonne	Freight to Port or Destination of Consumption $C '000	Average/ Tonne $/tonne	Value Delivered to Port or Destination for Consumption $C '000	Average Price/ Tonne $/tonne	Port Charges, Demurrage and Dispatch $C '000	Average/ Tonne $/tonne	FOB Value at Port of Embarkation $C '000	Average Price/ Tonne $/tonne
Canola Crude Oil															
Rail Freight to Vancouver															
Manitoba	0	0	524	0	48	0	573	0	40	0	613	0	23	0	636
Saskatchewan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alberta	276	177,733	643	13,122	47	190,855	691	6,670	24	197,525	715	6,039	22	203,563	737
British Columbia	9	4,679	536	422	48	5,101	584	241	28	5,342	612	198	23	5,540	635
Rail Freight to Seaway															
Ontario	22	13,904	631	1,040	47	14,944	678	543	25	15,488	703	457	21	15,945	724
Quebec	0	54	539	5	48	59	587	2	25	61	612	2	22	63	633
Total	307	196,370	639	14,589	47	210,959	687	7,457	24	218,415	711	6,696	22	225,112	733
Canola Refined Oil															
Rail Freight to Vancouver															
Manitoba	3	3,969	1,508	129	49	4,098	1,557	98	37	4,196	1,594	58	22	4,254	1,616
Saskatchewan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alberta	4	5,839	1,482	193	49	6,032	1,531	104	26	6,135	1,557	87	22	6,222	1,579
British Columbia	2	2,141	1,301	79	48	2,221	1,349	44	27	2,265	1,376	37	22	2,302	1,399
Rail Freight to Seaway															
Ontario	4	4,721	1,330	172	48	4,893	1,378	88	25	4,981	1,403	76	21	5,057	1,424
Quebec	0	452	1,552	14	49	466	1,601	7	24	473	1,625	6	20	479	1,645
Total	12	17,122	1,420	588	49	17,710	1,468	342	28	18,051	1,497	263	22	18,314	1,519

Table CAN-41: Value chain of crude canola oil exported by rail directly from crushers to destinations in the US and Mexico, average 2007-2009

Origin	Volume 000 tonnes	Value of Oil $C '000	Average $/tonne	Crushing Cost $C '000	Average/ Tonne $/tonne	Value ex-Crusher $C '000	Average Price/Tonne $/tonne	Freight to Port or Destination of Consumption $C '000	Average/Tonne $/tonne	Value Delivered to Port or Destination for Consumption $C '000	Average Price/Tonne $/tonne
Rail Freight to Mexico Destinations											
Manitoba	0	0	0	0	0	0	0	0	0	0	0
Saskatchewan	10	7,202	729	456	46	7,657	775	826	84	8,483	859
Alberta	1	395	577	34	49	428	626	69	100	497	727
British Columbia	0	0	0	0	0	0	0	0	0	0	0
Ontario	0	112	579	9	49	121	629	16	85	138	714
Quebec	0	0	0	0	0	0	0	0	0	0	0
Total	11	7,708	717	499	46	8,207	763	911	85	9,118	848
Rail Freight to US Destinations											
Manitoba	3	2,329	756	140	46	2,469	802	198	64	2,667	866
Saskatchewan	282	171,945	609	13,606	48	185,551	657	14,645	52	200,196	709
Alberta	39	24,903	631	1,922	49	26,825	680	2,336	59	29,162	739
British Columbia	2	1,000	577	85	49	1,085	626	101	58	1,186	684
Ontario	57	37,355	650	2,779	48	40,134	699	3,390	59	43,525	758
Quebec	0	4	539	0	48	4	587	1	82	5	669
Total	384	237,536	619	18,533	48	256,069	667	20,671	54	276,741	721

Table CAN.42: Value chain of refined canola oil exported by rail directly from crushers to destinations in the US and Mexico, average 2007-2009

Origin	Volume	Value of Oil	Average	Crushing Cost	Average/ Tonne	Value ex-Crusher	Average Price/Tonne	Freight to Port or Destination of Consumption	Average/ Tonne	Value Delivered to Port or Destination for Consumption	Average Price/Tonne
	000 tonnes	$C '000	$/tonne	$C '000	$/tonne	$C '000	$/tonne	$C '000	$/tonne	$C '000	$/tonne
Rail Freight to Mexico Destinations											
Manitoba	1	836	1,256	31	46	867	1,302	42	63	909	1,365
Saskatchewan	0	35	1,259	1	48	36	1,308	2	86	39	1,393
Alberta	0	178	1,296	6	47	185	1,343	14	99	199	1,443
British Columbia	0	0	0	0	0	0	0	0	0	0	0
Ontario	0	0	0	0	0	0	0	0	0	0	0
Quebec	0	0	0	0	0	0	0	0	0	0	0
Total	1	1,050	1,263	39	47	1,089	1,309	58	70	1,147	1,379
Rail Freight to US Destinations											
Manitoba	277	391,130	1,410	13,347	48	404,477	1,458	14,320	52	418,797	1,510
Saskatchewan	61	89,591	1,466	2,973	49	92,564	1,515	4,007	66	96,571	1,580
Alberta	100	139,499	1,391	4,803	48	144,302	1,438	6,607	66	150,910	1,504
British Columbia	0	303	1,251	11	47	314	1,298	13	55	328	1,353
Ontario	76	107,510	1,421	3,650	48	111,159	1,469	4,044	53	115,203	1,523
Quebec	0	526	1,288	19	47	545	1,335	22	53	566	1,388
Total	515	728,559	1,414	24,804	48	753,362	1,462	29,013	56	782,375	1,519

Table CNR-13: Value chain of refined canola oil shipped by rail from crushers to domestic centers of demand, average 2007-2009

Rail Freight to	Origin Crusher	Volume 000 tonnes	Value of Oil $C '000	Average $/tonne	Crushing Cost $C '000	Average/ Tonne $/tonne	Value ex-Crusher $C '000	Average Price/Tonne $/tonne	Freight to Port or Destination of Consumption $C '000	Average /Tonne $/tonne	Value Delivered to Port or Destination for Consumption $C '000	Average Price/ Tonne $/tonne
Domestic Shipments of Oil to Demand Centers from Province of Crushing												
Ontario	Manitoba	73	96,102	1,323	3,411	47	99,513	1,369	3,307	46	102,820	1,415
Quebec and Eastern Provinces	Manitoba	63	90,897	1,448	3,053	49	93,949	1,496	3,208	51	97,157	1,547
Alberta	Manitoba	5	6,880	1,254	265	48	7,145	1,302	215	39	7,361	1,342
Quebec and Eastern Provinces	Saskatchewan	54	61,778	1,137	2,467	45	64,245	1,182	2,580	47	66,825	1,230
British Columbia and Northern Provinces	Saskatchewan	19	22,012	1,137	879	45	22,890	1,182	502	26	23,392	1,208
Alberta	Saskatchewan	21	25,883	1,259	993	48	26,876	1,308	643	31	27,519	1,339
British Columbia and Northern Provinces	Alberta	28	44,634	1,585	1,368	49	46,002	1,634	659	23	46,661	1,657
Quebec and Eastern Provinces	Alberta	20	35,668	1,776	1,003	50	36,671	1,826	1,466	73	38,137	1,899
	Total	283	383,854	1,354	13,438	47	397,292	1,402	12,580	44	409,872	1,446
Domestic Shipments of Oil to Demand Center within Province of Crushing												
Manitoba	Manitoba	17	23,187	1,363	809	48	23,995	1,410	304	18	24,299	1,428
Saskatchewan	Saskatchewan	10	11,734	1,188	459	46	12,192	1,234	158	16	12,350	1,250
Alberta	Alberta	35	46,941	1,359	1,622	47	48,563	1,406	575	17	49,138	1,423
British Columbia and Northern Provinces	British Columbia	0	0	0	0	0	0	0	0	0	0	0
Ontario	Ontario	110	153,313	1,400	5,246	48	158,559	1,448	2,684	25	161,243	1,473
Quebec and Eastern Provinces	Quebec	10	14,217	1,467	469	48	14,686	1,515	238	25	14,924	1,540
	Total	181	249,391	1,381	8,605	48	257,996	1,428	3,958	22	261,954	1,450

Table CAN.44: Value chain of canola meal shipped by rail from crushers to port of embarkation, average 2007-2009

Origin	Volume	Value of Meal	Average	Crushing Cost	Average/ Tonne	Value ex-Crusher	Average Price/Tonne	Freight to Port or Destination of Consumption	Average/ Tonne	Value Delivered to Port or Destination for Consumption	Average Price/Tonne	Port Charges, Demurrage and Dispatch	Average /Tonne	FOB Value at Port of Embarkation	Average Price/Tonne
	000 tonnes	$C '000	$/tonne	$C '000	$/tonne	$C '000	$/tonne	$C '000	$/tonne	$C '000	$/tonne	$C '000	$/tonne	$C '000	$/tonne
Rail Freight to Vancouver															
Manitoba	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Saskatchewan	16	2,125	135	759	48	2,884	184	496	32	3,381	215	291	19	3,671	234
Alberta	6	1,127	174	308	48	1,434	222	139	22	1,573	244	115	18	1,688	261
British Columbia	12	1,770	150	563	48	2,333	198	263	22	2,596	221	216	18	2,812	239
Rail Freight to Seaway															
Ontario	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quebec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	34	5,021	148	1,630	48	6,652	196	898	26	7,550	223	621	18	8,171	241

Table CAN.45: Value chain of canola meal exported by rail directly from crushers to destinations in the US and Mexico, average 2007-2009

Origin	Volume 000 tonnes	Value of Meal $C '000	Average $/tonne	Crushing Cost $C '000	Average/ Tonne $/tonne	Value ex-Crusher $C '000	Average Price/Tonne $/tonne	Freight to Port or Destination of Consumption $C '000	Average/ Tonne $/tonne	Value Delivered to Port or Destination for Consumption $C '000	Average Price/Tonne $/tonne
Rail Freight to Mexico Destinations											
Manitoba	7	1,044	160	321	49	1,365	209	424	65	1,789	274
Saskatchewan	59	8,311	141	2,842	48	11,153	190	4,228	72	15,381	262
Alberta	2	275	143	93	48	368	191	187	97	555	288
British Columbia	0	0	0	0	0	0	0	0	0	0	0
Ontario	1	203	143	69	49	271	192	112	79	383	271
Quebec	0	0	0	0	0	0	0	0	0	0	0
Total	69	9,832	143	3,324	48	13,157	192	4,951	72	18,108	264
Rail Freight to US Destinations											
Manitoba	380	58,425	154	18,208	48	76,633	202	26,097	69	102,730	271
Saskatchewan	348	58,769	169	16,736	48	75,506	217	22,650	65	98,156	282
Alberta	643	110,829	172	30,852	48	141,681	220	47,423	74	189,104	294
British Columbia	31	5,392	173	1,466	47	6,857	220	1,488	48	8,346	268
Ontario	195	31,502	162	9,413	48	40,915	210	5,631	29	46,546	239
Quebec	6	1,015	172	276	47	1,290	219	150	25	1,440	244
Total	1,603	265,932	166	76,950	48	342,882	214	103,440	65	446,322	278

Table CAN.43: Value chain of canola meal shipped by rail from crushers to domestic centers of demand, average 2007-2009

Rail Freight to	Origin Crusher	Volume 000 tonnes	Value of Meal $C '000	Average $/tonne	Crushing Cost $C '000	Average /Tonne $/tonne	Value ex-Crusher $C '000	Average Price/Tonne $/tonne	Freight to Port or Destination of Consumption $C '000	Average /Tonne $/tonne	Value Delivered to Port or Destination for Consumption $C '000	Average Price/Tonne $/tonne
Domestic Shipments of Meal to Demand Centers from Province of Crushing												
Ontario	Manitoba	69	9,373	136	3,269	47	12,642	183	4,031	58	16,673	242
Quebec and Eastern Provinces	Manitoba	107	18,376	172	5,181	48	23,557	220	6,018	56	29,575	276
Alberta	Manitoba	3	510	160	145	45	655	205	114	36	769	241
Quebec and Eastern Provinces	Saskatchewan	261	38,759	149	12,350	47	51,108	196	15,723	60	66,831	256
British Columbia and Northern Provinces	Saskatchewan	47	7,195	152	2,314	49	9,510	201	1,445	31	10,955	231
Alberta	Saskatchewan	51	7,657	151	2,476	49	10,133	200	1,089	21	11,223	221
British Columbia and Northern Provinces	Alberta	0	0	0	0	0	0	0	0	0	0	0
Quebec and Eastern Provinces	Alberta	16	2,853	178	726	45	3,579	224	1,018	64	4,597	287
Ontario	Saskatchewan	57	9,010	158	2,783	49	11,793	207	3,581	63	15,374	270
	Total	611	93,733	153	29,245	48	111,185	182	33,020	54	155,998	255
Domestic Shipments of Meal to Demand Center within Province of Crushing												
Manitoba	Manitoba	45	6,646	149	2,129	48	8,776	197	985	22	9,761	219
Saskatchewan	Saskatchewan	29	4,358	149	1,395	48	5,752	197	590	20	6,343	217
Alberta	Alberta	34	5,374	158	1,577	46	6,951	204	681	20	7,632	224
British Columbia and Northern Provinces		0	0	0	0	0	0	0	0	0	0	0
Ontario	Ontario	174	28,564	164	8,328	48	36,892	212	4,042	23	40,934	235
Quebec and Eastern Provinces	Quebec	9	1,524	162	462	49	1,985	211	295	31	2,280	242
	Total	291	46,466	159	13,891	48	60,357	207	6,593	23	66,950	230

Impact of canola industry employment on the Canadian economy

The estimates below represent those directly employed in each of the canola industry sectors together with the wages that they earn. Table CAN.47 shows that the farming sector provided the largest average annual employment and wages during the 2007-2009 period. Calculations were described earlier. Canola farm wages were taken to be the revenue from canola farming, discussed in the same section. The end use sector provided the second largest employment in the canola industry, with 16,100 people and C$747 mn in wages.

Table CAN.47: Direct employment in the Canadian canola industry, by sector, 2007-2009

	2007	2008	2009	Average 2007-2009
Employment -- Wages ($C '000)				
Genetics Supply	78,150	78,150	78,150	78,150
Farming	4,097,359	5,178,635	6,481,065	5,252,353
Canola Seed Handling -- Elevator and Port	73,742	88,579	86,541	82,954
Transportation	78,073	105,651	102,397	95,374
Crushing	55,225	59,298	67,624	60,716
Refining	14,403	15,061	16,005	15,156
End Uses	725,402	740,143	774,249	746,598
Canada	**5,122,354**	**6,265,518**	**7,606,031**	**6,331,301**
Number of Employees				
Genetics Supply	582	582	582	582
Farming	95,386	95,960	96,942	96,096
Canola Seed Handling -- Elevator and Port	1,108	1,305	1,238	1,217
Transportation	1,084	1,433	1,358	1,292
Crushing	865	953	1,012	943
Refining	320	328	334	327
End Uses	16,136	16,136	16,136	16,136
Canada	**115,482**	**116,697**	**117,601**	**116,593**

Saskatchewan led the provinces in employment (Table CAN.48), with the other farming states also dominating overall job numbers and canola-related earnings.

Table CAN.48: Direct employment in the canola industry, by province, 2007-2009

	2007	2008	2009	Average 2007-2009
Employment -- Wages ($C '000)				
Manitoba	951,640	1,148,200	1,372,650	1,157,506
Saskatchewan	1,815,428	2,180,515	2,806,049	2,267,339
Alberta	1,619,690	2,153,262	2,601,820	2,124,954
British Columbia	117,693	140,882	156,711	138,459
Ontario	327,725	339,798	351,958	339,947
Quebec	290,179	302,862	316,843	303,414
Canada	**5,122,354**	**6,265,518**	**7,606,031**	**6,331,301**
Number of Employees				
Manitoba	19,637	18,671	17,532	18,614
Saskatchewan	49,164	48,735	48,312	48,737
Alberta	30,753	32,757	34,571	32,694
British Columbia	2,222	2,462	2,612	2,432
Ontario	7,140	7,400	7,780	7,440
Quebec	6,566	6,672	6,794	6,677
Canada	**115,482**	**116,697**	**117,601**	**116,593**

Examples of end use benefits and added value from the use of canola products

One complication of value-added analysis and economic contribution is that there are many ways in which a sector can add value to an economy. Not all of these are transparent, and often rely less on accounting methods and more on the economic principle of opportunity cost. That is to say, what is the advantage of canola compared with the next best alternative?

In this section, we look at some examples of this type of supplementary analysis. In theory, this analysis could be extended to every single end-use sector which uses canola seed, meal or oil. This would present a daunting challenge, and the numbers are always open to question; for example, how do we quantify the benefits of canola oil as a healthy alternative to soybean oil, when in fact soybean oil is normally cheaper? Any added value has to rely on consumer preferences, which vary over time and from individual to individual.

For these reasons, the main focus of this report is upon the quantifiable aspects of the contribution canola makes to the Canadian economy, but we should be aware that there are many other benefits associated with a domestic canola sector outside of the immediate economic contribution.

In the next sections, we explore some of the further downstream benefits that are derived from canola products in a selection of end-use sectors. We include the estimates from these end-uses in our grand totals of the benefits to Canada of the canola industry; however, we remind readers that these examples do not represent an exhaustive assessment of the end-use benefits of canola. Thus, our final total for the benefit of canola to Canada necessarily represents an under-estimation of the true figure.

1. Examples of benefits and added value from use of canola meal in the dairy industry

Canola meal and oil provide benefits and offer added value to a number of end-users in the food and livestock industries. In this section, we have chosen two examples to illustrate benefits that the dairy industry derives from use of canola meal:

- A one litre/day milk boost that comes from feeding canola meal to lactating dairy cows
- The cost savings from feeding canola meal rather than the principal alternative, soybean meal.

These examples are not exhaustive of the many possible benefits in a number of food and livestock sectors, but they are amenable to straightforward calculations that demonstrate transparent advantages that canola meal delivers and that would not be available to the end-user if canola meal were not in the market.

Extra income generated by milk boost with canola meal in rations

Numerous studies have shown that lactating dairy cows will produce an average of one extra litre of milk per day if at least three kg of canola meal is included in the ration.

To calculate the value of this milk boost to the Canadian dairy industry, we used the data in the Transportation section above, which represents the pro-rata apportionment of the canola meal supply to each province based on its dairy herd size, on the assumption that each cow consumed three kg of canola meal per day.

If we further assume that each of the three kg of canola meal per day yields one extra litre of milk per day, then the results presented in Table CAN.53 represent the total "extra" milk produced in each province. An average total of about 250,000 tonnes of "extra" milk would be produced in Canada, with 75% of that in Quebec and Ontario, where the largest dairy population is located.

Using the milk production value and volume data in Statistics Canada Livestock and Aquaculture Section to derive the unit value of milk, we multiplied this unit value price by the volume of the "extra" milk to obtain the overall value. Table CAN.49 shows that the average value of the "extra" milk in 2007-2009 was C$173 mn per annum on average for Canada, with Quebec and Ontario as the largest beneficiaries.

Table CAN.49: Volume of milk production "boost" attributed to inclusion of canola meal in dairy rations, 2007-2009 ('000 tonnes)

	2007	2008	2009	Average 2007-2009
Manitoba	12	9	16	12
Saskatchewan	8	6	10	8
Alberta	21	17	31	23
British Columbia	18	14	25	19
Ontario	82	64	111	86
Quebec	94	74	127	98
Total	**236**	**185**	**320**	**247**

Table CAN.50: Added value from "milk boost" due to inclusion of canola meal in dairy rations, 2007-2009 (C$ '000)

	2007	2008	2009	Average 2007-2009
Manitoba	7,878	6,485	11,409	8,591
Saskatchewan	5,106	4,063	7,200	5,456
Alberta	14,382	11,905	21,839	16,042
British Columbia	12,478	10,443	18,720	13,880
Ontario	56,585	44,733	78,306	59,875
Quebec	65,160	51,663	89,989	68,937
Total	**161,590**	**129,292**	**227,463**	**172,782**

Cost savings by replacing soybean meal with canola meal in dairy rations

Canola meal offers another benefit to dairy farmers in the form of cost savings over use of soybean meal, which is more costly than canola meal.

To estimate the savings from replacement of soybean meal with canola meal, we first determined the value of the canola meal fed to the Canada dairy herd. Using the price of canola meal delivered to the end-user, shown in the Transportation section, we estimated the value of the canola meal volumes shown in Transportation Sector.

Since canola meal has only 80% of the feed value of soybean meal for dairy cows, we next estimated the volume of soybean meal that the canola meal would replace by multiplying the previous data by 80%.

Next, we multiplied the volume of displaced soybean meal by the soybean meal price, obtained from Agriculture and Agri-Food Canada, to determine the value of the soybean meal that was replaced.

Finally, we subtracted the value of canola meal from the value of soybean meal to obtain the estimated savings from use of canola meal. The results reveal that use of canola meal would have resulted in C$42 mn in savings for the Canada dairy herd as a whole, and C$32 mn for Quebec and Ontario, which have the largest share of Canada's dairy herd.

Table CAN.S1: Value of canola meal fed to Canada dairy cows, 2007- 2009 (C$ '000)

	2007-08	2008-09	2009-10	Average 2007-2009
Manitoba	10,722	9,189	13,107	11,006
Saskatchewan	7,148	5,993	8,498	7,213
Alberta	19,776	17,180	25,494	20,817
British Columbia	16,821	14,184	20,741	17,249
Ontario	76,362	63,947	92,470	77,593
Quebec	87,441	73,316	105,433	88,730
Total	**218,270**	**183,809**	**265,743**	**222,607**

Table CAN.S2: Estimated volume of soybean meal displaced by canola meal in dairy rations, 2007 – 2009 ('000 tonnes)

	2007-08	2008-09	2009-10	Average 2007-2009
Manitoba	34	27	46	36
Saskatchewan	23	18	30	23
Alberta	62	51	90	68
British Columbia	53	42	73	56
Ontario	241	188	325	251
Quebec	276	216	371	287
Total	**688**	**541**	**934**	**721**

Table CAN.S3: Estimated value of soybean meal displaced by canola meal in dairy rations, 2007 – 2009 ('000 tonnes)

	2007-08	2008-09	2009-10	Average 2007-2009
Manitoba	12,586	11,128	15,564	13,092
Saskatchewan	8,390	7,257	10,091	8,579
Alberta	23,213	20,804	30,272	24,763
British Columbia	19,745	17,175	24,628	20,516
Ontario	89,637	77,433	109,801	92,290
Quebec	102,642	88,778	125,193	105,538
Total	**256,214**	**222,575**	**315,548**	**264,779**

Table CAN.S4: Estimated savings through substitution of canola meal for soybean meal in dairy rations, 2007-2009 (C$'000)

	2007-08	2008-09	2009-10	Average 2007-2009
Manitoba	1,864	1,938	2,457	2,086
Saskatchewan	1,243	1,264	1,593	1,366
Alberta	3,438	3,623	4,778	3,946
British Columbia	2,924	2,991	3,887	3,268
Ontario	13,275	13,487	17,331	14,697
Quebec	15,201	15,463	19,760	16,808
Total	**37,944**	**38,766**	**49,806**	**42,172**

2. Adding value to canola oil in food end-uses

We have discussed previously the difficulties in extending the analysis of canola's value into the downstream food processing sector. However, as an illustration of the scale of the potential value derived in this lucrative sector, in this section we present estimates of the value added to canola oil through processing into the food products of margarine, shortening and salad & cooking (frying) oil.

One problem with including this analysis into the main value added calculations is that the quantification methodology employed here is necessarily less robust and therefore provides results that are open to question. This is because we do not have firm data from the refining sector, which regards such information as proprietary, nor does Statistics Canada report this level of detail in its Canada Food Statistics data. The analysis presented here should be taken as indicative only.

Sources of data

We relied on Statistics Canada 2009 Canada Food Statistics for the consumption in kg/person of margarine, shortening and salad & cooking oil. We extrapolated this to the population at large by multiplying by the total population in Canada to give the total consumption of margarine, shortening and salad oil.

For the volume of each type of oil used in margarine, shortening and salad oil, we relied on 1998-2001 data from Statistics Canada. This is the only data available which offers a snapshot of the breakdown of these processed oils by type of oil. Using these four years of data, we projected a trend to 2009 to estimate the share of the component oils.

For the volume of each vegetable oil consumed in food products in Canada, including for margarine, shortening and salad & cooking oil, we used data from FAS-USDA.

To estimate the volume of canola oil in each of the margarine, shortening and salad oil categories from Canada Food Statistics, we multiplied the proportion of canola oil calculated in the trend projections for processed oils, by the total volume of margarine, shortening and cooking oil estimates from Canada Food Statistics. These data are presented in Table CAN.59 and Diagram CAN.7.

To calculate the value of these processed products, shown in Table CAN.60 and Diagram CAN.8, we utilized the unit value export price of each of these products for export to the US, as reported by Statistics Canada. These prices are given in Table CAN.61.

Highlights of the impact of processed canola oil on the Canadian economy

As Diagram CAN.5 depicts, the volume of canola oil consumed in food in Canada has trended downward during the period covered by this study. Demand for soybean oil, the other major food oil, has declined even more over much of the past decade.

The value of canola oil in processed products has held up, however, because prices of these products reflect the elevated price of oil, especially during 2008 when prices were particularly strong.

Table CAN.55: Volume of refined and processed canola oil products, 2007-2009, '000 tonnes

		2007	2008	2009	Average 2007-2009
Margarine	Canola	32	28	26	29
	Soybean	81	81	83	82
	Other	16	17	18	17
	Total	**130**	**126**	**127**	128
Shortening	Canola	86	75	65	76
	Soybean	151	154	164	156
	Other	33	34	36	34
	Total	**270**	**263**	**265**	266
Salad Oil	Canola	296	276	263	278
	Soybean	74	81	93	83
	Other	1	1	1	1
	Total	**371**	**358**	**357**	362
Total, Processed Canola Oils		**415**	**379**	**354**	383

Table CAN.56: Value of refined and processed oils, 2007-2009, C$ '000

		2007	2008	2009	Average 2007-2009
Margarine	Canola	56,069	56,356	47,479	53,301
	Soybean	143,000	161,682	154,996	153,226
	Other	28,978	34,253	34,222	32,484
	Total	228,046	252,291	236,697	**239,011**
Shortening	Canola	106,983	133,613	122,419	121,005
	Soybean	186,477	274,185	306,117	255,593
	Other	40,637	60,199	67,717	56,184
	Total	334,097	467,997	496,253	**432,782**
Salad and Cooking Oil	Canola	305,443	411,898	282,907	333,416
	Soybean	75,895	121,040	100,464	99,133
	Other	1,230	1,493	1,077	1,267
	Total	382,569	534,431	384,449	**433,816**
Total, Processed Canola Oils		**468,495**	**601,867**	**452,805**	**507,722**

Table CAN.57: Prices for refined and processed oil products, based on unit value export prices to the us from Canada, 2007-2009, $/tonne

	2007	2008	2009
Margarine	1,758	1,998	1,857
Shortening	1,239	1,780	1,870
Salad Oil	1,030	1,493	1,077

Diagram CAN.5: Volume of canola oil in processed products, 2007-2009

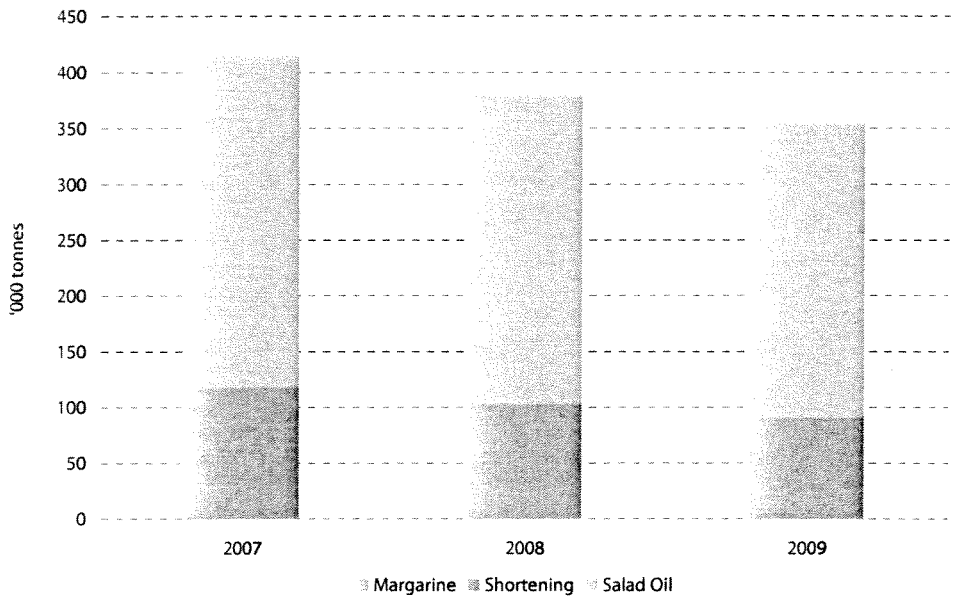
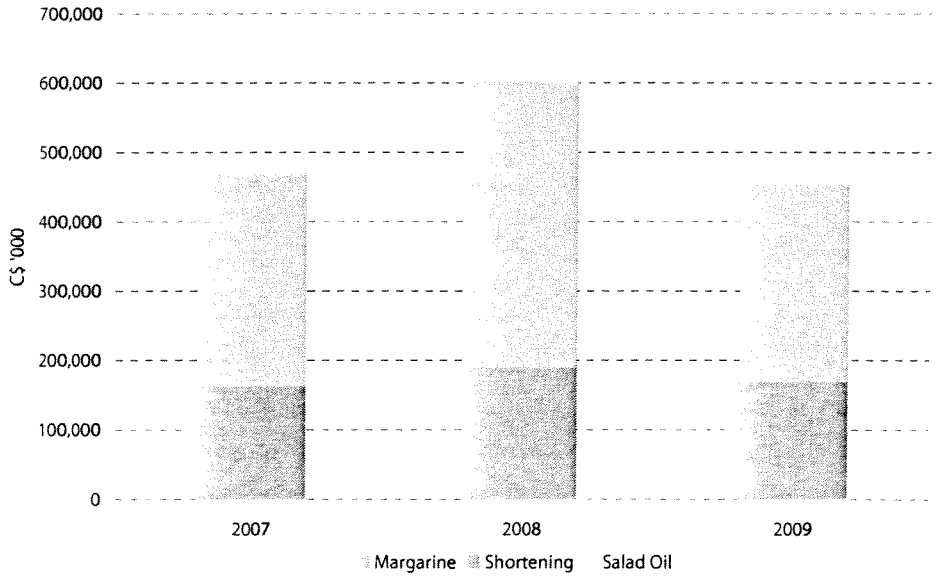


Diagram CAN.6: Value of refined and processed canola oil products, 2007-2009



Direct and indirect economic impact on the canola industry on the Canadian economy

One final complication in any analysis of economic contribution is the role of ***economic multipliers***. These form an accepted part of economic value calculations, and are founded on the principle that an injection of money into an economy will circulate several times before its full value is realised. For example, if canola farmers spend their canola earnings on cinema tickets, the cinema earnings cannot be said to form part of the direct economic benefits of canola farming, but rather form an indirect economic benefit. The cinema owner may then spend some of these earnings on dinner in a restaurant; and so on and so on....

Economic multipliers attempt to capture this indirect economic benefit of a direct stimulus to the economy, and we now apply these to the direct economic analysis presented heretofore.

Data sources

To estimate these additional indirect benefits, we have used multipliers developed by the Industry Accounts Division in the System of National Accounts of Statistics Canada. We selected the NAICS *(North American Industry Classification System)* that most closely corresponds to the sectors reviewed in this study. These include

- Genetics Supply: *Wholesale Trade*
- Farming: *Crop Production (except Greenhouse, Nursery and Floriculture Production)*
- Canola Seed Handling -- Elevator and Port: *Farm Product Warehousing and Storage, Support Activities for Transportation, Water Transportation*
- Transportation: *Rail Transportation*
- Crushing: *Flour Milling and Malt Manufacturing*
- Refining: *Starch and Vegetable Fat and Oil Manufacturing*
- End-use industries: *As above.*

These data are provided at two levels:

- For the additional impact (direct plus indirect effects) within the province, and
- For the additional impact (direct plus indirect effects) that the province has on all the other provinces, due to the additional impact within that particular province.

For each category and level, we utilized the output multiplier and the full-time job equivalent multiplier.

- The output multiplier represents the dollar change in output of the total provincial economy for each C$ 1 change of output delivered by the indicated industry sector.
- The jobs multiplier represents the change in number of full-time equivalent jobs in the provincial economy for each C$ one million change of output delivered by the indicated industry sector.

Highlights of the combined direct and indirect economic impact of the canola industry on the Canadian economy

Tables CAN.58 and CAN.59, present the combined direct and indirect impact on the Canadian economy.

- The indirect benefits, when accounted for across all of Canada, double the benefit of the direct economic impact of the canola sector.
- The direct benefits of canola, presented previously, contribute an annual average of C$7,640 per year.
- The indirect benefits across Canada, after application of the multipliers shown in Table CAN.60, add further C$7,735 mn per year.
- ***This brings the total economic benefit of the canola sector to the Canadian economy to C$15.4 billion per year, averaged from 2007 to 2009.***
- Saskatchewan and Alberta make the largest contribution with both direct and indirect benefits.
- Farming and oilseed crushing have the largest combined impact on the economies of Manitoba, Saskatchewan, and Alberta.
- As a result of its activity in the Canadian economy, the canola industry adds over 116,000 full-time equivalent jobs directly, as we have already seen, with a further 112,000 jobs indirectly attributable to canola jobs (Table CAN.59).
- ***228,000 Canadian jobs are therefore attributable to the canola sector.***

Table CAN.S8: Summary of direct and indirect economic impact of the canola industry in each province and on all provinces, average 2007-2009 (C$ '000)

	Manitoba	Saskatchewan	Alberta	British Columbia	Ontario	Quebec	Canada
Direct Impact							
Farming	1,059,337	2,156,094	1,974,939	39,974	14,107	7,902	**5,252,353**
Canola Seed Handling -- Elevator and Port	57,873	98,015	87,442	257,403	39,961	5,694	**546,388**
Transportation	108,755	184,986	159,455	4,021	46,629	907	**504,753**
Processing	94,521	127,106	104,443	0	90,226	13,955	**430,251**
Refining	40,428	54,364	44,671	0	38,590	5,969	**184,022**
End Uses	235,696	89,661	117,645	17,148	175,176	87,349	**722,676**
Total	**1,596,609**	**2,710,226**	**2,488,595**	**318,547**	**404,690**	**121,776**	**7,640,444**
Direct and Indirect Impact Within Province	Manitoba	Saskatchewan	Alberta	British Columbia	Ontario	Quebec	**Canada**
Farming	1,480,981	3,266,047	3,396,341	62,684	23,065	12,409	**8,241,528**
Canola Seed Handling -- Elevator and Port	81,437	128,177	118,476	358,363	59,898	8,309	**754,660**
Transportation	138,340	264,123	228,507	5,392	65,670	1,188	**703,221**
Processing	182,053	308,532	279,853	5,515	68,294	1,343	**845,589**
Refining	77,866	131,962	119,696	2,359	29,210	574	**361,666**
End Uses	426,294	179,871	256,116	29,814	311,443	114,817	**1,318,354**
Total	**2,386,972**	**4,278,711**	**4,398,988**	**464,127**	**557,580**	**138,640**	**12,225,018**
Direct and Indirect Impact For All Provinces							
Farming	2,132,465	4,332,457	3,988,607	77,467	26,649	14,287	**10,571,932**
Canola Seed Handling -- Elevator and Port	96,670	154,256	134,619	432,964	65,653	9,428	**893,591**
Transportation	177,249	315,697	251,091	6,842	74,756	1,301	**826,935**
Processing	220,466	285,008	241,632	0	202,285	34,172	**983,562**
Refining	94,295	121,900	103,348	0	86,519	14,615	**420,678**
End Uses	575,997	221,423	308,724	33,376	360,243	178,938	**1,678,700**
Total	**3,297,142**	**5,430,741**	**5,028,023**	**550,648**	**816,105**	**252,741**	**15,375,399**

Table CAN.59: Summary of direct and indirect economic impact of the canola industry in each province and on all provinces on full-time equivalent jobs, average 2007-2009

	Manitoba	Saskatchewan	Alberta	British Columbia	Ontario	Quebec	Canada
Direct Impact							
Genetics Supply	165	165	165	0	87	0	582
Farming	17,151	47,120	30,152	495	770	409	96,096
Canola Seed Handling -- Elevator and Port	185	252	179	358	221	21	1,217
Transportation	296	410	358	35	34	159	1,292
Crushing	208	273	234	0	202	27	943
Refining	145	54	62	0	65	1	327
End Uses	463	463	1,544	1,544	6,061	6,061	16,136
Total	**18,614**	**48,737**	**32,694**	**2,432**	**7,440**	**6,677**	**116,593**
Direct and Indirect Impact For All Provinces	**Manitoba**	**Saskatchewan**	**Alberta**	**British Columbia**	**Ontario**	**Quebec**	**Canada**
Genetics Supply	298	331	359	0	155	0	1,143
Farming	31,020	94,527	65,642	860	1,368	538	193,955
Canola Seed Handling -- Elevator and Port	335	506	389	623	393	28	2,274
Transportation	535	823	780	61	60	208	2,467
Crushing	377	547	509	0	359	35	1,827
Refining	263	108	134	0	116	2	623
End Uses	837	929	3,361	2,684	10,776	7,967	26,555
Total	**33,666**	**97,771**	**71,175**	**4,228**	**13,228**	**8,777**	**228,845**

Table CAN.60: Provincial input-output multipliers for economic sectors associated with the canola industry, 2007

Sector NAICS Multiplier Category	Genetics Supply Wholesale Trade	Farming Crop Production (except Greenhouse, Nursery and Floriculture Production)	Canola Seed Handling -- Elevator and Port Farm Product Warehousing and Storage, Support Activities for Transportation, Water Transportation	Transportation Rail Transportation	Crushing Flour Milling and Malt Manufacturing	Refining and End Uses Starch and Vegetable Fat and Oil Manufacturing
Output - Direct and Indirect Effects -- Within Province						
Manitoba	1.31	1.40	1.37	1.27	1.67	1.81
Saskatchewan	1.31	1.51	1.34	1.43	1.67	2.01
Alberta	1.43	1.72	1.39	1.43	1.76	2.18
British Columbia	1.36	1.57	1.43	1.34	1.37	1.74
Ontario	1.46	1.63	1.50	1.41	1.46	1.78
Quebec	1.41	1.57	1.49	1.31	1.48	1.31
Output - Direct and Indirect Effects -- All Provinces						
Manitoba	1.61	2.01	1.65	1.63	2.33	2.44
Saskatchewan	1.62	2.01	1.64	1.71	2.24	2.47
Alberta	1.60	2.02	1.56	1.57	2.31	2.62
British Columbia	1.51	1.94	1.59	1.70	2.04	1.95
Ontario	1.56	1.89	1.61	1.60	2.24	2.06
Quebec	1.55	1.81	1.66	1.43	2.45	2.05

Note: The output multiplier represents the dollar change in output of the total provincial economy for each C$ 1 change of output delivered by the indicated industry sector.
The jobs multiplier represents the change in number of full-time equivalent jobs in the provincial economy for each C$ one million change of output delivered by the indicated industry sector.

TAB 4

Table A. Canola: Economic Value to AB ($)

	Most conservative estimate, for 2011 ($)	Optimistic estimate, with expansion plans announced for 2014-15 ($)
Farmers returns from seed purchases by crushers	1590.7 million[a]	-same-
Canola seed handling-elevator and port	69.9 million[b]	-same-
Transport	127.3 million[c]	-same-
Value-added from, crushing	52.6 million[d]	116.2 million[e]
Value-added from refining	41.6 million[f]	91.2 million[g]
End uses	58.9 million[h]	130.1 million[i]
Total direct economic benefit	**~1,900 million ($1.9 Billion)**	**~2,100 million ($2.1 Billion)**

S:

Canola Council. 2010. Table CAN.58. on p. 54 http://www.canolacouncil.org/media/506489/canada_economic_impact_study_2011.pdf

COPA. 2012. http://www.copaonline.ca/ go to industry profile Table on p. iv.

Alberta Finance Service Corp presentation (AFSC). 2012. Canola Crush Plant Major Opportunity in Alberta (presentation)

Notes:

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[a] Product of 2011 Canadian canola farm returns, $4545 m (COPA go to industry profile, p. iv), and 35%, share of Canadian seed purchases (Alberta Finance Service Corp presentation (AFSC) presentation, 2012)

[b] Product of "a" above, and 4.4 c, average seed handling expenditure per $ farm sales, found in (2007-9 canola council study, Table CAN.58. on p. 54).

[c] Product of "a" above, and 8 c, average transportation expenditure per $ farm sales, found in (2007-9 canola council study).

[d] Product of 2011 value-added from crushing, $405 m (COPA industry profile), and 13%, share of Canadian crushing capacity (2012 Alberta Finance Service Coop presentation)

[e] Product of 2011 value-added from crushing, $405 m (COPA industry profile), and 29%, future share of share of Canadian crushing capacity, with Cargill and Richardson plans for extra 1.2MMT capacity in 2014-15

[f] Product of 2011 value-added from refining, $320 m (COPA industry profile), and 13% above, assuming crushing capacity approximates refining capacity

[g] Product of 2011 Canadian refining value added, $320 m (COPA industry profile) and 29%, assuming crushing capacity approximates refining capacity

[h] Product of 2011 above value-added crushing, $52.6 m (COPA industry profile) by $1.12 per $ crushing, average value-added "end use"(2007-9 canola council study). "End use" is defined as the benefits from canola meal to dairy sector and use of canola oil in the food processing industry.

i Product of 2011 above value-added crushing, $116.2 m (COPAindustry profile) by $1.12, per $ crushing, average value-added "end use" (2007-9 canola council study).

TAB 5

Richardson to double canola processing capacity in Lethbridge

March 20, 2013 (Winnipeg, MB)

Richardson Oilseed Limited, one of the largest canola oil processors in North America, today announced its intention to expand its canola processing plant in Lethbridge, Alberta, which will more than double processing capacity at the facility. Richardson currently processes approximately 1,200 tonnes of canola per day or 410,000 tonnes per year out of its Lethbridge plant. The expansion will also enhance efficiencies at the facility through upgraded technology and increased automation.

"Global demand for canola and canola oil continues to increase due to strong consumer demand for healthier food products," says Pat Van Osch, Senior Vice-President, Richardson Oilseed. "We are committed to making a significant investment in our Lethbridge plant to keep pace with increased demand and continue to grow our business."

Over the next eight months, Richardson will finalize the scope, design and costs of the Lethbridge expansion project to begin construction in early 2014 and target completion by the end of 2015. Last year, Richardson completed a $15 million expansion at its canola packaging plant in Lethbridge, increasing the size of the facility by 40 per cent.

Richardson is currently in the midst of another expansion project at its other canola processing plant in Yorkton, Saskatchewan. The company is increasing crushing capacity in Yorkton by 25 per cent, which will grow volumes from 2,400 tonnes of canola per day to 3,000 tonnes per day. The Yorkton project is on track to be complete by the end of 2013.

"With increased capacity at two state-of-the-art canola processing plants and strong origination capabilities through our expanding Richardson Pioneer network, we will be well positioned to service our customers and meet the needs of the global marketplace," says Van Osch. "We are focused on expanding our presence as the leader in the Canadian canola processing industry."

Richardson Oilseed Limited is a wholly owned subsidiary of Richardson International Limited, Canada's largest, privately owned agribusiness. Based in Winnipeg, Richardson is a worldwide handler and merchandiser of all major Canadian-grown grains and oilseeds and has a fullyintegrated canola processing and food packaging division. Richardson is one of Canada's Best Managed Companies and is recognized as a global leader in agriculture and food processing.

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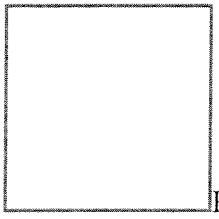
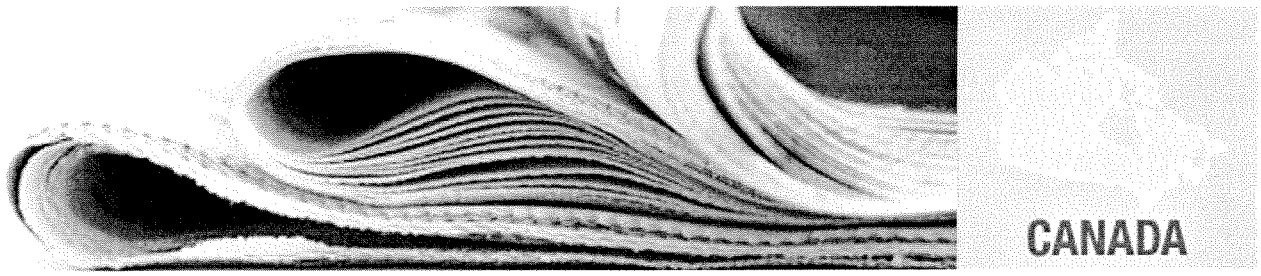
 Richardson International is proud to be recognized as one of Canada's Best Managed Companies.

Richardson International
2800 One Lombard Place, Winnipeg, MB, Canada R3B 0X8

// Curvy Corners for legacy IE function initCorners() { var settings = { tl: { radius: 5 }, tr: { radius: 5 }, bl: { radius: 5 }, br: { radius: 5 }, antiAlias: true } curvyCorners(settings, "a.button"); /* curvyCorners(settings, ".point"); */ } if(typeof(isIE) != "undefined" && isIE) { initCorners(); }

TAB 6

Cargill



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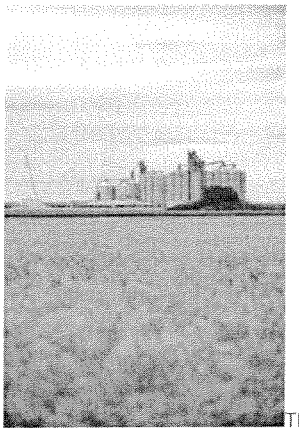
Cargill to build canola crush plant near Camrose, Alberta

WINNIPEG - Oct. 1, 2012 - Cargill announced plans today to build a canola processing facility near Camrose, Alberta. Subject to receiving all required approvals, construction is expected to be completed in time for the 2014-15 canola harvest.



The new crush facility is projected to have the capacity to process 850,000 metric tonnes of canola per year and will serve Alberta canola farmers by providing a consistent and competitive point of delivery. This significant investment in Alberta will generate approximately 800,000 hours of employment throughout the construction phase. In addition, Cargill expects that 50 permanent full time positions will be created.

"We are delighted to make this announcement, enabling Cargill to offer new marketing opportunities for canola producers in Alberta. This is our second major Canadian investment in canola crushing, and demonstrates our confidence in the continued growth and competitiveness of the canola industry in this country. The facility will have the capacity to process both conventional and specialty canola seed which will enable us to significantly increase our contracting programs in the area," said Ken Stone, commercial manager for Cargill's Canadian canola processing business.

"This project is a tremendous opportunity for Alberta's agriculture sector, Cargill and the Camrose area," said Verlyn Olson, Minister of Alberta Agriculture and Rural Development. "The addition of value-added operations, such as this processing plant, helps to further diversify our agriculture sector and enhance our competitiveness and ability to meet the demands of consumers in Alberta and in the global marketplace."

"Canola continues to be a very competitive crop for the Canadian grower and Camrose is an excellent location for value-added canola processing. In the 2012-13 growing season, canola acres in Canada were over 21 million; we see that as an indication that the industry will continue to grow driven by competitive access to a large North American livestock industry for canola protein meal

and continued strong demand for canola oil. We are very excited about this new opportunity and believe it positions Cargill, the Camrose area, and the Alberta Farmer for future growth in the canola business," added Mark Stonacek, president of Cargill's North American grain and oilseed business.

This announcement will allow for additional economic activity in Camrose and will add to the company's footprint in the Province. In Alberta, Cargill currently operates 21 locations and employs over 2700 people.

Contact

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About Cargill
Cargill is an international producer and marketer of food, agricultural, financial and industrial products and services. Founded in 1865, the privately held company employs 142,000 people in 66 countries. Cargill helps customers succeed through collaboration and innovation, and is committed to applying its global knowledge and experience to help meet economic, environmental and social challenges wherever it does business. For more information, visit Cargill.com and its news center.

About Cargill in Canada
Headquartered in Winnipeg, Cargill Limited employs more than 8,000 people in Canada, from British Columbia to New Brunswick. In addition to its diverse agricultural businesses, Cargill's Canadian interests include enterprises in the food, manufacturing, financial and risk management industries.

TAB 7

www.goldengatemargarine.com

Friday August 23 2013

Sean McPhee
President
Vegetable Oil Industry of Canada
285 Adelaide St. Suite 403
Toronto, Ontario M5A 1N1

Dear Sean,

In anticipation of the September panel hearing appearance, I am writing to you to express my strong support of your initiatives to reduce internal trade barriers.

Eliminating the restrictions imposed by Quebec under the Food Products Act & Regulations will have major benefits for the vegetable oil industry. The current restrictions create barriers for Golden Gate to produce a butter/vegetable oil blend due to the complicated regulations governing production using butter as an ingredient in our products. By eliminating Quebec's compositional restrictions, I estimate the immediate opportunity of 3 to 4 million dollars for Golden Gate in the bakery and food service markets, as well as a potential total market opportunity of about $20 million.

Currently, a blended product with less than 50 % butter is not permitted in Quebec but is available in other provinces and the United States. This puts my company at a major disadvantage unless these restricting regulations are eliminated. Golden Gate is currently restricted from manufacturing these blended products for sale nationally and is at risk of losing business in other provinces. Most national bakery manufacturers, food service operators and retailers resist the use or introduction of innovative blended products that cannot be sold nationally due to reduced scale and added complexity. These challenges are greatly increased when Quebec's 25% of the market prohibits the sale of these blended products. These products would represent healthier choices for consumers with lower saturated fats and eliminate trans fats.

The manufacturers in the Canadian baking industry would also benefit from the elimination of the restrictions under the Quebec Food Products Act & Regulations. Opportunities exist in improving efficiencies and costs within the bakery manufacturing facility as well as ensuring consistent finished good quality. Golden Gate has been approached by two large bakery goods manufacturers, in confidence, with the request for a butter/vegetable oil blend to streamline their high speed production of croissants and danishes. By providing a blended product, the Quebec bakery manufacturers would improve their competitive ability.

Golden Gate is fully compliant with the strict HACCP guidelines and procedures, excelling in all GMP Silliker audits. Furthermore, Golden Gate is implementing changes in our Quality program to meet SQF (Safe Quality Foods) certification. The SQF program is globally trusted and accepted food safety programme, recognized by the Global Food Safety Initiative (GFSI), headquatered outside of Europe This program was approved in 2011, aligning Golden Gate with the world's leading food manufacturers operating under this global food safety and quality certification.

Golden Gate is well positioned to support this initiative with our product development team and high standard production facility to ensure the Canadian bakery industry has the quality blended products required to be competitive in the North American bakery market.

Sincerely

Michel Lafortune
President

www.goldengatemargarine.com

Vendredi, le 23 août 2013

Sean McPhee
President
Vegetable Oil Industry of Canada
285 Adelaide St. Suite 403
Toronto, Ontario
M5A 1N1

Cher Sean,

En prévision de l'apparition d'audience en Septembre, je vous écris pour vous exprimer mon appui pour vos initiatives visant à réduire les obstacles au commerce intérieur.

L'élimination des restrictions imposées par le Québec en vertu de la Loi et du Règlement sur les produits alimentaires présente des avantages importants pour l'industrie de l'huile végétale. Les restrictions actuelles créent des obstacles pour Golden Gate envers la production d'un mélange d'huile végétale/beurre en raison des règlements complexes qui régissent la production de produits contenant du beurre comme ingrédient. En éliminant les restrictions de composition du Québec, tel fait par l'Ontario, j'estime la possibilité d'opportunités immédiates dans les boulangeries et les restaurants de 3 à 4 millions de dollars pour Golden Gate.

Actuellement, un produit avec moins de 50% de beurre n'est pas permis au Québec, mais est disponible dans d'autres provinces et aux États-Unis. Cela met mon entreprise à un désavantage majeur à moins que ces réglementations soient éliminées. Golden Gate est donc restreint de vendre ces produits au niveau national et à cause de ceci ne peut exploiter ces marchés.

Pour ces segments spécifiques, la boulangerie et le marché du service alimentaire, l'opportunité potentiel pourrait être entre 15 $ et 25 $ millions en ventes estimées. Cette estimation ne comprend pas les possibilités de vente au détail - estimation prudente dans les dizaines de millions de dollars - liés aux nouveaux produits tels que les mélanges beurre/margarine ou tartinade fouettées. Le marché de détail canadien est petit, géographiquement concentré entre quelques grandes bannières de magasins ce qui rend la commercialisation de nouveaux produits difficiles et coûteux. Ces défis sont fortement amplifiés lorsque 25% de ce marché canadien, tel le Québec, interdit la vente de ces produits, qui représentent des choix plus sains pour les consommateurs en fait de gras saturés et gras trans.

Les boulangeries industrielles bénéficieraient également de l'élimination de ces restrictions et règlements au Québec. Il y aurait possibilité d'améliorer l'efficacité et d'assurer une qualité constante au sein de leurs usines de fabrication. Golden Gate a déjà été approché par deux grandes boulangeries industrielles, en confiance, avec une demande d'un mélange d'huile végétale/beurre afin d'améliorer l'efficacité de leur production de croissants et de pains.

Aujourd'hui, la nécessité de mélanger le beurre avec la margarine au niveau de la boulangerie industrielle augmente les coûts de production. Il y a aussi un risque d'inconsistance dans le produit fini ainsi que la qualité du produit avec cette étape de traitement supplémentaire. En fournissant un produit mélangé, les boulangeries du Québec auraient la chance de potentiellement améliorer leur capacité concurrentielle.

Tel que mentionné, les boulangeries nationales, les restaurants et les détaillants sont réticents à introduire des produits innovateurs qui ne peuvent être vendus au niveau national à cause de la complexité ajoutée. Récemment, une chaîne nationale d'épiceries a informé Golden Gate qu'il hésitait à introduire un produit beurre/margarine dans les boulangeries de ses magasins en raison de la complexité supplémentaire d'avoir des formules distincts au Québec. Ce projet et ses avantages sont donc mis de côté en attendant de voir les développements envers la résolution des Lois sur ces produits au Québec.

Golden Gate est opère sous des procédures strictes HACCP, excellant dans tous ses vérifications GMP et a atteint la certification SQF 2000 (Safe Quality Foods). Le programme SQF traite de sécurité alimentaire et est reconnu globalement par le Global Food Safety Initiative (GFSI), en Europe. Ce programme aligne donc Golden Gate avec les fabricants mondiaux opérant sous cette sécurité globale alimentaire et certification de qualité.

Golden Gate est bien placée pour appuyer cette initiative avec notre équipe de développement de produit ainsi que nos capacités de production efficace. Nous pouvons aider à assurer que l'industrie canadienne de la boulangerie aura accès aux produits de qualité nécessaires afin d'être compétitifs sur le marché en Amérique du Nord.

TAB 8

THE COUNCIL
OF THE FEDERATION

PREMIERS ADVANCE OPEN TRADE IN CANADA

REGINA, August 7, 2009 – Premiers today agreed on a new Agriculture Chapter for the Agreement on Internal Trade. This builds on the achievements of the Council of the Federation in recent years to further increase the free flow of people, investment, goods and services in Canada.

The new Agriculture Chapter will prevent unreasonable use of technical measures to diminish open trade in agricultural products across Canada.
The Chapter will not apply to measures relating to supply management systems regulated by federal or provincial governments or to provincially regulated marketing boards.

All jurisdictions in Canada have now approved the new Labour Mobility Chapter of the Agreement on Internal Trade, allowing professionals and tradespeople greatly improved freedom and opportunity to pursue their careers across Canada. All Premiers have agreed to the new Dispute Resolution Chapter.

Building on these successes, Premiers have agreed to initiate a new round of improvements on internal trade. This includes:

- **Person-to-Government Dispute Resolution Mechanism**: Building on the successful work on the Government-to-Government Dispute Resolution Mechanism, Premiers direct Ministers responsible to provide options for improvement to the Person-to-Government mechanism in advance of the 2010 COF Summer meeting.
- **Full Labour Mobility for Financial Sector Occupations**: Premiers asked Ministers responsible for Internal Trade to complete a review of financial sector occupations and make recommendations relating to full labour mobility under Chapter 7 of the *Agreement on Internal Trade*."
- **Business and Transportation Regulations**: Premiers direct Ministers responsible for internal trade to move quickly to reconcile extra-provincial corporate registration and reporting requirements and multi-provincial business licensing regulations. Premiers also directed Transportation Ministers to develop an action plan to reconcile transportation regulations. They are to report with timelines and proposed amendments by December 31, 2009.

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For more information:

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