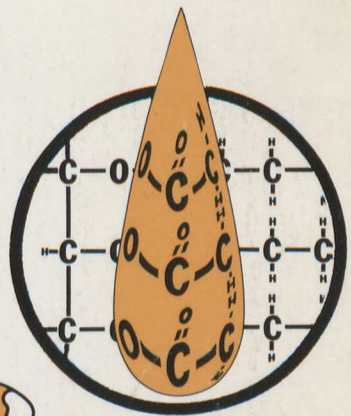
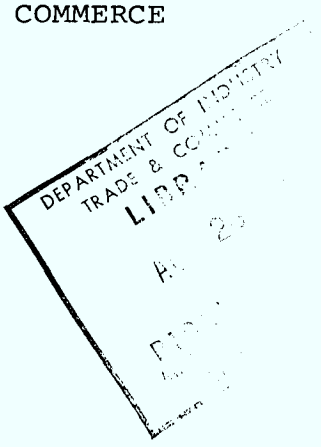


Fats & Oils in Canada

ANNUAL REVIEW 1974

DEPARTMENT OF INDUSTRY, TRADE AND COMMERCE



FATS AND OILS IN CANADA

Annual Review

June 1975

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Department of Industry, Trade and Commerce
Ottawa, Ontario
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I N T R O D U C T I O N

"Fats and Oils in Canada - Annual Review 1974" represents the second annual issue of the publication. No issues were published for the years 1970 to 1973 inclusive. As a result of the recommendations of the 1974 Annual Meeting of the Canadian Committee on Fats and Oils and numerous requests from sources inside and outside Canada, the Grain Marketing Office of the Department of Industry, Trade and Commerce is reinstituting publication on a regular basis.

The feature article in this issue is written by Mr. James McAnsh, Executive Director, Rapeseed Association of Canada. Mr. McAnsh provides an overview of Canada's most valuable oilseed crop, rapeseed. The Department joins with the readers of this publication in expressing thanks to Mr. McAnsh for his efforts in presenting the immediate past, current and possible future direction of the Canadian rapeseed industry.

The statistical data contained in the publication have been obtained from Statistics Canada, Department of the Environment, Canadian Grain Commission, United States Department of Agriculture, and Oil World. The tables resulting from these data have been grouped into related product areas to permit ease of consideration. The total figures in the tables, particularly those dealing with imports and exports, have been rounded which account for any apparent discrepancies in the totals.

"Fats and Oils in Canada - Annual Review 1974" is intended to be a working document for people concerned with the development of the Canadian fats and oils industry. Suggestions and comments on this publication are welcome and should be addressed to:

Grain Marketing Office,
Department of Industry, Trade
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112 Kent Street,
Ottawa, Ontario
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CHAPTER 1

AN OVERVIEW ON CANADIAN RAPESEED

by James McAnsh

The rapeseed industry in Canada has witnessed dramatic changes since the last issue of the "Annual Review of Fats and Oils in Canada" was published in March 1970. Revival of this publication provides an excellent opportunity to close the gap in the story of the "Cinderella" crop of western agriculture. It will record some of the stirring developments of the past five years and also unfold, in succeeding issues, the results flowing from intensive research and plant breeding programs.

About six months after the 1969 Annual Review had been released in March of 1970, something akin to a bombshell hit the rapeseed industry at an International Rapeseed Conference held at St. Adele, Quebec. The gathering had been sponsored jointly by the Canada Department of Industry, Trade and Commerce and the Rapeseed Association of Canada. It was attended by 400 scientists, technologists and businessmen from 20 nations.

Although adjudged an excellent Conference, St. Adele will best be remembered as the place where the whole rapeseed industry in Canada, from the producer on the farm to the manufacturer of food products from rapeseed oil, received a jolt that set in motion a whole chain of events. Nutritionists from several countries, including the Canada Department of National Health and Welfare, raised serious questions regarding the effect of erucic acid in rapeseed oil on the health of animals with some possible implications for humans.

Lengthy discussions took place but at the conclusion of the proceedings an official statement was issued by the Conference, which included the following:

> "One of the sessions drawing considerable attention concerned results of nutritional research on experimental animals fed large quantities of rapeseed oil containing high levels of erucic acid. It was found that such high erucic acid oils cause changes in heart tissues of some of these animals. The levels of rapeseed oil fed to these experimental animals were, however, substantially higher than those attained in the human diet. No hazard to human health has been attributed to rapeseed oil now or throughout its long history as a staple component of the human diet."

Plant breeders reported that new varieties of rapeseed,

low in erucic acid content and higher in linoleic acid, had been developed in several countries, and that a gradual change-over to these new varieties would be possible in many rapeseed growing countries within a few years. Canada's Minister of National Health and Welfare declared it prudent to recommend a phasing in of the new low erucic acid rapeseed varieties.

NEW BALL GAME

Thus began an entirely new ball game, from which emerged a multitude of problems for producers, crushers of the seed and refiners of the oil. There was a substantial monetary cost to farmers in terms of lower yields from the first of the new varieties seeded in 1971. The crushers were unhappy with the lower yield of oil in the new seed and lower protein in the meal, while overseas buyers of Canadian rapeseed also had reason to complain. The Canada Department of Agriculture provided some compensation in an effort to assuage the crushers and others.

Meanwhile, the plant breeders were working at top speed to introduce new lower erucic varieties which would overcome the shortcomings of the 1971 varieties of Span, Zephyr and Oro. In the short space of three years, their efforts were crowned with success and, in 1974, lower erucic rapeseed varieties accounted for more than 94% of the seeded crop in western Canada. This accomplishment was given recognition when the Royal Bank of Canada 1975 Award went to Dr. R.K. Downey Research Station, Agriculture Canada, Saskatoon, and Dr. B.R. Stefansson, Plant Science Department, University of Manitoba, Winnipeg.

These two dedicated scientists shared the Award, which carried with it the sum of $50,000, for their work in spearheading the development of new varieties of rapeseed that have made this oilseed an increasingly valuable source of food for both human and animal consumption.

Canadian rapeseed has been launched now on a course that will, within the next three to four years, so transform the chanracteristics and quality of this oilseed that it will not be recognizable when compared with what we had in Canada five years ago. The first of what has been labelled the "double-zero" varieties, licensed in February 1974 under the name of "Tower", could be a significant part of Canada's 1975 production of rapeseed. It is low in erucic acid in the oil,

and low in glucosinolates in the meal. The latter is a giant step forward in making rapeseed meal highly competitive with other protein meals in livestock and poultry feed formulas.

MARKET DEVELOPMENT

Whether measured over the past decade or just the five years since the last issue of this Annual Review was published, expansion of the market for Canadian rapeseed has been quite spectacular. Domestic crushers have been processing for oil and meal at a steadily rising rate, while overseas demand for the seed for crushing abroad has developed to levels that could not have been predicted even five years ago. Although production has at times been below the desired volume, it has been sufficiently maintained to service the markets at home and abroad. Statistics relating to the past five crop years are tabulated below:

Crop Year (Aug.-July)	Production (Gross Busgels)	Domestic Crush	Exports Overseas
	(Millions of Bushels)		
1969-70	33.4	7.7	22.2
1970-71	72.2	8.6	46.8
1971-72	95.0	12.0	42.6
1972-73	57.3	15.6	54.1
1973-74	53.2	14.7	39.2

The Rapeseed Association of Canada (RAC) has contributed substantially to the expansion of markets for rapeseed and rapeseed products. Formed in March 1967, this national organization represents every segment of the industry from the producer in western Canada to the end user. It has mounted trade development missions to Asia, Europe, Mexico and Central and South America, and has co-operated with the Grain Marketing Office of the Canada Department of Industry, Trade and Commerce in other overseas missions and when missions from abroad visited Canada.

As a tool in the promotion of rapeseed meal as an ingredient in livestock and poultry rations, the RAC produced a film and a booklet, both of which were translated into at

least six languages, i.e. English, French, German, Italian, Japanese and Spanish. The Grain Marketing Office of the Canada Department of Industry, Trade and Commerce assisted in the financing of these projects, the results of which have been highly satisfactory.

RESEARCH PROGRAMS

In the important field of research, the RAC has been closely associated with the Grain Marketing Office of the Canada Department of Industry, Trade and Commerce, almost from its beginnings. In many of these research programs, the Canadian oilseed crushers have made substantial contributions. They have provided rapeseed oil and rapeseed meal for experimental use in small and large programs, and have made the products available also to overseas researchers, frequently at their own expense. Two of the major research programs, funded by the Grain Marketing Office of the Canada Department of Industry, Trade and Commerce, and administered by the RAC, are briefly described hereunder.

RUAP

This program, known as the Rapeseed Utilization Assistance Program, has been in effect since the crop year 1968-69. The Research Committee of the RAC is responsible for establishing the projects and their priorities, and a member of the staff of the RAC disburses the funds as agreed by the Committee. This work has been of enormous benefit to the rapeseed industry and to date three progress reports have been issued by the RAC.

Varietal Development

The need to accelerate development of new varieties of rapeseed to meet the new requirements of the market led to the "Varietal Development Program" being set up in 1973. This was a three-year program mainly to provide the necessary funds for plant breeders in the three prairie provinces. The funds were provided jointly by the Grain Marketing Office of the Canada Department of Industry, Trade and Commerce and the RAC. The second three-year program (1975-77) is scheduled to begin July 1, 1975 with the assistance of the New Crop Development Program of the Canada Department of Agriculture.

Changes effected in the varieties of rapeseed now being grown in Canada may be noted from the following data

published in the 1969 issue of this Review, and the survey of varieties made by the provincial pools in 1974.

Rapeseed Varieties Seeded

In 1969		In 1974	
High Erucic Acid		Low Erucic Acid	
	(Per Cent)		
Echo	52.8	Span	32.2
Arlo	17.2	Torch	31.6
Polish	13.9	Midas	20.0
Target	11.9	Zephyr	5.7
Tanka	2.6	Oro	2.4
Other	1.6	Tower	1.9
Total	100.0	Total Low	93.8

The balance of 6.2% of the 1974 seedings was accounted for by high erucic acid varieties mainly in Alberta, with Echo and Target favoured by producers.

DISTRIBUTION OF EXPORTS

During the past five years Japan has been the leading buyer of Canadian rapeseed by a substantial margin, but in the record exports in crop year 1972-73, thirteen countries were named as the primary destination of overseas shipments. The number of recipient countries is probably somewhat larger, since Canadian rapeseed discharged in Rotterdam, Antwerp or Hamburg, might be trans-shipped to other countries such as Britain, Czechoslovakia and Switzerland.

Primary destinations of overseas shipments of Canadian rapeseed during each of the last five crop years, are tabulated hereunder:

Canadian Rapeseed Exports by Countries
Crop Years 1969-70 - 1973-74
(Thousands of Metric Tons)

Destination	1969-70	1970-71	1971-72	1972-73	1973-74
Japan	326.6	359.2	505.5	699.2	662.8
Netherlands	63.5	210.8	133.6	61.3	50.0
Italy	19.1	99.7	63.0	81.4	14.9
West Germany	21.9	100.7	35.6	71.0	26.4
Morocco	16.3	11.6	15.2	-	-
Britain	15.8	6.8	11.3	3.0	-
France	-	101.2	167.8	45.1	13.5
Taiwan	-	-	-	26.5	-
Belgium	6.9	-	3.7	3.0	0.6
India	-	86.4	16.9	79.9	18.5
Norway	5.5	10.8	3.2	-	-
Mexico	12.6	-	-	23.5	29.2
Australia	-	-	3.4	21.2	13.3
Bangladesh	-	-	-	103.1	47.7
Others	16.0	75.2	7.5	8.9	11.7
	504.2	1,062.4	966.7	1,227.1	888.6

Source: Statistics Division, Canadian Grain Commission.

Rapeseed provides a relatively quick and economic way of supplying the steadily increasing world demand for edible oils and proteins. In this regard, Canada holds a comparative

advantage both in terms of ability to increase supplies and the relative economics of large scale production.

Rapeseed Oil

Rapeseed oil has not only greatly increased its utilization in the production of margarine oil, shortening oil, and salad oil in Canada, but it has become an item of export. The volume is still relatively small but the growth potential is quite significant and when the increased crushing capacity now developing in western Canada is completed there will be pressure to build up export trade.

Canada's crushing industry is the second largest customer for the farmer's rapeseed production and over the past five years has averaged better than 20% in the utilization of rapeseed.

Exports of rapeseed oil have not yet reached a high volume but are increasing to the point where it has become necessary to build tank storage for the oil at seaboard ports. Negotiations, which took place with representatives of the crushers and others have been concluded at Vancouver, where it is expected a total of 20,000 metric tons of oil tank storage will be installed.

Rapeseed Meal

Just as exports of rapeseed oil are building up gradually, so are exports of Canadian rapeseed meal. The domestic utilization of the meal in Canada has been quite substantial but the big increase in crushing capacity over the next year or two will put pressure on processors to find markets abroad for the surplus meal.

With the introduction of low glucosinolate meal through the new varieties of rapeseed being developed by our plant breeders, Canadian rapeseed meal will be freed from some of the restrictions now prevailing in the animal feed industry. The animal nutritionists will be able to recommend higher percentages of rapeseed meal in the livestock and poultry rations and this will broaden demand at home and overseas.

SUMMARY

In summarizing the foregoing and taking a forward look at rapeseed, there is room only for optimism. This oilseed

crop is now an intrinsic part of Canadian agriculture, from the point of view of not only diversification of production, but economic advantage. In the past five years, the farm value of the rapeseed crop has risen from $168 million in 1970 to more than $250 million in 1974. Economic studies leave no doubt that rapeseed is and will continue to be a viable alternative to cereal production.

Rapeseed was first produced in Canada commercially in 1943. It has had its problems over these three decades as did most other field crops that preceded it, but rapeseed is fast overcoming these problems thanks to the great strides made in the fields of science and technology. The plant breeders are developing new and better varieties, the animal nutritionists and food processors are increasing the utilization of the meal and the oil products of rapeseed, while control of weeds, insects and disease is being given a high priority. Altogether, their activities are preparing the way for a sunnier climate.

Many producers of the crop are becoming more expert in management and are following cultural practices that produce maximum results. This is paying off handsomely in net returns per acre. There is wide scope, however, for greatly increasing the national average yield per acre and this could be done in fairly short order if the excellent advice farmers are getting from agronomists and others, including neighbouring farmers who outstrip the national average yield year after year, was applied vigorously.

Within the 1970's, Canada will be producing commercially, rapeseed low in erucic acid content and low in glucosinolates. The first of these varieties has been licensed and others will follow. Progress is being made in a third stage which will lower the fibre content of rapeseed meal and produce eventually a yellow shade of seed coat. At this point of time, rapeseed will offer very strong competition to soybeans which have dominated the world markets, both oil and protein, for many years. The horizons for rapeseed are bright, and Canada is in the forefront as the world's largest single supplier of rapeseed in international trade.

CHAPTER 2

WORLD PRODUCTION AND TRADE IN OILSEEDS, FATS, OILS AND MEALS

The period 1970-74 saw a gradual increase in world production of fats and oils, from 39 million tons to 45 million (Table 1). Edible vegetable oils accounted for about 50 percent of annual production, with soybean, sunflower, peanut, cottonseed and rapeseed oils comprising the bulk of edible oil production.

Palm and coconut oil production also increased during this period and comprised about 12 percent of total production, or 5 million tons in 1974, up from 4 million tons in 1970.

Animal fats showed a very slight increase over the period, to 13 million tons, about 25 percent of total world fats and oils production.

Industrial oil production declined from 1.8 million tons in 1970 to 1.5 million, due to a sharp reduction in linseed oil production.

Marine oils also declined from 1.2 million tons in 1970 to 1.0 million in 1974, mainly because of a decline in fish oil production in Peru.

Overall during this period, fats and oils production increased slightly faster than the long-term trend.

World Production of Selected Oilseed Meals and Fish Meal

Soybean meal continued to dominate the world oilmeal production during the period 1970-75, as total oilmeal production increased by 25 percent from 46 million metric tons to 61 million (Table 2). Soybean meal accounted for more than half of the total production.

Fish meal production was variable between 5.2 and 7.4 million tons. Production in 1973 was reduced because of the failure of the Peruvian fish catch.

Output of peanut meal, sunflowerseed meal and rapeseed meal did not increase by a large amount during the five year period, and accounted for about 18 percent of oilmeal output in 1974.

It is expected that soybean meal and copra meal will continue to increase in the foreseable future, particularly in view of increased production in Brazil and South-East Asia.

World Net Exports of Oilseeds, Oils and Fats

The period 1969-73 saw large increases in exports of soybeans, rapeseed, coconut oil and palm oil (Table 3). Certain oilseeds declined - cottonseed, groundnuts and sunflowerseed.

In terms of oilseed exports, soybeans comprised over 85 percent of the export volume in 1973. Brazil is quickly becoming a more important factor in the world oilseed market, with soybean production increases of 20 percent annually.

Exports of rapeseed expanded by more than 100 percent over the period 1969-73. Canada became the world's largest rapeseed exporter during this period.

Exports of palm oil and coconut oil expanded quickly during this period, from 1.1 million tons to 1.8 million tons. Palm oil production is increasing rapidly in Malaysia and Indonesia and therefore increasing quantities will be offered for export.

Exports of animal fats, particularly butter, as a result of the large sale of butter by the EEC to U.S.S.R. in 1973, expanded during the period 1969-73, from 0.95 million tons to 1.3 million. Marine oil exports decreased slightly.

Exports of industrial oils decreased slightly from 0.72 million tons to 0.65 million, primarily because of decreased flaxseed exports.

World Net Exports of Oilseed Meals and Fish Meal

Soybean meal comprised about two-thirds of the total oilmeal exports during 1970-73 (Table 4). Fish meal exports declined by about 50 percent in 1973 due to the reduced Peruvian output.

The share of net exports taken by soybeans and soybean meal increased, as did rapeseed. Most other oilseeds declined in terms of export shares.

Soybean meal gradually increased its share of the net exports of soybean products, with a corresponding decline in the soybean share. This indicates that consumption increased more quickly than domestic crushing in the importing countries.

Total net exports, expressed in protein units, as defined in Table 4, increased from 11.3 million tons in 1970 to 12.3 million in 1973. The soybean share increased from 6.5 to 8.4 million tons while rapeseed went from 0.2 to 0.4 million tons, to become the fourth most important oilmeal in terms of world net exports, after soybean meal, groundnut meal and cottonseed meal.

TABLE 1

WORLD PRODUCTION OF OILS AND FATS, ANNUAL 1970-74

WITH ANNUAL INCREASES 1/

(In million metric tons)

Item	1970	1971	1972	1973	1974	Forecast 1975	Annual Increases: 1965-73 trend	Annual Increases: 1974	Annual Increases: 1975
Soybean oil:									
U.S.	5.13	5.10	5.33	5.75	7.01	5.59	.29	1.26	-1.42
Brazil	.25	.34	.60	.81	1.21	1.51	.08	.40	.30
Other	.64	.73	.71	.75	.85	.82	.01	.10	-.03
Total	6.02	6.17	6.64	7.31	9.07	7.92	.38	1.76	-1.15
Sunflower oil	3.80	3.61	3.63	3.56	4.49	4.09	.07	.93	-.40
Palm oil	1.71	1.91	2.11	2.22	2.50	2.70	.13	.28	.20
Peanut oil	3.27	3.35	3.52	2.91	3.02	3.09	-.01	.11	.07
Cottonseed oil	2.40	2.40	2.63	2.81	2.83	2.90	.03	.02	.07
Rapeseed oil	1.88	2.48	2.56	2.39	2.33	2.42	.15	-.06	.09
Lauric acid oils 2/	2.66	2.96	3.34	2.86	2.76	3.08	.06	-.10	.32
Olive oil 3/	1.24	1.45	1.55	1.44	1.53	1.41	.04	.10	-.13
Other edible vegetable oils 4/	1.08	1.22	1.23	1.16	1.14	1.18	.03	-.02	.04
Marine oils 5/	1.24	1.35	1.11	.98	1.10	1.14	-.01	.12	.04
Animal fats 6/	12.32	12.76	13.02	12.76	13.10	12.98	.14	.34	-.12
Industrial oils 7/	1.78	1.90	1.50	1.40	1.43	1.38	-.02	.11	-.13
World Total	39.40	41.56	42.84	41.80	45.30	44.29	.99	3.59	-1.10
U.S. Total	10.31	10.43	10.34	10.64	12.23	10.59	.26	1.59	-1.64
Foreign Total	29.09	31.13	32.50	31.16	33.07	33.70	.73	2.00	.54

TABLE 1

1/ Oil production estimated on the basis of average assumed extraction rates and crushings and therefore represent potential rather than actual oil production. (Canadian extraction rates are given under "Conversion Factors" on the last page of this Review.)

2/ Includes coconut, palm kernel and babassu oils.

3/ Excludes olive residue oil.

4/ Includes sesame, safflower, corn.

5/ Includes fish, whale and sperm oils.

6/ Includes butter, lard, tallow and greases.

7/ Includes linseed, castor, oiticica, tung and oil residue oils.

SOURCE: United States Department of Agriculture, FOP 2/75

TABLE 2

WORLD PRODUCTION OF SELECTED OILSEED MEALS & FISH MEAL

(Million Metric Tons)

OILSEED MEALS	1971	1972 2/	1973 3/	1974 4/	1975 4/
Soybean Meal	27.68	29.78	32.73	40.58	40.96
Peanut Meal	4.55	4.79	3.96	4.41	4.59
Sunflower Meal	3.19	3.30	3.27	4.08	4.00
Rapeseed Meal	2.66	2.73	2.58	2.64	2.80
Other 1/	8.10	8.13	8.24	8.38	8.83
T O T A L 5/	46.18	48.73	50.78	60.09	61.18
Fish Meal	7.44	5.80	5.16	6.33	7.23
WORLD TOTAL 5/	53.62	54.53	55.94	66.42	68.41

NOTE: Calendar years. Calculated on the basis of assumed average extraction rates and crushings. Sunflowerseed of the Southern Hemisphere harvested in the first half of the calendar year are included as meal production in the same year. Canadian rapeseed harvest was lagged to the year following the harvest. Calculated production represents potential meal production, but may differ from actual meal outturn in a given year.

1/ Includes cottonseed, linseed, copra and palm kernel meals.

2/ Preliminary.

3/ Partly estimated.

4/ Forecast.

5/ 44 percent soybean meal equivalent basis.

SOURCE: USDA, FAC, FFO7-74

TABLE 3

WORLD NET EXPORTS OF OILSEEDS, OILS AND FATS

(Thousands of Metric Tons)

PRIMARILY FOR FOOD	1969	1970	1971	1972	1973
Soybeans	9,365	12,601	12,239	13,479	15,207
Soybean Oil	402	679	793	655	552
Total as Oil	1,928	2,947	2,996	3,081	3,289
Cottonseed	462	493	422	380	277
Cottonseed Oil	211	237	260	304	320
Total as Oil	285	316	331	368	368
Groundnuts	992	661	508	425	515
Groundnut Oil	334	379	321	463	430
Total as Oil	770	670	547	652	659
Sunflowerseed	522	447	294	447	384
Sunflower Oil	871	629	588	573	600
Total as Oil	1,101	825	711	750	761
Rapeseed	737	887	1,679	1,610	1,648
Rapeseed Oil	92	132	214	326	269
Total as Oil	379	478	860	938	903
Sesame	209	195	199	226	245
Sesame as Oil	98	92	93	106	115
Olive Oil[1/]	246	222	324	283	322
Totals					
Seeds	12,287	15,284	15,341	16,567	18,276
Vegetable Oils	2,008	2,148	2,917	2,816	2,608
Combined as Oil	4,709	5,458	5,862	6,178	6,417
Palm					
Copra	1,071	906	1,114	1,352	1,027
Coconut Oil	370	513	588	681	572
Total as Oil	1,055	1,092	1,295	1,539	1,224
Palm Kernels	443	464	490	413	311
Palm Kernel Oil	118	114	115	160	190
Total as Oil	326	332	342	352	334
Palm Oil	714	744	1,011	1,108	1,218

TABLE 3 (Cont'd)

WORLD NET EXPORTS OF OILSEEDS, OILS AND FATS

(Thousands of Metric Tons)

	1969	1970	1971	1972	1973
Totals					
Seeds	1,514	1,370	1,604	1,765	1,338
Vegetable Oils	1,202	1,371	1,714	1,949	1,920
Combined as Oil	2,095	2,168	2,348	2,999	2,776
ANIMAL FATS, EDIBLE					
Butter (82%)	555	617	635	552	860
Lard[2/]	393	414	478	485	456
Total	948	1,031	1,113	1,037	1,316
MARINE OILS, EDIBLE					
Whale Oil (Production)	75	69	60	47	44
Fish Oils	645	563	672	741	564
Total	720	632	732	788	608
WORLD TOTALS, PRIMARILY FOR FOOD					
Oilseeds, Actual Weight	13,801	16,654	16,945	18,332	19,614
Vegetable Oils	3,210	3,519	4,631	4,765	4,528
Animal and Marine	1,668	1,663	1,845	1,825	1,924
Grand Total, Oil Basis	8,472	9,289	10,055	11,002	11,117
PRIMARILY NON-FOOD					
Linseed	627	592	654	878	462
Linseed Oil	190	214	250	211	211
Total as Oil	409	421	472	509	368
Castor Beans	117	138	143	106	99
Castor Oil	206	178	152	174	181
Total as Oil	259	240	216	221	225
Tung Oil	51	39	58	64	55

TABLE 3 (Cont'd)

WORLD NET EXPORTS OF OILSEEDS, OILS AND FATS

(Thousands of Metric Tons)

	1969	1970	1971	1972	1973
Totals					
Seeds	744	730	797	984	561
Oils	447	431	460	449	447
Combined as Oil	719	700	746	784	648
Tallow & Greases[2/]	1,319	1,463	1,625	1,587	1,490
Sperm Oil (Production)	130	140	97	100	107
WORLD TOTALS PRIMARILY NON-FOOD					
Oilseeds, Actual Weight	744	730	797	984	561
Vegetable Oils	447	431	460	449	447
Animal and Marine	1,449	1,603	1,722	1,687	1,597
Grand Total, Oil Basis	2,168	2,303	2,468	2,481	2,245
WORLD GRAND TOTALS					
Oilseeds, Actual Weight	14,545	17,384	17,742	19,613	20,175
Vegetable Oils	3,657	3,950	5,091	5,214	4,975
Animal and Marine	3,117	3,266	3,567	3,512	3,521
Grand Totals, Oil Basis	10,640	11,592	12,523	13,483	13,362

1/ Including residue oil, partly inedible.

2/ Including negligible amounts of edible tallow.

SOURCE: "Oil World", Hamburg, December 1972 and 1974.

TABLE 4

WORLD NET EXPORTS OF OILSEED MEALS AND FISH MEAL

(Thousands of Metric Tons)

Oilseed Meals	1970				1971			
	Seed[1]	Meal	Total	Prot[2]	Seed[1]	Meal	Total	Prot[2]
Soybean	9,955	4,228	14,183	6,524	9,738	5,032	14,770	6,794
Cottonseed	340	1,262	1,602	657	268	1,057	1,325	543
Groundnut	370	1,446	1,816	944	282	1,296	1,578	821
Sunflowerseed	165	587	752	323	143	435	578	231
Rapeseed	506	123	629	214	701	197	898	305
Sesame	101	31	132	53	101	25	126	50
Copra	317	492	809	178	395	597	992	218
Palm Kernel	241	176	417	75	257	158	415	95
Linseed	379	565	944	340	413	608	1,021	368
Unspecified[3]	160[4]	368	528	179	165[4]	359	524	177
Total	12,534	9,278	21,812	9,487	12,463	9,764	22,227	9,602
Fish Meal	-	2,840	2,840	1,846	-	2,790	2,790	1,813
GRAND TOTAL	12,534	12,118	24,652	11,333	12,463	12,554	25,017	11,415

Oilseed Meals	1972				1973			
Soybean	10,714	5,087	15,801	7,268	12,090	6,101	18,191	8,368
Cottonseed	224	1,318	1,542	632	163	1,317	1,480	607
Groundnut	234	1,673	1,907	992	283	1,465	1,748	909
Sunflowerseed	234	392	626	250	201	456	657	263
Rapeseed	723	237	960	326	916	193	1,109	377
Sesame	118	35	153	61	127	40	167	67
Copra	477	673	1,150	253	368	576	944	208
Palm Kernel	207	217	424	98	146	243	389	89
Linseed	553	436	989	356	290	461	751	270
Unspecified[3]	150[4]	479	629	232	170[4]	642	812	300
Total	13,634	10,547	24,181	10,468	14,754	11,494	26,248	11,458
Fish Meal	-	2,645	2,645	1,719	-	1,338	1,338	870
GRAND TOTAL	13,634	13,192	26,826	12,187	14,754	12,832	27,586	12,328

TABLE 4

FOOTNOTES TO WORLD NET EXPORTS OF OILSEED MEALS AND FISH MEAL

1/ Oilseed meal equivalents of oilseed net exports or net export availabilities, respectively.

2/ Average raw protein content of oilcake/expeller/meal.

3/ Except castor bean.

4/ Mainly safflowerseed.

SOURCE: "Oil World", Hamburg, Semi-Annual Review November 1971 & 1972 and December 1974.

CHAPTER 3

CANADIAN PRODUCTION AND TRADE IN OILSEEDS, FATS, OILS AND MEALS

Edible vegetable oil production expanded rapidly during the period 1970-74, from 417 million pounds to 536 million (Table 5). Rapeseed oil and sunflowerseed oil were together responsible for this increase.

Rapeseed oil production surpassed that of soybean oil in 1972 and 1973, due to increased processing capacity and attractive processing margins. Rapeseed oil output slipped in 1974 to 249 million pounds and soybean oil again became the leading oil in terms of production volume. Sunflowerseed oil production is relatively minor accounting for only 3% in 1974.

Regarding animal fats, there is no real trend with respect to lard and tallow production, but butter production was down significantly during the period, to 195 million pounds in 1974 from 273 million in 1970.

Production of inedible oils is trending downwards due to the decreased demand for linseed oil.

Canadian Imports of Fats and Oils

Vegetable oil imports during 1970 to 1974 varied from 320 million pounds in 1973 to 441 million in 1974 (Table 6). Soybeans and soybean oil accounted for much of this increase. Other oils are imported either to supplement domestic production or as specialty oils which are not produced in Canada. The latter category includes coconut oil, peanut oil, palm oil, palm kernel oil and olive oil.

Vegetable oil imports vary from year to year in relation to price and inventory changes. Also, increased supplies of certain oils are being imported from large U.S. plants benefitting from economies of scale and minimal tariff levels. Ontario soybean growers have withheld a large portion of their 1974 production in the hope of receiving higher returns and this has necessitated larger imports of soybeans and oil from the United States.

The Canadian market for edible vegetable oils is expanding in line with population growth, i.e. 1 to 2 percent per year. Large changes in import volume such as occurred between 1973 and 1974 are due to other market factors apart from domestic market expansion.

Imports of inedible fats and oils decreased sharply during the period under review, from 35 million pounds in 1970 to 20 million pounds in 1974.

Canadian Exports of Fats and Oils

Exports of edible vegetable oils, either as oil or in seed form, increased steadily during the period 1970 - 1974 (Table 7). Rapeseed accounted for most of the increase. Exports of soybeans and soybean oil decreased rather sharply, due to this the loss of preferential treatment in the United Kingdom market. Exports of other edible fats and oils were small and varied from year to year depending on availability and export demand.

With regard to exports of inedible oils, flaxseed shipments declined due to increased competition from Argentina exporters of linseed oil, and somewhat softer export demand. Exports of inedible tallow were variable from year to year without showing any trend.

The bulk of Canadian vegetable oil exports during this period were as seed or beans rather than oil. This reflects the preference of our traditional markets to import seed for processing rather than oil, and also reflects the shortage of crushing capacity in Canada during this period to process these oilseeds prior to export.

Canadian Oilseeds: Acreage, Yield, Production

Rapeseed acreage in 1971 was exceptionally large (5.3 million acres) due to the LIFT program (Lower Inventory For Tomorrow) for cereals (Table 8). Since that year, acreage of this crop has stabilized at just over 3 million acres.

Soybean acreage was fairly stable at between 360,000 and 445,000 acres. Production is presently restricted to South-western Ontario because of the heat units necessary to mature the crop. Acreage cannot be expanded significantly until varieties with a wider heat unit range are developed.

Flaxseed production varies from year to year in relation to the prices of competing crops, but it did not vary more than 250,000 acres during the period 1971-74.

Mustardseed and sunflowerseed are rather minor crops. Acreage of sunflowerseed decreased sharply in 1974 because of high cereal prices. These two crops are grown almost entirely under contract.

It is felt that there is considerable room for yield improvement in general and in rapeseed in particular. A limited number of rapeseed growers regularly achieve yield in excess of 30 bushels per acre, while the average yield is 16 to 18 bushels per acre.

Canadian Crushings of Vegetable Oilseeds

During the period 1969-74, rapeseed processing trended upwards until 1973/74 when it decreased marginally (Table 10). Capacity doubled during this period, and rapeseed oil and meal production increased proportionally.

Soybean processing was relatively stable at between 22 and 24 million bushels. United States soybeans were imported to supplement domestic supplies for processing into oil and meal.

Soybean meal continued to be the leading meal produced in Canada. Rapeseed oil replaced soybean oil production in volume terms during the period under review.

Flaxseed processing declined in line with decreasing market demand for linseed oil for industrial uses.

Sunflowerseed processing was limited to slightly over 2 million bushels due to the restricted supply of raw material. There is currently only one processor of sunflowerseed in Canada.

Monthly Prices of Oils and Meals

Vegetable oil prices were stable during the crop year 1971/72 (Table 11). Meal prices also did not show much change until towards the end of the year, when they started to increase due to a tighter supply/demand situation.

During 1972/73, linseed oil prices more than doubled,

from 13 cents per pound to 33 cents in July 1973. Rapeseed oil and soybean oil prices nearly doubled. But the most startling price increases were in meals, particularly soybean meal which increased from $125 per ton in August 1972 to $450 in July 1973. This was largely due to strong export demand and the export embargo instituted by the United States and Canada.

Since August 1973, oil prices continued to increase, with the yearly average prices more than twice as high as in 1972/73. Meal prices, on the other hand, declined sharply during 1973/74 with soybean meal declining from $418 in August 1973 to $144 in July 1974. This price decline was due to decreased domestic and export demand for protein meals generally, as well as more ample stocks of soybeans and meal in exporting and importing countries.

TABLE 5

CANADIAN PRODUCTION OF FATS AND OILS

(Thousands of Pounds)

	1970	1971	1972	1973	1974
PRIMARILY EDIBLE[1] VEGETABLE OILS					
Soybean Oil[2]	253,750	245,952	227,851	201,547	269,882
Rapeseed Oil[3]	154,273	191,307	253,997	318,743	248,842
Sunflowerseed Oil[4]	9,097	18,307	28,733	29,174	17,445
TOTAL[5]	417,120	455,566	510,621	549,464	536,169
ANIMAL FATS					
Edible Tallow	42,115	38,786	43,784	40,734	37,222
Lard	120,173	138,510	121,512	111,147	110,707
Butter (as butter oil)[6]	272,700	239,842	243,290	176,580	194,574
TOTAL	434,988	417,138	408,586	328,461	342,503
MARINE OILS					
Herring	51,900	47,976	28,296	25,866	15,703
Seal	3,500	2,681	3,320	-	-
Whale[7]	8,400	5,712	6,040	625	-
Other[8]	-	-	-	-	944
TOTAL[9]	63,800	56,369	37,656	26,491	16,647
TOTAL EDIBLE OIL PRODUCTION	915,908	929,073	956,863	904,416	895,319
PRIMARILY INEDIBLE					
Linseed Oil[10]	55,242	57,191	61,536	29,923	x[11]
Inedible Tallow	354,245	401,266	404,970	410,063	402,840
Marine Oils[12]	8,700	10,071	7,582	2,040	6,327
TOTAL INEDIBLE OILS PRODUCTION	418,187	468,528	474,088	442,026	409,167
TOTAL EDIBLE AND INEDIBLE FATS AND OILS PRODUCTION (Excluding Linseed Oil In 1974)	1,334,095	1,397,601	1,430,951	1,346,442	1,321,133

TABLE 5 (Cont'd)

1/ Production data for corn oil and cocoa butter are confidential and have not been included.

2/ Soybean oil output of Canadian crushing mills.

3/ Rapeseed oil output of Canadian crushing mills. Average oil yields in 1969/70 amounted to 39.5%, 39.6% in 1970/71, 38.8% in 1971/72, and to only 37.9% in 1972/73.

4/ Sunflowerseed oil output of Canadian crushing mills.

5/ Includes only crude vegetable oils produced in Canadian mills.

6/ Butter oil represents the oil equivalent of creamery butter, farm butter and whey butter production, using 81% as the conversion factor.

7/ Whale oil production includes small amounts of other unspecified marine oils.

8/ Other oil production includes seal oils.

9/ Small quantities of salmon oil (West Coast) and of redfish oil (East Coast) of edible grade cannot be identified statistically and are included under "Marine Oils" in the inedible category below.

10/ Linseed oil output of Canadian crushing plants. Average oil yield amounted to 33.9% in 1971/72 and to 34.0% in 1972/73.

11/ Confidential - to meet secrecy requirements of Statistics Act.

12/ Includes liver oils, groundfish oil, salmon oil and small amounts of unspecified oils.

SOURCE: Statistics Canada, Catalogue Nos. 22-006, 23-001, 24-002, 32-002 32-020.

TABLE 6

CANADIAN IMPORTS OF FATS AND OILS

(Thousands of Pounds)

PRIMARILY EDIBLE	1970	1971	1972	1973	1974
VEGETABLE OILS					
Soybeans (Oil Equi.)	172,634	165,707	120,020	90,448	152,490
Soybean Oil	50,918	50,967	37,506	41,824	74,106
Cottonseed Oil	30,767	22,915	22,467	18,525	24,986
Corn Oil	16,328	17,680	18,032	14,560	22,836
Peanut Oil	19,472	11,760	16,313	16,276	12,168
Coconut Oil	47,338	45,516	71,199	46,956	48,405
Palm Oil	26,728	28,358	68,038	43,166	35,713
Palm Kernel Oil	11,380	10,810	12,676	13,104	9,648
Olive Oil	4,688	4,793	6,401	4,603	5,310
Cocoa Butter	13,263	14,586	13,889	14,541	11,858
Sunflowerseed Oil	12,018	5,179	4,246	171	411
Veg. Oils & Fats	3,419	2,715	3,889	9,930	13,169
Veg. Cooking Fats & Packaged Salad Oils	1,163	841	1,202	2,274	3,222
Margarine & Shortening Oils	3,971	6,132	11,318	3,193	26,419
Total[1]	414,087	387,959	407,196	319,571	440,741
ANIMAL FATS					
Lard	20,811	13,415	21,568	15,786	38,979
Butter[2]	1,570	2,498	7,160	50,735	43,550
Total	22,381	15,913	28,728	66,521	82,529
MARINE OILS					
Fish & Marine Oil	3,671	3,441	3,641	2,732	1,872
Total	3,671	3,441	3,641	2,732	1,872
TOTAL EDIBLE OILS & FATS	440,139	407,313	439,565	388,824	525,142
PRIMARILY INEDIBLE					
Castor Oil	6,466	5,780	4,785	6,147	4,079
Tung Oil	1,707	1,947	2,258	2,739	937
Inedible Tallow[3]	21,815	21,022	18,533	6,128	7,736
Animal Oils & Fats	1,004	775	2,532	1,048	1,783
Animal Grease[4]	4,483	3,159	2,531	5,549	5,760
TOTAL INEDIBLE OILS & FATS	35,475	32,683	30,639	21,611	20,295
TOTAL EDIBLE & INEDIBLE FATS & OILS IMPORTS	475,614	439,996	470,204	410,435	545,437

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 6

FOOTNOTES TO CANADIAN IMPORTS OF FATS AND OILS

1/ Vegetable oil total includes the oil equivalent of the imported soybeans. This is justified because the soybeans are crushed in Canada for oil and meal production.

2/ Butter imports have been converted to oil equivalent, using the factor of 81%

3/ This class includes both edible and inedible tallow. The proportions are not known.

4/ This category includes Animal Grease, N.E.S. and Wool Grease and Lanolin.

TABLE 7

CANADIAN EXPORTS OF FATS AND OILS

(Thousands of Pounds)

PRIMARILY EDIBLE	1970	1971	1972	1973	1974
VEGETABLE OILS					
Soybeans (Oil Equiv.)	11,151	13,281	16,170	10,519	11,098
Soybean Oil	47,097	97,509	69,015	7,408	17,964
Rapeseed (Oil Equiv.)	560,604	1,015,071	950,000	1,052,639	543,200
Rapeseed Oil	-	-	-	76,732	60,999
Sunflowerseed Oil Equiv.)	2,303	10,165	21,400	27,467	18,667
Margarine & Shortening	230	818	521	324	777
Vegetable Oil & Fats	20,182	11,462	20,072	29,217	1,683
Total [1]	641,567	1,148,306	1,077,178	1,204,306	654,388
ANIMAL FATS					
Butter (Oil Equiv.) [2]	5	3,630	18	5	7
Total	5	3,630	18	5	7
MARINE OILS					
Herring Oil	37,190	11,584	7,546	6,247	12,180
Whale Oil	1,912	6,381	4,845	2,777	-
Total	39,102	17,965	12,391	9,024	12,180
TOTAL EDIBLE FATS & OILS (Including Oil Equiv. of Oilseeds)	680,674	1,169,901	1,089,587	1,213,330	666,575
PRIMARILY INEDIBLE					
Flaxseed (Oil Equiv.)	385,650	488,624	464,000	338,088	273,959
Linseed Oil	27,713	24,270	35,546	13,404	1,306
Inedible Tallow	179,348	218,906	229,565	180,615	217,682
Marine Oils [3]	6,059	6,590	3,686	5,916	5,155
Animal Fats and Oils	14,347	9,575	7,261	11,280	5,994
TOTAL IEDIBLE FATS & OILS	613,117	747,965	740,058	549,303	504,096
TOTAL EDIBLE & INEDIBLE FATS AND OILS	1,293,791	1,917,866	1,829,645	1,762,633	1,170,671

SOURCE: Statistics Canada, Catalogue No.65-004

TABLE 7

FOOTNOTES TO CANADIAN EXPORTS OF FATS AND OILS

1/ The margarine portion cannot be separated, consequently it was not converted to fat equivalent. Oil equivalent of oilseeds are included in all Totals. It is justified to include the oil equivalents of exported oilseeds into the total of fats and oil exports, since it represents a form of oil export and does not involve a duplication of data. Starting in 1973 rapeseed oil exports are reported separately and are no longer included under "Vegetable Oils and Fats".

2/ Butter exports have been converted to oil equivalent, using the factor of 81%.

3/ Marine oil exports listed under "Inedible Oils" include sun-rotted cod liver oil, a non-specified group of fish and marine oil, and fish liver and visceral oils. While most of these oils can be assumed to be of an inedible grade, a small quantity of edible oil may have been included.

TABLE 8

CANADIAN OILSEEDS: ACREAGE, YIELD, PRODUCTION

	1971	1972	1973	1974	1971	1972	1973	1974
	(Thousands of Acres)				(Yield Per Acre, Bushels)			
Flaxseed	1,768	1,321	1,450	1,500	12.7	13.3	13.4	9.5
Rapeseed	5,306	3,270	3,150	3,260	17.9	17.5	16.9	16.2
Soybeans	367	405	470	445	28.0	34.0	31.0	24.8
Mustardseed	206	180	335	350	900	842	782	743
Sunflowerseed	239	217	129	30	706	783	705	867

	Production				Oil Equivalent			
	(Thousands of Bushels)				(Millions of Pounds)			
Flaxseed	22,321	17,617	19,400	14,300	442	350	385	283
Rapeseed	95,000	57,300	53,200	52,900	1,900	1,147	1,064	1,058
Soybeans	10,276	13,770	14,570	11,040	109	146	155	117
	(Thousands of Pounds)							
Mustardseed	185,600	151,500	262,000	260,000	-	-	-	-
Sunflowerseed	169,070	170,000	90,900	26,000	68	68	36	10

Oil Conversion Factors:
Flaxseed 35.4%
Rapeseed 40.0%
Soybeans 17.7%
Sunflowerseed 40.0%
Mustardseed ..... Oil Content Varies with Variety.

SOURCE: Statistics Canada, Catalogue No. 22-002

TABLE 9

CANADIAN OILSEED PRODUCTION BY PROVINCE

	AREA			YIELD PER ACRE			PRODUCTION		
	1972	1973	1974	1972	1973	1974	1972	1973	1974
FLAXSEED	(Thousands of Acres)			(Bushels)			(Thousands of Bushels)		
Ontario	1	-	-	17.0	-	-	17	-	-
Manitoba	500	600	750	11.8	12.7	9.5	5,900	7,600	7,100
Saskatchewan	650	650	550	13.8	13.7	8.5	9,000	8,900	4,700
Alberta	-	200	200	-	14.5	12.5	-	2,900	2,500
RAPESEED									
Manitoba	470	400	500	18.1	19.2	17.0	8,500	7,700	8,500
Saskatchewan	1,500	1,450	1,500	16.5	16.6	16.0	24,800	24,000	24,000
Alberta	1,300	1,300	1,200	18.5	16.5	16.2	24,000	21,500	19,500
British Columbia	-	-	60	-	-	15.0	-	-	900
SOYBEANS									
Ontario	405	470	445	34.0	31.0	24.8	13,770	14,500	11,000
SUNFLOWERSEED				(Pounds)			(Thousands of Pounds)		
Manitoba	190	125	30	800	700	867	152,000	87,500	26,000
Saskatchewan	23	2.5	-	652	800	-	15,000	2,000	-
Alberta	4	1.5	-	750	933	-	3,000	1,400	-
MUSTARD SEED									
Manitoba	15	40	40	833	800	750	12,500	32,000	30,000
Saskatchewan	140	225	200	821	800	750	115,000	180,000	150,000
Alberta	25	70	110	960	714	727	24,000	50,000	80,000

SOURCE: Statistics Canada, Catalogue No. 22-002.

TABLE 10

CANADIAN CRUSHINGS OF VEGETABLE OILSEEDS AND PRODUCTION OF OIL AND MEAL

(Crop Year)

CRUSHINGS[1]	1969/70	1970/71	1971/72	1972/73	1973/74
Flaxseed	2.5	2.8	3.1	2.6	X[2]
Rapeseed	7.8	8.6	12.0	15.6	14.7
Soybeans	23.7	23.4	23.3	22.5	23.6
Sunflowerseed	0.7	1.1	2.3	2.3	2.1
T O T A L	34.7	35.9	40.7	43.0	-
OIL PRODUCTION[3]					
Flaxseed	48	55	59	50	X[2]
Rapeseed	153	170	234	295	277
Soybeans	241	242	241	219	241
Sunflowerseed	8.6	12.6	29	29	25
T O T A L	450.6	479.6	563	593	-
MEAL PRODUCTION[3]					
Flaxseed	87	100	110	93	X[2]
Rapeseed	228	249	359	450	427
Soybeans	1,117	1,098	1,089	1,065	1,110
Sunflowerseed	8.6	12	26	26	23
T O T A L	1,440.6	1,459	1,584	1,634	-

1/ Millions of bushels.

2/ Confidential - to meet secrecy requirements of the Statistics Act.

3/ Millions of pounds.

SOURCE: Statistics Canada, Catalogue No. 22-006

TABLE 11

MONTHLY PRICES OF OILS[1/] AND MEALS CROP YEARS 1971/72 - 1973/74

Year & Month	Linseed Oil	Rapeseed Oil	Soybean Oil	Linseed Meal[2/]	Rapeseed Meal[1/]	Soybean Meal[1/]
1971/72	(Cents per Pound)			(Dollars per Ton)		
August	10.61	14.74	16.68	119.40	67.18	104.76
September	10.11	13.14	15.18	119.80	59.39	99.90
October	10.75	13.81	16.17	120.60	59.65	99.52
November	10.40	13.49	14.51	119.60	54.26	98.78
December	10.51	12.60	13.89	119.80	50.05	101.15
January	11.15	11.98	13.06	119.00	51.19	106.38
February	11.40	12.55	13.26	120.80	51.40	106.78
March	11.97	12.72	13.69	121.00	52.52	115.25
April	12.36	12.63	13.70	122.40	53.22	118.08
May	11.65	11.86	12.75	122.60	52.67	119.45
June	11.93	11.52	12.15	122.20	53.21	118.82
July	12.47	10.98	11.40	122.00	58.21	124.95
Yearly Average	11.28	12.67	13.87	120.77	55.25	109.48
1972/73						
August	12.90	10.21	11.25	122.40	56.97	124.95
September	13.47	9.88	10.57	123.20	60.25	134.41
October	13.73	9.09	9.89	123.60	62.47	132.20
November	13.26	9.38	10.29	124.80	77.73	146.18
December	14.70	9.16	10.44	128.00	94.37	203.25
January	16.42	9.93	10.79	142.60	97.59	201.25
February	22.01	10.99	15.19	158.40	109.65	249.00
March	16.70	11.79	14.70	172.40	121.73	232.75
April	17.45	12.24	15.61	180.80	128.78	244.25
May	20.43	13.34	17.89	188.60	147.87	337.00
June	28.92	18.42	19.75	200.80	185.67	417.33
July	32.72	16.60	21.45	223.80	201.10	449.33
Yearly Average	18.56	11.75	13.98	157.45	112.02	239.32
1973/74						
August	38.92	23.70	37.89	244.60	185.19	418.00
September	31.43	20.73	25.34	255.80	133.02	215.33
October	31.40	22.05	24.91	252.80	117.72	214.12
November	39.75	20.46	22.46	235.60	111.53	189.25
December	43.04	24.28	26.02	237.40	121.00	218.50
January	49.81	25.13	28.00	X	115.77	211.13
February	54.06	33.70	38.80	X	116.53	186.75
March	51.24	28.20	34.30	X	95.63	173.50
April	47.06	30.90	31.10	X	81.50	157.30
May	49.75	30.90	34.20	X	86.14	142.25
June	51.72	31.50	35.20	X	83.67	129.45
July	56.27	35.70	42.00	X	98.04	144.25
Yearly Average	45.37	27.27	31.68	X	112.14	199.99

TABLE 11

FOOTNOTES FOR MONTHLY PRICES OF OILS AND MEALS CROP YEARS 1971/72 - 1973/74

1/ Average wholesale prices paid to crushers by processors and manufacturers.

2/ Average retail prices to farmers.

X Confidential to meet secrecy requirements of the Statistics Act.

SOURCE: Statistics Canada, Catalogue No. 22-006.

CHAPTER 4

THE CANADIAN RAPESEED SITUATION

Rapeseed

Rapeseed acreage and production reached a peak of 5.4 million acres (Table 13) and 95 million bushels (Table 12) during the crop year 1971/72, mainly because of the more attractive market situation for rapeseed compared with cereal grains. Since 1971, rapeseed acreage has stabilized at just over 3 million acres and production at slightly more than 50 million bushels per year. It would appear that future rapeseed production increases will derive more from increased yields than from increased acreage, due to relatively strong cereal prices, and a grower preference for cereal production.

Rapeseed processing capacity increased gradually during the period 1970-1975 to reach 2,200 tons per day. A potential doubling of capacity is predicted by the end of 1976, to the vicinity of 4,500 tons per day, due to the construction of at least three new plants and the expansion of one existing facility. The end result will be increased demand for available supplies of rapeseed in Canada, and increased supplies of rapeseed oil and meal for export.

The conversion to low-erucic types of rapeseed is now virtually completed, with 94% of the 1974 acreage devoted to LEAR varieties. High erucic types for industrial use, including R-500 (50% erucic acid), will be produced under contract and thus kept segregated from LEAR varieties throughout the handling and processing system.

Rapeseed Oil

Rapeseed oil production has increased over the past five years as Canadian processing capacity expanded. The domestic oil market now absorbs about 225 million pounds per year of rapeseed oil, which is approximately the same as for soybean oil. Exports of rapeseed oil were not listed separately by Statistics Canada prior to January 1, 1973, however, exports are increasing in line with availability, and in 1973/74 exports accounted for about 25 percent of rapeseed oil production in Canada (Table 15).

It is expected that the domestic market will not absorb much more than 250 to 275 million pounds of rapeseed oil

per year. Consequently, exports are expected to increase quite rapidly, although considerable market development and promotion will be required to move this oil into the export market in competition with increased supplies of U.S. and Brazilian soybean oil, Malaysian and African palm oil, as well as groundnut and coconut oils from a number of countries.

Rapeseed Meal

Rapeseed meal production has increased in line with the growth in processing capacity during 1970 - 75. It is felt that additional quantities of rapeseed meal can be utilized domestically, especially with the low-glucosinolate type of rapeseed now available (Tower). Rapeseed meal is expected to continue to replace soybean meal especially if the protein level can be raised from 36% to approximately 45% by means of hull and fibre removal and the production of thin-hulled varieties of rapeseed.

Rapeseed meal exports are increasing gradually, in spite of a degree of discrimination which exists vis-a-vis soybean meal (Table 16). It is felt that market development activity can be utilized to overcome some prejudices and result in increased exports of rapeseed meal. For the near future, however, the domestic market probably offers the most potential for expansion of rapeseed meal utilization.

TABLE 12

CANADIAN SUPPLY AND DISPOSITION OF RAPESEED, RAPESEED OIL AND RAPESEED MEAL

(Crop Year)

	1970-71	1971-72	1972-73	1973-74
Rapeseed		(Thousands of Bushels)		
Stocks, Starting	3,683	11,029	43,139	20,678
Production	72,200	95,000	57,300	53,200
Exports	46,811	42,603	54,059	39,183
Domestic Crushings	8,575	12,050	15,572	14,745
Rapeseed Oil		(Thousands of Pounds)		
Exports	-	-	55,078	76,033
Domestic Production	169,892	234,286	295,342	276,968
Rapeseed Meal				
Exports	-	-	21,443	52,448
Domestic Production	124,381	179,265	225,056	213,772

SOURCE: Statistics Canada, Catalogue No. 22-006

TABLE 13

SUMMERFALLOW AND STUBBLE CULTIVATION
RAPESEED AND FLAXSEED

	RAPESEED			FLAXSEED		
Seeded Area	Summer-fallow	Stubble	Total	Summer-fallow	Stubble	Total
	('000 Acres)					
1970	3,445	605	4,050	2,368	982	3,350
1971	4,759	716	5,475	1,442	558	2,000
1972	2,525	745	3,270	746	574	1,320
1973	2,410	740	3,150	776	674	1,450
1974	2,287	913	3,200	691	809	1,500
Distribution	(Per Cent)					
1970	85	15	100	71	29	100
1971	87	13	100	72	28	100
1972	77	23	100	57	43	100
1973	77	23	100	54	46	100
1974	71	29	100	46	54	100
Average Yield Per Seeded Acre	(Bushels)					
1970	18.7	13.0	17.8	16.3	10.4	14.5
1971	18.7	13.1	18.0	13.9	9.9	12.8
1972	18.3	14.8	17.5	15.2	11.0	13.3
1973	17.9	13.5	16.9	14.6	12.0	13.4
1974	17.4	13.3	16.2	10.6	8.7	9.5
Production	(Million Bushels)					
1970	64.32	7.88	72.20	38.5	10.2	48.7
1971	89.12	9.38	98.50	20.0	5.5	25.5
1972	46.27	11.03	57.30	11.3	6.3	17.6
1973	43.22	9.98	53.20	11.3	8.1	19.4
1974	39.83	12.17	52.00	7.3	7.0	14.3

SOURCE: Statistics Canada, Catalogue No. 22-002.

TABLE 14

CANADIAN EXPORTS OF RAPESEED

(Short Tons)

DESTINATION	1970	1971	1972	1973	1974
Algeria	-	-	2,150	-	-
Australia	-	49	12,120	22,723	16,248
Bangladesh	-	-	-	89,341	19,855
Belgium-Luxembourg	8,316	4,085	1,671	2,306	395
Brazil	-	-	-	-	14
Czechoslovakia	21,813	14,329	-	-	-
Denmark	-	-	-	5,000	-
Finland	843	1,999	-	-	-
France	12,492	181,408	158,038	18,870	-
Germany, West	57,325	101,580	30,948	96,971	25,815
Hungary	-	-	1/	-	-
India	16,072	88,498	56,485	56,552	4,984
Italy	35,580	100,955	74,955	94,933	988
Japan	370,732	469,923	648,877	783,733	544,487
Korea, South	-	2,284	-	26,979	-
Lebanon	-	1,157	4,177	-	-
Mexico	13,843	-	5	25,863	42,694
Morocco	17,927	12,731	16,757	-	-
Netherlands	100,775	224,519	94,864	68,228	22,796
Norway	6,074	11,934	3,574	-	-
Pakistan	32,227	23,394	57,377	-	-
Peru	-	1	-	-	3
Romania	-	-	-	-	1
Spain	-	50	68	1,107	-
Sweden	-	4	22	15	1/
Taiwan	-	-	-	19,869	-
United Kingdom	6,409	9,015	20,462	3,360	1,102
United States	161	9,103	211	2	115
Total	700,755	1,268,839	1,188,068	1,315,799	679,000
Total Value ($'000)	79,009	148,211	125,446	230,150	199,843

1/ Less than one short ton.
SOURCE: Statistics Canada, Catalogue No. 65-004.

TABLE 15

CANADIAN EXPORTS OF RAPESEED OIL

(Thousands of Pounds)

DESTINATION	1970[1/]	1971[1/]	1972[1/]	1973	1974
Australia				871	1,188
Bangladesh				652	-
Chile				24,602	-
France				4	-
Hong Kong				5,080	-
India				11,133	29,184
Japan				30,193	7,454
Netherlands				29	-
United Kingdom				2,594	2,734
United States				1,568	18,228
Zambia				-	2,209
Total				76,731	60,999
Total Value ($'000)				10,223	14,133

1/ Not published prior to 1973.

SOURCE: Statistics Canada, Catalogue No. 65-004

TABLE 16

CANADIAN EXPORTS OF RAPESEED OILCAKE AND MEAL

(Thousands of Pounds)

DESTINATION	1970[1/]	1971[1/]	1972[1/]	1973	1974
Barbados				20	595
Chile				12,125	-
Cuba				44	-
Germany, West				3,200	36
Jamaica				-	8
Japan				2	-
Korea, South				16,750	-
Mexico				6,701	12,812
Netherlands				14,776	23,674
Philippines				8,181	1,344
United Kingdom				25,610	16,800
United States				3,546	12,876
Total				90,957	68,148
Total Value ($'000)				6,198	3,218

1/ Not published prior to 1973.

SOURCE: Statistics Canada, Catalogue No. 65-004.

TABLE 17

QUALITY DATA FOR WESTERN CANADIAN RAPESEED,
SURVEY SAMPLES OF 1973 AND 1974 CROPS

	1973 SURVEY				1974 SURVEY			
	Oil 1/ Content	Erucic Acid Content	Protein 2/ Content	No. of Samples	Oil 1/ Content	Erucic Acid Content	Protein 2/ Content	No. of samples
WESTERN CANADA								
No. 1 CRS	39.0	6.9	35.4	434	40.5	4.5	35.7	387
No. 2 CRS	38.4	6.9	36.1	28	43.0	2.8	36.6	74
No. 3 CRS	41.3	4.3	35.0	1	42.7	6.8	34.7	14
All Grades	39.0	6.9	35.5	464	40.8	4.3	35.6	486
ALL GRADES BY PROVINCE								
Manitoba	39.3	3.4	34.5	70	40.8	3.2	36.8	78
Saskatchewan	38.6	6.4	36.3	213	40.8	3.8	36.4	327
Alberta	39.4	8.9	34.8	181	40.9	5.6	34.1	171

1/ Oil content of seed is reported on an 8.5% moisture basis.

2/ Protein content is reported on the oil-free meal and an 8.5% moisture basis.

SOURCE: Canadian Grain Commission, Crop Bulletins No. 121 and 125.

TABLE 18

CANADIAN RAPESEED PRICES

(Crop Year)

MONTH	1969/70	1970/71	1971/72	1972/73	1973/74
	(Cents and Eights per Bushel)				
August	204/5	267/3	273/7	244/7	649/7
September	220/6	240/6	248/2	253/3	536/4
October	262/7	255/7	255/4	256/1	493/7
November	282/3	259	250/2	260/5	482/5
December	285/5	269/2	238/3	295/5	566/6
January	330/2	281/3	228	325/6	655/1
February	313/6	302	231/4	374/4	706/1
March	271/5	291/4	247/2	361	677/7
April	279/1	302/3	269/5	376/2	608/7
May	291/3	274	248	399/1	702/1
June	303/5	290/4	234/7	537/7	738/6
July	283/5	296/7	239/3	682/4	796
Yearly Average	277	278/1	247/1	364	634/4

SOURCE: Statistics Canada, Catalogue No. 22-006.

CHAPTER 5

THE CANADIAN SOYBEAN SITUATION

Soybean

Soybean production in Canada is confined mainly to Southwestern Ontario where competition for acreage from other crops is quite intense. There has been some expansion of acreage and production during the period 1970 - 75, mainly at the expense of such crops as oats and tame hay. Acreage peaked at 470,000 in 1973, which was also a year of exceptionally high yields averaging 31 bushels per acre. Soybean prices were at record high levels during 1973 and 1974 which was largely responsible for the increased acreage (Table 25). Even with this increased production, Canada imports about one-half of the supply needed for processing. This situation is expected to continue until attempts to produce soybeans in other provinces are successful.

Pricing is closely tied to the Chicago Commodity Exchange.

Soybean Oil

Soybeans are processed on a regular basis in four plants in Canada, three in the Toronto-Hamilton area and one in Manitoba. The oil is the secondary product obtained along with rapeseed oil, is one of the principal edible oils used in Canada. Imports of soybean oil have increased recently and account for about 30 percent of domestic utilization (Table 20).

Soybean Meal

Soybean meal continues to be the preferred protein meal for livestock and poultry feeding in Canada. Domestic production has stabilized at slightly over 500,000 tons per year. Additional quantities are imported from the United States to supplement Canadian production. Prices for soybean meal reached record levels of $450.00 per ton in July 1973 but have now dropped to approximately $125.00 per ton.

Soybean meal exports have declined because of the loss of British Preferential tariff treatment in the United Kingdom market (Table 24). Canadian soybean meal now competes on an equal footing with United States soybean meal.

TABLE 19

CANADIAN SUPPLY AND DISPOSITION OF SOYBEANS, SOYBEAN OIL AND SOYBEAN MEAL

(Crop Year)

	1970-71	1971-72	1972-73	1973-74
Soybeans		(Thousands of Bushels)		
Production	10,385	10,276	13,770	14,570
Imports	15,703	14,774	10,973	12,506
Exports	768	1,366	1,062	1,061
Domestic Crushings	23,437	23,314	22,507	23,601
Soybean Oil		(Thousands of Pounds)		
Imports	53,001	43,032	36,286	73,624
Exports	68,078	101,695	27,662	10,897
Domestic Production	242,325	241,259	218,531	240,675
Soybean Meal		(Tons)		
Imports	249,875	228,895	242,369	256,812
Exports	132,033	135,815	130,147	103,714
Domestic Production	549,175	544,351	532,382	554,864

SOURCE: Statistics Canada, Catalogue No. 22-006

TABLE 20

CANADIAN IMPORTS OF SOYBEAN AND SOYBEAN OIL

SOYBEANS

(Short Tons)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Germany, West	-	-	-	-	2
Hong Kong	9	29	5	14	1/
Japan	-	-	-	2	3
Peoples Republic of China	-	33	6	23	22
Switzerland	24	-	-	-	-
United Kingdom	-	-	-	1/	-
United States	487,635	468,037	340,032	255,461	430,737
Total	487,668	468,099	340,043	255,500	430,765
Total Value ($'000)	46,967	49,639	39,108	50,360	90,505

1/ Less than one (1) Short Ton.

SOYBEAN OIL

(CWT)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
France		-	3	-	8
Germany, West	22	-	-	-	-
United States	509,155	509,666	375,054	418,235	741,058
Total	509,177	509,666	375,057	418,235	741,066
Total Value ($'000)	6,604	7,217	4,708	8,264	24,829

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 21

IMPORTS OF SOYBEAN OIL BY PROVINCE

(Calendar Year)

	1970		1971		1972		1973		1974	
	'000 of Lbs.	'000 of $	'000 of Lbs.	'000 of $	'000 of Lbs.	'000 of $	'000 of Lbs.	'000 of $	'000 of Lbs.	'000 of $
Newfoundland	-	-	-	-	-	-	-	-	-	-
Nova Scotia	-	-	-	-	-	-	87	17	-	-
P.E.I.	-	-	303	47	-	-	-	-	-	-
New Brunswick	6,257	772	10,388	1,411	5,103	674	2,090	393	3,013	1,033
Quebec	12,328	1,496	1,684	226	329	50	1,926	446	13,001	3,871
Ontario	25,668	3,458	34,065	4,850	26,593	3,254	25,961	5,114	37,288	13,143
Manitoba	1,750	207	122	16	153	14	5,156	993	9,828	3,184
Saskatchewan	-	-	-	-	-	-	-	-	210	73
Alberta	-	-	-	-	-	-	359	72	2,139	599
British Columbia	4,912	668	4,401	663	5,326	714	6,240	1,225	8,625	2,922
Yukon	-	-	-	-	-	-	-	-	-	-
Total	50,915	6,601	50,963	7,213	37,504	4,706	41,819	8,260	74,104	24,825

SOURCE: Statistics Canada, Unpublished Data

TABLE 22

IMPORTS OF SOYBEAN MEAL BY PROVINCE

(Calendar Year)

	1970		1971		1972		1973		1974	
	'000 of Lbs.	'000 of $	'000 of Lbs.	'000 of $	'000 of Lbs.	'000 of $	'000 of Lbs.	'000 of $	'000 of Lbs.	'000 of $
Newfoundland	-	-	-	-	-	-	-	-	-	-
Nova Scotia	-	-	6,818	315	3,388	185	6,800	477	293	29
P.E.I.	-	-	-	-	-	-	-	-	-	-
New Brunswick	40	10	-	-	-	-	80	4	160	13
Quebec	128,341	7,319	98,907	5,486	111,360	6,232	80,952	5,312	144,784	10,399
Ontario	156,944	7,366	125,873	5,797	120,899	7,247	105,554	14,048	127,215	10,897
Manitoba	116,207	5,187	88,342	3,804	105,136	5,188	102,364	11,245	171,883	14,627
Saskatchewan	7,207	314	14,442	597	13,292	662	36,014	4,383	43,369	3,975
Alberta	45,536	2,097	51,412	2,237	62,642	3,067	48,048	5,644	59,580	5,108
B.C.	82,437	3,642	72,279	3,099	73,021	3,743	42,020	5,016	64,357	5,865
Total	536,775	25,935	458,073	21,335	489,738	26,254	421,832	46,129	611,641	50,853

SOURCE: Statistics Canada, Unpublished Data

TABLE 23

CANADIAN EXPORTS OF SOYBEANS

(Short Tons)

DESTINATION	1970	1971	1972	1973	1974
Belgium-Luxembourg	-	-	-	-	2,205
Bulgaria	-	-	-	152	-
France	-	-	-	-	70
Germany, West	1,328	15	-	1	619
Hong Kong	-	-		20	1,055
Jamaica	-	2	2	2	4
Japan	-	-	-	5,626	4,222
Leeward & Windward Is.	1	-	-	-	-
Netherlands	-	107	179	160	20
Surinam	-	1	-	-	-
Sweden	689	937	746	925	1,495
Switzerland	55	33	80	80	101
Trinidad & Tobago	-	1	-	-	-
United Kingdom	29,422	36,398	44,679	22,441	4,588
United States	3	18	27	302	25
U.S.S.R.	-	-	6	-	-
Total	31,500	37,516	45,722	29,713	14,403
Total Value ($'000)	3,143	4,063	5,665	6,151	3,451

SOURCE: Statistics Canada, Catalogue No. 65-004.

TABLE 24

CANADIAN EXPORTS OF SOYBEAN OIL AND MEAL

(Thousands of Pounds)

SOYBEAN OIL

DESTINATION	1970	1971	1972	1973	1974
Bahamas		6	18	9	-
Leeward-Windward Islands	-	-	-	-	2
United Kingdom	47,064	97,486	68,996	7,298	17,148
United States	33	15	1/	100	813
Total	47,097	97,507	69,014	7,407	17,964
Total Value ($'000)	6,527	14,491	8,480	1,233	5,663

1/ Less than 1,000 lbs.

SOYBEAN MEAL

DESTINATION	1970	1971	1972	1973	1974
Belgium-Luxembourg	-	-	-	14,726	-
Guyana	90	-	14	-	-
Ireland	-	-	-	-	8,354
Trinidad-Tobago	20	-	-	-	-
United Kingdom	331,722	264,981	191,085	209,230	224,835
United States	685	9	4,128	21,877	20,769
Total	332,518	264,990	195,227	245,833	253,959
Total Value ($'000)	15,439	11,351	9,405	18,851	17,547

SOURCE: Statistics Canada, Catalogue No. 65-004

TABLE 25

CANADIAN SOYBEAN PRICES [1]

(Crop Year)

MONTH	1969/70	1970/71	1971/72	1972/73	1973/74
	(Cents and Eighths per Bushel)				
August	267/1	276/3	326/1	340/7	1040
September	249	277/6	304/7	325/6	605
October	245/5	291/4	308/3	310/5	557
November	246/6	293/1	299/2	342/2	553/6
December	245/3	286	299/6	391/7	583/7
January	251/4	294/2	297/2	428	606/2
February	257/5	296/3	306/6	567/6	644/1
March	262/2	296/4	325/7	617/5	610/2
April	268/1	286	338/2	646/4	534/2
May	273/5	295/2	335/5	882/4	517/1
June	279/1	311/5	330/1	1095/7	504/6
July	288/5	331/4	334/3	929	642/1
Yearly Average	261/2	294/6	316/7	573/2	616/4

1/ Buying prices, carlots, f.o.b. Chatham, No. 2 and better.

SOURCE: Statistics Canada, Catalogue No. 22-006

CHAPTER 6

THE CANADIAN SUNFLOWERSEED SITUATION

Sunflowerseed is produced mainly in western Canada with Manitoba producing about 95% of all sunflowerseed produced in Canada (Table 26). The acreage produced each year is dependent on the relative competitive position of the crop compared to cereals and other oilseeds such as rapeseed and mustardseed.

Acreage peaked in 1971/72 at 215,000 acres, which resulted in a production of 152,000,000 pounds. Since that year, growers have preferred cereal grains and the acreage devoted to sunflowerseed plummeted to 30,000 acres in 1974, in spite of higher contract prices.

The Canadian and export markets could absorb much larger quantities of sunflowerseed. However, present varieties can only be produced economically in a rather narrow belt near the United States border in western Canada. Thus the likelihood of sharply-increased production in the near future is small unless oil varieties suitable to a wide range of Canadian climatic conditions are developed.

The oil and meal produced from sunflowerseed are of excellent quality. There is only one crusher processing sunflowerseed in any volume, located at Altona, Manitoba. However, a program for the establishment of sunflowers as a major crop in Saskatchewan and Alberta was approved by the Canada Department of Agriculture. The research and development work is being carried out by the University of Saskatchewan in four major areas of sunflower production and utilization, i.e. agronomic, economic, agricultural engineering and by-product utilization. The program will take place in the period August 1974 to March 1978.

TABLE 26

CANADIAN SUNFLOWERSEED: ACREAGE, YIELD AND PRODUCTION

(Crop Year)

	1970/71	1971/72	1972/73	1973/74	1974/75
			(Thousands of Acres)		
Manitoba	65.0	140.0	190.0	125.0	30.0
Saskatchewan	3.0	65.0	23.0	2.5	-
Alberta	2.5	10.0	4.0	1.5	-
Canada, Total	70.5	215.0	217.0	129.0	30.0
			(Millions of Pounds)		
Manitoba	52.0	105.0	152.0	87.5	26.0
Saskatchewan	2.0	42.3	15.0	2.0	-
Alberta	1.4	5.0	3.0	1.4	-
Canada, Total	55.4	152.3	170.0	90.9	26.0
			(Yield Per Acre, Pounds)		
Manitoba	800	750	800	700	867
Saskatchewan	650	650	652	800	-
Alberta	560	500	750	933	-
Canada, Total	785	708	783	705	867

SOURCE: Statistics Canada, Catalogue No. 22-002

TABLE 27

CANADIAN EXPORTS OF SUNFLOWERSEED

(Short Tons)

DESTINATION	1970	1971	1972	1973	1974
Australia	-	-	-	1	-
Bangladesh	-	-	-	1	2
Bermuda	-	1/	-	-	-
Czechoslovakia	-	-	-	-	7,581
France	-	-	2,755	22,440	-
Germany, West	18	54	4,783	76	7,986
Italy	-	-	-	9,100	-
Japan	-	3,334	6,127	-	-
Korea, South	-	-	-	26	-
Netherlands	-	5,202	11,267	978	6,287
New Zealand	1/	1/	2	2	1
Portugal	-	-	-	-	40
Spain	-	-	-	178	-
Sweden	1	-	51	41	1
United Kingdom	12	28	50	25	35
United States	2,847	4,086	1,683	1,462	1,378
Total	2,878	12,704	26,718	34,330	23,335
Total Value ($'000)	477	1,517	3,660	6,143	7,334

1/ Less than one (1) ton.

SOURCE: Statistics Canada, Catalogue No. 65-004

TABLE 28

CANADIAN IMPORTS OF SUNFLOWERSEED OIL

(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Austria	8	10	17	4	7
Bulgaria	-	154	-	-	-
France	-	-	-	1	6
Germany, West	4	8	1/	-	-
Netherlands	9,098	-	484	-	-
United States	2,908	5,005	3,744	165	394
U.S.S.R.	-	-	-	-	2
Total	12,018	5,177	4,245	170	411
Total Value ($'000)	1,778	736	617	27	181

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 29

IMPORTS OF SUNFLOWERSEED OIL BY PROVINCE

(Calendar Year)

	1970		1971		1972		1973		1974	
	'000 of Lbs.	'000 of Lbs.	'000 of Lbs.	'000 of $	'000 of Lbs.	'000 of $	'000 of Lbs.	'000 of $	'000 of Lbs.	'000 of $
Newfoundland	-	-	-	-	-	-	-	-	-	-
Nova Scotia	-	-	-	-	-	-	-	-	-	-
P.E.I.	-	-	-	-	-	-	-	-	-	-
New Brunswick	-	-	-	-	-	-	-	-	-	-
Quebec	6	1	163	33	12	3	5	1	16	4
Ontario	12,007	1,774	4,946	689	4,233	616	165	25	393	175
Manitoba	-	-	-	-	-	-	-	-	-	-
Saskatchewan	-	-	-	-	-	-	-	-	-	-
Alberta	-	-	59	9	-	-	-	-	-	-
British Columbia	4	1	8	3	-	-	-	-	1	1/
Yukon	-	-	-	-	-	-	-	-	-	-
Total	12,017	1,775	5,176	734	4,245	619	170	26	409	179

1/ Less than $1,000.

SOURCE: Statistics Canada, Unpublished Data

CHAPTER 7

THE CANADIAN MUSTARDSEED SITUATION

Canada is a major producer and exporter of mustardseed. Three types are grown in Canada - yellow, brown and oriental, comprising 50, 30 and 20 percent of the total mustardseed acreage respectively.

Acreage vaires considerably from year to year, depending on the returns per acre compared with other crops (Table 30). Most of the mustardseed is grown under contract to exporting companies who receive, clean and export the mustardseed to overseas buyers.

There is considerable potential for expanded production of mustardseed in Canada, provided that the returns per acre are competitive with other crops. Some breeding work is being done at Saskatoon to develop new varieties having low erucic acid content, and low glucosinolate content.

Only a very small quantity of mustardseed is processed in Canada. A considerable quantity is exported to the United States (Table 31) and later imported as ground mustard or prepared mustard (Table 32).

Major export markets are the United States, the European Economic Community and Japan with the United States importing about 50% of all Canadian mustardseed exported.

TABLE 30

CANADIAN MUSTARDSEED: ACREAGE, YIELD AND PRODUCTION

(Crop Year)

	1970/71	1971/72	1972/73	1973/74	1974/75
			(Thousands of Acres)		
Manitoba	25	20	15	40	40
Saskatchewan	120	175	140	225	200
Alberta	55	70	25	70	110
Canada, Total	200	265	180	335	350
			(Yield, Pounds Per Acre)		
Manitoba	840	800	833	800	750
Saskatchewan	985	950	821	800	750
Alberta	885	750	960	714	727
Canada, Total	940	886	842	782	743
			(Millions of Pounds)		
Manitoba	21.0	16.0	12.5	32.0	30.0
Saskatchewan	118.2	166.3	115.0	180.0	150.0
Alberta	48.7	52.5	24.0	50.0	80.0
Canada, Total	187.9	234.8	151.5	262.0	260.0

SOURCE: Statistics Canada, Catalogue No. 22-002

TABLE 31

CANADIAN EXPORTS OF MUSTARD SEED

(Short Tons)

DESTINATION	1970	1971	1972	1973	1974
Argentina	276	61	110	-	-
Australia	-	-	-	-	72
Belgium-Luxembourg	5,869	4,069	10,823	8,858	6,936
Brazil	-	-	-	1/	103
Chile	-	-	-	-	5
Costa Rica	-	-	-	-	5
El Salvador	-	-	-	5	-
France	-	614	5,933	-	143
Germany, West	5,948	10,707	9,538	12,632	2,387
Guatemala	11	-	-	-	2
Israel	-	21	-	28	-
Japan	9,304	10,363	6,906	6,779	8,339
Leeward-Windward Is.	-	-	1/	-	-
Mexico	125	220	167	195	310
Netherlands	10,592	11,519	11,949	11,895	19,895
New Zealand	-	1	-	-	2
Spain	-	1	-	-	-
Sweden	-	-	-	-	60
Switzerland	-	-	606	754	104
United Kingdom	56	896	559	40	703
United States	45,080	41,331	47,706	37,536	36,884
U.S.S.R.	-	-	-	27	-
Venezuela	11	11	-	2	25
Total	77,269	84,814	94,297	78,751	75,978
Total Value ($'000)	7,745	8,124	9,458	13,812	21,171

1/ Less than one (1) ton.

SOURCE: Statistics Canada, Catalogue No. 65-004

TABLE 32

CANADIAN IMPORTS OF GROUND MUSTARD

(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
France	2	-	12	-	-
Germany, West	-	-	9	9	1
Hong Kong	1	2	2	3	1
Japan	-	-	-	2	1
Peoples Republic of China	-	2	-	-	7
United Kingdom	495	527	457	599	676
United States	283	277	139	91	125
Total ($'000)	783	808	619	704	813
Total Value ($'000)	324	347	314	407	424

SOURCE: Statistics Canada, Catalogue No. 65-007

CHAPTER 8

OTHER OILSEED CAKE AND MEAL

There has been over a 1000% increase in quantity and over a 2000% increase in value of miscellaneous oilseed cake and meals imported into Canada in the past five years (Table 33). While the aggregate amounts are small compared to soybean meal they indicate a growing potential market for substitution for some uses.

Cottonseed meal was of decreasing interest to Canadian manufacturers until 1973 when a substantial increase in imports occurred. During 1974 cottonseed meal imports returned to a more traditional level. NES oilseed cake and meal imports on the other hand rose dramatically in 1973 and 1974, accounting for an almost 600% increase in volume since 1970.

Exports of NES (Not Elsewhere Specified) oilseed cake and meal have expanded phenomenally in the four years from the calendar years 1970 to 1973 (Table 34) but Statistics Canada show no exports for this category in 1974. Japan, Italy and the Netherlands-Antilles are the main new markets, with our sales to the United States increasing steadily. Unfortunately, since the United Kingdom joined the Common Market sales to that country have decreased substantially.

On balance our exports of these products were in 1973 over 42 times our imports quantitatively and over 13 times in value.

TABLE 33

CANADIAN IMPORTS OF MISCELLANEOUS OILSEED CAKE AND MEALS

(Tons)

PRODUCT	1970	1971	1972	1973	1974
Cottonseed Meal	283	126	105	1,354	339
Oilseed Cake & Meal (n.e.s.)	66	251	388	1,556	3,641
Total	349	377	493	2,910	3,980
Total Value ($'000)	28	33	48	506	598

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 34

CANADIAN EXPORTS OF OILSEED CAKES AND MEALS (NES)

(Tons)

DESTINATION	1970	1971	1972	1973	1974
Barbados	-	18	12	-	-
Belgium-Luxembourg	-	-	-	60	-
Bermuda	-	-	-	32	-
Cuba	-	2	8	-	-
France	-	-	-	2,080	-
Germany, West	-	-	-	40	-
Guyana	2	8	10	-	-
Italy	-	-	2	10,310	-
Japan	16	-	-	77,962	-
Korea, South	-	-	3	-	-
Leeward & Windward Is.	10	48	-	-	-
Netherlands-Antilles	-	2,876	3,745	10,290	-
Norway	-	-	-	20	-
Philippines	-	-	1,096	-	-
United Kingdom	-	7,246	37,257	603	-
United States	32	1,647	11,555	22,697	-
Total	59	11,845	53,688	124,094	-
Total Value ($'000)	6	554	2,883	6,706	-

SOURCE: Statistics Canada, Catalogue No. 65-004

CHAPTER 9

DEODORIZED FATS AND OILS

Deodorized fats and oils for purposes of this publication include coconut, corn, cottonseed, palm, palm kernel, peanut, rapeseed, soybean, sunflowerseed and other vegetable oils plus marine oils and animal fats. In addition, tables of import figures for cocoa butter and olive oil are provided.

Of the total production of deodorized fats and oils in 1973 and 1974, vegetable oils accounted for 84%, marine oils for 4% in 1973 but decreasing to 2% in 1974, while animal fats accounted for the remaining 12% in 1973 increasing to 14% in 1974 (Table 35). The uses of these deodorized fats and oils remained fairly constant in the past two years. Margarine oil took 24% of the production in 1973 and 26% in 1974. Shortening oil dropped from 54% of the total in 1973 to 50% in 1974, while salad oil increased from 22% to 24% of the total production in the two year period.

Imports of vegetable oils and fats increased in quantity by almost 400% in the five year period 1970 - 74 and slightly over 1000% in value (Table 36). While twenty-two countries supply Canada, the United Kingdom became the major new supplier in 1974, along with the United States accounted for 91% of Canadian imports of vegetable oils and fats.

Cocoa butter imports come from eighteen countries with the United States, Nigeria and Brazil the major suppliers in 1974 (Table 37). The value of imports of cocoa butter have practically doubled in the five years from 1970, while the volume has increased 209%.

Coconut oil imports have remained fairly steady except for a one year 56% jump in 1972 (Table 38). The total value rose sharply from 1973 to 1974, i.e. by 174%. Malaysia and Sri Lanka continue to be our major suppliers although the Philippines was a major supplier in 1972 and 1973.

Corn oil imports have risen approximately 40% in the five years from 1970 despite a reduction in imports in 1973 (Table 39). However, the volume of imports increased by 174%

in 1974 over 1973. The United States, the major supplier, accounted for 64% to 84% of total imports, followed by the United Kingdom accounting for 11 to 20% of the imports of corn oil.

Cottonseed oil imports come from the United States and have varied from 18,000,000 to 30,000,000 pounds in the past five years (Table 40). Total value decreased from 1970 to 1973 by approximately 25% but increased some 165% in the past year.

Olive oil imports come from thirteen countries, with Spain and Italy the major suppliers accounting for from 67 to 81% of the total (Table 41). Imports increased considerably in 1972 but returned to more normal levels in 1973 and 1974. The total value of olive oil imports rose less dramatically than other oils from 1973 to 1974 i.e. by only 64%.

Palm oil imports jumped spectacularly in 1972 to 68,000,000 pounds from 28,000,000 pounds the previous year (Table 42). Malaysia has been the major Canadian supplier but Indonesia, Singapore and the United States supplied 35% of the market in the past year. From a total value point of view, import costs increased by 134% in the past year although volume decreased by 17%.

Palm kernel oil imports have been more steady than palm oil in the past five years, varying from a low of 9.6 million pounds in 1974 to a high of 13.1 million pounds in 1973 (Table 43). Nigeria and the Zaire Republic (Congo-Kinshasa) were our major suppliers in the early 1970's but did not export any quantity to Canada in 1974. Malaysia has become the major supplier in the past three years with the United States the second largest supplier last year. Total value of imports increased 106% in the past year although volume decreased 26%.

Peanut oil imports decreased 38% from 1970 to 1974 (Table 44). Total value on the other hand increased by 55% over the five years, of which 30% represents the increase from 1973 to 1974. Nigeria was our major supplier in 1970 but shipped no peanut oil to us last year. The United States has become our major supplier, i.e. 87% of the total shipments in 1974.

Exports of Other Canadian vegetable oils and fats have gone to thirty-three countries in the past five years (Table 45). Although these exports have normally varied between 11,000,000 and 29,000,000 pounds from 1970 to 1973, they dropped drastically

to 1.6 million pounds in 1974 because rapeseed oil was no longer included in the figures. The United Kingdom, which took over 26,000,000 pounds in 1973, did not buy a pound from Canada in 1974 due the provisions of joining the European Economic Community. Canada's steady customers, albeit in comparatively small amounts in the past five years, have been the United States, Trinidad-Tobago, Guyana, Barbados, Leeward-Windward Islands and Bermuda. The total value of shipments has gone from a high of just over $3 million in 1972 to a low of $513,000 in 1974.

TABLE 35

CANADIAN PRODUCTION OF DEODORIZED FATS AND OILS

(Millions of Pounds)

	1973				1974			
VEGETABLE OILS	Margarine Oil	Shortening Oil	Salad Oil	Total	Margarine Oil	Shortening Oil	Salad Oil	Total
Coconut	0.8	38.8	1.5	41.0	.6	23.1	1/	23.8
Corn	8.1	X	X	25.7	10.4	0.3	X	X
Cottonseed	1/	12.5	0.3	12.8	1/	9.5	0.8	10.5
Palm	8.8	35.5	-	44.3	8.9	20.0	0.2	29.1
Palm Kernel	-	11.2	-	11.2	1/	8.5	-	8.5
Peanut	1/	X	X	14.2	-	5.1	X	X
Rapeseed	75.8	89.3	72.6	237.7	63.4	65.3	72.3	201.1
Soybean	59.2	84.6	29.5	173.3	90.4	119.9	49.6	260.0
Sunflowerseed	0.1	3.3	23.0	26.5	0.1	4.1	16.3	20.5
Other Vegetable	-	1/	-	1/	0.4	1.1	1/	1.6
TOTAL VEGETABLE OILS	153.0	281.4	152.3	586.7	174.3	257.4	168.7	600.5
MARINE OILS								
Herring	14.0	11.9	-	25.8	6.3	4.5	-	10.9
Seal	-	-	-	-	0.3	0.7	-	1.0
Whale	-	-	-	-	-	-	-	-
Other Marine	-	0.6	-	0.6	1/	1.0	-	1.1
TOTAL MARINE OILS	14.0	12.5	-	26.5	6.7	6.3	-	13.0

TABLE 35 (Cont'd)

CANADIAN PRODUCTION OF DEODORIZED FATS AND OILS

(Millions of Pounds)

	1 9 7 3				1 9 7 4			
ANIMAL FATS	Margarine Oil	Shortening Oil	Salad Oil	Total	Margarine Oil	Shortening Oil	Salad Oil	Total
Lard	0.9	28.3	-	29.2	4.4	42.5	-	47.0
Oleo, All Types	1/	1.1	-	1.1	-	2.6	-	2.6
Tallow, Edible	0.5	50.7	-	51.2	0.4	49.2	1/	49.7
TOTAL ANIMAL FATS	1.3	80.1	-	81.5	4.9	94.4	1/	99.4
TOTAL, ALL FATS & OILS	168.3	374.0	152.3	694.7	186.4	358.2	168.7	713.0

X Confidential Data
1/ Very Small Amount

SOURCE: Statistics Canada, Catalogue No. 32-006

TABLE 36

CANADIAN IMPORTS OF VEGETABLE OILS AND FATS

(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Austria	13	-	12	15	3
Belgium-Luxembourg	-	-	-	-	40
Brazil	20	32	21	78	40
Denmark	11	3	361	22	310
France	-	3	113	6	6
Germany, West	4	8	4	37	160
Greece	-	-	-	-	408
Hong Kong	42	28	61	50	67
India	1/	-	-	-	1/
Ireland	10	-	-	-	-
Israel	1/	-	4	15	-
Japan	18	30	49	63	130
Lebanon	-	1	5	3	-
Malaysia	-	1/	1/	-	-
Peoples' Republic of China	-	3	1	4	11
Singapore	-	-	-	-	1/
Switzerland	44	25	59	2	3
Syria	-	-	-	-	2
Taiwan	-	-	-	-	1/
United Kingdom	116	-	40	637	4,396
United States	3,137	2,554	3,149	8,989	7,587
Yugoslavia	4	-	2	3	-
Total	3,419	2,687	3,881	9,924	13,169
Total Value ($'000)	733	656	859	1,597	7,447

1/ Less than 1000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 37

CANADIAN IMPORTS OF COCOA BUTTER

(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Australia	-	-	-	-	2,247
Brazil	1,221	224	552	774	3,698
Cuba	33	133	380	220	-
Dominican Republic	-	-	-	320	74
Ecuador	-	-	-	-	543
Germany, West	441	-	-	220	624
Ghana	3,334	5,880	5,801	2,641	2,240
Guinea	-	-	-	-	56
Ireland	97	138	76	93	-
Ivory Coast	1,268	110	1,681	220	2,154
Jamaica	134	67	291	112	98
Leeward-Windward Is.	-	-	-	-	67
Mexico	-	-	125	50	-
Netherlands	3,924	3,751	3,909	4,572	218
Nigeria	358	-	207	1,854	6,997
Trinidad-Tobago	41	10	-	-	22
United Kingdom	1,363	3,081	338	2,809	465
United States	1,047	1,189	526	651	9,351
Total	13,263	14,583	13,886	14,536	29,047
Total Value ($'000)	10,948	8,576	7,807	12,925	20,048

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 38

CANADIAN IMPORTS OF COCONUT OIL
(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Australia	944	4,300	-	1,459	2,191
British Oceania	-	-	-	102	-
Fiji	5,091	5,409	703	-	3,796
Germany, West	-	4	1/	-	2
Jamaica	4	3	13	1	-
Leeward-Windward Islands	-	-	-	4	-
Malaysia	31,936	12,043	1,316	14,869	17,433
Netherlands	-	17	1,132	2,915	-
Norway	-	-	-	-	1/
Philippines	-	570	23,935	18,718	148
Puerto Rico	-	-	-	8	41
Singapore	79	37	94	10	11
Sri Lanka	4,611	6,726	31,411	3,811	17,850
United Kingdom	2,673	641	2,726	817	1,587
United States	2,000	15,762	9,865	4,238	5,343
Total	47,338	45,512	71,197	46,952	48,405
Total Value ($'000)	7,246	6,465	6,311	7,643	20,934

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 39

CANADIAN IMPORTS OF CORN OIL
(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
France	-	-	1/	-	1
Germany, West	-	-	-	683	-
Israel	2	-	-	-	-
Netherlands	3,234	2,723	-	-	-
United Kingdom	2,711	3,491	2,059	2,353	3,539
United States	10,382	11,465	15,972	11,522	19,295
Total	16,328	17,678	18,031	14,558	22,836
Total Value ($'000)	2,819	3,588	3,183	3,291	9,010

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 40

CANADIAN IMPORTS OF COTTONSEED OIL

(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
United Kingdom	-	-	-	-	1/
United States	30,767	22,913	22,466	18,524	24,985
Total	30,767	22,913	22,466	18,524	24,986
Total Value ($'000)	4,169	3,582	2,868	3,102	8,214

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-008

TABLE 41

CANADIAN IMPORTS OF OLIVE OIL

(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Belgium-Luxembourg	1/	1/	-	-	-
France	60	35	101	66	85
Germany, West	-	4	-	-	-
Greece	748	870	851	288	233
Israel	4	-	-	-	-
Italy	1,214	1,513	2,040	1,539	1,705
Lebanon	-	1/	-	-	-
Morocco	-	-	44	-	-
Portugal	584	592	609	603	533
Spain	1,941	1,506	2,508	1,982	2,581
Sweden	-	-	-	-	19
Turkey	-	8	-	-	4
United States	136	261	245	121	147
Total	4,688	4,791	6,398	4,599	5,310
Total Value ($'000)	1,849	1,968	2,854	2,795	4,597

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 42

CANADIAN IMPORTS OF PALM OIL

(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Germany, West		1/	-	8	2
Indonesia	-	-	-	-	4,434
Malaysia	25,441	28,235	64,030	43,119	23,155
Singapore	-	-	-	-	2,250
United Kingdom	-	4	3,369	1/	8
United States	1,287	118	639	36	5,861
Total	26,728	28,357	68,038	43,163	35,713
Total Value ($'000)	2,959	2,913	5,521	4,560	10,671

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 43

CANADIAN IMPORTS OF PALM KERNEL OIL

(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Congo-Kinshasa	-	5,189	-	-	-
Hong Kong	-	-	-	-	442
Malaysia	-	508	9,701	9,864	6,548
Netherlands	675	46	35	314	173
Nigeria	9,967	4,119	1,380	2,151	-
Singapore	-	-	1,559	-	-
United States	738	946	-	774	2,483
Total	11,380	10,808	12,675	13,103	9,648
Total Value ($'000)	1,896	1,568	1,257	2,160	4,459

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 44

CANADIAN IMPORTS OF PEANUT OIL
(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Belgium-Luxembourg	-	-	2,798	-	-
France	116	42	164	-	-
Gambia	2,688	1,352	1,759	-	-
Hong Kong	189	178	199	209	420
Italy	-	2	-	-	-
Netherlands	-	-	448	-	-
Nigeria	13,947	1,120	587	4,751	-
Portugal	7	-	-	-	-
United Kingdom	926	-	-	-	1,146
United States	1,599	9,064	10,355	11,315	10,601
Total	19,472	11,758	16,310	16,275	12,168
Total Value ($'000)	3,245	2,155	2,766	3,769	5,031

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 45

CANADIAN EXPORTS OF OTHER VEGETABLE OILS AND FATS [1/]

(Thousands of Pounds)

DESTINATION	1970	1971	1972	1973	1974
Australia	5,185	940	-	-	-
Bahamas	8	5	5	12	-
Barbados	61	86	77	62	96
Bermuda	38	12	8	44	6
British Honduras	4	2/	2	2	-
Costa Rica	-	-	8	-	-
Cuba	2/	7	18	32	3
El Salvador	-	-	2/	-	-
Ethiopia	2/	-	-	-	-
Germany, West	-	-	-	-	3
Ghana	2	-	-	-	-
Greenland	-	-	-	1	-
Guatemala	-	-	2	-	-
Guyana	58	59	83	58	340
Honduras	-	-	-	13	-
Hong Kong	1,462	-	2,721	924	-
Italy	-	2/	-	-	-
Jamaica	41	-	41	14	4
Japan	2/	-	2/	-	-
Kenya	1	3	5	6	1
Kuwait	-	-	-	-	25
Leeward-Windward Is.	80	117	89	69	21
Mexico	-	-	-	21	-
Netherlands-Antilles	2/	2/	3	-	-
Nigeria	-	1	-	-	-
Pakistan	-	-	4,997	-	
Sierra Leone	6	12	-	-	-
South Africa	-	-	-	-	2/
St. Pierre-Miquelon	-	4	2/	2	2/
Trinidad-Tobago	143	579	291	293	352
United Kingdom	12,647	8,282	9,787	26,676	-
United States	421	1,341	1,927	981	828
U.S. Oceania	-	6	-	-	-
Total	20,182	11,454	20,056	29,210	1,683
Total Value ($'000)	2,679	1,854	3,093	1,238	513

1/ This export class No. 393-99 includes sunflower oil, salad & cooking oil and certain speciality fats like pan greases. Prior to 1973 it included rapeseed oil.

2/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-004

CHAPTER 10

SPECIFIED FATS AND OILS

Over the past five years production figures for margarine and butter (Table 46) would appear to indicate a trend in consumer preference towards margarine and away from butter, doubtless due to the price differential between the two products. At the same time imports of margarine (Table 47) have climbed dramatically, and exports (Table 48) show a relatively even pattern. At the same time it should be noted (Table 52) that whole milk production has steadily declined since 1965. This trend may be reversed by recently announced agricultural support policies for the dairy industry which could result in an increase in butter production.

Production of shortening has shown a steady increase over the past five years. It is significant that volume of retail sized packages has declined. Imports have increased dramatically (Table 47) but exports have not materially changed.

Salad oil production shows spectacular gains over the five year period.

The production of lard, edible and inedible tallows is of course governed to a large extent by the volume of hog and cattle slaughter. Production figures (Table 46) therefore mirror the trend in hog and cattle production. Forecasts for this year indicate approximately 10-12 percent decrease in hog slaughter numbers and 3.5 percent increase in cattle slaughter numbers over 1974. Figures for 1976 will depend to a large extent on price and availability of feed.

Canada has continued to be a net importer of lard (Tables 48 and 50), with 1974 showing a dramatic increase over previous years. With the present forecast for hog slaughterings this trend is likely to continue for 1975.

Imports of tallow and animal fats have steadily declined, while exports (Table 51) have shown a fairly steady pattern over the five year period. A study of this table indicates the change in importance of various trading partners during this period, together with the remarkable change in value which occurred in 1974, this only due in part to inflation and chiefly to the effect of the increase in cost of petroleum products. Export patterns already established should continue in 1975 and values should continue strong.

TABLE 46

CANADIAN PRODUCTION OF SPECIFIED FATS AND OILS PRODUCTS

(Millions of Pounds)

	1970	1971	1972	1973	1974
Margarine[1/]	199	200	212	217	240
Butter[2/]	337	296	300	218	240
SHORTENING					
Packaged[3/]	44	42	37	39	38
Bulk[4/]	280	283	312	360	340
REFINED OILS					
Salad	116	121	142	152	171
Lard[5/]	120	139	122	110	110
TALLOW					
Edible	42	39	44	40	37
Inedible	354	401	407	407	402

1/ Includes retail and commercial packages. Commercial sales (21-450 pound) packages account for about 3% of total output.

2/ Includes factory and farm butter.

3/ Retail packages up to 20 pounds only.

4/ Covers commercial (21-450 pound) packages, bulk and other than packaged retail sales of manufacturers of shortening and deodorized shortening oil. Includes baking and frying fats and oils.

5/ Rendered lard includes shipments of processed lard in retail and commercial packages and bulk sales.

SOURCE: Statistics Canada, Catalogue No. 32-006

TABLE 47

CANADIAN IMPORTS OF MARGARINE AND SHORTENING

(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Denmark	-	-	-	2	-
Germany, West	-	3	11	4	21
Greece	-	-	-	8	-
Netherlands	4	-	-	-	-
Norway	7	2	-	-	-
Spain	25	-	-	-	-
Sweden	296	122	178	88	154
United States	3,639	6,004	11,127	9,511	26,243
Total	3,971	6,131	11,316	9,613	26,419
Total Value ($'000)	793	1,126	1,643	1,743	9,005

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 48

CANADIAN EXPORTS OF MARGARINE, SHORTENING AND LARD
(Thousands of Pounds)

DESTINATION	1970	1971	1972	1973	1974
Bahamas	18	18	-	-	-
Barbados	-	-	-	86	-
Bermuda	42	50	54	49	50
Germany, West	2	-	-	-	-
Greenland	-	-	1	7	-
Guyana	10	1	-	-	-
Jamaica	28	12	18	9	67
Japan	9	-	-	-	40
Leeward-Windward Islands	1/	1	1/	1	1
Netherlands-Antilles	14	14	5	7	2
St. Pierre-Miquelon	102	91	113	111	97
Surinam	3	-	-	-	-
United States	2	628	327	49	516
Yemen	-	-	-	1/	-
Total	230	815	518	319	777
Total Value ($'000)	61	118	91	100	290

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue 65-004

TABLE 49

CANADIAN IMPORTS OF VEGETABLE COOKING FATS AND PACKAGED SALAD OILS

(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Denmark	-	4	-	-	5
France	-	-	46	-	39
Germany, West	4	-	2	-	-
Greece	-	-	-	19	40
Hong Kong	-	1	2	2	-
Israel	-	-	-	-	2,206
Italy	-	-	19	-	-
Singapore	-	-	4	-	-
Sweden	11	1/	39	59	41
United Kingdom	-	4	10	629	36
United States	1,149	830	1,077	1,563	852
Total	1,163	839	1,199	2,272	3,222
Total Value ($'000)	215	182	234	636	471

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 50

CANADIAN IMPORTS OF LARD, TALLOW, ANIMAL OILS AND FATS

(Thousands of Pounds)

LARD

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Australia	-	-	-	4	20
United States	20,811	13,415	21,567	15,782	38,959
Total	20,811	13,415	21,567	15,786	38,979
Total Value ($'000)	2,489	1,493	2,258	2,531,	12,306

TALLOW, ANIMAL OILS AND FATS

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Australia	4	-	20	49	8
Germany, West	-	-	-	4	-
Netherlands	-	-	1,485	-	-
United Kingdom	-	5	-	3	-
United States	22,815	21,789	19,558	7,117	9,512
Total	22,819	21,794	21,063	7,173	9,520
Total Value ($'000)	2,262	1,996	1,929	1,226	1,803

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 51

CANADIAN EXPORTS OF TALLOW, ANIMAL OILS AND FATS

(Thousands of Pounds)

DESTINATION	1970	1971	1972	1973	1974
Barbados	372	-	-	51	199
Belgium-Luxembourg	1,625	1,297	5,375	2,609	1,320
Bermuda	1/	1/	1/	-	-
Brazil	-	-	-	-	215
Cuba	6,613	3,074	2,194	10,813	30,067
Dominican Republic	-	-	-	-	40
France	-	3,535	1	2,093	2,211
Germany, West	-	2,124	1,990	3,242	-
Ghana	1,793	-	551	-	1,315
Guatemala	-	-	2	-	71
Jamaica	82	147	13	63	526
Japan	62,734	56,775	50,075	42,903	33,898
Kenya	204	3,479	120	-	-
Korea, South	-	-	-	2,172	11,624
Leeward-Windward Is.	390	250	154	132	9
Malaysia	-	67	41	-	-
Mexico	-	-	-	-	36
Netherlands	21,427	42,836	52,735	14,791	53,317
Netherlands-Antilles	-	-	-	-	7
Norway	-	-	-	655	37
Pakistan	4,642	427	-	-	-
Peoples Republic of China	3,809	21,315	47,225	21,933	24,499
Puerto Rico	-	-	-	-	38
Senegal	-	-	-	-	2,200
Singapore	106	25	4	-	80
South Africa	-	1,898	-	-	-
Spain	6,149	10,810	7,396	2,064	3,419
St. Pierre-Miquelon	1/	-	1/	1	1/

TABLE 51 Cont'd

DESTINATION	1970	1971	1972	1973	1974
Surinam	20	33	50	-	-
Sweden	-	1	-	-	-
Switzerland	-	29	73	206	332
Taiwan	-	-	1,532	-	-
Trinidad-Tobago	1,990	2,635	1,771	1,297	720
United Kingdom	57,447	47,840	39,077	48,811	30,432
United States	24,282	29,875	26,378	35,762	23,997
Venezuela	-	-	-	40	426
Zambia	-	-	61	-	2,654
Total	193,694	228,481	236,825	191,894	223,676
Total Value ($'000)	16,133	19,228	16,479	24,407	41,253

1/ Less than 1000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-004

TABLE 52

CANADIAN TRENDS IN BUTTERFAT PRODUCTION AND UTILIZATION

(Millions of Pounds)

	Total Milk Production		Butterfat Utilization			
Year	Whole Milk	Butterfat Equivalent[1]	Manufactured Dairy Products[2]	Fluid Milk Sales[3]	Farm Home Consumed	Fed on Farms
1965	18,357	641	402	182	31	27
1966	18,373	643	404	183	30	25
1967	18,208	638	398	182	30	24
1968	18,362	640	407	179	29	24
1969	18,711	655	421	178	29	24
1970	18,312	640	404	182	28	24
1971	17,775	622	385	184	26	23
1972	17,709	620	391	190	16	23
1973	16,885	576	342	193	16	25
1974	16,670	569	334	197	13	25

BUTTERFAT UTILIZATION IN MANUFACTURED DAIRY PRODUCTS

Year	Total	Creamery Butter	Cheese[4]	Concentrated Whole Milk Products	Ice-Cream Mix
1965	399	276	69	35	19
1966	401	270	75	30	22
1967	399	267	74	29	26
1968	406	272	76	28	26
1969	421	286	79	54	[5]
1970	404	268	82	52	[5]
1971	385	234	84	24	36
1972	391	238	85	22	37
1973	342	204	84	22	32
1974	334	188	94	20	32

SOURCE: Based on unpublished Statistics Canada data.

TABLE 52 (Cont'd)

FOOTNOTES TO CANADIAN TRENDS IN BUTTERFAT PRODUCTION AND UTILIZATION

1/ Fat content of milk based on conversion factor of 3.5%.

2/ Includes creamery butter, cheddar cheese (bulk of all Canadian cheese production, about 77% in 1972), other cheese, concentrated whole milk products, ice-cream mix.

3/ Fluid milk sales represent whole milk sales from farms for use in milk and cream.

4/ Includes mainly cheddar cheese and other factory cheese made from whole milk and cream. Excludes creamed cottage cheese.

5/ Included with concentrated whole milk products.

TABLE 53

INDUSTRY SELLING PRICE INDEXES FOR CERTAIN FATS

(1961-100)

PRODUCT	1970	1971	1972	1973	1974
Butter, Creamery	105.9	107.9	111.3	114.9	128.5
Lard	116.4	109.3	117.2	-	-
Margarine 1/	118.9	122.9	123.3	142.1	231.7
Margarine 2/	108.5	113.0	112.1	124.3	213.5
Shortening	98.9	100.2	100.2	129.6	188.9

1/ As reported by Slaughtering and Meat Packing firms.

2/ As reported by other Manufacturers.

SOURCE: Statistics Canada, Catalogue No. 62-002

CHAPTER 11

MARINE AND FISH OILS AND MEALS

Industry Trends

Whereas the later half of the sixties was characterized by the extremely rapid growth and development of the Atlantic Coast reduction industry, the opening years of this decade have, on the other hand, witnessed the peaking and subsequent reversal of this trend. Landings of herring on which this growth phase was based have declined since 1968-70, when landings reached a plateau in excess of 1 million tons, to 493 thousand tons in 1974. In addition to the decline in the herring catch per se there has been a progressive diversion of landings into the production of food products, in response to the emergence of a market for Canadian food herring in Europe, which has further reduced the feedstock available to the reduction industry.

Given the depletion that has occurred in the resource, the growing importance that is being placed on utilization of herring for direct food production relative to reduction, and the range of limitations, such as a ceiling on catching capacity, that have been placed on the level of the fishing effort, it is difficult to visualize any reversal in the current declining trend in landings of herring for reduction purposes. At this juncture it would appear that the emergence of the Atlantic Coast reduction industry from its present contractionary phase will be contingent upon the large scale exploitation of the offshore capelin resource. It is probable that such a development is still at least several years in the future: Rapidly escalating costs of harvesting coupled with falling meal and oil markets are rendering the exploitation of the capelin resource increasingly unattractive from an economic standpoint. The trend referred to above has been instrumental in bringing about a decline of 51% and 66% respectively in the output of fish meal and marine oil on the Atlantic Coast over the course of the past four years.

Although there has been a resurgence of the herring population on the Pacific Coast and limited exploitation of this resource is now being permitted, this branch of the Canadian

reduction industry is still essentially inactive. The scope for utilization of the herring resource - which historically has provided the main source of raw material for reduction - is now severely circumscribed: Pacific herring may now be harvested for food purposes only, and the raw material available to the reduction industry is consequently confined to that portion of the catch not suitable for conversion to food products. It is believed that the production of meal from all species on the Pacific Coast in 1974 was approximately at the 1973 level of about 7 thousand tons, while the output of marine oil was below the 1973 level of 2.3 thousand tons. These levels of current production contrast sharply with the 58 thousand tons and 29 thousands tons respectively that were produced in 1963, when the exploitation of the herring resource was at a peak.

The production of whale oil, which has become of minor importance in recent years has now ceased in Canada following the extension of the ban on the harvesting of whales to encompass all the commercial species.

Marine Oil

In 1974 the total output of marine oil in Canada was below 15 thousand tons, as against over 36 thousand tons in 1970. This decline was primarily attributable to the decline in the production of herring oil which fell by some 66% over the period notwithstanding that herring oil continues to be the leading marine oil produced in Canada and its relative importance has not diminished in line with the absolute decline in production. In 1974 herring oil still accounted for nearly 68% of the Canadian output of marine oil. The relative importance of herring has been maintained because of the declines that have also occurred in the output of seal, whale, and cod liver oil. Groundfish body and offal oil is the only oil that has not entered into a contractionary phase in recent years.

Imports of marine oil have continued the declining trend which began after 1966, and in 1974 were 18% of the level of the former year. Exports have fallen to a relatively low level with slightly under 10 thousand tons being shipped in 1974 as against about 23 thousand tons in 1970.

Price trends for marine oil may be illustrated by reference to the behaviour of prices for menhaden oil. Average menhaden prices, f.o.b. United States, East Coast plants followed a rising trend from early 1972, when prices were of the order of 6.5 cents per pound until August 1974, when the average price

peaked at 26 cents per pound. Since that date the market has further weakened.

Fish Meal

It is estimated that about 68 thousand tons of fish meal was produced in Canada in 1974, assuming approximately 7 thousand tons for the Pacific Coast, as against almost 124 thousand tons in 1970, a contraction in output of 45% over the period (Table 57). This trend is attributable solely to the decline in herring meal production, which in turn is a reflection of the reduced availability of this species for reduction purposes. The output of groundfish meal, the other major category of meal produced by the Canadian reduction industry, remained essentially stable over the period.

Canadian imports of fish meal continue to be insignificant (Table 58) and exports of this product have been declining in absolute terms, although remaining relatively stable as a proportion of total production. In 1974 exports of fish meal were 47% of the 1970 level and accounted for 57% of output compared with 65% four years earlier (Table 59).

As is the case with marine oil the market for fish meal has been softening. As an illustration of world trends in fish meal prices the average monthly price for menhaden meals containing 65% protein, f.o.b. United States East Coast and Gulf plants fell from a peak of $508 per ton in mid-1973 to $220 per ton in March 1975. There is as yet no firm evidence to suggest that the trough of the trend has yet been reached and some further softening of the market is probable.

TABLE 54

CANADIAN PRODUCTION OF MARINE OILS BY TYPES AND AREAS

(Thousands of Tons)

PRODUCT	1970	1971	1972	1973	1974
ATLANTIC COAST					
Groundfish					
Body & Offal	2.9	4.0	3.8	6.1	3.8
Liver (Cod)	.9	.5	1/	1/	1/
Herring	25.9	23.9	12.8	8.3	7.9
Seal	1.8	1.9	1.7	.8	2/
Other 3/	4.2	2.9	3.0	.3	.4
ATLANTIC TOTAL	35.7	33.2	21.3	15.5	12.1
PACIFIC COAST					
Salmon	.25	.5	4/	.9	5/
Herring	-	4/	4/	1.2	5/
Other	.3	.1	1.3	.25	5/
PACIFIC TOTAL	.55	.6	1.3	2.35	5/
CANADA TOTAL	36.25	33.8	22.6	17.85	12.1

1/ Very small quantity, included with "Body and Offal Oil".

2/ Included under "Other".

3/ Primarily whale oil.

4/ Confidential, included under "Other".

5/ Not yet available.

SOURCE: Based on Environment Canada data.

TABLE 55

CANADIAN IMPORTS OF FISH AND MARINE OILS

(Short Tons)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Denmark	-	-	-	7	1/
France	-	-	-	-	1/
Germany, West	-	-	-	-	1/
Japan	-	5	-	7	99
Norway	2	3	185	148	198
South Africa	-	275	81	99	102
United Kingdom	224	256	258	357	182
United States	1,609	1,180	1,296	746	355
TOTAL	1,835	1,719	1,820	1,364	936
TOTAL VALUE ($'000)	607	747	439	424	467

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 56

CANADIAN EXPORTS OF MARINE OILS BY TYPES

(Thousands of Tons)

PRODUCT	1970	1971	1972	1973	1974
Cod Liver Oil, Sun Rotted	2.25	2.55	1.1	1.4	1.15
Herring Oil	18.6	5.75	3.75	3.1	6.05
Whale Oil	.95	3.15	2.4	1.35	-
Fish & Marine Animal Oil, NES	.75	.7	.7	2.95	2.55
TOTAL	22.55	12.15	7.95	8.8	9.75
TOTAL VALUE ($'000)	3,715	2,237	1,368	1,795	3,763

SOURCE: Statistics Canada, Catalogue No. 65-004

TABLE 57

CANADIAN PRODUCTION OF FISH MEALS BY TYPES AND AREAS

(Thousands of Tons)

M E A L	1970	1971	1972	1973	1974
ATLANTIC COAST					
Groundfish	42.3	41.2	41.6	38.0	39.8
Herring	79.8	58.9	29.5	15.0	18.1
Other	0.3	0.5	0.9	1.8	2.6
ATLANTIC TOTAL	122.4	100.6	72.0	54.8	60.5
PACIFIC COAST					
Herring	1/	1/	1/	4.7	2/
Salmon	1.0	1.6	1.7	1.7	2/
Other	0.2	0.5	5.8	0.6	2/
PACIFIC TOTAL	1.2	2.1	7.5	7.0	2/
CANADA TOTAL	123.6	102.7	79.5	61.8	60.5

1/ Less than 1000 tons.

2/ Not yet available.

SOURCE: Based on Environment Canada data.

TABLE 58

CANADIAN IMPORTS OF FISH MEAL

(Short Tons)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Denmark	-	-	-	-	12
Germany, West	-	-	-	-	1/
Peru	70	-	1,041	24	-
Puerto Rico	-	-	23	90	-
United Kingdom	-	-	-	-	3
United States	30	25	281	418	277
TOTAL	100	25	1,345	482	282
TOTAL VALUE ($'000)	20	5	216	121	83

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 59

CANADIAN EXPORTS OF FISH MEAL AND CONDENSED SOLUBLES

(Short Tons)

PRODUCT	1970	1971	1972	1973	1974
Herring Meal and Pilchard Meal	59,500	45,338	22,714	14,327	17,947
Fish Meal NES	20,400	23,647	13,326	18,063	20,275
Fish Condensed Homogenized Solubles	700	108	194	204	-
TOTAL (MEAL ONLY)	80,600	69,093	36,234	32,594	38,227
TOTAL VALUE (MEAL ONLY) ($'000)	14,233	11,524	6,703	11,023	12,160

SOURCE: Statistics Canada, Catalogue No. 65-004

CHAPTER 12

THE CANADIAN FLAXSEED SITUATION

Flaxseed production has been quite variable in Canada over the past five years. Acreage and production have followed a trend downwards since 1970 when 3.3 million acres were in production decreasing to 1.5 million acres in 1974.

With only two crushers operating, the domestic crush is now less than one million bushels per year (Table 60). The main reason for this decline is the reduction in demand for linseed oil, which several years ago was a major ingredient in paints, linoleum and oilcloth products but has since been largely replaced by synthetic products.

Flaxseed prices went as high as $11.67 per bushel in 1974 because of tight world supplies (Table 66). However, economic conditions during 1974 and 1975 have resulted in a decline to $9.00 per bushel, and prices are expected to be under downward pressure for the balance of 1975. Exports of both flaxseed (Table 61) and linseed oil (Table 64) decreased sharply in 1973 compared to the previous year, with linseed oil exports almost disappearing in 1974.

Canada continues to be the world's major exporter of flaxseed. The main export customers are West Germany, Japan, the Netherlands and the United Kingdom. The export value of flaxseed in calendar 1974 was $148.6 million, an increase of about 30% in value even though the export tonnage decreased about 20% from 1973.

TABLE 60

CANADIAN SUPPLY AND DISPOSITION OF FLAXSEED, LINSEED OIL AND LINSEED MEAL

(Crop Year)

	1970/71	1971/72	1972/73	1973/74
FLAXSEED		(Thousands of Bushels)		
Stocks, Starting[1/]	6,570	25,306	16,032	7,673
Production	47,966	22,387	17,617	19,400
Imports	-	-	3	17
Exports	21,194	25,741	19,640	15,503
Domestic Crushing	2,827	3,101	2,633	762
LINSEED OIL		(Thousands of Pounds)		
Exports	25,598	32,892	23,344	4,918
Domestic Production	54,670	59,836	50,183	14,554
LINSEED MEAL		(Tons)		
Exports	14,859	22,641	14,038	27
Domestic Production	49,782	54,980	46,338	13,153

1/ Total stocks in all positions.

SOURCE: Statistics Canada, Catalogue 22-006

TABLE 61

CANADIAN EXPORTS OF FLAXSEED

(Short Tons)

DESTINATION	1970	1971	1972	1973	1974
Australia	-	-	13,263	-	6,210
Belgium-Luxembourg	44,509	28,981	31,474	13,103	8,243
Czechoslovakia	9,743	7,570	6,585	17,446	27,563
Denmark	1,401	1,865	349	2,274	-
Finland	1,617	2,302	-	-	-
France	10,909	13,187	9,018	8,568	5,735
Germany, East	-	4,343	-	-	4,255
Germany, West	56,059	99,141	87,330	129,925	122,005
Greece	10,098	4,905	12,388	1,512	2,408
Israel	1,877	2,036	-	-	-
Italy	14,154	17,653	8,720	14,061	-
Japan	151,575	130,456	118,310	121,391	84,909
Korea, South	9,343	15,385	5,197	3,276	-
Lebanon	-	3,615	3,841	-	-
Morocco	3,341	-	-	-	-
Netherlands	122,042	247,204	278,561	95,690	45,514
New Zealand	-	-	-	-	2,425
Norway	7,395	4,928	4,410	-	-
Poland	-	-	-	-	25,644
Spain	36,382	32,737	12,935	11,942	7,166
Switzerland	1,145	3,520	11,838	2,101	1,364
Syria	-	826	-	-	-
United Kingdom	63,075	67,376	51,701	54,941	34,544
United States	37	2,113	2	1,290	13,955
Total	544,704	690,147	655,435	477,524	386,948
Total Value ($'000)	55,757	63,849	68,511	112,984	148,631

SOURCE: Statistics Canada, Catalogue No. 65-004

TABLE 62

CANADIAN IMPORTS OF FLAXSEED

(Short Tons)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Kenya	-	-	2	-	-
United States	186	1/	17	95	498
Total	186	1/	19	95	498
Total Value ($'000)	30	-	3	25	333

1/ Less than one short ton.

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 63

QUALITY DATA FOR WESTERN CANADIAN FLAXSEED,
SURVEY SAMPLES OF 1974 CROP

	Oil Content		Iodine Value		Protein Content		No. of
	Mean	Range	Mean	Range	Mean	Range	Samples
WESTERN CANADA							
No. 1 CW	43.9	38.5-49.2	195	177-206	41.3	32.7-48.3	197
No. 2 CW	43.7	38.3-48.5	198	187-203	38.1	30.1-45.5	49
No. 3 CW	41.6	35.0-46.3	198	192-202	34.4	29.4-42.8	31
No. 4 CW	33.4	32.6-34.3	196	194-199	28.6	24.8-32.4	2
All Grades	43.5	32.6-49.2	196	177-206	39.9	24.8-48.3	279
ALL GRADES							
Manitoba	43.4	34.3-48.9	198	181-206	39.1	29.4-48.3	113
Saskatchewan	44.0	32.6-49.2	196	184-204	39.7	24.8-47.0	130
Alberta	42.3	38.5-47.5	189	177-198	43.0	36.2-48.0	36

NOTE: - Oil Content of seed is reported on moisture-free basis.
- Protein Content is reported on oil-free meal and moisture-free basis.

SOURCE: Canadian Grain Commission, Crop Bulletin No. 125

TABLE 64

CANADIAN EXPORTS OF LINSEED OIL

(Thousands of Pounds)

DESTINATION	1970	1971	1972	1973	1974
Bahamas	-	1/	1/	-	-
Barbados	9	6	4	-	-
Bermuda	2	1	2	-	-
Ecuador	-	-	-	3	-
Germany, West	-	-	1,568	-	-
Guatemala	1/	-	-	-	-
Jamaica	1/	-	-	-	-
Liberia	-	-	-	-	4
Netherlands Antilles	3	-	-	-	-
Nigeria	-	-	-	1	-
United Kingdom	25,608	24,065	31,941	13,144	1,283
United States	2,073	168	1,851	213	-
Venezuela	17	28	90	40	18
Total	27,713	24,268	35,456	13,401	1,306
Total Value ($'000)	2,981	2,421	3,276	2,314	655

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-004

TABLE 65

CANADIAN EXPORTS OF LINSEED OIL CAKE AND MEAL

(Thousands of Pounds)

DESTINATION	1970	1971	1972	1973	1974
Barbados	170	1,800	1,800	-	-
Belgium-Luxembourg	-	678	-	-	-
Denmark	-	-	4,128	-	-
Germany, West	-	3,550	8,256	-	-
Guyana	80	5	11	-	-
Leeward & Windward Is.	222	390	275	10	-
Netherlands	9,814	12,111	6,997	4,130	-
Netherlands Antilles	16	-	-	-	-
Trinidad & Tobago	680	832	918	372	110
United Kingdom	16,484	4,986	10,698	5,100	-
United States	3,366	3,580	5,937	2,539	142
Total	30,830	27,932	39,020	12,151	252
Total Value ($'000)	1,171	1,046	1,398	822	24

SOURCE: Statistics Canada, Catalogue No. 65-004

TABLE 66

CANADIAN FLAXSEED PRICES[1/]

(Crop Year)

MONTH	1969/70	1970/71	1971/72	1972/73	1973/74
	(Cents and Eighths per Bushel)				
August	319/2	269/2	234/6	305/7	878/7
September	322/1	272/3	226/7	325/4	885/6
October	322/6	263/5	243/2	357/7	898/6
November	305/5	253	238/4	353	1018/5
December	276/1	246/2	236/3	366/7	1060/5
January	280/5	244/6	248/7	436/4	1122/6
February	284	249/4	259	535/6	1167
March	277/6	251/4	277/6	483/3	1107
April	276/4	257/2	285	478	967/3
May	278	248/7	271/2	552/6	991/6
June	281/7	245/5	277/2	701/7	979/5
July	280	242	288/1	895/6	1095/2
Yearly Average	292	253/5	257/2	482/6	1014/4

1/ Winnipeg Grain Exchange No. 1 C.W. Flaxseed, basis Thunder Bay.

SOURCE: Statistics Canada, Catalogue No. 22-006.

CHAPTER 13

OTHER INEDIBLE FATS AND OILS

For purposes of this publication, other inedible fats and oils include castor oil; tung oil; tall oil; tall oil pitch; tall oil fatty acids; chemically modified oils, fats and waxes; and mixtures and derivatives of oils, fats and waxes.

Castor oil imports, of which 80 - 90% come from Brazil, have fluctuated between 4 million and 6.4 million pounds in the past five years (Table 67). Prices varied from 15 cents per pound in 1970, 16 cents in 1971, 21 cents in 1972, 46 cents in 1973 and 40 cents in 1974.

Tung oil imports, which had been increasing steadily prior to 1974, dropped almost 2/3 in that year (Table 68). The People's Republic of China became Canada's largest supplier in 1974 displacing Argentina and Paraguay which had been the major suppliers. Prices saw a low point of 10.64 cents in 1972 but climbed to a high of 32.87 in 1974.

The United States supplies Canada with all the imports of tall oil, tall oil pitch and tall oil fatty acids except for very small amounts in 1971 and 1973 (Table 69). Prices increased steadily from 1970 to 1973, i.e. 8.54 cents per pound to 11.97 cents, but almost doubled to 22.7% in 1974.

The United States supplies Canada with 88 - 98% of the imports of chemically modified oils, fats and waxes (Table 70). The smaller, regular suppliers are the Netherlands and the United Kingdom. Prices rose steadily from 16.95 cents in 1970 to 24.34 in 1973 but almost doubled in 1974 to 43.15 cents.

The United States supplies 96 to 99% of Canada's imports of mixtures and derivatives of oils, fats and waxes (Table 71). Prices remained fairly constant between 1970 and 1973 increasing by only 1½ cents to 20.69 cents. However, in 1974 there was an approximate increase of 50% to 30.39 cents.

Canada has exported chemically modified oils, fats and waxes to twenty-two countries over the past five years, its largest customers being the United States, Japan and the United Kingdom (Table 72). Since 1972 when the United Kingdom joined the Common Market exports to that country decreased to a trickle. Prices rose steadily from 10.19 cents in 1970 to 21.52 five years later. These prices are from 50% to 100% lower than the import costs into Canada of the same category of product.

TABLE 67

CANADIAN IMPORTS OF CASTOR OIL

(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Brazil	5,984	5,241	4,461	5,295	3,372
Colombia	-	-	-	19	-
United Kingdom	13	4	-	-	-
United States	469	534	324	832	706
Total	6,466	5,779	4,785	6,146	4,079
Total Value ($'000)	963	932	1,035	2,858	1,646

SOURCE: Statistics Canada, Catalogue No. 65-007.

TABLE 68

CANADIAN IMPORTS OF TUNG OIL

(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Argentina	294	658	1,288	2,186	281
Brazil	-	-	-	31	-
Paraguay	684	693	506	126	94
Peoples' Republic of China	44	22	44	198	405
United States	685	573	418	196	155
Total	1,707	1,946	2,256	2,737	937
Total Value ($'000)	422	290	240	527	308

SOURCE: Statistics Canada, Catalogue No. 65-007.

TABLE 69

CANADIAN IMPORTS OF TALL OIL, TALL OIL PITCH AND TALL OIL FATTY ACIDS

(Thousands of Pounds)

	1970	1971	1972	1973	1974
TALL OIL AND TALL OIL PITCH					
Netherlands	-	-	-	10	-
United States	10,958	4,433	3,479	3,312	4,970
TALL OIL FATTY ACIDS					
Switzerland	-	1/	-	-	-
United States	12,331	14,616	15,239	12,804	10,395
Total	23,289	19,049	18,718	16,126	15,365
Total Value ($'000)	1,990	1,796	1,718	1,931	3,500

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 70

CANADIAN IMPORTS OF CHEMICALLY MODIFIED OILS, FATS AND WAXES

(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Brazil	-	-	-	-	46
Denmark	1/	15	2	2	-
France	-	31	1/	1/	7
Germany, West	24	15	7	7	18
Greece	-	47	-	-	-
Japan	-	-	-	33	-
Netherlands	117	731	905	922	878
United Kingdom	75	97	67	924	122
United States	14,893	10,046	7,319	14,483	11,444
Total	15,109	10,982	8,300	16,371	12,517
Total Value ($'000)	2,561	2,224	1,776	3,985	5,401

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue 65-007

TABLE 71

CANADIAN IMPORTS OF MIXTURES AND DERIVATIVES OF OILS, FATS AND WAXES

(Thousands of Pounds)

COUNTRY OF ORIGIN	1970	1971	1972	1973	1974
Belgium-Luxembourg	-	-	-	-	2
France	-	-	1/	-	8
Germany, West	89	199	800	91	228
Japan	1/	3	-	-	-
Netherlands	2	5	2	6	4
Sweden	-	-	-	6	-
United Kingdom	129	313	436	325	146
United States	21,086	26,076	30,659	33,387	32,586
Total	22,026	26,596	31,897	33,815	32,977
Total Value ($'000)	4,211	5,095	6,079	6,996	10,022

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-007

TABLE 72

CANADIAN EXPORTS OF CHEMICALLY MODIFIED OILS, FATS AND WAXES

(Thousands of Pounds)

DESTINATION	1970	1971	1972	1973	1974
Australia	1,444	1	-	-	2
Bahamas	4	-	1/	-	1/
Bermuda	3	3	1	1	-
Brazil	-	-	-	49	-
Cuba	-	-	38	-	-
Ecuador	3	-	2	-	-
France	111	556	484	-	72
Germany, West	119	22	482	97	53
Guatemala	1/	1/	-	-	-
Italy	-	-	100	36	-
Jamaica	1/	-	-	-	-
Japan	49	1,019	1,189	1,098	531
Leeward-Windward Is.	-	1	-	1/	-
Netherlands Antilles	1/	1/	3	-	3
New Zealand	58	34	-	-	-
Panama	-	-	-	1/	-
Peru	-	-	6	-	-
Senegal	23	-	-	-	-
Sweden	11	11	-	-	-
United Kingdom	1,663	2,102	1,295	43	80
United States	1,614	2,286	1,781	3,222	3,879
Venezuela	98	69	38	-	2
Total	5,203	6,104	5,419	4,546	4,624
Total Value ($'000)	530	778	930	821	995

1/ Less than 1,000 lbs.

SOURCE: Statistics Canada, Catalogue No. 65-004

CHAPTER 14

SELECTED FINISHED PRODUCTS

Canadian production of peanut butter, salad dressings and mayonnaise, and sandwich spreads has shown a steady, but unspectacular, increase during the past five years (Table 73). The larger demand comes mainly from increased population and changing life styles.

Peanut butter production in the five-year period 1970 to 1974 increased by 23%, while salad dressings and mayonnaise increased by 33% and sandwich spreads by 17%. Should inflation influence housewives toward less expensive meat alternatives, greater sales of peanut butter and sandwich spreads could be expected in the next few years.

TABLE 73

CANADIAN PRODUCTION OF PEANUT BUTTER, SALAD DRESSINGS AND MAYONNAISE, AND SANDWICH SPREADS

(Millions of Pounds)

PRODUCT	1970	1971	1972	1973	1974
Peanut Butter	52.4	54.7	58.0	56.5	64.4
Salad Dressings and Mayonnaise	68.7	71.9	78.7	86.7	91.5
Sandwich Spreads	5.2	5.5	5.8	6.5	6.1
Total	126.3	132.1	142.5	159.7	162.0

SOURCE: Statistics Canada, Catalogue No. 32-018

CONVERSION FACTORS

STATUTORY WEIGHT PER BUSHEL AND AVERAGE VOLUME PER SHORT TON

OILSEEDS	Pounds	Cubic Feet
Flaxseed	56	45.9
Soybeans	60	42.8
Rapeseed	50	51.4
Sunflowerseed	30	85.7
Mustardseed	-	51.4

OILSEED PRODUCTS		Extraction Rate	Yield Per Bushel	Weight of Gallon
		(Per Cent)	(Pounds)	(Pounds)
Flaxseed,	Oil	35.4	19.8	9.3
	Linseed Meal	61.7	34.6	-
Soybeans,	Oil	17.7	10.6	9.2
	Meal	80.0	47.3	-
Rapeseed,	Oil[1]	40.0	20.0	9.1
	Meal	57.5	28.75	-
Sunflowerseed,	Oil[2]	40.0	12.0	9.2
	Meal	38.0	11.4	-
Mustard Seed,[3]	Oil (yellow)	28	-	-
	Oil (Oriental)	40	-	-
	Oil (Brown)	36	-	-

1/ Rapeseed oil yields seem to have reached a fairly stable level of about 40 per cent on an "as received" basis. The previous factor of 37.5 per cent has been changed accordingly.

2/ The introduction of new sunflowerseed varieties has increased the oil yield on crushing to the 40 per cent level. The previous factor of 36 per cent has been changed accordingly. The meal yields continue to show fluctuations, and this factor has not been changed.

3/ Mustardseed is not crused in Canada, and is primarily used for condiment purposes. Yellow, oriental and brown mustardseed varieties are grown in Canada, and the theoretical extraction rates reflect average oil contents of the seed, calculated on a dry basis.

OTHER PRODUCTS: Marine Oils: 1 Imperial gallon = 9.25 lbs.