

RECOMMENDATIONS REGARDING THE SPECIAL
AGREEMENT ON THE RAPESEED INDUSTRY
BETWEEN DREE AND THE GOVERNMENTS OF
THE PRAIRIE PROVINCES

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RECOMMENDATIONS REGARDING THE SPECIAL AGREEMENT
ON THE RAPESEED INDUSTRY BETWEEN DREE AND THE GOVERNMENTS
OF THE THREE PRAIRIE PROVINCES

ADDITIONAL CRUSHERS

It is recommended that DREE be prepared to support the establishment of up to three additional rapeseed crushers in the Prairie region subject to the following criteria.

1. That the prospective owners of such crushers provide adequate assurance that the bulk of their oil sales will be in overseas markets.
2. That any such crushers be located in districts which offer adequate access to supplies of raw rapeseed and that the particular site chosen be well situated with respect to a plentiful supply of water as well as providing good highway and rail access. The Peace River district in Alberta has two or three specific sites which are suitable. In northwestern Saskatchewan North Battleford is the superior location. In eastern Saskatchewan - western Manitoba the Yorkton-Roblin district, while inferior to the other locations identified, could support a third plant.
3. That any crushers receiving financial support be of adequate size to realize the economies of large scale production. This would require a crushing capacity and associated supporting equipment sufficient to process a minimum of 600 tons of rapeseed per day. Each 600 ton facility would require a capital expenditure of 5.5-6.5 million dollars and would employ approximately 60-70 persons.

TO INSURE THE SUCCESSFUL COMPETITIVE OPERATION OF ANY NEW PLANTS CON-
STRUCTED AND TO ENHANCE THE VIABILITY OF THE EXISTING INDUSTRY IN
THE PRAIRIE REGION IT IS FURTHER RECOMMENDED

RESEARCH FACILITIES

1. That the plant breeding research program being conducted by the Canada Department of Agriculture on the University of Saskatchewan campus in Saskatoon be accelerated. DREE's role in this effort should be to urge the Canada Department of Agriculture to assign a higher priority to the acquisition of a growth chamber and the employment of additional support staff. Selective commitment of DREE funds could also be considered. Total cost of accelerating this phase of the research effort would be 1-1.5 million dollars.
2. That the CDA research station in Saskatoon be provided a small scale (i.e. 500 pound capacity) pilot crushing facility. DREE's role should again be to urge the federal Department of Industry, Trade and Commerce and industry representatives to come to a speedy agreement regarding such differences as exist regarding size of facility and financial arrangements. Again selective commitment of DREE funds could be considered.
3. That existing research efforts into the end uses of rapeseed derivatives be transferred to the University of Saskatchewan campus in Saskatoon in order to insure the maximum complementarity of research effort from plant breeding to finished product. Consideration should be given to combining the

research effort on rapeseed derivatives with a research complex for proteins, oils, and starches. Once more DREE's role in this regard would be one of coordinating the various groups interested in the creation of such a complex and the possible selective commitment of funds. Total costs of a crusher through protein-oil-starch research complex (2 and 3 above combined) have been (roughly) estimated at 4-6 million dollars.

HANDLING, TRANSPORTATION, AND STORAGE

4. The Canadian Wheat Board's quota system should be altered in a manner which would insure the crushers access to an adequate supply of raw rapeseed with the minimum possible assembly cost regardless of fluctuations in the total demand for raw rapeseed. DREE should make representation to the Wheat Board to this effect.
5. The rate structure under which rapeseed and its derivatives move needs to be altered.
 - a) Rapeseed moves to overseas and eastern Canadian crushers at Crows Nest Pass rates whereas Prairie crushers must pay domestic commodity rates to assemble their raw rapeseed by rail.
 - b) In accordance with established rate making procedure the more valuable derivatives move at higher domestic commodity rates (or agreed rates) to domestic markets and under somewhat lower export rates to overseas markets. The combination of (a) and (b) puts Prairie locations at an artificial disadvantage with respect to eastern Canadian crushers. The

rate structure should be modified so that the Crows Nest Pass rates apply only on movement of raw rapeseed to export markets and not between any two points in Canada. DREE should make representation to this effect to the Canadian Transport Commission.

6. Oil and feed storage facilities in Vancouver are inadequate to support the large scale export of either product. Conceptually it would seem to be a simple matter to expand these facilities. Representation to the National Harbours Board or an incentive grant to the individual companies should be considered. No cost estimates have been made.

WESTERN CANADIAN RAPESEED INDUSTRY SUPPLEMENT

- JULY 1973

This supplement was prepared with the objective of bringing up to date the material presented in the original report of the same title which was prepared in February 1973.

The protein feed shortage which was evident earlier this year has intensified to the point where there is now concern over whether all potential buyers can be accommodated. This has led to an embargo on the export of soybeans from the United States and on both soybean and rapeseed from Canada. At the same time the demand for rapeseed oil remains strong domestically and is growing internationally. In the immediate future, then, there will certainly be no problem of disposing of raw rapeseed. How long this situation will last will not likely be clear at least until this year's crops are in. The extreme shortage is almost certainly of a "temporary" nature, however, and decisions taken regarding the extent to which the western rapeseed industry should be encouraged should look beyond the present.

Looking to the next several years the prospects for the western Canadian rapeseed industry appear favorable especially if selective encouragement and selective corrective action is taken in the near future.

In looking at the industry as a whole it now seems reasonable to classify the problems facing it in the following manner. The first has to do with improving the viability and competitiveness of the

existing industry. Problems here are those associated with product improvement as well as those associated with transportation. Second is the question of whether or not sufficient demand exists to warrant an expansion of the industry. Of interest here is the rate at which both foreign and domestic demand is expanding and whether or not domestic producers, crushers, and refiners are capable of meeting this demand. Each of these points is considered separately below.

VIABILITY OF THE EXISTING INDUSTRY

As outlined in the initial paper, rapeseed and its derivatives compete in the product market with a number of alternative sources of vegetable oil and protein. Within the region rapeseed competes with wheat and other grains for resource inputs. In both input and product markets rapeseed has made impressive gains during the past decade.

Because plant breeding and research in product improvement is at an adolescent stage, significant additional improvements are possible which will strengthen the competitiveness of rapeseed both in product markets and for resource inputs. The points at which an accelerated research effort promises early gains are identified with the letter R on Figure 1.

R₁ Improvement in yield and reduction of time required for plant to reach maturity. Yield has gone up by 40 percent in the past 25 years and there has been no falling off in percentage gain in the latest experiments. This implies that the yield plateau is something well in excess of what is currently being experienced. Soybean yield on the other hand has been relatively stable for some years now. Length

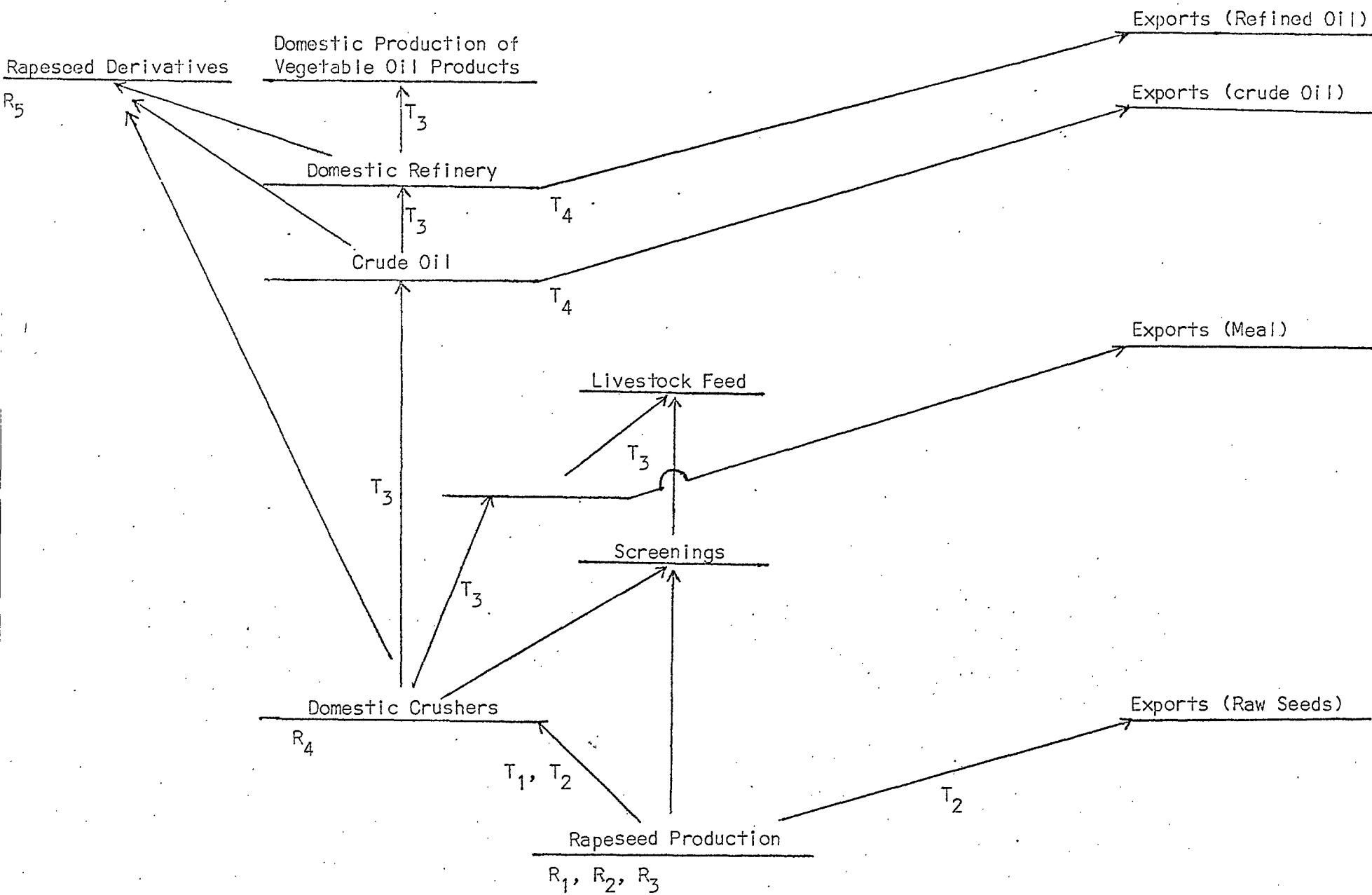


Figure 1. Schematic of Rapeseed Industry

of time required for maturation of rapeseed has been reduced to less than 100 days for some varieties and additional gains are possible.

All else being equal these improvements would strengthen the competitiveness of rapeseed for resource inputs in the Prairie region. This would seem to be desirable on two counts. First, rapeseed has a number of end uses not associated with the end uses of wheat and other small grains. It thus represents a desirable type of diversification of Prairie agriculture. Second, rapeseed is capable of producing more secondary employment through processing than is wheat and other small grains.

Further, to the extent that rapeseed yield rises relative to soybean, its derivatives will tend to become more competitive thus leading to a further penetration of the markets now supplied by soybean both domestically (where the majority of soybeans are imported) as well as internationally. The current United States embargo on soybeans, under which Canada may not be able to obtain its customary requirements in the very short run at least, may hasten the further substitution of rapeseed for soybean.

R₂

Improvement in quality of oil. Research is now being directed to the development of varieties of seeds which will (a) have as nearly as possible a zero erucic acid content for human consumption and (b) have a greater than 50 percent erucic acid content for industrial uses. The linolenic acid content of both varieties (now 8-10 percent)

is also being reduced (to a level of less than 3 percent). High linolenic acid content causes rancidity--creates a storage problem. Improvement along these lines will make rapeseed oil more acceptable to buyers concerned with erucic acid content for human consumption. Improved storage quality will reduce the need for refrigeration and lengthen its "shelf life" thus enhancing its competitiveness with other vegetable oils.

R₃ Improvement in quality of meal. The glucosenolate level of rapeseed meal is sufficiently high to cause a growth problem in non-ruminant animals. (Glucosenolate breaks down into isothiocyanates and oxazolidine-thion which are active goitergens.) This limits the usefulness of the meal as a feed. (Some users--the Japanese in particular--will not feed the meal under these circumstances.) Additional experiments are underway which will reduce the fiber content of rapeseed meal. This will increase the protein content per unit of weight. A lower glucosenolate level and a higher protein content will improve the competitiveness of rapeseed meal with soybean meal.

Development programs in each of these areas have progressed far enough to provide assurance that the goals can be realized. The time required for completion of the programs is still constrained by lack of facilities and support staff, however.

The research bottleneck appears to me now more important than it did at the time of preparing the initial paper. Growth

of the industry in the past has been closely related to solving technical problems of a similar nature. Competition with soybean derivatives and early penetration of the expanding world vegetable oil market would seem to be significantly affected by the timing of these programs.

The CDA research staff in Saskatoon has requested funds from CDA in Ottawa to acquire a growth chamber and supporting equipment as well as to hire additional staff. The request has been assigned a "number two" priority which within the context of the entire CDA operation undoubtedly makes sense. As far as DREE-provincial development objectives for western Canada are concerned, however, an expanded rapeseed research program is of a higher priority.

Two additional research questions are identified in Figure 1.

R₄ Pilot plant research facility. At the present time emerging varieties of rapeseed have to be crushed either (a) in large volume in commercial crushers or (b) sent to research facilities in the United States for testing. Either method is time consuming and use of the domestic crusher requires a larger volume of seed than what would be necessary for a pilot plant. There continues to be a need for a small scale crusher (e.g. 500 lbs. capacity) which would facilitate an early evaluation of new strains. Such things as the influence of pretreatment, variations in time, pressure, temperature, moisture, filtration, etc. on the quality, versatility, and nutritional value of oil, meal and products

could be subjected to a much greater variety of tests than what can currently be achieved.

In the case of the pilot crusher, ITC has indicated an interest in providing financial support subject to agreement (and possible financial commitment) from the industry. Lack of agreement within the industry or possible hesitation regarding financial involvement has stalled the pilot crusher proposal.

R₅ Final product research. It seems reasonable to suggest that final product research, now being conducted in three separate locations and again financed by CDA and ITC, would benefit by concentrating it on the University of Saskatchewan campus in Saskatoon in order to achieve maximum continuity and complementarity of the research effort from plant breeding to finished product. Even greater continuity and complementarity could be achieved by combining these endeavors with a more inclusive protein-starch research complex.

Turning to transportation, a bewildering variety of rates and rules apply to the movement of rapeseed and its derivatives. Taken separately each rate and each rule does not appear to be unreasonable. Each rate, except for those established by statute, in fact corresponds to accepted rate-making practice. Looked at as a package or as part of a system, however, the total scheme puts Prairie firms at a considerable disadvantage with respect to their competitors both domestic and foreign.

T₁ Transportation to the crusher. First the quota system. The basic problem was outlined in the original paper. In an

effort to provide "equity" to the farmer, Prairie crushers may sometimes be forced to bring rapeseed from fairly great distances within the Prairie region, even though a supply of rapeseed may be physically present near at hand. An additional source of cost variation is thus forced on Prairie crushers by the quota system which is not forced on off-Prairie competitors (domestic or foreign) since they obtain their raw material at an invariant price. Since the quota is likely to be low in times of excess supply and high in times of excess demand it has the perverse effect of tending to raise costs when profit margins are likely to be low and lowering costs when profits are more likely to be high.

T₂ Transportation of rapeseed to off-Prairie points. Raw rapeseed moves to the Lakehead and to west coast ports at Crows Nest Pass rates. The buyer in eastern Canada can have the seed shipped from the Lakehead east by water and of course the overseas buyer ships by water from either port. The point is that both domestic and foreign competitors realize the benefit of these very low rates on assembly of their raw material whereas the Prairie crushers can not. (Rapeseed moves at competitive trucking rates or at domestic commodity rates by rail within the Prairie region.) The Prairie crusher thus competes in Canadian and overseas markets with firms both domestic and foreign whose raw material has been assembled at rates which are subsidized by the Canadian taxpayer.

T₃ Transportation of rapeseed products. Rapeseed oil moves within Canada at domestic commodity rates (or agreed rates). This again appears reasonable considered by itself. Considered in the context of the rates that apply on raw rapeseed, however, this combination has the effect of transferring the cost advantage in crushing and processing to off-Prairie points. (See the example in the original paper.) The recent changes in the rates on the movement of rapeseed products ordered by CTC were in fact very minimal. In essence the cost of shipping rapeseed meal eastward from Thunder Bay was reduced from 79¢/cwt. to 44¢/cwt. This, in effect, extends the Crows Nest Pass rates to movement of meal eastward from the Prairies beyond the Lakehead. Movement of meal within the Prairies and to points west were not affected--the domestic commodity rate still applies. (In addition the railroads were ordered to file reduced export rates on movement of meal and oil from Prairie points within 60 days.)

T₄ In spite of the recent expansion of storage facilities in Vancouver there is still a shortage if substantial exports of oil are to be realized. Apparently storage facilities are at present insufficient to completely load a tanker ship. The loading has to correspond with the timely arrival of rail tank cars.

The future viability of the existing industry could be influenced significantly by modification of the conditions discussed above--i.e. through an expanded research effort and a rationalization of transportation rates.

A selective increase in research effort would enhance the viability of the rapeseed industry by strengthening its competitive position vis-à-vis soybean. It would also tend to strengthen the competitive position of rapeseed for resource inputs. This is desirable both because it represents a meaningful diversification of Prairie agriculture and because the opportunity for further processing is greater than with most other Prairie field crops. In short an increased research effort would have a beneficial effect on the country and the industry regardless of where it is located.

It would appear that DREE could realistically perform the role of catalyst in bringing together various government and industry groups in an effort to encourage more rapid progress and the assignment of a higher priority to the research effort.

The impact of the transportation problem is primarily regional. The current rates and regulations place Prairie crushers at a distinct cost disadvantage with regard to both eastern Canadian and foreign competitors. Elimination of this disadvantage and (very likely) further expansion of the crusher-refiner industry in the Prairies depends upon modification of the existing system.

The most straightforward method of remedying the disadvantage under which Prairie crushers currently operate would be through:

(a) securing a modification of the quota system to insure that Prairie crushers can obtain an adequate supply of raw material on reasonable terms with a reasonable degree of certainty; (b) securing a modification of Crows Nest Pass rate structure so that these rates apply only on movements to export markets and not on any traffic between two points in Canada. With the railroads directed to file low export rates on

meal and oil the above modifications would put Prairie crushers in a much more equitable position with both eastern Canadian and foreign crushers. DREE representation to the Canadian Wheat Board and to the Canadian Transport Commission appears to be the next logical step in this regard.

EXPANSION OF THE PRESENT INDUSTRY

Agricultural scientists estimate that $7\frac{1}{2}$ million acres of land in the Prairie provinces could be devoted to the production of rapeseed each year on a sustained yield basis. At 20 bushels per acre this defines a production capacity of 150 million bushels per year. Maximum exports prior to this year were 47 million bushels (in 1970-71) while the maximum domestic crush was 12 million bushels (in 1971-72). The total of these two figures, approximately 60 million bushels, is about 40 percent of the above estimated production capacity. These crude calculations suggest that there is no primary supply constraint on substantial expansion of the industry.

The significant question then is whether or not demand will increase fast enough to justify an expansion of western crusher capacity.

As indicated in the original paper, rapeseed oil has made substantial inroads into the domestic market for vegetable oils. (See Table 4b) Further displacement is both possible and likely, but western crushers are not likely to benefit that much from increased use of rapeseed oil domestically. The location of eastern Canadian crushers in the center of the domestic market and the possible loss of the British market for soybean oil strongly suggests that a.

substantial part of any increased crush for domestic purposes would take place in eastern Canada. Any increase in western crushing capacity would thus seem to depend on an expansion of overseas markets and especially those in the Pacific Rim.

Many of the persons who make their living from the industry are optimistic about the potential for Canadian rapeseed oil in these markets. Representatives from the industry and from the Canadian Rapeseed Growers Association who have recently been in contact with potential buyers in Korea, the Philippines, Thailand, Japan, and India are very optimistic about market opportunities there. They seem to think that if a large volume of oil could be offered at a competitive price and on a continuous basis that sales could be made immediately. FAO forecasts of demand for vegetable oils through 1980 are consistent with the impression of an expanding market in the Pacific Rim. (See Tables 6a and 6b)

At the present time the four western crushers are capable of processing approximately twice the volume of rapeseed actually being crushed. These firms are heavily committed to the Canadian market, however, either through internal forward integration or through sales to domestic institutional users. While these firms have the capacity to enter the export market it is not their first interest. It would thus seem reasonable to support the development of additional crushing capacity in the west if this capacity were oriented primarily to export markets. Such additional capacity would not disrupt the existing domestic market arrangement and could in fact facilitate penetration of overseas markets by existing domestic firms.

Expanded capacity of the type suggested would lead to an

increase in meal production of course. This would not likely produce a problem. Rapeseed meal is an accepted feed in Canada and if fed domestically in quantities recommended by the Rapeseed Association of Canada its use could expand fourfold. The price relationship between rapeseed meal and soybean meal favors further substitution.

The location of additional crushing capacity in the Prairies is dependent on the availability of a supply of rapeseed, a plentiful supply of water, and adequate transport facilities. Two locations immediately suggest themselves as being favorable in all these respects. These are the Peace River district of Alberta and the North Battleford district of Saskatchewan. A third possible location, but one less attractive than the previous two, is the Yorkton-Roblin area of eastern Saskatchewan-western Manitoba. (See Figure 2)

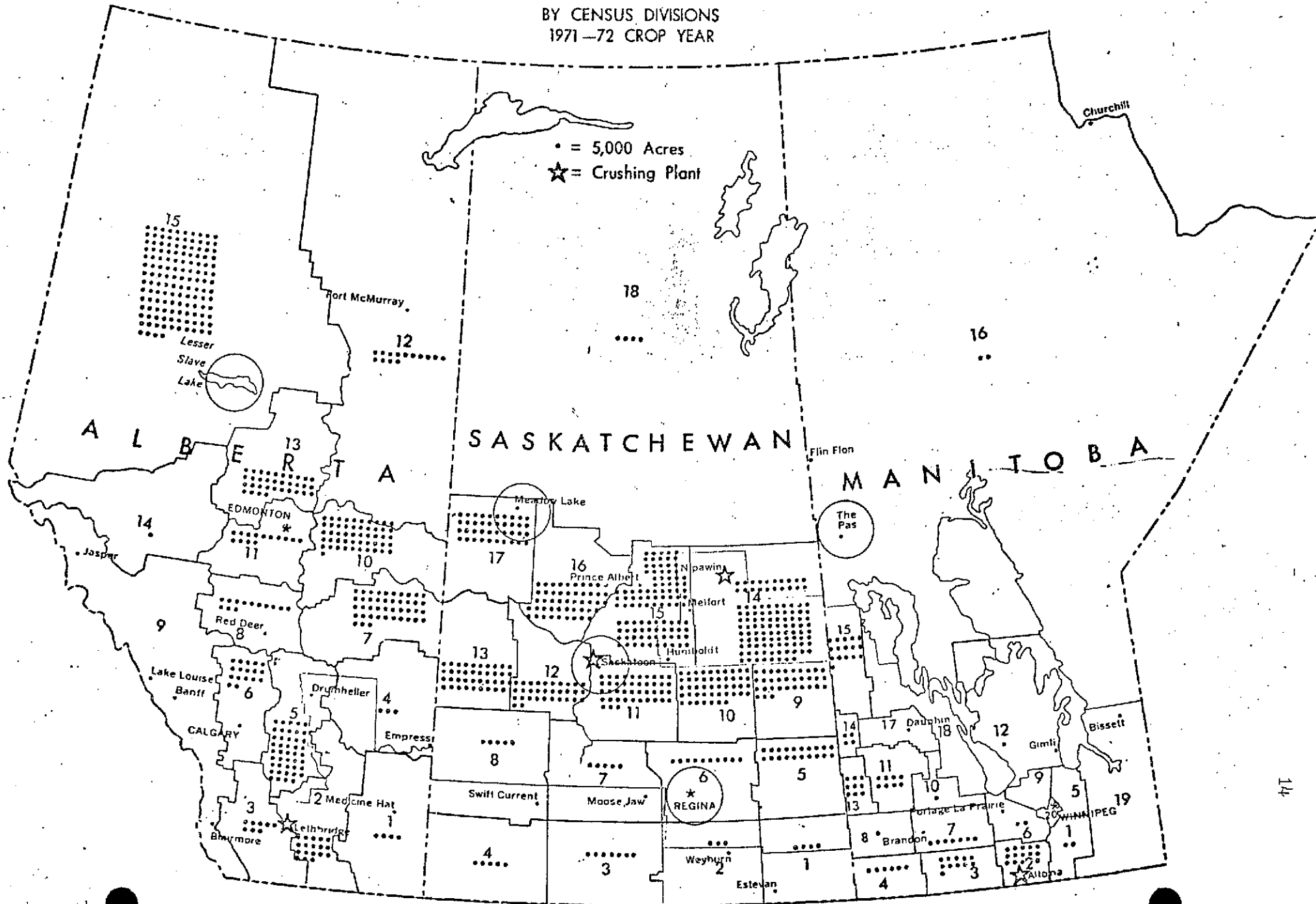
If groups can be identified who have established that they can dispose of the majority of their oil in overseas markets it would appear desirable to provide financial incentives for them to build in these locations.

A further stipulation should be that plants must be of sufficient size to realize economies of scale in order to qualify for assistance. Most sources identify this size as not less than 600 tons per day crushing capacity.

FIGURE 2

WESTERN CANADA RAPESEED PRODUCTION

BY CENSUS DIVISIONS
1971-72 CROP YEAR



APPENDIX

TABLE 1a
 TOTAL PRODUCTION OF RAPESEED CROPS BY PROVINCE
 ('000 bushels)

Year	Canada	Manitoba	Saskatchewan	Alberta
1951	143	-- ^a	143	-- ^a
1952	318	90	228	-- ^a
1953	518	68	450	-- ^a
1954	810	144	666	-- ^a
1955	1,548	68	1,390	90
1956	6,107	415	5,100	592
1957	8,661	344	7,280	1,037
1958	7,762	252	6,600	910
1959	3,560	180	2,800	580
1960	11,120	480	8,000	2,640
1961	11,220	360	5,600	5,260
1962	6,360	460	2,620	3,280
1963	8,360	760	4,040	3,560
1964	11,068	1,168	4,200	5,700
1965	22,600	2,400	10,700	9,500
1966	25,800	2,100	12,700	11,000
1967	24,700	2,300	10,200	12,200
1968	19,400	1,900	10,300	7,200
1969	33,400	3,500	18,200	11,700
1970	72,200	7,200	39,500	25,500
1971	95,000	12,000	51,000	32,000
1972 ^b	57,300	8,500	24,800	24,000

^aNo significant quantity reported.

^bEstimate on the basis of conditions on or about October 25, 1972.

Source: Quarterly Bulletin of Agricultural Statistics, 21-003 Field Crop Reporting Series, 22-002.

TABLE 1b
 PROVINCIAL PRODUCTION OF RAPESEED CROPS AS A PERCENTAGE
 OF TOTAL CANADIAN PRODUCTION

Year	Manitoba	Saskatchewan	Alberta
1951	-- ^a	100.0	-- ^a
1952	28.3	71.7	-- ^a
1953	13.1	86.9	-- ^a
1954	17.8	82.2	-- ^a
1955	4.4	89.8	5.8
1956	6.8	83.5	9.7
1957	4.0	84.1	12.0
1958	3.2	85.0	11.7
1959	5.1	78.7	16.3
1960	4.3	71.9	23.7
1961	3.2	49.9	46.9
1962	7.2	41.2	51.6
1963	9.1	48.3	42.6
1964	10.6	37.9	51.5
1965	10.6	47.3	42.0
1966	8.1	49.2	42.6
1967	9.3	41.3	49.3
1968	9.8	53.1	37.1
1969	10.5	54.5	35.0
1970	10.0	54.7	35.3
1971	12.6	53.7	33.7
1972 ^b	14.8	43.3	41.9

^aNo significant quantity reported.

^bEstimate on the basis of conditions on or about October 25, 1972.

TABLE 1c
 TOTAL ACREAGES OF RAPESEED CROPS BY PROVINCE
 ('000 acres)

Year	Canada	Manitoba	Saskatchewan	Alberta
1951	7.5	-- ^a	7.5	-- ^a
1952	18.5	6.5	12.0	-- ^a
1953	29.5	4.5	25.0	-- ^a
1954	46.0	9.0	37.0	-- ^a
1955	136.2	5.2	123.0	8.0
1956	357.0	25.0	300.0	32.0
1957	617.5	27.5	520.0	70.0
1958	626.0	21.0	535.0	70.0
1959	213.5	12.0	165.0	36.5
1960	763.0	33.0	550.0	180.0
1961	710.3	29.3	374.0	307.0
1962	404.5	25.5	167.0	212.0
1963	478.0	45.0	210.0	223.0
1964	699.8	69.8	262.0	368.0
1965	1,435.0	145.0	555.0	735.0
1966	1,525.0	170.0	731.0	624.0
1967	1,620.0	145.0	600.0	875.0
1968	1,052.0	91.0	511.0	450.0
1969	2,012.0	196.0	1,000.0	816.0
1970	4,050.0	400.0	2,200.0	1,450.0
1971	5,306.0	581.0	2,737.0	1,988.0
1972	3,270.0	470.0	1,500.0	1,300.0
1973 ^b	3,220.0	470.0	1,450.0	1,300.0

^aNo significant quantity reported.

^bIntended.

Source: DBS, Field Crop Reporting Series, #22-002.

TABLE 1d
 PROVINCIAL ACREAGES OF RAPESEED CROPS AS
 PERCENTAGE OF TOTAL ACREAGES

Year	Manitoba	Saskatchewan	Alberta
1951	-- ^a	100.0	-- ^a
1952	35.1	64.9	-- ^a
1953	15.3	84.7	-- ^a
1954	19.6	80.4	-- ^a
1955	3.8	90.3	5.9
1956	7.0	84.0	9.0
1957	4.5	84.2	11.3
1958	3.4	85.5	11.2
1959	5.6	77.3	17.1
1960	4.3	72.1	23.6
1961	4.1	52.7	43.2
1962	6.3	41.3	52.4
1963	9.4	43.9	46.7
1964	10.0	37.4	52.6
1965	10.1	38.7	51.2
1966	11.1	47.9	40.9
1967	9.0	37.0	54.0
1968	8.7	48.6	42.8
1969	9.7	49.7	40.6
1970	9.9	54.3	35.8
1971	10.9	51.6	37.5
1972	14.4	45.9	39.8
1973 ^b	14.6	45.0	40.4

^aNo significant quantity reported.

^bIntended.

TABLE 1e

MANITOBA

ACREAGES OF RAPESEED CROPS BY CENSUS DIVISION

	1961		1966		1971	
	Quantity	Percent	Quantity	Percent	Quantity	Percent
Province	29,332	100.0	169,522	100.1	580,768	100.0
C.D. 1	56	0.2	4,648	2.7	8,277	1.4
2	1,358	4.6	13,402	7.9	68,341	11.8
3	219	0.7	5,961	3.5	50,612	8.7
4	493	1.7	4,400	2.6	31,848	5.5
5	1,112	3.8	5,575	3.3	9,923	1.7
6	267	0.9	15,997	9.4	40,381	7.0
7	1,682	5.7	4,693	2.8	26,697	4.6
8	1,004	3.4	3,215	1.9	18,907	3.3
9	91	0.3	1,680	1.0	2,877	0.5
10	669	2.3	4,195	2.5	28,048	4.8
11	2,656	9.1	6,631	3.9	41,017	7.1
12	693	2.4	673	0.4	6,594	1.1
13	1,257	4.3	3,695	2.2	43,262	7.4
14	761	2.6	3,698	2.2	19,532	3.4
15	15,036	51.3	61,362	36.2	78,379	13.5
16	339	1.2	9,943	5.9	11,665	2.0
17	1,154	3.9	12,817	7.6	65,280	11.2
18	155	0.5	6,246	3.7	25,609	4.4
19	230	0.8	396	0.2	1,984	0.3
20	100	0.3	325	0.2	1,535	0.3

Source: DBS, Census 1961, 1966, 1971.

TABLE 1f
SASKATCHEWAN
ACREAGES OF RAPESEED CROPS BY CENSUS DIVISIONS

	1961		1966		1971	
	Quantity	Percent	Quantity	Percent	Quantity	Percent
Province	374,176	100.14	731,482	100.0	2,736,555	100.3
C.D. 1	140	0.04	936	0.1	19,904	0.7
2	838	0.2	-- ^a	0.0	15,183	0.6
3	205	0.1	10	0.0	3,829	0.1
4	220	0.1	-- ^a	0.0	2,525	0.1
5	994	0.3	3,952	0.5	103,292	3.8
6	1,108	0.3	76	0.01	51,166	1.9
7	726	0.2	30	0.0	26,164	1.0
8	740	0.2	60	0.01	23,281	0.9
9	8,638	2.3	51,559	7.0	165,562	6.1
10	11,149	3.0	40,173	5.5	236,807	8.7
11	6,622	1.8	1,912	0.3	216,889	7.9
12	5,567	1.5	3,780	0.5	158,884	5.8
13	7,865	2.1	10,622	1.5	196,250	7.2
14	108,982	29.1	296,272	40.5	541,160	19.8
15	111,559	29.8	115,235	15.8	499,477	18.3
16	50,478	13.5	64,452	8.8	246,890	9.0
17	52,911	14.1	123,290	16.9	211,350	7.7
18	5,434	1.5	19,123	2.6	17,942	0.7

^aNo significant quantity reported.

Source: DBS, Census 1961, 1966, 1971.

TABLE 1g

ALBERTA

ACREAGES OF RAPESEED CROPS BY CENSUS DIVISIONS

	1961		1966		1971	
	Quantity	Percent	Quantity	Percent	Quantity	Percent
Province	306,641	100.01	624,477	100.1	1,987,625	99.8
C.D. 1	523	0.2	20	0.0	20,826	1.0
2	506	0.2	900	0.1	90,404	4.5
3	1,327	0.4	1,411	0.2	40,366	2.0
4	817	0.3	600	0.1	17,572	0.9
5	14,882	4.9	13,841	2.2	221,226	11.1
6	10,174	3.3	30,513	4.9	83,646	4.2
7	13,225	4.3	36,047	5.8	214,762	10.8
8	12,721	4.1	49,915	8.0	65,544	3.3
9	12	0.0	261	0.04	-- ^a	0.0
10	20,916	6.8	72,587	11.6	255,184	12.8
11	22,845	7.5	32,859	5.3	71,949	3.6
12	15,862	5.2	46,584	7.5	71,254	3.6
13	50,743	16.5	78,019	12.5	164,783	8.3
14	27	0.01	102	0.02	1,593	0.1
15	142,061	46.3	260,818	41.8	668,516	33.6

^aNo significant quantity reported.

Source: DBS, Census 1961, 1966, 1971.

TABLE 1h
 TOTAL PRODUCTION OF FLAXSEED CROPS BY PROVINCE
 ('000 bushels)

Year	Canada	Ontario	Manitoba	Saskatchewan	Alberta	B.C.
1951	9,897	960	5,000	2,300	1,570	67
1952	12,961	871	5,700	4,300	2,000	90
1953	9,912	537	3,800	3,500	2,000	75
1954	11,238	188	4,000	4,800	2,150	100
1955	19,748	194	4,600	11,850	3,000	104
1956	34,935	165	8,000	19,000	7,500	270
1957	19,205	245	3,500	10,500	4,900	60
1958	22,342	284	4,700	10,800	6,500	58
1959	17,191	234	4,600	5,700	6,600	57
1960	22,477	420	6,400	10,400	5,200	57
1961	14,318	381	4,300	5,600	4,000	37
1962	15,685	362	8,200	4,100	3,000	23
1963	21,116	411	9,300	7,300	3,700	11
1964	20,305	375	10,600	4,500	4,300	19
1965	29,176	316	16,200	7,300	4,900	20
1966	22,020	215	10,000	6,000	5,500	20
1967	9,378	112	5,700	1,600	1,700	13
1968	19,666	101	10,400	4,600	4,300	9
1969	27,548	46	10,200	10,800	6,300	10
1970	48,932	34	12,500	24,800	11,400	4
1971	22,387	21	5,900	12,900	3,500	3
1972 ^a	19,017	17	6,500	9,800	2,700	-- ^b

^a Estimate on the basis of conditions on or about October 25, 1972.

^b No significant quantity reported.

Source: DBS, Quarterly Bulletin of Agricultural Statistics, #21-003.

TABLE 1i
 PROVINCIAL PRODUCTION OF FLAXSEED CROPS AS PERCENTAGE
 OF TOTAL CANADIAN PRODUCTION

Year	Ontario	Manitoba	Saskatchewan	Alberta	B.C.
1951	9.7	50.5	23.2	15.9	0.7
1952	6.7	44.0	33.2	15.4	0.7
1953	5.4	38.3	35.3	20.2	0.8
1954	1.7	35.6	42.7	19.1	0.9
1955	1.0	23.3	60.0	15.2	0.5
1956	0.5	22.9	54.4	21.5	0.8
1957	1.3	18.2	54.7	25.5	0.3
1958	1.3	21.0	48.3	29.1	0.3
1959	1.4	26.8	33.2	38.4	0.3
1960	1.9	28.5	46.3	23.1	0.3
1961	2.7	30.0	39.1	27.9	0.3
1962	2.3	51.7	25.8	18.9	0.1
1963	1.9	44.0	34.6	17.5	0.1
1964	1.8	52.2	22.2	21.2	0.1
1965	1.1	55.5	25.0	16.8	0.1
1966	1.0	45.4	27.2	25.0	0.1
1967	1.2	60.8	17.1	18.1	0.1
1968	0.5	52.9	23.4	21.9	0.0
1969	0.2	37.0	39.2	22.9	0.0
1970	0.1	25.5	50.7	23.3	0.0
1971	0.1	26.4	57.6	15.6	0.0
1972 ^a	0.1	34.2	51.5	14.2	0.0

^aEstimate on the basis of conditions on or about October 25, 1972.

TABLE 1j

MANITOBA

ACREAGES OF FLAXSEED CROPS BY CENSUS DIVISION

	1961		1966		1971	
	Quantity	Percent	Quantity	Percent	Quantity	Percent
Province	748,296	99.9	1,107,388	99.9	565,551	99.7
C.D. 1	41,030	5.5	56,701	5.1	17,460	3.1
2	183,052	24.5	233,499	21.1	67,529	11.9
3	73,075	9.8	113,940	10.3	70,688	12.5
4	116,793	15.6	173,790	15.7	120,535	21.3
5	21,728	2.9	33,041	3.0	18,481	3.3
6	87,692	11.7	121,804	11.0	62,127	11.0
7	40,816	5.5	55,314	5.0	27,882	4.9
8	33,746	4.5	60,234	5.4	32,707	5.8
9	20,528	2.7	26,310	2.4	11,897	2.1
10	30,867	4.1	46,786	4.2	25,951	4.6
11	17,859	2.4	30,437	2.7	10,518	1.9
12	16,246	2.2	35,660	3.2	27,959	4.9
13	9,421	1.3	20,893	1.9	11,725	2.1
14	655	0.1	2,526	0.2	1,401	0.2
15	6,701	0.8	3,236	0.3	3,743	0.7
16	1,807	0.2	6,234	0.6	1,757	0.3
17	20,299	2.7	43,857	4.0	25,046	4.4
18	14,489	1.9	32,695	3.0	20,898	3.4
19	6,534	0.8	4,397	0.3	4,674	0.8
20	4,958	0.7	6,034	0.5	2,573	0.5

Source: DBS, Census 1961, 1966, 1971.

TABLE 1k
 SASKATCHEWAN
 ACREAGES OF FLAXSEED CROPS BY CENSUS DIVISION

	1961		1966		1971	
	Quantity	Percent	Quantity	Percent	Quantity	Percent
Province	941,055	100.22	429,027	100.01	924,785	100.0
C.D. 1	52,584	5.6	85,453	19.9	74,442	8.0
2	52,863	5.6	36,012	8.4	82,953	9.0
3	39,466	4.2	14,939	3.5	40,323	4.4
4	5,040	0.5	2,912	0.7	11,175	1.2
5	18,099	1.9	31,280	7.3	58,968	6.4
6	105,496	11.2	45,676	10.6	153,706	16.6
7	90,181	10.0	27,511	6.4	82,842	9.0
8	164,482	17.5	64,952	15.1	157,006	17.0
9	11,537	1.2	6,659	1.6	17,365	1.9
10	40,904	4.3	8,519	2.0	28,203	3.0
11	88,132	9.4	12,992	3.0	56,694	6.1
12	79,402	8.4	23,432	5.5	70,785	7.7
13	43,139	4.6	20,112	4.7	61,063	6.6
14	94,558	10.0	36,214	8.4	18,413	2.0
15	46,534	4.9	10,868	2.5	7,689	0.8
16	4,823	0.5	669	0.2	2,145	0.2
17	3,670	0.4	789	0.2	1,013	0.1
18	145	0.02	38	0.01	-- ^a	

^aNo significant quantity reported.

Source: DBS, Census 1961, 1966, 1971.

TABLE 11

ALBERTA

ACREAGES OF FLAXSEED CROPS BY CENSUS DIVISION

	1961		1966		1971	
	Quantity	Percent	Quantity	Percent	Quantity	Percent
Province	362,023	100.0	347,446	99.72	270,753	100.15
C.D. 1	22,771	6.3	29,670	8.5	53,767	19.9
2	75,505	20.9	61,448	17.7	55,902	20.6
3	22,277	6.2	21,015	6.0	18,571	6.9
4	9,215	2.5	1,624	0.4	9,500	3.5
5	102,096	28.2	72,694	20.9	80,383	29.7
6	13,075	3.6	14,934	4.3	8,969	3.3
7	4,622	1.3	1,897	0.5	7,510	2.8
8	1,522	0.4	264 ^a	0.1	123 ^a	0.05
9	-- ^a	0.0	-- ^a	0.0	-- ^a	0.0
10	8,827	2.4	5,539	1.6	5,865	2.2
11	1,928	0.5	2,084	0.5	408	0.2
12	4,361	1.2	7,630	2.2	798	0.3
13	10,502	2.9	13,329	3.8	4,343	1.6
14	-- ^a	0.0	83	0.02	240	0.1
15	85,292	23.6	115,235	33.2	24,374	9.0

^aNo significant quantity reported.

Source: DBS, Census 1961, 1966, 1971.

TABLE 2a
 EXPORTS OF CANADIAN RAPESEED BY DESTINATION
 ('000 of bushels)

Crop Year	Total	Japan	U.K.	Belgium, Luxembourg, West Germany	Italy	Netherlands	All Others
1957-58	6,333	739	63	1,130	2,238	2,092	71
1958-59	5,615	976	22	470	2,221	1,926	0
1959-60	2,937	2,289	31	7	128	10	472
1960-61	8,075	877	169	918	2,949	845	2,317
1961-62	6,917	1,231	146	334	3,230	988	898
1962-63	5,670	3,080	73	373	1,358	372	414
1963-64	5,308	4,436	92	0	189	167	424
1964-65	9,276	3,724	326	692	1,462	1,007	2,065
1965-66	13,632	6,986	162	1,410	2,804	1,470	800
1966-67	13,818	8,404	158	68	3,163	964	1,061
1967-68	12,309	10,197	0	0	324	307	1,481
1968-69	14,311	10,909	0	64	184	143	3,011
1969-70	22,213	14,390	698	1,271	842	2,796	2,216
1970-71	46,811	16,004	299	4,437	4,391	9,094	12,586
1971-72	42,603	22,271	496	1,732	2,773	5,884	9,447
1972-73 ^a	37,864	22,773	-- ^b	401	1,741	1,302	11,647

^aAugust 1972-April 1973.

^bNo significant quantity reported.

Source: DBS, Oilseeds Review, #22-006; Grain Trade of Canada, #22-201.

TABLE 2b
 DESTINATION OF CANADIAN RAPESEED EXPORTS AS
 PERCENTAGE OF TOTAL

Crop Year	Japan	U.K.	Belgium, Luxembourg, West Germany	Italy	Netherlands	All Others
1957-58	11.7	1.0	17.8	35.3	33.0	1.1
1958-59	17.4	0.4	8.4	39.6	34.3	0.0
1959-60	77.9	1.1	0.2	4.4	0.3	16.1
1960-61	10.9	2.1	11.4	36.5	10.5	28.7
1961-62	54.3	1.3	6.6	24.0	6.6	7.3
1962-63	54.3	1.3	6.6	24.0	6.6	7.3
1963-64	83.6	1.7	0.0	3.6	3.1	8.0
1964-65	40.1	3.5	7.5	15.8	10.9	22.3
1965-66	51.2	1.2	10.3	20.6	10.8	5.9
1966-67	60.8	1.1	0.5	22.9	7.0	7.7
1967-68	82.8	0.0	0.0	2.6	2.5	12.0
1968-69	76.2	0.0	0.4	1.3	1.0	21.0
1969-70	64.8	3.1	5.7	3.8	12.6	10.0
1970-71	34.2	0.6	9.5	9.4	19.4	26.9
1971-72	52.3	1.1	4.1	6.5	13.8	22.2
1972-73 ^a	60.1	-- ^b	1.1	4.6	3.4	30.8

^aAugust 1972-April 1973.

^bNo significant quantity reported.

TABLE 2c
 EXPORTS OF RAPESEED OIL BY DESTINATION
 (cwts)

Year	Total	U.S.	Chile	Japan	Others
1961	7,113	7,113	--	--	--
1962	7,135	7,135	--	--	--
1963	1,222	1,222	--	--	--
1964	3,908	3,908	--	--	--
1965	49	49	--	--	--
1966	N/A ^a				
1967	N/A				
1968	N/A				
1969	N/A				
1970	N/A				
1971	N/A				
1972	N/A				
1973 ^b	272,966	1,530	123,417	91,328	56,691

^aN/A - not separately available.

^bJanuary-April 1973.

Source: DBS, Exports by Commodities, #65-004.

TABLE 2d
 VALUE OF RAPESEED EXPORTS BY DESTINATION
 (\$000's)

Year	Total	Japan	U.K.	Belgium Luxembourg, W. Germany	Italy	Netherlands	Other
1961	13,849.5	2,221.4	300.5	2,040.1	3,904.8	1,912.6	3,470.1
1962	20,666.7	4,893.8	179.7	1,520.5	8,871.9	2,985.9	2,215.1
1963	16,156.4	12,258.5	164.3	34.3	1,822.5	265.3	1,611.5
1964	10,151.7	6,924.4	264.5	29.7	359.8	1,056.2	1,517.0
1965	30,900.0	12,912.9	1,056.7	2,744.0	5,737.2	2,595.9	5,852.9
1966	38,480.0	21,380.0	436.0	3,447.0	6,390.0	4,333.0	2,496.0
1967	40,868.0	25,506.0	128.0	25.0	10,051.0	1,866.0	3,293.0
1968	31,908.0	24,648.0	-- ^a	22.0	555.0	641.0	6,043.0
1969	31,182.0	24,447.0	704.0	321.0	319.0	2,542.0	2,850.0
1970	79,009.0	40,973.0	793.0	7,662.0	4,062.0	11,883.0	13,636.0
1971	148,211.0	54,516.0	1,010.0	11,806.0	12,173.0	26,801.0	41,908.0
1972	125,446.0	69,540.0	2,101.0	3,349.0	7,636.0	10,424.0	32,397.0
1973 ^b	51,178.0	33,160.0	-- ^a	-- ^a	2,641.0	1,525.0	13,853.0

^aNo significant quantity reported.

^bJanuary-April 1973.

Source: DBS, Exports by Commodities, #65-004.

TABLE 2e
 VALUE OF RAPESEED OIL EXPORTS BY DESTINATION
 (\$000's)

Year	Total	U.S.	Chile	Japan	Other
1961	91.1	91.1	-- ^a	-- ^a	-- ^a
1962	76.3	76.3	-- ^a	-- ^a	-- ^a
1963	11.0	11.0	-- ^a	-- ^a	-- ^a
1964	45.0	45.0	-- ^a	-- ^a	-- ^a
1965	0.9	0.9	-- ^a	-- ^a	-- ^a
1966	N/A ^b				
1967	N/A ^b				
1968	N/A ^b				
1969	N/A ^b				
1970	N/A ^b				
1971	N/A ^b				
1972	N/A ^b				
1973 ^c	2,858.0	15.0	1,148.0	969.0	726.0

^aNo significant quantity reported.

^bN/A - not separately available.

^cJanuary-April 1973.

Source: DBS, Exports by Commodities, #65-004.

TABLE 2f
 EXPORTS OF CANADIAN FLAXSEED BY DESTINATION
 ('000's of bushels)

Crop Year	Total	Japan	U.K.	Belgium Luxembourg, W. Germany	Italy	Netherlands	All Others
1957-58	13,650	2,579	4,317	1,916	164	2,348	2,326
1958-59	14,276	2,517	6,949	1,429	--- ^a	1,094	2,287
1959-60	12,494	2,682	5,293	1,326	103	1,518	1,572
1960-61	13,603	4,039	7,302	501	33	200	1,528
1961-62	11,988	3,119	4,643	971	40	1,418	1,797
1962-63	12,566	3,785	5,061	1,247	40	956	1,477
1963-64	13,638	3,830	4,545	1,199	--- ^a	1,476	2,588
1964-65	14,346	4,051	4,776	1,365	38	2,039	2,077
1965-66	18,936	4,308	5,119	2,956	31	3,732	2,790
1967-68	12,611	3,801	2,605	989	35	2,229	2,952
1968-69	13,421	4,885	2,213	1,882	114	2,225	2,102
1969-70	18,611	5,684	2,291	2,199	557	4,378	3,502
1970-71	21,194	4,338	1,876	4,462	520	6,772	3,226
1971-72	25,741	4,541	1,621	4,440	152	12,123	2,904
1972-73 ^b	13,114	3,086	759	1,873	573	4,316	2,507

^aNo significant quantity reported.

^bAugust 1972-April 1973.

Source: DBS, Grain Trade of Canada, #22-201; Oilseeds Review, #22-006.

TABLE 2g
 DESTINATION OF CANADIAN FLAXSEED EXPORTS AS
 PERCENTAGE OF TOTAL

Crop Year	Japan	U.K.	Belgium Luxembourg, W. Germany	Italy	Netherlands	All Others
1957-58	18.9	31.6	14.0	1.2	17.2	17.0
1958-59	17.6	48.7	10.0	-- ^a	7.7	16.0
1959-60	21.5	42.7	10.6	0.8	12.1	12.6
1960-61	29.7	43.7	3.7	0.2	1.5	11.2
1961-62	26.0	38.7	8.1	0.3	11.7	15.0
1962-63	30.1	40.3	9.9	0.3	7.6	11.8
1963-64	28.1	33.3	8.8	-- ^a	10.8	19.0
1964-65	28.2	33.3	9.5	0.3	14.2	14.5
1965-66	22.8	27.0	15.6	0.2	19.7	14.7
1966-67	28.6	21.4	10.4	0.4	24.8	14.4
1967-68	30.1	20.7	7.8	0.3	17.7	23.4
1968-69	36.4	16.5	14.0	0.8	16.6	15.7
1969-70	30.5	12.3	11.8	3.0	23.5	18.8
1970-71	20.5	8.9	21.1	2.5	32.0	15.2
1971-72	17.6	6.3	17.1	0.6	47.1	11.3
1972-73 ^b	23.5	5.8	14.3	4.4	32.9	19.1

^aNo significant quantity reported.

^bAugust 1972-April 1973.

TABLE 2h
 EXPORTS OF LINSEED OIL BY DESTINATION
 (cwt's)

Year	Total	U.K.	U.S.	Other
1964	189,945	179,979	12	9,954
1965	225,171	201,804	23,268	199
1966	123,551	112,106	11,289	156
1967	89,334	44,390	-- ^a	44,944
1968	229,999	229,666	143	190
1969	87,932	76,102	11,648	182
1970	277,128	256,081	20,734	313
1971	242,699	240,651	1,685	363
1972	354,606	319,419	18,519	16,668
1973 ^b	22,547	22,467	-- ^a	80

^aNo significant quantity reported.

^bJanuary-April 1973.

Source: DBS, Exports by Commodities, #65-004.

TABLE 2i

DESTINATION OF LINSEED OIL EXPORTS AS PERCENTAGE OF TOTAL

Year	U.K.	U.S.	Other
1964	94.8	0.0	5.2
1965	89.6	10.3	0.1
1966	90.7	9.1	0.1
1967	49.7	0.0	50.3
1968	99.9	0.1	0.1
1969	86.5	13.2	0.2
1970	92.4	7.5	0.1
1971	99.2	0.7	0.2
1972	90.1	5.2	4.7
1973 ^a	99.6	0.0	0.4

^aJanuary-April 1973.

TABLE 2j
 VALUE OF FLAXSEED EXPORTS BY DESTINATION
 (\$'000's)

Year	Total	Japan	U.K.	Belgium, Luxembourg, W. Germany	Italy	Netherlands	Other
1961	46,269.4	14,300.9	21,420.8	2,227.4	-- ^a	2,851.3	5,469.0
1962	41,920.0	11,368.7	16,760.0	2,873.2	285.6	4,265.1	5,991.0
1963	38,560.0	13,535.8	13,984.9	2,873.2	-- ^a	1,668.3	6,497.9
1964	48,661.8	12,244.1	16,298.7	3,718.4	65.0	7,068.9	9,266.7
1965	51,658.0	13,335.0	16,260.7	4,966.3	63.7	9,281.2	7,751.1
1966	60,816.0	13,832.0	12,084.0	9,088.0	278.0	13,159.0	12,376.0
1967	44,517.0	13,701.0	10,656.0	3,409.0	127.0	10,598.0	6,028.0
1968	38,014.0	13,090.0	8,201.0	2,510.0	129.0	5,291.0	8,793.0
1969	42,410.0	17,329.0	6,864.0	6,749.0	578.0	10,702.0	10,188.0
1970	55,757.0	15,730.0	6,333.0	10,162.0	1,436.0	12,582.0	9,515.0
1971	63,849.0	12,620.0	6,318.0	11,660.0	1,580.0	22,936.0	8,835.0
1972	68,511.0	12,498.0	5,563.0	12,644.0	916.0	28,344.0	8,547.0
1973 ^b	19,726.0	5,060.0	3,356.0	1,360.0	1,617.0	7,948.0	385.0

^aNo significant quantity reported.

^bJanuary-April 1973.

Source: DBS, Exports by Commodities, #65-004.

TABLE 2k
 VALUE OF LINSEED OIL EXPORTS BY DESTINATION
 (\$000's)

Year	Total	U.K.	U.S.	Other
1961	2,642.8	2,590.0	1.9	50.9
1962	588.2	572.0	5.2	11.0
1963	953.4	942.5	-- ^a	10.9
1964	2,280.0	2,129.4	0.1	151.4
1965	2,597.8	2,351.7	242.7	3.4
1966	1,276.0	1,164.0	110.0	2.0
1967	869.0	444.0	-- ^a	423.0
1968	2,624.0	2,620.0	3.0	0.0
1969	1,015.0	869.0	142.0	4.0
1970	2,981.0	2,748.0	228.0	6.0
1971	2,421.0	2,404.0	10.0	8.0
1972	3,276.0	2,946.0	164.0	166.0
1973 ^b	306.0	304.0	-- ^a	1.0

^aNo significant quantity reported.

^bJanuary-April 1973.

Source: DBS, Exports by Commodities, #65-004.

TABLE 3a
 RAPESEED OIL CRUSHINGS IN CANADA

Crop Years	Quantity Crushed ('000's bushels)	Oil Produced ('000's lbs.)	Oil Meal Produced ('000's tons)
1958-59	761	13,823	11
1959-60	226	4,113	3
1960-61	960	16,869	15
1961-62	1,314	24,340	20
1962-63	1,616	30,800	24
1963-64	1,574	30,759	23
1964-65	2,156	42,431	31
1965-66	3,746	73,384	54
1966-67	4,963	99,367	71
1967-68	5,159	103,471	74
1968-69	6,934	140,543	98
1969-70	7,768	153,042	114
1970-71	8,575	169,892	124
1971-72	12,050	234,286	179
1972-73 ^a	11,217	212,045	161

^a August 1972-April 1973.

Source: DBS, Oil Seeds Review, #22-006.

TABLE 3b
SOYBEAN OIL CRUSHINGS IN CANADA

Crop Year	Quantity Crushed ('000 bu.)	Oil Produced ('000 lbs.)	Oil Meal Produced ('000 tons)
1958-59	14,912	154,939	353
1959-60	17,080	184,310	401
1960-61	16,279	173,837	381
1961-62	16,916	176,821	396
1962-63	17,862	183,592	419
1963-64	18,606	192,655	442
1964-65	19,541	201,047	465
1965-66	20,654	205,296	491
1966-67	19,876	201,522	474
1967-68	19,846	198,999	472
1968-69	20,054	204,027	476
1969-70	23,639	240,564	559
1970-71	23,437	242,325	549
1971-72	23,314	241,259	544
1972-73 ^a	17,750	171,601	411

^aAugust 1972-April 1973.

Source: DBS, Oil Seeds Review, #22-006.

TABLE 3c
 FLAXSEED OIL CRUSHINGS IN CANADA

Crop Year	Quantity Crushed ('000 bu.)	Oil Produced ('000 lbs.)	Oil Meal Produced ('000 tons)
1958-59	3,301	64,447	57
1959-60	2,607	51,099	45
1960-61	2,916	57,633	51
1961-62	2,465	47,918	43
1962-63	2,529	49,105	43
1963-64	2,752	53,173	48
1964-65	2,901	55,742	51
1965-66	2,631	51,388	45
1966-67	2,543	50,487	44
1967-68	2,266	44,946	39
1968-69	2,085	41,044	36
1969-70	2,490	47,963	44
1970-71	2,827	54,670	50
1971-72	2,837	59,836	50
1972-73 ^a	2,160	41,104	38

^aAugust 1972-April 1973.

Source: DBS, Oilseeds Review, #22-006.

TABLE 4a.

DOMESTIC PRODUCTION OF DEODORIZED OILS

A. Production from RAPESEED:

Year	Margarine Oil	Shortening Oil ('000's of pounds)	Salad Oil	Total Production of Deodorized Oils
1967	36,224	38,660	26,858	101,742
1968	32,803	46,023	37,867	116,692
1969	41,674	48,853	45,008	135,535
1970	41,354	43,465	45,478	130,296
1971	47,298	60,724	52,455	160,477
1972	68,578	73,968	69,482	212,027
1973 ^a	25,404	25,806	25,400	76,610

B. Production from SOYBEAN:

Year	Margarine Oil	Shortening Oil ('000's of pounds)	Salad Oil	Total Production of Deodorized Oils
1967	53,898	70,678	29,132	153,708
1968	51,209	70,397	24,568	146,174
1969	52,583	82,724	18,602	153,909
1970	59,280	98,766	24,896	182,943
1971	40,732	74,793	27,750	143,275
1972	41,767	72,365	30,788	144,921
1973 ^a	21,354	30,622	10,767	62,743

C. Total Domestic Production of DEODORIZED OILS

Year	Margarine Oil	Shortening Oil ('000's of pounds)	Salad Oil	Total Production of Deodorized Oils
1967	106,029	188,681	111,067	405,777
1968	101,898	197,134	123,041	422,073
1969	110,700	226,875	121,177	458,752
1970	113,465	233,370	122,102	468,937
1971	103,324	220,610	127,198	451,132
1972	130,120	252,504	146,979	529,152
1973 ^a	52,817	93,659	52,832	199,308

^aJanuary-April 1973.Source: DBS, Oils and Fats, #32-006.

TABLE 4b

PRODUCTION OF DEODORIZED OILS FROM SPECIFIED OILSEEDS
AS A PERCENTAGE OF TOTAL PRODUCTION

A. Production from RAPESEED as Percentage of Total

Year	Margarine Oil	Shortening Oil ('000's of pounds)	Salad Oil	Total Production of Deodorized Oils
1967	34.2	20.5	24.2	25.1
1968	32.2	23.3	30.8	27.6
1969	37.6	21.5	37.1	29.5
1970	36.4	18.6	37.2	27.8
1971	45.8	27.5	41.2	35.6
1972	52.7	29.3	47.3	40.1
1973 ^a	48.1	27.6	48.1	38.4

B. Production from SOYBEAN as Percentage of Total

Year	Margarine Oil	Shortening Oil ('000's of pounds)	Salad Oil	Total Production of Deodorized Oils
1967	50.8	37.5	26.2	37.9
1968	50.3	35.7	20.0	34.6
1969	47.5	36.5	15.4	33.5
1970	52.2	42.3	20.4	39.0
1971	39.4	33.9	21.8	31.8
1972	32.1	28.7	20.9	27.4
1973 ^a	40.4	32.7	20.4	31.5

^aJanuary-April 1973.

TABLE 5a

44

FATS AND OILS: ESTIMATED PRODUCTION BY ECONOMIC CLASSES AND REGIONS AND BY MAIN COMMODITIES, 1964-66 AVERAGE, 1970⁺ AND PROJECTIONS FOR 1980

	1964-66 average	1970 ⁺	1980	1964-66 average	1970 ⁺	1980
	(. Thousand tons)					
	<u>Soybean Oil</u>			<u>Sunflowerseed Oil</u>		
<u>WORLD</u>	4,238	6,068	8,195	2,811	3,575	5,163
<u>ECONOMIC CLASS I</u>	3,588	5,266	7,075	148	225	448
North America	3,587	5,265	7,073	9	9	63
Europe	1	--	1	107	173	330
Others	--	1	1	32	43	55
<u>ECONOMIC CLASS II</u>	93	250	482	338	540	780
Africa	2	2	3	10	18	28
Latin America	81	235	381	257	341	497
Near East	1	2	2	71	181	255
Asia and Far East	9	11	96	--	--	--
Others	--	--	--	--	--	--
<u>ECONOMIC CLASS III</u>	557	552	638	2,325	2,810	3,935
Asian Planned Economies	524	500	550	17	17	20
U.S.S.R. - Eastern Europe	33	52	88	2,308	2,793	3,915
	<u>Cottonseed Oil</u>			<u>Rapeseed Oil</u>		
<u>WORLD</u>	2,717	2,781	3,283	1,547	1,897	3,012
<u>ECONOMIC CLASS I</u>	873	659	526	365	602	1,278
North America	815	596	455	114	259	684
Europe	47	46	48	210	333	584
Others	11	17	23	41	10	10
<u>ECONOMIC CLASS II</u>	1,044	1,183	1,620	616	731	892
Africa	86	117	162	81	90	105
Latin America	443	471	528	28	26	44
Near East	346	379	518	3	3	5
Asia and Far East	169	216	412	504	612	738
Others	--	--	--	--	--	--
<u>ECONOMIC CLASS III</u>	890	939	1,137	566	564	842
Asian Planned Economies	284	372	572	371	331	364
U.S.S.R. - Eastern Europe	515	567	565	195	235	478

Source: FAO Agricultural Commodities Projections 1970-1980, II (Rome 1971), 73.

TABLE 5b

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FATS AND OILS: ESTIMATED PRODUCTION BY ECONOMIC CLASSES AND REGIONS AND
BY MAIN COMMODITIES, 1964-66 AVERAGE, 1970⁺ and PROJECTIONS FOR 1980
(cont'd)

	1964-66 average	1970 ⁺	1980	1964-66 average	1970 ⁺	1980
	(. Thousand tons)					
	<u>Groundnut Oil</u>			<u>Olive Oil</u>		
<u>WORLD</u>	2,990	3,222	4,670	1,403	1,279	1,889
<u>ECONOMIC CLASS I</u>	149	181	251	1,101	1,086	1,361
North America	91	102	138	1	1	--
Europe	--	--	--	1,098	1,082	1,358
Others	58	79	113	2	3	3
<u>ECONOMIC CLASS II</u>	2,401	2,559	3,816	298	188	523
Africa	868	779	1,288	138	78	232
Latin America	201	222	325	12	10	16
Near East	90	94	116	148	100	275
Asia and Far East	1,242	1,464	2,087	--	--	--
Others	--	--	--	--	--	--
<u>ECONOMIC CLASS III</u>	440	482	603	4	5	5
Asian Planned Economies	440	482	603	--	--	--
U.S.S.R. - Eastern Europe	--	--	--	4	5	5
	<u>Coconut Oil</u>			<u>Palm Oil</u>		
<u>WORLD</u>	2,238	2,079	2,910	1,317	1,661	3,750
<u>ECONOMIC CLASS I</u>	--	--	--	--	--	--
North America	--	--	--	--	--	--
Europe	--	--	--	--	--	--
Others	--	--	--	--	--	--
<u>ECONOMIC CLASS II</u>	2,238	2,079	2,910	1,317	1,661	3,750
Africa	73	79	119	958	947	1,573
Latin America	163	162	180	46	80	167
Near East	--	--	--	--	--	--
Asia and Far East	1,824	1,644	2,320	313	634	2,000
Others	178	194	291	--	--	10
<u>ECONOMIC CLASS III</u>	--	--	--	--	--	--
Asian Planned Economies	--	--	--	--	--	--
U.S.S.R. - Eastern Europe	--	--	--	--	--	--

Source: FAO Agricultural Commodities Projections 1970-1980, II (Rome 1971), 73.

TABLE 5c

FATS AND OILS: ESTIMATED PRODUCTION BY ECONOMIC CLASSES AND REGIONS AND
BY MAIN COMMODITIES, 1964-66 AVERAGE, 1970⁺ AND PROJECTIONS FOR 1980
(conc'd)

	1964-66 average	1970 ⁺	1980	1964-66 average	1970 ⁺	1980
	(. Thousand tons)					
		<u>Palm Kernel Oil</u>			<u>Marine Oils</u>	
<u>WORLD</u>	473	492	900	945	1,271	1,343
<u>ECONOMIC CLASS I</u>	--	--	--	618	764	863
North America	--	--	--	110	135	148
Europe	--	--	--	334	403	449
Others	--	--	--	174	226	266
<u>ECONOMIC CLASS II</u>	473	492	900	240	368	384
Africa	358	335	458	11	14	14
Latin America	81	91	207	227	353	369
Near East	--	--	--	--	--	--
Asia and Far East	34	66	235	2	1	1
Others	--	--	--	--	--	--
<u>ECONOMIC CLASS III</u>	--	--	--	87	85	96
Asian Planned Economies	--	--	--	--	--	--
U.S.S.R. - Eastern Europe	--	--	--	87	85	96
		<u>Tallow</u>			<u>Lard</u>	
<u>WORLD</u>	4,119	4,591	5,866	4,541	4,963	5,874
<u>ECONOMIC CLASS I</u>	3,243	3,514	4,404	2,262	2,321	2,691
North America	2,418	2,572	3,227	1,031	895	1,103
Europe	518	578	679	1,144	1,302	1,408
Others	307	364	498	87	124	180
<u>ECONOMIC CLASS II</u>	488	600	835	269	333	515
Africa	55	62	97	5	5	12
Latin America	255	309	432	199	240	352
Near East	68	81	111	--	--	--
Asia and Far East	110	148	195	65	88	151
Others	--	--	--	--	--	--
<u>ECONOMIC CLASS III</u>	388	477	627	2,010	2,309	2,668
Asian Planned Economies	118	139	183	873	1,016	1,270
U.S.S.R. - Eastern Europe	270	338	444	1,157	1,293	1,398

Source: FAO Agricultural Commodities Projections 1970-1980, Vol. II (Rome, 1971), 73.

TABLE 6a

PROJECTED TOTAL DEMAND FOR VEGETABLE OILS

Country	Level of Total Demand, Thousand Metric Tons					
	1965	1970	1975T	1980T	1975H	1980H
(1)	(2)	(3)	(4)	(5)	(6)	(7)
World Total	17,661	20,921	24,248	28,201	24,695	29,474
Economic Class I	7,652	8,992	9,829	10,701	9,829	10,701
North America	2,815	3,517	3,830	4,166	3,830	4,166
Canada	155	195	233	277	233	277
United States	2,660	3,322	3,598	3,889	3,598	3,889
Western Europe	4,183	4,571	4,907	5,251	4,907	5,251
E.E.C.	2,459	2,673	2,853	3,040	2,853	3,040
Belgium-Luxembourg	131	124	132	140	132	140
France	592	664	714	762	714	762
Germany, Fed. Rep. of	748	772	805	840	805	840
Italy	782	894	971	1,053	971	1,053
Netherlands	206	218	231	243	231	243
Other West. Europe	1,724	1,899	2,055	2,211	2,055	2,211
Greece	169	181	191	200	191	200
Portugal	128	145	162	178	162	178
Spain	482	482	531	577	531	577
Sweden	84	101	109	118	109	118
United Kingdom	447	496	517	540	517	540
Yugoslavia	130	172	194	216	194	216
Other Dev. Ped. Market	603	843	1,020	1,202	1,020	1,202
Japan	500	720	875	1,030	875	1,030
South Africa	64	79	96	117	96	117
Economic Class II	6,258	7,622	9,285	11,402	9,577	12,278
Africa	1,116	1,293	1,551	1,867	1,595	2,008
Algeria	66	82	102	127	106	137
Morocco	91	113	133	160	134	170
Western Africa	551	627	755	907	765	959
Nigeria	357	413	504	609	506	636
Central Africa	158	181	214	256	223	273
Congo, Dem. Rep. of	81	93	111	135	118	145
Eastern Africa	200	236	284	344	300	387
Ethiopia	79	89	104	122	112	139
Latin America	1,362	1,677	2,068	2,543	2,105	2,650
Central America	363	466	606	795	615	810

H - high assumption of private consumption expenditure, i.e., a maximum growth rate assumed for planning future UN developmental aid.

T - trend assumption of private consumption expenditure, i.e., historical trends.

Source: FAO Agricultural Commodities Projections, II (Rome 1971), p. 402.

TABLE 6b

PROJECTED TOTAL DEMAND FOR VEGETABLE OILS (concluded)

Country (1)	Level of Total Demand, Thousand Metric Tons					
	1965 (2)	1970 (3)	1975T ^a (4)	1980T (5)	1975H ^a (6)	1980H (7)
Mexico	294	384	497	639	504	655
Caribbean Islands	107	126	147	174	153	187
South America	892	1,085	1,315	1,585	1,337	1,654
Argentina	249	275	302	331	305	337
Brazil	317	418	536	676	552	716
Colombia	70	87	107	131	108	137
Peru	62	70	88	109	88	111
Venezuela	84	103	126	153	127	159
Near East	786	965	1,183	1,447	1,194	1,484
Near East in Africa	253	288	345	409	347	419
Sudan	66	77	91	109	91	112
United Arab Republic	171	188	224	284	225	270
Near East in Asia	533	677	839	1,038	847	1,065
Iran	137	183	238	308	238	308
Turkey	237	299	365	443	370	453
Asia and Far East	2,981	3,669	4,460	5,519	4,662	6,108
South Asia	2,146	2,656	3,235	4,020	3,397	4,477
India	1,771	2,155	2,596	3,205	2,737	3,577
Pakistan	301	414	536	694	557	774
East-South East Asia	835	1,013	1,225	1,499	1,265	1,831
Burma	154	175	202	234	205	252
China (Taiwan)	49	65	90	118	92	125
Indonesia	304	359	417	495	433	540
Malaysia	80	98	118	142	121	151
West Malaysia	70	86	104	126	107	134
Philippines	107	133	168	213	172	237
Thailand	47	66	91	125	99	150
Economic Class III	3,750	4,307	5,134	6,097	5,289	6,495
Asian Cent. Pl. Econ.	1,544	1,673	2,082	2,541	2,217	2,939
China (Mainland)	1,529	1,655	2,059	2,511	2,191	2,901
USSR-Eastern Europe	2,206	2,634	3,072	3,556	3,072	3,556
USSR	1,545	1,912	2,287	2,702	2,287	2,702
Eastern Europe	661	722	785	854	785	854
Bulgaria	77	90	100	108	100	108
Czechoslovakia	103	116	123	132	123	132
German Dem. Rep.	140	140	144	150	144	150
Poland	170	177	185	194	185	194
Romania	130	155	183	214	183	214

^aSee Table 6a.

Source: FAO Agricultural Commodities Projections, II (Rome 1971), 402.

TABLE 7a
 MANITOBA
 FARM CASH RECEIPTS FROM RAPESEED AND FLAXSEED
 (\$000's)

Year	Rapeseed	Flaxseed
1961	526	12,603
1962	884	20,654
1963	1,497	16,707
1964	3,047	29,323
1965	3,170	25,320
1966	4,619	33,996
1967	3,544	20,655
1968	3,103	15,192
1969	5,418	25,685
1970	9,812	17,613
1971	14,308	14,710
1972	19,322	13,128
1973 ^a	10,539	7,393

^aJanuary-April, 1973.

Source: DBS, Farm Cash Receipts, #21-001, #21-201.

TABLE 7b

MANITOBA

FARM CASH RECEIPTS FROM RAPESEED AND FLAXSEED
AS PERCENT OF NATIONAL TOTAL

Year	Rape	Flax
1961	3.1	25.1
1962	7.4	42.5
1963	8.9	44.8
1964	12.7	48.1
1965	10.2	53.7
1966	10.1	54.6
1967	8.2	44.7
1968	9.3	57.1
1969	10.1	45.2
1970	10.3	29.5
1971	10.5	25.8
1972	12.8	24.4
1973 ^a	13.8	22.9

^aJanuary-April, 1973.

TABLE 7c
 SASKATCHEWAN
 FARM CASH RECEIPTS FROM RAPESEED AND FLAXSEED
 (\$000's)

Year	Rapeseed	Flaxseed
1961	8,495	22,236
1962	6,034	15,145
1963	8,119	10,885
1964	8,960	17,382
1965	13,227	11,393
1966	21,573	15,925
1967	19,267	12,817
1968	14,896	5,813
1969	27,489	18,118
1970	51,064	28,350
1971	75,227	29,841
1972	70,371	30,182
1973 ^a	42,361	19,918

^aJanuary-April, 1973.

Source: DBS, Farm Cash Receipts, #21-001, #21-201.

TABLE 7d

SASKATCHEWAN

FARM CASH RECEIPTS FROM RAPESEED AND FLAXSEED
AS PERCENT OF NATIONAL TOTAL

Year,	Rape	Flax
1961	49.6	44.3
1962	50.5	31.1
1963	48.1	29.2
1964	37.4	28.5
1965	42.5	24.2
1966	46.9	25.6
1967	44.6	27.7
1968	44.9	21.9
1969	51.2	31.9
1970	53.5	47.5
1971	55.3	52.3
1972	46.7	56.0
1973 ^a	55.7	61.7

^aJanuary-April, 1973.

TABLE 7e

ALBERTA

FARM CASH RECEIPTS FROM RAPESEED AND FLAXSEED

(\$000's)

Year	Rapeseed	Flaxseed
1961	8,096	13,872
1962	5,019	10,791
1963	7,259	7,792
1964	11,942	12,051
1965	14,723	8,715
1966	19,758	11,176
1967	20,381	11,834
1968	15,198	4,680
1969	20,746	12,420
1970	34,631	13,235
1971	46,584	12,463
1972	60,965	10,546
1973 ^a	23,215	4,978

^aJanuary-April, 1973.Source: DBS, Farm Cash Receipts, #21-001, #21-201.

TABLE 7f

ALBERTA

FARM CASH RECEIPTS FROM RAPESEED AND FLAXSEED
AS PERCENT OF NATIONAL TOTAL

Year	Rape	Flax
1961	47.3	27.7
1962	42.0	22.2
1963	43.0	20.9
1964	49.9	19.8
1965	47.3	18.5
1966	43.0	17.9
1967	47.2	25.6
1968	45.8	17.6
1969	38.7	21.8
1970	36.3	22.2
1971	34.2	21.8
1972	40.5	19.6
1973 ^a	30.5	15.4

^aJanuary-April, 1973.

TABLE 7g

CANADA^a

FARM CASH RECEIPTS FROM RAPESEED AND FLAXSEED

(\$000's)

Year	Rapeseed	Flaxseed
1961	17,117	50,147
1962	11,937	48,634
1963	16,875	37,321
1964	23,949	60,946
1965	31,120	47,120
1966	45,950	62,267
1967	43,192	46,235
1968	33,197	26,593
1969	53,653	56,792
1970	95,507	59,745
1971	136,119	57,075
1972	150,658	53,900
1973 ^b	76,115	32,289

^aExcludes Newfoundland.^bJanuary-April, 1973.Source: DBS, Farm Cash Receipts, #21-001, #21-201.

