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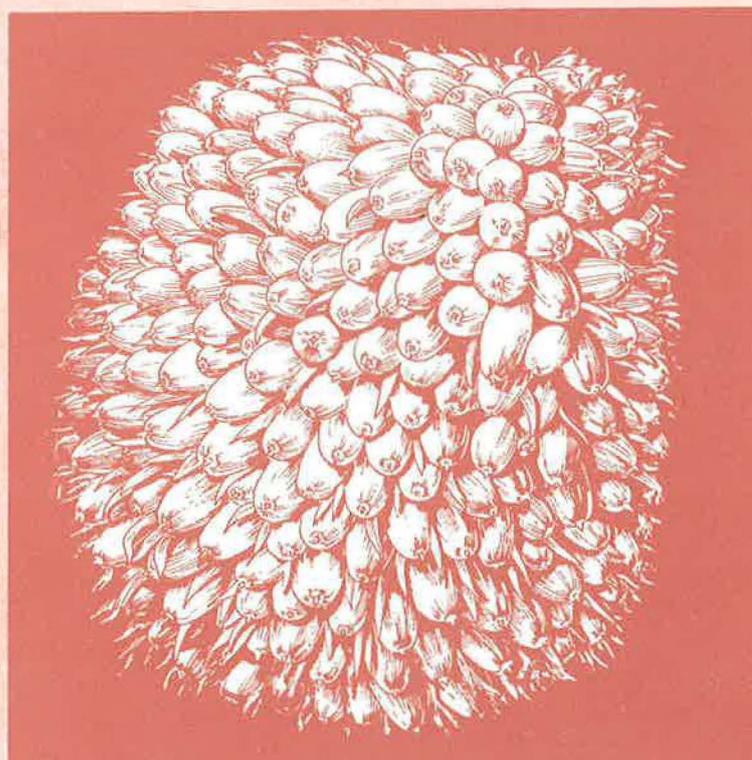
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**EUROPEAN MARKETS
FOR REFINED
VEGETABLE OILS
FROM DEVELOPING
COUNTRIES**



**OVERSEAS DEVELOPMENT
NATURAL RESOURCES INSTITUTE
BULLETIN**

**OVERSEAS DEVELOPMENT
NATURAL RESOURCES
INSTITUTE**

Bulletin No. 4

**EUROPEAN MARKETS FOR REFINED
VEGETABLE OILS FROM DEVELOPING
COUNTRIES**

J. C. BARRETT

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NOTES

ACP	African, Caribbean and Pacific (states)
EC	European Community
EUROSTAT	Official statistics of the EC
FAO	Food and Agriculture Organization of the United Nations
FEDIOL	EC Seed Crushers and Oil Processors Association
ffa	Free fatty acids
GSP	Generalized system of preferences.
IMES	International Marketing and Economic Services (UK) Ltd.
MFN	Most favoured nation
NEODA	National Edible Oil Distributors Association (UK)
NIMEXE	Official trade statistics of the EC
PORIM	Palm Oil Research Institute of Malaysia
ppm	Parts per million
RBD	Refined, bleached and deodorized
SITC	Standard international trade classification
UNCTAD/GATT	United Nations Conference on Trade and Development/ General Agreement on Tariffs and Trade.
UNIDO	United Nations Industrial Development Organization.

All weights, unless otherwise stated, are metric.

Summaries

SUMMARY

European markets for refined vegetable oils from developing countries

1 In the 1980s, developing country exports of vegetable oils averaged around 8 million tonnes per year, accounting for over 60% of world trade in vegetable oils. Most of these developing country exports were in the form of crude oils. Many developing countries are considering development of domestic industry to process the vegetable oils they produce. This bulletin examines the scope for developing countries to benefit from processing their vegetable oils at origin before export to the European Community (EC), which, including trade between member countries of the Community, accounted for some 23% of global vegetable oil imports in the period 1983 to 1985.

2 EC imports of vegetable oils for foodstuffs from non-EC countries averaged 1.50 million tonnes per year between 1983 to 1985. Of this, 89% came from developing countries, consisting mainly of palm oil, groundnut oil, coconut oil and palm kernel oil.

3 EC imports of 'other than crude' vegetable oils from developing countries over this period averaged 156,000 tonnes per year, representing only 12% of total vegetable oil trade between the EC and developing countries. This is a much lower proportion than is found in the case of EC intra-trade,* where some 47% of vegetable oil imports were 'other than crude'.

4 EC imports of 'other than crude' oils over the period 1983-85 were mainly (88%) represented by processed palm oil, almost all from Malaysia. However, the majority of palm oil imported into the EC (78%) was imported as crude oil. Approximately 4% of groundnut oil was imported in 'other than crude' form, mainly from Senegal and Sudan. More than 99% of coconut and palm kernel oils imported into the EC were unprocessed at origin.

5 In principle, there is a range of possibilities for the marketing of refined-at-source vegetable oils into the EC from developing countries. This includes import by refiners, for further processing or direct blending with other refined oils. If the oils could be delivered in ready-to-use condition, they could be imported in bulk by end-users in the food industry, and in bulk by packing/bottling companies for wholesale and retail packing. Indeed, in principle, vegetable oils could be imported in wholesale or retail packing for direct distribution to institutional, catering and retail outlets.

6 It appears that at present all 'other than crude' oils imported into the EC are reprocessed by European refiners before end use, and developing countries are benefitting very little from the added value that might be obtained if their refined oils could be marketed directly to end-users. The conclusion which results from this study is that there is little prospect for developing countries to add value to their vegetable oil exports to the EC by refining them at origin. This conclusion derives from consideration of technical and market-related factors which include:

- technical problems in bulk shipment of refined oils, which may lead to deterioration in oil quality;
- complexity in the structure and organization of trade in refined vegetable oils compared with crude oils;
- progressive tariff barriers on EC imports of vegetable oils which protect the European refining industry; and
- increasing degree of self-sufficiency in EC vegetable oil production, combined with slow growth in demand for vegetable oils in the EC.

*Trade between member countries of the EC is described in the report as 'intra-trade'. Trade between EC countries and other, non-EC, countries is referred to as 'extra-EC' imports or exports. Distinction is necessary between total EC trade inclusive or exclusive of intra-trade.

7 The main difficulty associated with bulk shipment of refined oils from developing countries to the EC is deterioration of quality during transit, and concern by end-users over the risk of contamination from previous cargoes. For virtually all edible end uses in the EC, bland, odourless and colourless oils and fats are required. Product specifications are very stringent and it is very difficult to guarantee that a refined oil shipped in bulk from a developing country, usually over considerable distances and long periods of time, will meet the required standards.

8 Even if technical difficulties can be overcome, prospects are still poor for developing countries (or even other developed countries outside Europe) to penetrate the European market for refined oils. Crude oils are negotiated basically as commodities, through well-defined trade channels involving brokers and dealers. By contrast, much of the trade in refined oils is in the form of blends and further-processed forms, in much smaller volumes than is typical for crude oils. Sales are usually negotiated directly between the refinery and the customer, without recourse to intermediaries except in the case of wholesale distribution. Thus trade in refined oils is very different, with a more complicated structure than trade in crude oils, and less accessible to developing country exporters.

9 There is a high degree of integration between refiners and further processors of oils and fats in Europe, with considerable concentration of the industry and extensive involvement of transnational companies, whose activities may include not only crushing and refining, but also the manufacture and distribution of a comprehensive range of retail, wholesale and industrial products.

10 Export to the EC of refined oils in drums or cartons, for wholesale distribution, for example to catering outlets and institutions, could significantly reduce the technical difficulties associated with bulk shipment of refined oils. However, it would be necessary to build up a marketing, distribution and sales base within the EC if this type of market were to be developed. Developing countries would have to compete with large European suppliers offering a full range of products supported by technical and commercial liaison.

11 Retail products would face similarly heavy competition from European industry, and the level of marketing and management expertise needed to attempt this kind of market penetration is not available in many developing countries. Import tariffs on retail products are also prohibitive. Tariff rates for 'most favoured nations' (ie normal duty rates) escalate significantly with degree of processing, and provide a high level of protection to European industry against imports from other developed countries.

12 African, Caribbean and Pacific (ACP) states are eligible for duty-free entry under the Lomé Convention, and so do not face tariff barriers for any of their potential exports to the EC of vegetable oils, processed or unprocessed for foodstuffs. Developing countries eligible under the Generalized System of Preferences (GSP) benefit from tariff reductions of two to three percentage points, but these 'GSP rates' are still a significant barrier to potential trade.

13 The EC is growing in self-sufficiency in vegetable oil crop production, mainly through increased rapeseed production, although production of sunflower seed and soya beans is also increasing. With the accession of Spain and Portugal to the EC in 1986, the degree of self-sufficiency is likely to increase. With little population growth in the EC, and per capita consumption approaching saturation level, there are poor prospects for increased import demand for vegetable oils in the near future. Introduction of an EC consumption tax on vegetable oils, presently being considered, could reduce import requirements significantly.

RÉSUMÉ

Marchés européens des huiles végétales raffinées provenant des pays en voie de développement

1 Au cours des années 80, les exportations d'huiles végétales par les pays en voie de développement ont avoisiné 8 millions de tonnes par an, ce qui représente plus de 60% du commerce mondial en huiles végétales. La majeure partie de ces huiles exportées était sous forme brute. Un grand nombre de pays en voie de développement envisagent aujourd'hui de développer leur industrie nationale afin de transformer les huiles végétales qu'ils produisent. Le présent rapport examine les avantages que gagneraient les pays en voie de développement à transformer leurs huiles végétales avant de les exporter vers la Communauté européenne (CE), laquelle, si l'on inclut le commerce entre pays membres de la Communauté, comptabilise environ 23% des importations globales d'huiles végétales pour la période allant de 1983 à 1985.

2 Les importations de la Communauté européenne en huiles végétales destinées à l'industrie alimentaire et en provenance de pays non-membres de la CE ont avoisiné 1 million et demi de tonnes pour la période allant de 1983 à 1985. Sur cette quantité, 89% provenaient des pays en voie de développement, et comprenaient principalement de l'huile de palme, de l'huile d'arachide, de l'huile de copra, et de l'huile de palmiste.

3 Durant cette même période, les importations de la CE en huiles végétales 'autres que brutes' provenant des pays en voie de développement ont été de l'ordre de 156,000 tonnes par an, ce qui représente seulement 12% du commerce total d'huiles végétales entre la Communauté européenne et les pays en voie de développement. Une telle proportion est nettement inférieure à celle du commerce intérieur de la Communauté* dans lequel environ 47% des importations d'huiles végétales étaient 'autres que brutes'.

4 Pour la période allant de 1983 à 1985, les importations de la CE en huiles 'autres que brutes' (88%) comprenaient principalement de l'huile de palme, presque toute en provenance de la Malaisie. Toutefois, la majeure partie de l'huile de palme importée dans la CE (78%) l'était sous forme brute. Environ 4% d'huile d'arachide a été importée sous forme non-brute, principalement du Sénégal et du Soudan. Plus de 99% des huiles de palmiste et de copra importées par la CE n'avaient subi aucune transformation dans leurs pays d'origine.

5 En théorie, il existe une gamme de possibilités pour la commercialisation d'huiles végétales raffinées à la source par les pays en voie de développement pour la Communauté européenne. Parmi ces huiles, certaines seraient importées par les raffineurs et destinées à des transformations ultérieures ou à un mélange direct avec d'autres huiles raffinées. Si les huiles pouvaient être livrées prêtes à l'emploi, elles pourraient être importées en vrac par les utilisateurs finals dans l'industrie alimentaire, ainsi que par les sociétés d'emballage/embouteillage pour un conditionnement en gros et en détail. En fait, les huiles végétales pourraient en principe être importées sous conditionnement de gros et de détail pour une distribution directe aux points de vente institutionnels, pour la restauration, et de détail.

6 Actuellement, il semble que toutes les huiles 'autres que brutes' importées dans la CE subissent à nouveau une transformation par les raffineurs européens avant leur utilisation finale, et les pays en voie de développement bénéficient très peu de la valeur ajoutée qui pourrait être obtenue si leurs huiles raffinées pouvaient être directement commercialisées auprès des utilisateurs finals. La conclusion tirée de la présente étude est que, pour les pays en voie de développement, la perspective d'ajouter de la valeur à leurs exportations d'huiles vers la Communauté européenne en les raffinant à la source, est faible. Cette conclusion est tirée d'un examen des facteurs techniques et des facteurs liés au marché, lesquels comprennent:

- les problèmes techniques dans les envois d'huiles raffinées en vrac, lesquels peuvent entraîner une détérioration de la qualité de l'huile;
- une complexité dans la structure et l'organisation du commerce des huiles végétales raffinées par rapport aux huiles brutes;
- des tarifs douaniers progressifs sur les importations d'huiles végétales par la Communauté européenne protégeant l'industrie de raffinage européenne;
- un degré croissant d'auto-suffisance dans la production d'huiles végétales par la CE, associé à une croissance faible de la demande en huiles végétales dans la Communauté européenne.

7 La principale difficulté liée aux envois d'huiles végétales raffinées en vrac des pays en voie de développement vers la CE est la détérioration de qualité durant le transit; en outre, les utilisateurs finals s'inquiètent des risques de contamination par les chargements précédents. Pour pratiquement toutes les utilisations finales comestibles dans la CE, on exige des huiles et des graisses douces, inodores et incolores. Les spécifications des produits sont strictes et il est très difficile de garantir qu'une huile raffinée expédiée en vrac d'un pays en voie de développement (en général, sur une distance considérable et durant une longue période de temps) répondra aux normes requises.

8 Même si les difficultés techniques peuvent être surmontées, les chances qu'ont les pays en voie de développement (voire tout autre pays développé extérieur à l'Europe) de pénétrer le marché européen des huiles raffinées restent faibles. A la base, les huiles brutes sont négociées en tant que matières premières dans un réseau commercial bien défini avec l'aide de courtiers. En revanche, la majeure partie du commerce des huiles raffinées s'effectue sur des mélanges et des huiles ayant subi des transformations supplémentaires, en volumes nettement inférieurs à ceux des huiles brutes, et les ventes se font en général par négociation directe entre la raffinerie et le client, sans recours à des intermédiaires si ce n'est dans le cas de la distribution de gros. Le commerce des huiles raffinées est donc très différent de celui des huiles brutes, sa structure est plus complexe, et il est moins accessible aux exportateurs des pays en voie de développement.

*Le commerce entre les pays membres de la Communauté européenne est désigné sous le terme de 'commerce intérieur'. Le commerce entre les pays membres de la Communauté européenne et les pays non-membres est désigné sous le terme d'exportations ou importations 'hors Communauté'. L'on doit établir une distinction entre le commerce global de la CE incluant ou excluant le commerce intérieur.

9 Il existe un haut niveau d'intégration entre les raffineurs et les traiteurs d'huiles et graisses européens, avec une concentration considérable de ce secteur industriel, ainsi qu'une grande activité de la part des multinationales, celles-ci s'occupant non seulement du broyage et du raffinage, mais aussi de la fabrication et de la distribution d'une vaste gamme de produits de détail, de gros et industriels.

10 L'exportation vers la Communauté européenne d'huiles raffinées en barils ou en cartons, destinées à la distribution de gros, entre autres pour le service de la restauration, pourrait nettement réduire les difficultés techniques liées aux envois d'huiles raffinées en vrac. Cependant, si l'on devait développer ce type de marché, il faudrait mettre sur pied une base de commercialisation, de distribution et de vente au sein de la CE. Les pays en voie de développement auraient alors à entrer en concurrence avec les gros fournisseurs européens lesquels offrent une gamme complète de produits soutenus par un réseau commerciale et technique.

11 De même, les produits de détail rencontreraient une sévère concurrence dans ce secteur européen, et le niveau de compétence requis en commercialisation et en gestion pour tenter une telle percée sur ce marché n'existe pas dans de nombreux pays en voie de développement. Les tarifs d'importation sur les produits de détail sont également prohibitifs. Le barème des tarifs pour les 'pays les plus favorisés' (c'est-à-dire, les droits d'entrée ordinaires) augmentent nettement en fonction du degré de transformation, et assurent un haut niveau de protection à l'industrie européenne contre les importations provenant d'autres pays développés.

12 En vertu de la Convention de Lomé, les pays d'Afrique, des Caraïbes et du Pacifique (ACP) n'ont pas à acquitter de droits de douane, et en conséquence, ne se heurtent pas aux barrières douanières pour toute exportation potentielle vers la CE d'huiles végétales, transformées ou non, destinées à l'alimentation. Les pays en voie de développement admis dans le Système préférentiel généralisé (Generalised System of Preferences - GSP) jouissent de réductions de tarif de deux à trois points de pourcentage, mais ces taux 'GSP' constituent encore une barrière significative à tout commerce potentiel.

13 La Communauté européenne est en train de devenir auto-suffisante dans la production d'oléagineux, principalement en graines de colza; toutefois, la production de graines de tournesol et de soja est également en hausse. Avec l'adhésion de l'Espagne et du Portugal à la Communauté européenne en 1986, il est probable que le niveau d'auto-suffisance augmente encore. Avec une faible croissance démographique au sein de la CE ainsi qu'un niveau de consommation par personne approchant d'un seuil de saturation, les chances d'augmentation de la demande en huiles végétales dans un avenir proche sont faibles. L'introduction dans la CE d'une taxe à la consommation sur les huiles végétales, actuellement à l'étude, pourrait considérablement réduire les besoins d'importation.

RESUMEN

Mercados Europeos para aceites vegetales refinados de los países en desarrollo

1 Durante la década de 1980, las exportaciones de aceites vegetales procedentes de países en desarrollo han ascendido, por término medio, a unos 8 millones de toneladas anuales, cifra que representa más del 60% del mercado mundial en dichos aceites. Si bien gran parte de estas exportaciones ha sido en la forma de aceites crudos, son numerosos los países en desarrollo que están estudiando la posibilidad de expansión de su industria doméstica, de manera que les sea posible la elaboración de los aceites vegetales por ellos producidos. El presente informe examina los posibles beneficios de la elaboración de dichos aceites para los países en cuestión, antes de su exportación a la Comunidad Europea (CE) que, con la inclusión del comercio intracomunitario, representó alrededor del 23% de las importaciones globales de aceites vegetales durante el período de 1983 a 1985.

2 Las importaciones comunitarias de aceites vegetales para productos alimenticios procedentes de países no pertenecientes a la CE alcanzaron una media anual de 1,50 millones de toneladas entre 1983 y 1985. El 89% de dicha cifra - constituido, principalmente, por aceites de palma, cacahuete, coco y almendra de palmera - procedió de países en desarrollo.

3 Durante el período indicado, las importaciones de la CE de aceites vegetales 'distintos de crudos' de países en desarrollo alcanzaron una media de 156,000 toneladas anuales, cifra que equivale únicamente al 12% del total del comercio en aceites vegetales entre la CE y los países en desarrollo. Valga apuntar que dicha cifra representa una proporción muy inferior a la encontrada en el caso del comercio intracomunitario*, con un 47%, aproximadamente, de importaciones de aceites vegetales dentro de la categoría de 'distintos de crudos'.

*En el presente informe, se ha asignado el apelativo de 'intracomunitario' al comercio entre países miembros de la CE, habiéndose dado el nombre de 'extracomunitarias' a las importaciones o exportaciones entre países de la CE y otras naciones no pertenecientes a la Comunidad. Se hace necesario realizar una distinción entre el comercio total de la CE con, inclusión o exclusión del comercio intracomunitario.

4 Durante el período de 1983 a 1985, las importaciones comunitarias de aceites 'distintos de crudos' (88%) estuvieron representadas, principalmente, por aceite de palma elaborado, procedente casi en su totalidad de Malasia. Esto no obstante, la mayor parte del aceite de palma importado por la CE (78%) fue en la forma de aceite sin refinar. Alrededor del 4% del aceite de cacahuete importado cayó dentro de la categoría de 'distintos de crudos', procediendo en su mayor parte de Senegal y Sudán. Más del 99% de los aceites de coco y de almendra de palmera importados por la CE no habían sido elaborados en sus países de origen.

5 En principio, existen posibilidades diversas para la comercialización de aceites vegetales refinados en el país de origen, contándose entre las mismas la importación por parte de las compañías refineras, para su elaboración subsiguiente o mezcla directa con otros aceites refinados. Caso que los aceites pudieran ser suministrados listos para su uso, la industria de la elaboración de productos alimenticios podría realizar su importación a granel, al igual que las compañías del sector del envasado/embotellado, para su venta al por mayor y al por menor. En principio, los aceites vegetales podrían ser asimismo importados ya envasados para el mercado mayorista o minorista y distribución directa a instituciones, hostelería y comercios de venta al detalle.

6 Al parecer, los aceites 'distintos de crudos' importados por la CE son hoy día reelaborados por las refinerías europeas, antes de su uso final, con escaso beneficio para los países en desarrollo del valor añadido que podría obtenerse, caso que sus aceites refinados pudieran ser directamente comercializados. La conclusión del presente estudio es que existen escasas posibilidades de que los países en desarrollo puedan incrementar el valor de sus exportaciones de aceites vegetales a la CE, mediante la refinación de los mismos en su fuente, conclusión deducida tras el examen de factores técnicos y comerciales, entre los que se cuentan:

- problemas técnicos del transporte a granel de aceites refinados, que podría resultar en una reducción de su calidad;
- complejidad de la estructura y organización del comercio de aceites vegetales refinados, en comparación con el de los aceites crudos;
- obstáculos arancelarios progresivos sobre las importaciones de aceites vegetales de la CE, que protegen la industria europea de la refinación; y
- creciente grado de autosuficiencia en la producción de aceites vegetales de la CE, junto con un lento incremento de la demanda de dichos aceites dentro de la Comunidad.

7 La dificultad básica asociada con el transporte a granel de aceites refinados desde países en desarrollo a la CE es el deterioro de su calidad en tránsito, junto con la preocupación por parte de los usuarios sobre el riesgo de contaminación con cargas anteriores. Para la casi totalidad de los usos comestibles dentro de la CE, se requieren aceites y grasas suaves, inodoros e incoloros. Las especificaciones son muy estrictas, siendo altamente difícil garantizar que un aceite refinado, transportado a granel desde un país en desarrollo – con frecuencia, desde considerables distancias y largos períodos de tiempo – satisfará las normas requeridas.

8 Caso que resulte posible superar las dificultades técnicas existentes, las posibilidades de los países en desarrollo – y aun de otros países desarrollados no europeos – siguen siendo reducidas por cuanto respecta a la penetración de los aceites refinados en el mercado europeo. Básicamente, las negociaciones relativas a los aceites crudos se realizan como si se tratara de artículos de comercio, siguiendo canales comerciales bien definidos, en los que toman parte corredores y agentes. Por el contrario, gran parte del comercio en aceites refinados adopta la forma de mezclas o de productos para elaboración subsiguiente – con volúmenes muy inferiores a los corrientes para los aceites crudos –, negociándose las ventas, por regla general, directamente entre la refinería y el cliente, sin recurso a intermediarios, excepto cuando se trata de distribución al por mayor. En consecuencia, el comercio en aceites refinados es muy distinto, poseyendo una estructura más compleja que el de los aceites crudos, estructura menos accesible a los exportadores de los países en desarrollo.

9 Existe un elevado grado de integración entre las refinerías y compañías dedicadas a la elaboración subsiguiente de aceites y grasas en Europa, con una considerable concentración de la industria y fuerte participación de la compañías transnacionales, entre cuyas actividades puede que se encuentren no solamente la molturación y el refinado, sino también la fabricación y distribución de una gama completa de productos industriales y de venta al por mayor y al detalle.

10 La exportación a la CE de aceites refinados en bidones o cajas de cartón, para su distribución al por mayor a los sectores institucional y de hostelería podría reducir significativamente las dificultades técnicas asociadas con el transporte a granel de aceites refinados. Resultaría necesaria, sin embargo, la creación de una base de comercialización, distribución y ventas dentro de la CE, caso que se intentara desarrollar este tipo de mercado. Los países en desarrollo se verían forzados a competir con importantes proveedores europeos, capaces de ofrecer una gama completa de productos, refrendada por servicios de coordinación técnica y comercial.

11 De igual modo, los productos de venta al detalle tendrían que hacer igualmente frente a la fuerte competición de la industria europea, careciéndose en muchos países en desarrollo el nivel de comercialización y los conocimientos de gestión necesarios para intentar este tipo de

pentración comercial. Por otra parte, las tarifas de importación para productos de venta al detalle son asimismo prohibitivas. Los tipos de derecho para naciones más favorecidas (es decir, tipos de derecho normales) aumentan significativamente con el grado de elaboración y proporcionan un alto nivel de protección a la industria europea, contra importaciones de otros países desarrollados.

12 En conformidad con lo estipulado en el Convenio Lome, los países Africanos, del Caribe y del Pacífico (ACP) pueden realizar exportaciones libres de impuestos y, en consecuencia, no tienen que hacer frente a las barreras arancelarias en sus posibles exportaciones a la CE de aceites vegetales elaborados o sin elaborar, para su utilización en productos alimenticios. Si bien los países en desarrollo elegibles en conformidad con el Sistema Generalizado de Preferencias (GSP) se beneficia de reducciones de impuestos del 2-3%, dichos derechos continúan siendo un importante obstáculo comercial.

13 La CE va incrementando su autosuficiencia en la producción de aceites vegetales, principalmente, como resultado de su mayor producción de colza oleaginosa, a la vez que se está produciendo asimismo un auge en la producción de judías de soja y de semilla de girasol. Dicho grado de autosuficiencia es probable que se vea incrementado por la incorporación de España y Portugal a la Comunidad, en 1986. Teniendo en cuenta el escaso crecimiento demográfico dentro de la CE y el hecho de que el consumo per cápita se está acercando a su nivel de saturación, las posibilidades de un aumento en la demanda de las importaciones de aceites vegetales en un futuro previsible son escasas. Finalmente, la introducción dentro de la CE de un impuesto de consumo a los aceites vegetales, actualmente bajo estudio, podría reducir significativamente la necesidad de importaciones.

Section 1

Introduction

VEGETABLE OILS AND FATS IN DEVELOPING COUNTRIES

Production of oil crops for export is an important source of foreign exchange earnings for many developing countries. Oil crops require processing before consumption: the seed or fruit has to be crushed to extract the crude oil, and this may need to be refined or further processed before end use. Therefore the production of vegetable oils in developing countries has provided considerable scope for agro-industrial development, to create domestic employment, add value to the resource and generate increased foreign exchange earnings.

Developing country exports of vegetable oils averaged approximately 8 million tonnes per year in the early 1980s, most of which was traded as crude oils. Some countries have begun to refine and further process their crude oils, with a view to adding value to their exports. Malaysia, the world's largest producer of palm oil, has led the developing countries in this respect, and now (1987) has more than sufficient refining capacity to process all of its oil production before export. Other developing countries which have exported refined oils include Indonesia, Senegal, Sudan and India.

The potential for developing countries to increase their exports of refined oils is a subject area which has been given little attention in the published literature (see Appendix 3).

SCOPE OF THE STUDY

The oils chosen for the present study are those which find end use in the food industry, in the manufacture of margarine, shortenings, cooking oils, mayonnaise, salad dressings, confectionery coatings and other products. As a group, oils for these uses are interchangeable in many cases, and all require refining if not further processing before end use. The major oils in this group include palm, cottonseed, soya bean, groundnut, sunflower seed, rapeseed, coconut, palm kernel and maize oils.

Vegetable oils with non-food end uses, such as linseed, castor and tung oil, are of minor importance in comparison with the edible oils, and their processing is often more complex. For these reasons, these 'technical' oils will not be considered to any great extent in this study. However, it is noted that 'edible' oils such as coconut and palm kernel are also used in large volumes for industrial purposes.

Olive oil is often consumed without refining (virgin olive oil), and is rarely blended with other edible oils. For these reasons, this bulletin does not cover olive oil in any detail.

Table 1 presents FAO data for European imports of the principal vegetable oils, which averaged some 3.75 million tonnes per year in the period 1983-85, including trade between European countries. This represented approximately 29% of global imports during this period and compared with European imports of some 2.80 million tonnes per year (48% of global imports) in the period 1973-75. Although the European market is declining in relative

Table 1

European imports of the principal edible vegetable oils (excluding olive), by type of oil, annual average 1973-75 and 1983-85 (thousand tonnes)

Type of oil	Europe total*		1983 to 1985		EC*	
	1973 to 1975	%	1983 to 1985	%	1983 to 1985	%
Palm	767	27.4	815	21.7	705	23.8
Cottonseed	88	3.2	18	.5	12	.4
Soya bean	513	18.3	789	21.0	460	15.5
Groundnut	366	13.1	309	8.2	294	9.9
Sunflower seed	535	19.1	596	15.9	415	14.0
Rapeseed	100	3.6	453	12.1	375	12.6
Coconut	267	9.5	441	11.8	405	13.6
Palm kernel	160	5.7	327	8.7	299	10.1
Total	2,796	100.0	3,749	100.0	2,965	100.0

Source: FAO Trade Yearbooks, 1975 and 1985

Notes: * Refers to European countries (market or centrally planned economies) as classified by FAO. EC countries include EUR-10. (United Kingdom, Denmark, Belgium, France, Italy, Luxembourg, Netherlands, Federal Republic of Germany, Greece and Irish Republic)
 (i) Figures rounded to the nearest thousand tonnes
 (ii) Maize oil is omitted from the table as it is not included in the 1975 FAO Trade Yearbook

importance, it is a major outlet for developing country vegetable oils, and the market volume is still growing in absolute terms, albeit slowly.

The European Community (EC), until 1986 comprising France, Belgium, Luxembourg, Netherlands, the Federal Republic of Germany, Italy, the United Kingdom, the Irish Republic, Denmark and Greece, accounted for 79% of the European imports of vegetable oils in the period 1983-85 given in Table 1. This amounted to an average of some 2.97 million tonnes per year over this period, i.e. 22.6% of global imports. These data do not include imports into Spain and Portugal, who joined the EC in January 1986.

The EC is a group of countries with common policy on agriculture and trade, and therefore amenable to study as a group of countries. Also, the EC has a special relationship with a large group of African, Caribbean and Pacific (ACP) states through the Lomé Convention (see Appendix 2). The central theme of the study is therefore to examine prospects for developing countries presently exporting crude vegetable oils to the EC to refine these oils at origin, in order to add value, increase foreign exchange earnings and stimulate their economic development.

Section 2 looks at the EC vegetable oil sector in overview, including crop production, oil production and trade, and consumption of vegetable oils.

Section 3 examines the role of vegetable oil exports from developing countries in the import requirements of the EC, through a detailed analysis of EC import statistics (NIMEXE).

Section 4 assesses the technical, tariff and non-tariff barriers to increased trade in refined vegetable oils between developing countries and the EC.

In addition to an appendix of tables, and an appendix briefly describing the origins and structure of the EC, other appendices include a bibliography, details of the NIMEXE import classification and EC import tariff structure, and sources of further information.

Section 2

Vegetable oils and fats in the European Community—an overview

INTRODUCTION

Some appreciation of the general structure of the EC vegetable oils sector is required in order to understand fully the role of imports, in particular from developing countries. Taking in all aspects from production of oilseed crops to consumption of final products, the oilseeds sector in Europe is very complex, and this section can therefore provide only a broad picture of recent events.

OIL CROP PRODUCTION IN THE EUROPEAN COMMUNITY

The main oil crops grown in the EC are rape, sunflower and olives, with minor production of soya beans, linseed and maize germ. The largest producer of oilseeds (excluding olives) in the EC is France, which accounted for almost half of EC production in 1984. Other major producers include the United Kingdom, the Federal Republic of Germany, Italy and Denmark. Details of recent production are given in Appendix 1, Table I.

Rapeseed represents the most important EC oilseed crop and in 1984/85 output reached 3.5 million tonnes or 70% of total oilseed production. Output expanded rapidly over the past decade from under one million tonnes in 1975. The main producing countries are France, the United Kingdom, the Federal Republic of Germany, and Denmark.

EC sunflower seed production, mainly in France and Italy, was over one million tonnes in 1984/85, and has similarly shown a considerable increase in volume in the EC over the last decade.

Soya bean production, also mainly in Italy and France, represented only 3.2% (150,000 tonnes) of total oil crop production in the EC in 1984/85, and has been increasing rapidly during the 1980s.

EUROPEAN COMMUNITY TRADE IN OILSEEDS AND OLEAGINOUS FRUIT

Apart from domestic production of oilseeds, which remains small in the overall supply position, there is also a major import of oilseeds for crushing, which affects potential import requirement for crude and refined oils.

Soya beans, accounting for some 90% of total EC imports of oleaginous materials, are primarily a protein crop, for production of animal feed, and yield oil (less than 20%) as a secondary product. The import requirement is therefore largely dependent on demand in the livestock rather than the vegetable oil sector.

Apart from soya beans, other oleaginous materials imported in significant quantities include sunflower seeds, rapeseed and groundnuts, with lesser

quantities of other raw materials. Some of these oilseeds are imported for purposes other than oil extraction. For example, groundnuts are consumed directly, while sesame and poppy seed are used in the bakery and confectionery industries.

Import data on oilseeds and oleaginous fruit are not presented in this study since it is easier to see the relative roles of domestic and imported raw materials in EC production of vegetable oils by looking directly at data on crushing of oilseeds and oleaginous fruit.

CRUSHING OF OIL CROPS IN THE EUROPEAN COMMUNITY

According to official EC statistics, the annual production of the three major seed oils (soya bean, rapeseed and sunflower seed) taken together, increased from approximately 2.09 million tonnes in 1975/76 to 4.8 million tonnes in 1984/85, with a significant increase in self-sufficiency.

Soya beans, rapeseed and sunflower seed jointly accounted for 96% of the raw materials (excluding olives) crushed for edible oil production in the EC in the period 1983-85 (Appendix 1, Table II). Crushing of tropical raw materials (i.e. groundnuts, cottonseed, copra and palm kernels) from developing countries is very small in relation to the crushing of temperate oilseeds. There was a marked decline in imports of the tropical oil crops over the period 1975-85, reflecting the development of crushing industry in the developing countries. However, the total volume of crushing in the EC has not been seriously affected by this development, and indeed the EC crushing industry appears to have expanded significantly over the last decade.

EUROPEAN COMMUNITY IMPORTS OF VEGETABLE OILS AND FATS

Over the period 1983-85, EC imports of the principal edible vegetable oils averaged just under 3 million tonnes per year (see Table 1, Section 1), including trade between member countries of the EC. Extra-EC imports* into the EC member countries, that is, excluding trade between member countries, are much lower than the total imports, and averaged 1.78 million tonnes over the period 1983-85, as shown in Table III (Appendix 1).

Palm and the lauric fats accounted for 70% of extra-EC imports of vegetable oils between 1983 and 1985, and imports of groundnut oil (13% of extra-EC imports) and sunflower seed oil (8%) were also significant. No other oil was imported in quantities greater than 60,000 tonnes per year. Although soya bean oil is the most important in terms of consumption in the EC, very little is imported as oil.

The Federal Republic of Germany was the largest EC importer of edible vegetable oils in 1985 (see Table IV, Appendix 1) followed in order of importance by the Netherlands, the United Kingdom, France, Italy and Belgium. Denmark and Irish Republic are of minor importance in terms of edible oil imports.

The proportion of extra-EC imports which originate from developing countries, and the proportion of imports which are represented by refined oils and fats are examined in detail in Section 3.

*Trade between member countries of the EC is described in this bulletin as 'intra-trade'. Trade between EC countries and other, non-EC, countries is referred to as 'extra-EC' imports or exports. Distinction is necessary between total EC trade inclusive or exclusive of intra-trade.

DISAPPEARANCE OF VEGETABLE OILS AND FATS IN THE EUROPEAN COMMUNITY

Over the period 1983-85, EC production of vegetable oils averaged approximately 3.9 million tonnes per year (FEDIOL data, not included in the tables), extra-EC imports averaged approximately 1.8 million tonnes per year (see Table III, Appendix 1), and extra-EC exports averaged about 0.8 million tonnes per year (FEDIOL data, not included in the tables). Ignoring small changes in stocks over this period, and without making any adjustments to convert refined oil quantities to a crude oil equivalent, disappearance of edible vegetable oils and fats within the EC amounted to approximately 4.9 million tonnes per year. According to Eurostat Crop Production statistics, self-sufficiency in the production of all vegetable oils and fats in the EC reached a record level of 54% in 1985, compared with 34% in 1982 and only 20% in 1976.

The majority of edible oils are consumed as 'visible oils', in products such as margarine, cooking oils and fats and salad oils. However, the food industry uses large quantities of oils in the manufacture of products such as biscuits, cakes, snack foods, confectionery, ice-cream, and tinned foods (such as soups and baby foods).

According to Eurostat Crop Production statistics, total domestic uses of vegetable oils in the EC amounted to 5.86 million tonnes in 1985, including edible and technical uses. Human consumption of vegetable oils was estimated at 3.51 million tonnes, that is 12.9 kilograms per head. A further 1.49 million tonnes were not consumed directly, but were further processed, presumably to be consumed as 'invisible' fats. Industrial use of vegetable oils and fats was estimated at 0.62 million tonnes, and usage in animal feeds amounted to 0.20 million tonnes (discrepancy in summation is represented by losses).

Including animal and marine oils and fats, human consumption of all oils and fats amounted to 26.2 kilograms per head in the EC in 1985 (Eurostat data).

Consumption patterns vary very much from country to country within the EC. In the Mediterranean countries, consumption is almost exclusively in the form of liquid oils, while in northern Europe the consumption of margarine (and butter) is more important. Table V (Appendix 1) illustrates the range of outlets for refined vegetable oils, by summarizing the United Kingdom market for vegetable oils and fats on the basis of a study carried out on behalf of the Palm Oil Research Institute of Malaysia (IMES/PORIM, 1982).

Margarine

EC consumption of margarine in 1985 amounted to 5.2 kilograms per head (on a fat basis, that is excluding water content), equivalent to 1.4 million tonnes for the EC (EUR 10*) in total, according to Eurostat Crop Production statistics. Self-sufficiency in margarine production has been consistently just over 100% during the 1980s.

With the exception of some brands marketed for health-conscious consumers (e.g. pure sunflower, maize or soya bean oil margarines, high in polyunsaturated fats), most margarines consumed in the EC are blended products, comprising not only mixtures of vegetable oils, but also animal fats and fish oils. This is illustrated in Table VI (Appendix 1), which presents data on production of margarine in the United Kingdom. Over the period 1983-85, total production of margarine averaged 382,600 tonnes per year, including the use of 144,700 tonnes of vegetable oils. More than 75% of these vegetable oils were accounted for by soya bean, rapeseed and sunflower seed oils. Use of palm oil, palm kernel oil, coconut oil and groundnut oil is minor in comparison.

*United Kingdom, Denmark, Belgium, France, Italy, Luxembourg, Netherlands, Federal Republic of Germany, Irish Republic.

The traditional retail table margarine used to be a paper-wrapped solid block. Developments in selective hydrogenation and other sophisticated post-refining processing has enabled the development of 'tub' margarines, which have a wider melting range. This makes the product spreadable (for example, on bread) straight from the refrigerator, and consumer demand for this type of product has grown rapidly. Another important development is the expanding market for 'low-fat' margarines; with the latest technology, it is possible to produce stable formulations with water content as high as 40%. Because the legal definition of margarine does not permit this level of water in 'margarine' (a 16% limit on water content is specified in most countries), such products have to be described as low-fat 'spreads', and the term halvarine is used in some countries. These market developments, towards increasingly sophisticated products, will make market penetration by developing countries in the margarine sector more difficult.

Although most margarine is consumed as retail products, significant quantities are sold through wholesale outlets (catering and institutional sales) and for industrial use, mainly in the baking industry. Small-scale bakers generally buy margarine boxed in cartons, through wholesale distributors, while many industrial users take bulk delivery of pumpable margarine formulations. The high standards of quality control required in bulk delivery of margarine are similar to those for compound cooking fats discussed below.

Compound fats

Apart from hardened palm oil, most white fats are sold as blended products and may include animal fats and marine oils in addition to vegetable oils and fats, as illustrated in Table VII (Appendix 1) which provides data on United Kingdom production of compound fats. Total production averaged 125,400 tonnes per year between 1983 and 1985, including use of 68,500 tonnes of vegetable oils. The most important oil used was palm oil, accounting for 35% of vegetable oils used, closely followed by rapeseed oil (34%) and soya bean oil (14%). In contrast with margarine, in compound fat production sunflower seed oil is used only to a limited extent.

Some compound fats are sold as retail products, competing with lard. There is a significant outlet for hardened boxed fats for cooking, catering, small-scale bakery and institutional sales, and large quantities of hardened fats are used in the food industry, particularly for biscuit manufacture, including both biscuit and cream blends.

Important characteristics of fat blends (and margarines) used in the baking industry include not only their physical properties with respect to handling in the production process, but also their effect on the cooking process; in particular, the crystallization characteristics of the fat may be critical (Weiss, 1983). The fat blend is prepared at the refinery under very closely controlled conditions, and delivered to the bakery under closely controlled transport conditions. This level of control is probably feasible only over short distances, and it is difficult to imagine successful marketing between continents.

Cooking oils

Liquid oils for cooking and frying are used in roughly comparable quantities in the retail, catering and industrial sectors, although the types of oil are not necessarily similar. The main retail products are low-cost blended products (soya bean and rapeseed oils) in most EC countries, although there is a significant market for polyunsaturated oils with a 'health' image. In Italy, for example, corn oil has an important position in the market.

In the catering sector, higher performance specifications are necessary in frying oils. Groundnut oil is good but expensive, and palm olein is an alternative. Oils are sold in drums.

In the industrial sector, partially hardened soya bean oil is favoured by some end users, for example crisp manufacturers, while palm oil is still used in large volumes. Bulk deliveries of 5-20 tonnes are made on a daily schedule.

Confectionery fats

Whereas margarines and compound cooking fats generally require wide melting ranges, confectionery fats require very sharp melting ranges, so that they remain completely solid at ambient temperature, but melt quickly and completely at mouth temperature. This limits the potential use of most vegetable oils; the main raw material for this sector is palm kernel oil, with some use of palm oil and coconut oil. Processing is very sophisticated and carried out by only a handful of companies throughout the world. This is not likely to be a promising direction for development in developing countries presently only able to export crude palm kernel oil.

Other uses

Food manufacturers buy refined vegetable oils for production of products such as salad creams, canned soups, ice-cream and baby foods. The characteristics of the required oils and fats vary greatly from one product to another, and the market is highly fragmented. Most of the purchases in this group are in bulk, but require regular deliveries in quantities of 20 tonnes or less at a time.

Further sources of information

It is beyond the scope of this bulletin to discuss the EC market for the different types of oil in great detail. While there are few, if any, officially published statistics on the volumes of vegetable oil used in different food products in the EC, some information is available from various sources.

The publication *Marketing in Europe* contains occasional reports on the use of edible oils in specific countries, including the Federal Republic of Germany (January 1986), France (April 1984) and Italy (July 1981). These reports typically review data on production, trade and consumption, and describe major producers and brand shares for retail products only. Information on industrial use of edible oils is limited. *Market Research Great Britain* has published reports on the British retail market for fats and oils (April 1985) and margarine (March 1984). Similar reports are published by Euromonitor and Mintel (for example, butter and margarine, July 1984; and cooking fats and oils, April 1986).

The Italian market for seed oils and margarine is described in detail (in Italian) in the publication *Largo Consumo* (Saachi, 1984). The United Kingdom market for palm oil was the subject of a study undertaken for the Palm Oil Research Institute of Malaysia in 1982 (IMES PORIM, 1982).

For information on the industrial use of oils and fats, it is necessary to look at secondary information sources. For example, estimates of the use of oils and fats in biscuit manufacture can be made on the basis of data on biscuit production. This kind of information may be obtained from sources such as the Cocoa and Biscuit Alliance. There are numerous marketing journals for the food industry which give information on production of and trade in biscuits, confectionery, snack foods, ice-cream, soups, and other products.

European Community vegetable oil imports from developing countries

INTRODUCTION

EC imports of edible vegetable oils and fats, considered in overview in Section 2, are examined in more detail in this section, particularly in relation both to breakdown of imports from developing countries, and also breakdown between crude and refined oils. The best source of data for this type of analysis is the official EC trade statistics, NIMEXE, recorded under the categories of the Standard International Trade Classification (SITC).

Oils, refined or modified in various ways, are imported under SITC categories 1507, 1508 and 1512, while margarine and other processed edible fats are covered by category 1513. Details of the classification are given in Appendix 4. In this section, central attention will be given to sub-categories 1507.61 to .98, that is vegetable oils, crude and other than crude, for foodstuffs. Sub-category 1507.65, which includes several types of oil, will be omitted from the analysis, as extra-EC imports in this sub-category are very small (49 tonnes in 1984). Significant quantities of some edible oils, particularly coconut and palm kernel oils, are imported for industrial uses (SITC 1507.19 to .58). These imports are specifically excluded from the following statistical analysis. The only other category within which developing countries play a significant role is 1512.95; extra-EC imports totalled 58,000 tonnes in 1984, of which 51,000 tonnes (88%) were accounted for by exports from Malaysia. In 1985, extra-EC imports totalled 135,000 tonnes including 107,000 tonnes from Malaysia (79%) and 22,000 tonnes from Indonesia (16%). These imports were most probably processed palm oil. Since EC imports from other developing countries in this category were negligible, this category will not be included in the general analysis in this section.

THE ROLE OF DEVELOPING COUNTRIES

Table 2 presents NIMEXE data for EC imports of vegetable oils for foodstuffs, averaged over the period 1983-85, broken down by type of oil. It also breaks down the data between intra-trade, 'extra EC' imports, and imports from developing countries. Including intra-trade, total imports into EC countries averaged 3.02 million tonnes between 1983-85. This compares with the figure of 3.43 million tonnes given in Table IV (Appendix 1; FEDIOL data), which includes vegetable oils imported for both foodstuffs and technical uses.

The 3.02 million tonnes of EC imports of vegetable oils for foodstuffs comprised 1.52 million tonnes of intra-trade (50.2% of total imports). The remaining 1.50 million tonnes (49.8%) included imports from developing countries amounting to 1.33 million tonnes, representing 88.6% of the extra-EC imports into the Community.

Table 2 shows that developing countries are particularly important as sources of palm, groundnut, coconut and palm kernel oils. These four oils accounted for 90% of developing country trade with the EC over the period 1983-85. Imports of sunflower seed oil from developing countries were minor

Table 2

European Community imports of vegetable oils for foodstuffs, by type of oil, disaggregated between intra-EC, extra-EC and developing country origin, annual average, 1983–85 (thousand tonnes)

	EC total imports	Intra-EC	Extra-EC	Developing Countries	Developing countries as % of extra-EC
Palm	725	104	621	620	99.9%
Cottonseed	12	1	10	2	23.9%
Soya bean	477	461	17	3	16.2%
Groundnut	294	57	237	228	96.4%
Sunflower seed	443	296	146	92	63.0%
Rapeseed	342	318	24	0	1.9%
Coconut	289	123	166	164	99.2%
Palm kernel	211	23	188	187	99.7%
Maize	155	94	61	11	18.7%
Other	69	36	33	21	65.1%
Total	3,017	1,515	1,502	1,331	88.6%
%	100%	50.2%	49.8%	44.1%	
Disaggregation of column totals between crude and 'other than crude':					
Crude	2,143 (100%)	809 (37.8%)	1,334 (62.2%)	1,174 (54.8%)	
% of crude and refined	71.0%	53.4%	88.8%	88.3%	
Other than crude	874(100%)	707(80.8%)	168(19.2%)	156(17.9%)	
% of crude and refined	29.0%	46.6%	11.2%	11.7%	

Source: NIMEXE

Notes: (i) Data in the table includes SITC categories 1507.61 to 1507.98, excluding 1507.65. Values given are averages of the annual data for 1982, 1983 and 1984.
(ii) Developing countries refer to countries so classified by FAO.

(92,000 tonnes) but significant, while imports of cotton seed, soya bean, rapeseed and maize oils from developing countries were very small, amounting to only 16,000 tonnes per year, in total.

CRUDE VERSUS REFINED OIL IMPORTS

The bottom rows of Table 2 disaggregate the column totals between imports of crude and 'other than crude' oils, this latter category principally covering refined oils not further processed.

Trade in 'other than crude' oils is significant, representing 29.0% (0.87 million tonnes) of total EC imports, but is mostly (0.71 million tonnes) represented by intra-trade. 'Other than crude' oils account for 46.6% of intra-trade in vegetable oils, but only 11.2 % of extra-EC imports. A similarly low proportion of developing country trade (11.7%) is represented by 'other than crude' oils.

This appears to reflect an imbalance in the market share of the developing countries in the EC market for refined vegetable oils, and suggests that there is a significant trade in refined oils if developing countries could gain access for their potential refined oil exports. However, this is only a partial picture, as will be discussed in more detail in Section 4.

Breakdown by type of oil

Table 3 breaks down the data given in Table 2 for EC imports from developing countries, between crude and 'other than crude' categories, by type of oil.

Table 3

European Community imports of vegetable oils for foodstuffs, from developing countries, by type of oil, disaggregated between crude and 'other than crude' oils, annual average, 1983-85 (thousand tonnes)

	Crude	Other than crude	Total	Percentage of grand total
Palm	483 78.0%	137 22.0%	620	46.6%
Cottonseed	2 63.8%	1 36.2%	2	.2%
Soya bean	2 92.4%	0 7.6%	3	.2%
Groundnut	219 95.8%	10 4.2%	228	17.1%
Sunflower seed	90 97.1%	3 2.9%	92	6.9%
Rapeseed	0 100.0%	0	0	
Coconut	164 99.9%	0 .1%	164	12.4%
Palm kernel	186 99.3%	1 .7%	187	14.1%
Maize	11 98.9%	0 1.1%	11	.9%
Other	17 78.5%	5 21.5%	21	1.6%
Grand total	1,174 88.3%	156 11.7%	1,331	100.0%

Source: NIMEXE

Note: See notes to Table 2.

'Other than crude' oil imports almost entirely represented (88%) by refined palm oil (0.137 million tonnes), plus a small quantity of refined groundnut oil (10,000 tonnes) and 3,000 tonnes of sunflower seed oil. No other single specified oil accounted for more than 1,000 tonnes per year of EC 'other than crude' oil imports from developing countries.

More than 90% of soya bean, sunflower seed, rapeseed, coconut, palm kernel and maize oils imported into the EC from developing countries in the period 1983-85 was in crude form.

Although palm oil dominates EC imports of refined oils from developing countries, only 22.0% of total palm oil imports were recorded under the 'other than crude' category, indicating that even for this oil, crude oil imports are more important than refined oil imports into the EC.

Groundnut oil, second in importance to palm oil in terms of EC imports of refined oils from developing countries, is still imported mainly as crude oil (95.8%).

The only oil imported from developing countries which is imported mainly 'other than crude' is cottonseed oil. This particular oil is special in that it benefits considerably from processing at origin to remove gossypol and associated coloured compounds by alkali treatment. If this is not done, the cottonseed oil tends to darken during transport and storage, and the colour is not readily removed. Although it is traded as 'other than crude' because of this pre-treatment, it still requires to be refined, bleached and deodorised before end-use. The volume of cottonseed imported into the EC is very small.

The quantity of imports recorded in Table 3 under the 'other' (that is; not specified) category of oil was significant, and included some 5,000 tonnes of 'other than crude' oils. Trade sources suggest this represents mainly sal oil from India, which like cottonseed oil needs to be treated at origin in order to avoid problems of colour fixation.

Breakdown by country of origin

Developing country exports of refined oils to the EC are highly concentrated, not only with respect to type of oil, but also with respect to country of origin. Table VIII (Appendix 1) lists and ranks 27 developing countries which annually exported more than 1,000 tonnes of vegetable oils for foodstuffs to the EC in the period 1983-85. These countries accounted for 99.6% of developing country exports to the EC, whilst the top ten countries account for over 90%, and Malaysia alone for 24.3%. More significantly, Malaysia accounted for 85% (133,977 tonnes per year) of all 'other than crude' oils imported by the EC from developing countries during 1983-85.

After Malaysia, next in importance in refined oil exports to the EC is Senegal, which averaged exports to the EC of 8,270 tonnes per year of 'other than crude' groundnut oil between 1983-85, followed by India (4,323 tonnes; probably sal oil, as discussed above). The only other exporters which recorded average annual exports to the EC of 'other than crude' oils greater than 1,000 tonnes were Singapore (3,194 tonnes per year; principally palm oil), Indonesia (2,249 tonnes per year; palm oil), Argentina (1,989 tonnes per year; sunflower seed, cottonseed and unspecified oils), and Sudan (1,044 tonnes per year; groundnut oil).

Looking at EC imports over a longer period, Table IX (Appendix 1) presents data on EC imports of 'other than crude' vegetable oils from developing countries, by type of oil, and by country of origin, annually over the period 1975-85. The only oils which have been traded on a regular basis as 'other than crude' oils are palm oil from Malaysia, groundnut oil from Senegal and Sudan, and unspecified oils (probably sal oil) from India.

Papua New Guinea exported coconut oil for a period of several years recorded as 'other than crude'. Trade sources suggest that this was most likely to have been a superior grade of crude oil, and almost certainly not refined oil.

It can be concluded that over the last decade developing country exports of refined vegetable oils to the EC were insignificant, with the exception of palm oil from Malaysia and more recently from Indonesia, and lesser quantities of groundnut oil from Senegal and Sudan.

IMPORTS OF MALAYSIAN PROCESSED PALM OIL

Table IX shows that EC imports of Malaysian processed palm oil have increased from levels of the order of 1,000 tonnes per year in 1975-76 to a peak of 184,000 tonnes in 1981, followed by a decline to just under 100,000 tonnes in 1985. The main factor behind this growth over the last decade has been the policy of the Malaysian government to stimulate investment in the palm oil processing industry. The Malaysian government has committed large resources to institutional and infrastructural support for the sector. Fiscal incentives have been introduced to encourage investment in refineries, and there is a system of regressive export taxation, so that the more processing is done to an oil, the less export duty it is liable to incur.

The main purpose of Malaysia's policies in this area appears to be to benefit from growing markets in Asia and other developing markets, rather than to add value to exports to the EC. Consequently the growth in Malaysia's refined oil exports to the EC is caused by Malaysian factors rather than a sudden increase in demand for refined palm oil in the EC. Indeed Malaysian processed palm oil is still purchased by European refiners (rather than end-users), who

reprocess it before end-use. Thus, although Malaysian processed palm oil is imported as 'other than crude', and usually has been fully refined at origin, it is still treated upon arrival essentially as a crude oil. This reflects technical problems in the transport of refined oils in bulk, including the risk of contamination from previous cargoes and deterioration of the oil in transit, which make reprocessing necessary (this is discussed further in Section 4).

European refiners buy Malaysian palm oil only when it is an attractive financial proposition. Because of the Malaysian export tax system, Malaysian processed palm oil is available on the international market at prices very close to those for crude palm oil. Taking into account the normally better yields and lower process costs feasible from re-processing processed palm oil, compared with refining crude palm oil, it may be worthwhile for some European refiners to buy processed palm oil, even though the import duty on Malaysian processed palm oil is 12% compared with 4% for crude palm oil.

These features of processed palm oil trade are illustrated by a comparison of unit values for refined palm oil imported into the EC from Malaysia, compared with unit values for intra-EC trade in refined palm oil. Over the period 1983-85, unit values (European Currency Units per tonne) for imports of palm oil into the EC averaged:

Origin	Intra-EC	Extra-EC
Crude palm oil	850	684
Other than crude palm oil	959	758

Firstly, the value for both crude and 'other than crude' palm oil imported from outside the EC was less than the unit value for crude oil traded between EC countries, although the latter figure must be viewed with caution as it represents only a very small volume of trade. Secondly, 'other than crude' palm oil had a unit value 26.5% greater in the the case of intra-trade compared with extra-EC imports.

This suggests that Malaysia has not gained much, if any, of the added value which a European refiner can obtain by processing palm oil. However, 'other than crude' palm oil includes not only whole palm oils, but also fractions, which may or may not be refined. It is very difficult to disaggregate the data, and it could be argued that difference in unit value reflects, to an unknown extent, the difference in the composition of the trade.

IMPORTS OF PROCESSED GROUNDNUT OIL

According to Table IX, Senegal has in the past exported as much as 30,000 tonnes per year of groundnut oil to the EC, although in recent years much lower volumes have been recorded, mostly imported by Italy. Trade sources suggest that all groundnut oil imported from Senegal is reprocessed before end-use, and may have been imported only because crude oil was in short supply. A similar situation has prevailed for Sudanese groundnut oil.

As with palm oil, there is little evidence that developing countries add as much value to groundnut oil by processing at origin before export to the EC, as does the European refiner. Over the period 1983-85, unit values (ECU/tonne) for EC imports of groundnut oil averaged:

Origin	Intra-EC	Extra-EC
Crude groundnut oil	1,162	1,095
Refined groundnut oil	1,335	1,194

The unit value of 'other than crude' groundnut oil imported into the EC from developing countries was only marginally higher than the unit value of crude oil traded within the EC. 'Other than crude' groundnut oil had a unit value 11.8% greater in the the case of intra-trade compared with extra-EC

imports. However, these figures must be interpreted with caution as the volume of groundnut oil traded as 'other than crude' is comparatively small; there may have been abnormal market conditions at the time the limited number of refined groundnut oil contracts were negotiated.

IMPORTS OF THE LAURIC OILS

There is no evidence of successful trade in refined lauric oils. Imports of coconut and palm kernel oils into the EC were more than 99% in the form of crude oils in the period 1983-85. One of the reasons for this may be that a significant proportion of lauric oils are processed for technical end uses, in which it appears preferable to start with a crude oil. This is particularly the case in the production of fatty acids, since the free fatty acids removed in the refining process are part of the potential product yield where lauric oils are processed for industrial uses. At the time of negotiating an export contract, it may not be known whether the end use will be for industrial or foodstuff manufacture. Even if the likely end use is known, once the oil is processed at origin, marketing flexibility is lost.

GENERAL COMMENTS

This analysis of the NIMEXE statistics does not give grounds for optimism for possible future export of refined vegetable oils by developing countries into the EC, based on existing import trends. Only Malaysia, Senegal and Sudan have exported 'other than crude' vegetable oils to the EC on a regular basis over the period 1975-85. All of these imports appear to have required reprocessing in Europe before end-use, so that the exporting countries have not been able to gain the added value that would result if these oils were directly usable in end-product manufacture. The increase of Malaysian processed palm oil sales into the EC is largely the result of Malaysian export policy, restricting the availability of crude oil and reducing the price of processed palm oil to levels in competition with crude oil. Senegal and Sudan, as well as other more occasional exporters of processed groundnut oil, appear to have been able to sell this product because of shortage of crude groundnut oil.

Developing country prospects for increasing exports of refined oils to the European Community

POTENTIAL EUROPEAN COMMUNITY MARKETS FOR REFINED OILS

For developing countries to benefit from exporting refined vegetable oils to the EC, it is implicit that such trade should result in a significant added value. The amount of added value will depend upon how much further down the marketing chain the oil can be marketed after processing-at-origin.

Figure 1 illustrates the product flows in the European vegetable oil sector, and identifies points at which imported refined oils could, in principle, enter the EC marketing chain for edible oils. They are, broadly in increasing order of product value, as follows:

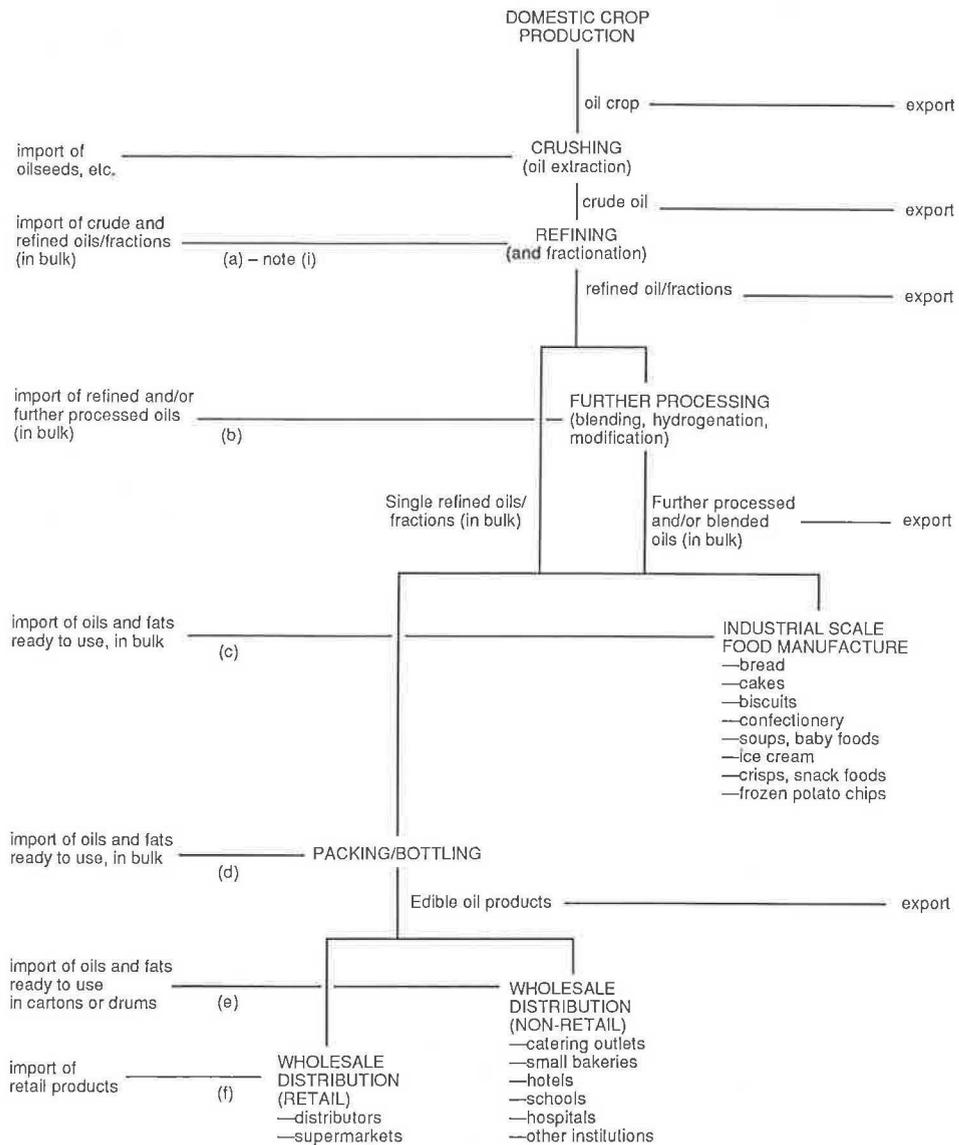
- bulk import by the refiner for complete or partial reprocessing;
- bulk import by the refiner, in suitable condition for direct blending with other oils, for example in margarine blends;
- bulk import of ready-to-use products by the industrial end-user (e.g. potato crisp, biscuit, and confectionery manufacturers);
- bulk import of ready-to-use products by firms packaging (e.g. margarine) or bottling (e.g. cooking oils) for retail distribution and sale;
- import of ready-to-use products in drums or catering packaging, for wholesale distribution to catering and institutional outlets; and
- import of final products (e.g. cooking oils and fats, and margarine) in retail packaging for retail distribution and sale.

Clearly the highest potential for adding value would be in the marketing of final products in retail packaging for direct distribution to retail outlets, or the import of oils in condition suitable for direct industrial end use. The least added value will accrue where oils are imported by refiners who have to reprocess them, more or less as if they were crude oils.

Imports by refiners

European refiners may be prepared to pay a premium for a partly processed oil, if it means that their own operation becomes more profitable: for example by enabling higher throughputs on existing plant, or higher yields. Refiners may buy fully refined oil from other refineries to produce blends, where it is not worthwhile processing small quantities of one particular oil which is needed to give a blend specific characteristics. For example, several United Kingdom refineries buy refined sunflower oil from Netherlands refineries for incorporation into margarine blends. Some refiners will process oils belonging to other firms, for a charge (known as 'toll' refining). This is not uncommon in the European industry, and the co-operative system that results is a significant advantage to the industry in Europe as a whole.

Figure 1
Process and product flowchart for the European Community edible vegetable oil sector



Note: (i) The letters (a) to (f) refer to EC market channels for the potential import of refined vegetable oils, as described in the text (Section 4).

For the refiner, the main resistance to buying refined-at-source oils from developing countries lies in a combination of commercial reasons (the price is not right) and technical reasons (the oil requires reprocessing). This partly reflects tariff structure (import duty on refined oils is higher than on crude oils) although most developing countries can export to the EC at reduced import tariffs. It partly reflects also the fact that most European refiners are equipped to process crude oils. Having their own installed capacity for refining, there is no major processing cost saving associated with buying a partly processed oil. Unless suitable for direct incorporation into blends, refiners generally prefer to purchase crude oils for technical reasons also: the more processing undergone by an oil, the more susceptible to deterioration it becomes, particularly if the processing is not closely controlled.

Bulk imports of refined oils and fats for packing/bottling

There is very little prospect for bulk import of fats to supply packers of retail or wholesale margarine and cooking fats. The main problem would be to deliver the products in a condition suitable for direct end-use, without deterioration.

The large majority of this market is supplied by European companies in which refineries and packing plants are fully integrated within the same organization. There are a small number of firms who purchase margarine blends and add vitamins, colourings and preservatives before packing under their own label. But almost all of these firms have very small throughputs and would not handle sufficient volumes to justify international bulk purchases. For reasons of technical and commercial liaison, most of these small packers would in any case prefer to obtain their blends from local suppliers

In the case of bulk import of liquid oils for bottling, for example as cooking oils, there are a larger number of independent firms who bottle only, without refining, particularly in the Mediterranean countries, where many plants bottle seed oils as a secondary activity to bottling olive oil. Spain is virtually self-sufficient in the production of liquid oils, and imports are heavily restricted, so this is not a promising market. However, import of liquid oils into Italy is permitted, and this may offer some prospects for some developing countries, if technical problems could be overcome.

Apart from a progressive tariff barrier to import of refined versus crude oils into the EC, the main barrier to this trade at the moment is the deterioration of refined oils in bulk transit, so that the oils are not in a suitable condition for bottling without reprocessing. These issues are discussed below.

Bulk imports for direct use by the food industry

The main industrial outlets for single refined oils are in frying, for example the potato crisp and snack-food sector. The companies involved each purchase in quantities of up to 5,000 tonnes per year, some more, many less. Industrial users usually keep stocks of oil sufficient for only a few days production, and so require their suppliers to deliver oil by road tanker on a more-or-less daily basis. Such companies would not be interested in buying refined oil in volumes of hundreds of tonnes at one time, and this would therefore create marketing problems for any developing country wishing to penetrate this part of the market.

Industrial users also like to obtain their supplies from more than one source, to increase security in supply. For example, it is quite common for one manufacturer of chips to be supplied with the same type of cooking oil by several refineries at the same time. Thus the volume of oil supplied by any one refinery will be only a fraction of the total annual requirement of the industrial user.

In the industrial frying of products such as crisps and snack foods, oil is retained in the product up to the point of consumption. This means that the oil must be highly resistant to reversion during the required storage life of the product, and must have an acceptable flavour. For this reason, product specifications for the oils used by this sector of the industry are very high. By contrast, in the pre-frying of potato chips for subsequent freezing, the product will be re-cooked by the consumer before end-use, and so less stringent oil performance characteristics are required. It is still necessary that the oil should not deteriorate during repeated use at high temperatures during the manufacturing process, so specifications are generally of a higher standard than would be appropriate for retail cooking oils, which in comparison are used a small number of times before being discarded.

For the end-user, who may have no particular expertise in vegetable oil technology, the supplier must be reliable, versatile, and able to maintain close technical and commercial liaison. The products need to be of generally stringent specifications, and there is much suspicion about the ability of developing countries to deliver refined oils of acceptable quality. Apart from some scepticism about the standards of processing in some of the countries of origin, there is concern about almost certainly unavoidable deterioration of refined oils during bulk shipment.

Imports for wholesale distribution

Cooking oils are used in significant quantities by restaurants, fast-food outlets, schools, hospitals, and other institutions. Cooking oils in this sector are normally sold in drums for liquid oils, or packaging in cartons for hardened fats. This type of product could be supplied from developing countries without great technical difficulty. The main advantage with this form of trade is that the deterioration experienced in bulk shipment of refined oils can be avoided. Oils and fats in sealed drums or cartons have packaging which prevents contamination and exposure to air.

As with retail products, the problems are mainly in marketing. Most EC countries have traders who specialize in the wholesale distribution of edible oils. In the United Kingdom many of these traders are members of the National Edible Oil Distributors Association (NEODA), but similar organizations do not appear to exist in other EC countries.

These vegetable oil distributors are often very small businesses, perhaps only a family concern, and generally are not equipped to negotiate international contracts for import of refined oils. Several of the companies contacted during the field work for this study had a very parochial attitude, and showed no interest at all in importing directly themselves. The quantities handled by any individual distributor are small in comparison with the typical volume of an international contract for an oil in bulk. Any developing country wishing to export refined oils in drums for wholesale distribution would have to set up a marketing base in the EC, and would then have to compete with European refiners offering a range of products, and who have close technical and commercial liaison with the end-users. The tariff structure (see below) would put many importers at a disadvantage in comparison with European suppliers, although most less-developed countries are exempt from these duties.

Import of retail products

Import of retail products into the EC could in principle include margarine, lard substitutes (compound cooking fats), cooking oils and other such products. Margarines based on pure palm oil have been developed in Malaysia, and pure hardened palm oil is a very acceptable lard substitute, already available in the EC market. However, most margarine sold in the EC is in the form of blended products. It is highly unlikely that developing countries could export final products into the EC for several major reasons:

- import duties on products in retail packaging are prohibitive, and provide a very high level of protection to the European food industry (see Appendix 5 and below);
- the retail food market in Europe requires a high level of sales and marketing activity by firms participating in the market and is an area in which developing country producers would be at a high comparative disadvantage with respect to the European food industry;
- retail products such as margarine contain low-cost animal and marine oils and fats in addition to vegetable oils, so that 100% vegetable oil products are unlikely to compete on price;
- retail products such as cooking oils are often blends, usually of the cheaper oils such as soya bean and rapeseed, which are produced within the EC.

TECHNICAL PROBLEMS IN IMPORTING REFINED OILS INTO THE EUROPEAN COMMUNITY

High product specifications

During bulk shipment of vegetable oils, deterioration occurs as a result of oxidation, hydrolysis, and other processes. The triglycerides which are the

basis of the oil or fat break down to give glycerine and free fatty acids (ffa), and the ffa value is a measure of the quality of the oil. Double bonds in the fat molecules, which represent unsaturation of the oil or fat, are susceptible to reaction with oxygen to form undesirable compounds. The degree of oxidation is reflected by the peroxide value of the oil. Deterioration of the oil is accompanied by the development of undesirable flavours, odours and colours in the oil.

Food manufacturers in Europe generally require oils which are refined to a very high degree, so that they are as bland, odourless and colourless as possible. This is quite a different market requirement from that which prevails in many developing countries, where consumers often prefer strongly flavoured oils. Technical specifications for refined oils for margarine, bakery fat or cooking oil manufacture typically require ffa levels below 0.1%, peroxide value in the region of 1.0, and very low levels of contamination by metals, which promote oxidation and therefore limit the storage life of products. A maximum of one part per million (1 ppm) of iron and 0.05 ppm of copper would be a typical requirement.

In order to ensure the highest quality in their raw materials, European food manufacturers commonly require that the vegetable oils that they purchase be refined within days and at the most a week before delivery to the factory. Deliveries from the refinery to the end-user are commonly made on a daily basis, and the end-user may keep a stock of refined oils sufficient only for a few days production. This is because there is only a very limited period before a refined oil begins to deteriorate, and ffa and peroxide values start to rise.

Experience with refined, bleached and deodorized (RBD) palm oil from Malaysia

Some European refiners who buy in RBD palm oil from Malaysia report that the standards of processing in Malaysia are excellent at some refineries, and the technical specifications of the oils at the point of loading onto a ship are as good as could be desired. In some cases, quality is still within acceptable limits on arrival, but this is unpredictable, and in most cases reprocessing is required. As far as is known, no Malaysian exports of RBD palm oil to the EC are bought other than by refiners at the present time (1986).

It appears that Malaysian companies are successfully marketing refined palm olein in Australia and New Zealand for direct end use in industrial potato-crisp frying, without reprocessing. But in this situation there are much shorter transport times and reportedly very good shipping facilities. Also, slight reversion of palm olein during transport may not be very critical as the oil is likely to deodorize in the frying pan in any case. Palm olein is less susceptible to deterioration in transport than the more unsaturated fats, which would therefore present greater problems in bulk transport.

It is reported that Malaysian companies have been trying to develop trade in refined olein for direct end use in the United States, where imports of processed palm oil do not face the high tariff barriers as in the EC, but this has not been established on a regular commercial basis, as far as is known.

Deterioration during shipment to the European Community

Berger (1978; 1984) and Berger *et al.* (1983) have described some of the technical problems relating to quality during shipment of RBD palm oil to Europe. Some deterioration during shipment is almost inevitable. Palm oil is liquid at tropical temperatures, but solidifies in a temperate climate. If the oil is allowed to cool in the ship's hold, partial crystallization can occur in which some of the hard components of the oil separate out and solidify. Although most oil tankers are double-hulled to reduce this problem, it can still occur if the consignment is not adequately heated during transit. Even worse, if the oil is allowed to solidify completely, it must be melted to be pumped out of

the hold. This may result in localized very high temperature around the heating coils, which can seriously degrade the oil. The solution to these problems is the very careful maintenance of heating during the shipment. Unfortunately, these elevated temperatures tend to promote chemical deterioration of the oil.

Very few ships have facilities for blanketing consignments in nitrogen (or any other inert gas) for preventing contact between the oil and air (i.e. oxygen) during loading and unloading. Ships commonly have tanks lined with epoxy resin to prevent absorption of metal by the oil, but there is usually some contamination during loading and unloading. Some refiners consider potential contamination from previous cargoes to be the greatest risk in the bulk shipment of refined oils. End-users do not like to take risks with raw material quality, and prefer generally to buy from local refineries with whom they enjoy a high level of confidence about refined oil quality.

There is a significant trade in refined vegetable oils between European countries, transported in purpose-built stainless steel road tankers in 20-tonne consignments. These tankers have minimal headspace, so that the oil is not oxygenated. Temperature during transport can be very closely controlled where this is important, for example with bakery fats having special crystallization specifications. Delivery times of one or two days are typical. This all contrasts very sharply with product-handling standards when oils are shipped in bulk by sea.

Use of antioxidants

Most crude oils contain natural antioxidants called tocopherols. In the bulk shipment of crude oils these compounds retard oxidation. The tocopherols may survive neutralization and bleaching, but often are effectively stripped out of the oil during deodorization. This means that RBD oils generally have poorer storage characteristics than crude oils. It is possible to add synthetic antioxidants to the oils to protect against oxidation; commonly used additives include propyl gallate (PG), butylated hydroxytoluene (BHT), butylated hydroxyanisole (BHA), and in some countries, tertiary butylhydroquinone (TBHQ).

The use of additives in food products is becoming increasingly disfavoured among consumers in the developed countries and is likely to become more tightly controlled in the future. The use of antioxidants in foods is already completely prohibited, for example in Italy, by law. In other countries where legislation does not exist, food companies are disavouring use of synthetic additives, in response to consumer reaction. For example, two of the major biscuit manufacturers in the United Kingdom stopped using antioxidants in their bakery and cream fats early in 1986. Also, a major United Kingdom margarine brand is being marketed on television with strong emphasis on its containing no artificial ingredients. This type of market development may mitigate against successful development of satisfactory bulk shipping systems for refined vegetable oils in the future, if addition of preservatives is not permitted.

Technical considerations for oils other than palm oil

Palm oil presents particular problems in bulk shipment because it is a liquid in the tropics and a solid in temperate regions. Bulk shipment therefore requires heating during transport, as discussed above, with its associated problems. Other oils, such as groundnut and sunflower oils, are liquid at temperate zone temperatures, and so do not require heating during transport. This is an advantage in exporting these oils from developing countries in refined form.

On the other hand, palm oil has the advantage of being much more saturated than most of the edible vegetable oils. Highly unsaturated oils such as soya bean, rapeseed and sunflower seed oils are likely to deteriorate through oxidation to a greater extent than palm oil. This is a serious technical barrier

to their potential trade in bulk over long distances as refined oils suitable for direct end-use on arrival, particularly for markets such as the EC, where product specifications are stringent and use of antioxidants is being increasingly disfavoured. There are less likely to be problems of this nature with groundnut oil, which is more saturated and comparatively stable.

PROBLEMS ASSOCIATED WITH MARKET STRUCTURE

There are fundamental differences in the way that refined oils are marketed in Europe, compared with crude oils, and this is likely to be as much of a barrier to developing country exports of refined oils to Europe as are the technical problems discussed above.

Crude oils are marketed in bulk, usually 500-tonne lots, sometimes 'half parcels' of 250 tonnes. Crude vegetable oils are essentially commodities as opposed to manufactures, traded on the basis of widely known standard specifications, and price information is readily available. They can be produced first, and then a buyer sought. The infrastructure of dealers and brokers who handle the international trading of crude vegetable oils is well defined. Refined oils are marketed in the EC in much smaller volumes than crude oils, with specifications often unique to a particular customer, and with trade usually negotiated directly between the refiner and end-user without recourse to intermediaries, except in the case of wholesale and retail distribution.

Market requirement for blended products

Most of the output from the typical refinery in the EC is in the form of blends of oils. This is particularly true of the margarine, compound cooking fat and biscuit fat markets, which probably account for more than 50% of total EC consumption of edible vegetable oils. Because of the substitutability of the different edible oils for many end-uses, refiners sell their products not on the basis of raw material ingredients, but on product performance specifications such as ffa, peroxide value, solid fat content, melting range, content of saturated versus unsaturated fats, odour and blandness. Thus as the price of the different types of oil change relative to each other, the refiner switches from one raw material mix to another, on a 'least cost formulation' basis.

The European refiner is not only a processor of individual crude oils; he also undertakes blending, and modification of the oils using techniques such as hydrogenation and interesterification where required. Refiners negotiate contracts with individual food manufacturers and often produce a refined oil blend to the specific requirement of that customer. Refined oils are thus not marketed in the same way as commodities, but more as manufactures. It will be very difficult for many developing countries who are currently exporting crude oils to Europe to adopt all the functions presently carried out by European refiners.

STRUCTURE OF THE INDUSTRY

Integration between refiners and product manufacturers

The above discussion has generally assumed that the refiner and the end-user of the vegetable oil are separate firms. In practice, in the EC there is a great deal of integration between the various sectors of the vegetable oil industry, and indeed within the food industry as a whole. This integration is typified by the Anglo-Netherlands transnational, Unilever.

Unilever operates crushing plants and refineries in several EC countries, usually in association with margarine factories. In addition to its main activities in margarine and compound fat production, Unilever also has a speciality fats division, whose plants process lauric fats and palm oil to produce specialized bakery and confectionery fats. Other products manufactured and marketed

within the Unilever organization include cooking oils, mayonnaise and various sauces for retail sales. In several EC countries Unilever has more than 50% of the retail market for margarine.

Other major groups which are involved in both refining and downstream processing of vegetable oils are to be found in most EC countries. In the United Kingdom, the Pura Food Group, second after Unilever in importance within the sector, similarly carries out a range of activities from refining of oils to production of blended hydrogenated products for industrial and retail sale, and also the bottling of single oils for retail sales. Unilever and Pura jointly account for about 65% of the refined oil production in the United Kingdom.

In the Netherlands, a similar picture emerges. All of the major margarine manufacturers are involved in the refining sector, and many of these companies produce a wide range of retail, wholesale and industrial products.

In Italy, the Ferruzzi family owns several of the biggest refineries in the country, and has interests in almost every area of the vegetable oil sector. Another group, Star, is involved in the production of a wide range of retail food products, including margarine and cooking oils. Star also operates a major refinery in Spain, and has subsidiary companies in most European countries.

In France, the Lesieur company dominates the vegetable oil sector, producing retail, wholesale and industrial products as well as refining a wide range of different oils. Lesieur also has major interests in Spain.

Integration between crushers and refiners

Where refineries are not involved in downstream product manufacture, association with crushing plants under the control of transnational grain companies, whose output they are specifically designed to process is usually reflected. For example, Cargill, Inc. of Minnesota, United States, has very large plants for crushing and refining soya beans and sunflower seed in the Netherlands, Belgium, United Kingdom and operate in Spain under the name Cindasa. Other grain transnationals with significant interests in the EC refining sector include the Bunge Corporation, Central Soya and others.

These companies are not entirely dependent upon or oriented towards the oil sector, but are also involved in the animal feed sector. This group of crusher/refiners handles the liquid oils, soya bean, rapeseed and sunflower seed, and may be involved in bottling, selective hydrogenation and some limited blending, but their main interest is not in production of retail products.

Many of the 'end-users' of refined vegetable oils are in fact the same companies who refine the oils, especially in the margarine and compound fat sectors. This further limits the potential for developing countries to process their oils at origin and export them to the EC as added-value products. Furthermore, the throughput of many of these large companies is much larger than the national production of many of the smaller developing countries perhaps thinking of refined oil exports to the EC; the competition in the market place would be heavily biased towards the big European companies.

FINANCIAL (TARIFF) BARRIERS TO EUROPEAN COMMUNITY IMPORTS OF REFINED OILS

The full details of the EC tariffs for import of vegetable oils are given in Appendix 5. Rate of duty varies according to country of origin; the 'most favoured nation' (MFN) rate is normally applicable. Some tariff reduction may be available for imports from developing countries eligible under the Generalized System of Preferences (GSP). Signatories of the Lomé Convention enjoy zero tariffs at present (the ACP rate).

Oilseed imports are completely free of import duty, whereas vegetable oils are generally liable for duty. Tariffs on oils imported for technical or industrial uses are lower than tariffs for oils imported for human consumption. For oils for foodstuffs, tariff rates increase progressively with the degree of processing. The tariff schedule distinguishes principally between (i) palm oil; (ii) coconut and palm kernel oils; and (iii) other oils.

Palm oil is dutied at 6% for crude and 14% for refined oil (MFN rates), with a 2% tariff reduction for GSP countries and tariff-free access for palm oil from ACP states, crude or other than crude.

The MFN rates for all other oils are 10% for crude and 15% for refined oils, with zero tariffs for imports from ACP states. GSP eligible countries enjoy a 3% tariff reduction on EC imports of coconut and palm kernel oils (crude or refined), but not on other oils.

Solid fats in packings of one kilogram or less (unhardened) face either a 20% (MFN rate), 18% (GSP), or zero (ACP) tariff.

Hardened fats are liable for import duties of 17% (MFN), 11% (GSP) or zero (ACP). For hardened fats in packings of one kilogram or less, rates are higher: 20% (MFN) and 16% (GSP).

Margarine in any form of packaging is liable for a prohibitive 25% import duty. There is no GSP tariff reduction, but imports from ACP states are free of duty.

Analysis of the impact of the tariff structure on EC trade in refined oils is difficult to assess, and was outside the scope of this study. However, it is noted that a recent study (UNIDO, 1985) of tariff and non-tariff protectionist measures in the world trade of oilseeds, vegetable oils and related products concluded that liberalization of trade (that is, removal of tariffs) would have more trade diversion than expansion effects, and in the EC market this would benefit GSP beneficiaries more than ACP countries; while ACP countries presently enjoy exemption from EC import tariffs for vegetable oils, GSP-covered products enjoy only small preference margins.

In summary, there are no tariff barriers for developing countries within the ACP group who wish to export refined oils to the EC. These countries include most of the 24 developing countries listed in Table VIII (Appendix 1) as exporters of vegetable oils to the EC. It includes producers of palm oil such as Papua New Guinea, the Solomon Islands, and Côte d'Ivoire, but not Malaysia, Indonesia or the Philippines. It also includes the major African oil exporters, Senegal, Nigeria, Sudan, Zaire, and the Gambia. Other countries which are classified by some authorities as 'developing', and which are not ACP countries, include Argentina, Brazil and China. These non-ACP countries are undoubtedly at a disadvantage in respect of their ability to market refined oils into the EC, as a direct result of the EC import tariff structure.

LIKELY ABILITY OF DEVELOPING COUNTRY IMPORTS TO COMPETE WITH EUROPEAN REFINERS' PRODUCTS

Within the EC market, there is a price premium for refined oils compared with crude oils, amounting to some 15%. The yield of the refining process is typically in the region of 90-95% and profit margins in this part of the refiners' activities are quite low. Sale of acid oils as a by-product from refining can have an important effect on overall profitability. In the EC these by-products may be sold for industrial use (for example, soap manufacture) or for incorporation into animal feeds.

The majority of European refiners also have facilities for hydrogenation of oils, and this makes an important contribution to the viability of the industry. Hydrogenation is a much more sophisticated process than refining, bleaching and deodorizing, and requires a reliable supply of catalysts and hydrogen gas.

The required technology is highly capital intensive and needs a high level of technical expertise. In many developing countries, hydrogen is not readily available and may be very costly to import. It would also be very costly to produce hydrogen domestically just for a vegetable oil factory, because of the economies of scale in hydrogen production.

The blending operations of the European refiner are also an important element of his financial flexibility. In order to minimize production costs, long runs of refining a particular oil are preferred, so that if a refiner wants to incorporate a minor proportion of one particular oil into a current blend, he is more likely to purchase this RBD from another refiner than to produce it himself. This synergism within the industry in Europe increases the competitiveness of the individual firms within the sector, and makes market penetration by developing country producers of refined oils more difficult.

European refiners who receive bulk crude (or RBD) oils from developing countries also perform other functions. For example, they often have bonded bulk storage facilities at the point of landing, so that in the event of a dispute over a consignment – for example evidence of contamination or other breach of specification – the shipment can be off-loaded without incurring import charges and without demurrage penalties incurred if the ship has to wait offshore while the dispute is settled. Importing refiners maintain a financial management and market intelligence infrastructure necessary for dealings in international trade, which is beyond the scope of smaller end-users.

The fact that Europe has a well-established refining industry, with excess capacity, is going to be a major barrier to increased penetration of the EC market by developing country exports of refined oils. The EC market is now growing only very slowly – most edible fat products have a low income elasticity of demand, and with the European population stable, and consumption approaching saturation levels, there are no prospects for significant expansion of domestic demand for edible oils in the foreseeable future.

EUROPEAN COMMUNITY AGRICULTURAL POLICY

Although Europe is currently in deficit with its vegetable oil requirements, this situation is changing rapidly. The Common Agricultural Policy (CAP) of the EC has led to a rapid increase in the production of rapeseed in the last five years and this trend is likely to continue. A similar trend is discernable in the production of other oilseeds, particularly sunflower and soya beans, which are heavily subsidized by the EC.

Protectionist policies have contributed to the production of embarrassing surpluses of some agricultural commodities in the EC. There are large intervention stocks of beef, butter, skimmed milk powder, cereals and sugar. Policies are being directed increasingly towards encouraging output of products in which the EC is less than self-sufficient (such as oilseeds) and discouraging those in surplus. Since the total demand for vegetable oils in the EC is more or less stable, countries exporting these products to the EC will face a declining market if such policies are successful. At the same time, because of increasing problems in the EC agricultural sector, there may be growing pressures from farmers and the food industry for increased protectionism within the Community.

Another area of concern is the proposal, still under discussion, to introduce a consumption tax on vegetable oils in the EC. Proponents of this proposal argue that such a tax would reduce imports, and stimulate demand for domestically produced dairy products, principally butter, which is currently in considerable surplus.

Another development in the EC which is likely to have an impact on the vegetable oil sector is the recent setback suffered by the animal feed industry. Firstly, the domestic demand in the EC for soya meal for compound animal feed production has declined as a result of the introduction of milk quotas for

dairy farmers. These quotas were introduced in an effort to reduce dairy surpluses within the Community. Secondly, imported meals have been increasingly penetrating the EC market. There has been controversy whether meal from some South American countries has been sold at prices which represent unfair competition to European crushers. Cutback in EC crushing of soya beans would reduce the domestic production of soya bean oil, but it is not yet clear whether the troubles of the EC crushing sector are temporary or permanent.

At this stage it is difficult to predict what will be the combined result of increasing rapeseed and sunflower seed production plus declining crushing of soya beans, if such a decline occurs.

Impact of Spain and Portugal joining the European Community

Spain and Portugal joined the EC in January 1986. Their tariffs are to be aligned with those of the existing EC member countries, progressively, over a period of about five years. The full impact of Spain and Portugal entering the EC will therefore not be felt immediately. Nevertheless, the repercussions of their accession on the EC vegetable oil industry are likely to be considerable.

Spain is a major producer of oilseeds, and is virtually self-sufficient in liquid oil production (from olives and sunflower seed). Large quantities of soya beans are also imported into Spain, primarily for production of soya meal for animal feed. In order to protect Spanish oilseed producers, the Spanish Government requires that the majority of soya bean oil produced in Spain is exported. In fact, Spain is one of the largest soya bean oil exporters in the world. Because of the tariff structure, little of this has entered the EC, except where it has been subsequently re-exported, and, therefore, exempt of duty. Large quantities of soya bean oil have been exported from Spain to Africa in the past.

At the current level of support prices in the EC, sunflower seed oil production in Spain is likely to increase. If additional surpluses and current exports to non-EC countries are diverted to intra-trade, the net import requirement of the EC could decrease significantly, with adverse implications for many developing countries interested in exporting vegetable oils to the Community.

CONCLUDING COMMENTS

In summary, there is a very limited market in the EC for refined vegetable oils that could be produced by developing countries, other than for re-processing by European refiners. Developing countries are likely to experience difficulty in marketing processed oils directly to European end-users, which is where the value added by further processing at origin would be maximized. This conclusion is based firstly on the technical problems of transporting refined oils in bulk to the EC. It is difficult to avoid deterioration which precludes their possible direct end-use in food manufacture or packaging for wholesale and retail sale without further processing. Secondly, developing countries attempting to export 'finished' products to the EC would encounter difficulties in competing with the existing industry. This is well organized, with considerable integration of activities ranging from import of raw materials to manufacture and distribution of final products, including oils, fats and even food products, for retail sale. Finally, European refiners carry out a range of activities in addition to simple refining, which could not easily be undertaken by the developing country processor.

This is not to conclude that developing countries should not be considering investment in refining capacity. Successful development may be more effectively based on the growing domestic and regional markets for refined vegetable oils in the Third World. But for the European market, crude or semi-refined vegetable oils have a much better prospect than developing country exports of refined oils, at least for the foreseeable future.

Appendices

APPENDIX 1 STATISTICAL TABLES

General note to tables:

apparent errors in summation of data are due to rounding of figures.

European Community production of oil crops, EUR 9 and EUR 10, by type of crop 1975/76 (thousand tonnes)

		1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85
Total	EUR 9*	4,426	2,903	4,663	3,651	3,899	5,871	5,620	5,652	—	—
	EUR 10*	—	—	—	—	—	7,736	7,033	7,052	9,258	8,142
Rapeseed	EUR 9	945	1,022	946	1,230	1,205	1,995	2,016	2,682	—	—
	EUR 10	—	—	—	—	—	1,995	2,016	2,682	2,494	3,488
Sunflower seed	EUR 9	157	128	131	139	221	303	507	735	—	—
	EUR 10	—	—	—	—	—	308	512	742	981	1,189
Soya beans	EUR 9	4	3	2	5	20	18	21	31	—	—
	EUR 10	—	—	—	—	—	18	21	31	92	150
Linseed	EUR 9	64	52	63	48	46	49	30	46	—	—
	EUR 10	—	—	—	—	—	49	30	46	36	41
Other**	EUR 9	3,256	1,698	3,521	2,229	2,407	3,506	3,046	2,158	—	—
	EUR 10	—	—	—	—	—	5,366	4,454	3,551	5,655	3,274

Source: EUROSTAT Crop Production Statistics, Volumes 3/4—1980, 2—1985 and 1—1987

Notes: * Data are available for EUR 9, i.e. the membership of nine countries prior to the accession of Greece, up to 1982/83. Data for EUR 10 are available only from 1980/81. Neither data series includes Spain or Portugal, who joined the EC in January 1986.

** The 'other' category includes principally olives, and very small quantities of other oilseeds such as maize germ and rapeseed. Table entries given as '—' denote 'not applicable'.

Table II

Oilseeds and oleaginous fruit crushed to produce edible oils in the European Community 1975, 1980, and 1982-85 (thousand tonnes)

	1975	1980	1982	1983	1984	1985	Average 1983-85	
Liquid oils								
Groundnut	277	117	114	52	69	52	58	.4%
Soya bean	8,177	11,322	11,493	10,238	9,304	9,675	9,739	64.3%
Rapeseed	829	1,936	2,294	2,779	3,071	3,855	3,235	21.4%
Sunflower seed	212	1,452	1,112	1,501	1,252	1,699	1,484	9.8%
Maize germ	233	191	166	146	169	226	180	1.2%
Grapeseed	153	162	134	150	150	151	150	1.0%
Sesameseed	26	10	5	4	6	6	5	.0%
Cottonseed	2	1	0	3	0	0	1	.0%
Other	29	104	58	52	69	132	84	.6%
Sub-total	9,938	15,295	15,376	14,925	14,090	15,796	14,937	98.6%
Palm and lauric oils								
Coconut	676	195	201	80	76	72	76	.5%
Palm kernel	245	123	94	84	68	43	65	.4%
Others	16	88	50	56	64	27	49	.3%
Sub-total	937	406	345	220	208	208	212	1.4%
Grand total	10,875	15,701	15,721	15,145	14,298	16,004	15,149	100%

Source: EEC Seed Crushers and Oil Processors Association

Notes: (i) Data relate to EUR 9.
(ii) Olive oil, castor oil, and linseed oil are excluded from the data.

Table III

European Community imports of edible vegetable oils, net of intra-trade, by type of oil 1975, 1980, and 1982-85 (thousand tonnes)

	1975	1980	1982	1983	1984	1985	Average 1983-85	
Liquid oils								
Groundnut	252	353	258	314	193	190	232	13.0%
Soya bean	24	23	44	15	28	7	17	.9%
Rapeseed	9	18	28	38	39	29	35	2.0%
Sunflower seed	186	23	179	116	169	158	148	8.3%
Sesameseed	0	0	0	0	0	0	0	.0%
Cottonseed	21	11	12	9	11	10	10	.6%
Maize germ	14	40	72	49	57	59	55	3.1%
Other	35	27	30	38	47	29	38	2.1%
Sub-total	541	495	623	579	544	482	535	30.0%
Palm and lauric oils								
Palm	658	689	603	680	567	658	635	35.6%
Coconut	101	332	399	408	288	329	342	19.2%
Palm kernel	122	180	217	258	253	292	268	15.0%
Others	0	3	2	1	6	1	3	0.1%
Sub-total	881	1,204	1,221	1,347	1,114	1,280	1,247	70.0%
Grand total	1,422	1,699	1,844	1,926	1,658	1,762	1,782	100.0%

Source: EEC Seed Crushers and Oil Processors Association.

Notes: (i) Includes oils imported for both foodstuffs and industrial uses.
(ii) Includes crude oils and refined oils not further processed.

Table IV

European Community imports of vegetable oils, by country (including intra-trade), and by type of oil 1985 (thousand tonnes)

Country*:	FRG	BLG	DMK	FRA	IRL	ITA	NDL	UK	EC TOTAL (including intra-trade)	
Liquid oils										
Groundnut	20	42	0	122	0	37	12	10	243	7.1%
Soya bean	120	46	38	89	10	34	47	132	516	15.1%
Rapeseed	59	35	7	35	12	108	95	65	416	12.1%
Sunflower seed	104	52	2	148	8	38	93	38	483	14.1%
Sesameseed	1	0	0	0	0	0	0	0	1	.0%
Cottonseed	6	0	0	0	0	0	1	3	10	.3%
Maize germ	19	19	2	22	2	65	28	11	168	4.9%
Other	8	3	0	13	10	15	24	13	86	2.5%
Sub-total	337	197	49	429	42	297	300	272	1,923	56.1%
Palm and lauric oils										
Palm	154	48	13	63	2	98	185	218	781	22.8%
Coconut	139	24	6	70	4	31	70	45	389	11.4%
Palm kernel	86	6	19	18	3	18	108	62	320	9.3%
Others	0	0	3	0	0	0	10	0	13	.4%
Sub-total	379	78	41	151	9	147	373	325	1,503	43.9%
Grand total	716	275	90	580	51	444	673	597	3,426	100.0%
	20.9%	8.0%	2.6%	16.9%	1.5%	13.0%	19.6%	17.4%	100.0%	

Source: EEC Seed Crushers and Oil Processors Association, 1985 Statistics

Notes: * Country codes: FRG, Federal Republic of Germany; BLG, Belgium; DMK, Denmark; FRA, France; IRL, Irish Republic; ITA, Italy; NDL, Netherlands; and UK, United Kingdom.
 (i) Data relates to EUR 9.
 (ii) Olive oil, castor oil, and linseed oil are excluded from the data.

Table V

The United Kingdom market for vegetable oils and fats, by end-use (1980)

Product type	Market sector	Product demand ('000 tonnes)
Margarine	Household use	280
	Catering use	40
	Industrial use	50
	Total margarine	370
Compound cooking fats	Biscuit fats	93
	Cake fats	32
	Bread, etc.	16
	Other products	15
	Total	156
Cooking and frying oils	Domestic	60
	Catering	90
	Industrial	80
	Total	230
Confectionery fats		46
Other uses	Salad creams	24
	Dairy substitutes	25
	Canned soups	9
	Dehydrated soups	8
	Ice cream	9
	Others	5
	Total	80

Source: PORIM/IMES, (1982). *The UK market for palm oil*

Note: Margarine can be adjusted to a vegetable oil basis on the assumption of 15% water content and assuming that 45% of the fat is of vegetable origin (Table VI).

Table VI

Production of margarine in the United Kingdom and oils and fats used in its manufacture 1979-85 (thousand tonnes)

	1979	1980	1981	1982	1983	1984	1985	Average 1983-85 (%)	
Margarine production									
Vitaminized									
Soft	198.7	203.0	213.1	215.0	213.4	216.6	220.8	216.9	56.7
Other	106.1	128.1	133.1	123.5	109.5	102.5	89.9	100.6	26.3
Non-vitaminized	54.3	51.7	51.5	60.6	64.3	63.2	67.5	65.0	17.0
Total	359.1	382.8	397.7	399.1	387.2	382.3	378.2	382.6	100.0
Oil or fat used in production									
Coconut	1.5	.3	.9	1.1	.0	.1	.0	.0	.0
Groundnut	.2	.1	.0	.0	.0	.0	.0	.0	.0
Palm	23.5	17.8	11.6	13.6	16.1	10.4	7.1	11.2	3.5
Palm kernel	.0	.0	.8	2.9	5.8	2.2	2.4	3.5	1.1
Rapeseed	28.7	30.9	44.9	33.4	52.1	38.0	30.9	40.3	12.5
Soya bean	50.5	56.8	49.1	65.6	44.3	44.8	38.4	42.5	13.2
Sunflower seed	12.6	14.7	12.7	19.2	26.9	36.4	29.6	31.0	9.6
Other	11.9	11.9	6.9	9.0	10.1	10.0	28.4	16.2	5.0
Sub-total	128.9	132.5	126.9	144.8	155.3	141.9	136.8	144.7	44.9
Marine oils	143.9	151.3	162.5	143.9	124.0	133.1	137.6	131.6	40.8
Animal fats	29.3	40.0	44.8	45.9	48.5	46.0	44.0	46.2	14.3
Total	302.1	323.8	334.2	334.6	327.8	321.0	318.4	322.4	100.0

Source: United Kingdom Ministry of Agriculture, Fisheries and Food.

Note: The discrepancy between 'total oil or fat used in production' and 'margarine production' is represented by water, salt, colourings and preservatives.

Table VII

Production of compound fats in the United Kingdom and oils and fats used in their manufacture 1979-85 (thousand tonnes)

	1979	1980	1981	1982	1983	1984	1985	Average 1983-85 (%)	
Fat production									
Bulk	111.3	112.7	131.9	133.7	131.7	95.9	89.6	105.7	84.3
Packets	17.4	17.7	20.7	23.6	21.7	19.0	18.2	19.6	15.7
Total	128.7	130.4	152.6	157.3	153.4	114.9	107.8	125.4	100.0
Oil or fat used in production									
Coconut	1.3	1.4	2.7	2.2	2.5	1.8	1.5	1.9	1.6
Groundnut	.4	.4	.6	.4	.4	.4	.0	.3	.2
Palm	22.7	26.8	31.0	32.5	31.3	20.3	20.4	24.0	19.4
Palm kernel	.0	.0	14.3	12.1	11.4	4.3	4.6	6.8	5.5
Rapeseed	7.5	7.7	20.0	21.5	27.2	22.0	19.9	23.0	18.7
Soya bean	25.6	23.3	24.6	29.7	14.9	7.6	7.1	9.9	8.0
Sunflower	.3	.3	.5	.7	1.4	.8	.0	.7	.6
Other	7.8	10.0	1.6	1.2	2.1	2.1	1.5	1.9	1.5
Sub-total	65.6	69.9	95.3	100.3	91.2	59.3	55.0	68.5	55.5
Marine oils	50.1	48.0	41.0	46.9	47.0	45.5	46.5	46.3	37.5
Animal fats	18.6	18.3	15.2	11.3	11.1	8.3	6.3	8.6	6.9
Total	134.3	136.2	151.5	158.5	149.3	113.1	107.8	123.4	100.0

Source: United Kingdom Ministry of Agriculture, Fisheries and Food.

Note: The small discrepancy between 'oil or fat used in production' and 'fat production' is represented by additives and process losses.

Table VIII

European Community imports of crude and other than crude vegetable oils for foodstuffs, (excluding olive oil), from developing countries, by country of origin, annual average 1983-85 (tonnes)

Rank	Country	Crude plus other than crude oil (C+R)		Crude oil (C)		Other than crude oil (R)	
		Tonnes	% Total	Tonnes	% C+R	Tonnes	% C+R
1	Malaysia	322,019	24.3%	189,043	58.7%	132,977	41.3%
2	Indonesia	239,813	18.1%	237,564	99.1%	2,249	.9%
3	Papua New Guinea	121,190	9.1%	120,886	99.7%	304	.3%
4	Argentina	109,516	8.3%	107,527	98.2%	1,989	1.8%
5	Senegal	107,880	8.1%	99,610	92.3%	8,270	7.7%
6	Philippines	98,450	7.4%	98,218	99.8%	232	.2%
7	Côte d'Ivoire	70,064	5.3%	70,064	100.0%	0	.0%
8	Brazil	59,970	4.5%	59,187	98.7%	784	1.3%
9	China	53,081	4.0%	53,066	100.0%	14	.0%
10	Zaire	21,530	1.6%	21,530	100.0%	0	.0%
11	Solomon Islands	18,515	1.4%	18,515	100.0%	0	.0%
12	Cameroon	14,220	1.1%	14,220	100.0%	0	.0%
13	Nigeria	14,005	1.1%	13,887	99.2%	118	.8%
14	Honduras	11,032	.8%	11,032	100.0%	0	.0%
15	Sudan	9,791	.7%	8,747	89.3%	1,044	10.7%
16	Gambia	9,741	.7%	9,476	97.3%	265	2.7%
17	Benin	9,403	.7%	9,403	100.0%	0	.0%
18	French Polynesia	5,929	.4%	5,929	100.0%	0	.0%
19	India	4,400	.3%	77	1.8%	4,323	98.2%
20	Singapore	4,285	.3%	1,091	25.5%	3,194	74.5%
21	Liberia	4,267	.3%	4,267	100.0%	0	.0%
22	Sri Lanka	2,955	.2%	2,926	99.0%	29	1.0%
23	Thailand	2,276	.2%	2,276	100.0%	0	.0%
24	Peru	2,060	.2%	2,060	100.0%	0	.0%
25	Togo	1,701	.1%	1,701	100.0%	0	.0%
26	Gabon	1,412	.1%	1,412	100.0%	0	.0%
27	Guinea	1,287	.1%	1,287	100.0%	0	.0%
	Sub-total	1,320,792	99.6%	1,165,000	88.2%	155,792	11.8%
	Others*	5,816	.4%	5,739	98.7%	78	1.3%
	Grand total	1,326,609	100.0%	1,170,739	88.3%	155,870	11.7%

Source: NIMEXE

Notes: (i) Data in the table refers to SITC categories 1507.61 to 98, excluding 1507.65.
 * Other developing countries exporting vegetable oils to the EC for use in foodstuffs between 1983 and 1985 included:
 AFRICA: Burkina Faso, Chad, Mali, Morocco, Mozambique.
 AMERICAS: Costa Rica, Dominican Republic, El Salvador, Netherlands Antilles, Panama, Paraguay, Uruguay.
 NEAR EAST: Egypt, Lebanon.
 FAR EAST: Bangladesh, Hong Kong, Surinam, Korea, Vietnam.
 PACIFIC: Fiji, Tonga, Western Samoa, Vanuatu.

Table IX

European Community imports of other than crude vegetable oils for foodstuffs from developing countries, by type of oil, by country of origin 1975-85, (tonnes)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Palm oil (SITC 1507.63)											
Malaysia	1,380	838	5,658	12,486	17,164	40,576	184,339	158,678	141,271	153,697	98,307
Indonesia	0	0	0	0	832	0	217	893	2,226	1,184	2,700
Côte d'Ivoire	3,940	422	0	871	0	0	0	241	0	0	0
Singapore	0	0	0	0	0	441	0	0	0	2,976	5,976
Philippines	0	0	0	0	0	493	1,946	0	0	0	0
Surinam	0	0	0	602	406	275	413	0	0	0	0
Zaire	279	0	0	0	0	0	0	0	0	0	0
Bangladesh	0	0	0	0	0	0	0	0	0	248	0
Papua New Guinea	0	0	0	0	0	0	0	0	912	0	0
Senegal	0	0	0	0	0	0	0	0	0	260	0
Sub-total	5,599	1,260	5,658	13,959	18,402	41,785	186,915	159,812	144,409	158,365	106,983
Groundnut oil (1507.87)											
Senegal	27,921	28,015	30,521	11,074	10,430	8,757	461	5,054	11,876	8,990	3,685
Sudan	0	0	143	4,989	1,938	9,732	8,292	10,652	2,666	466	0
Gambia	689	0	0	0	441	505	0	0	796	0	0
Liberia	0	0	1,069	0	0	0	0	0	0	0	0
Morocco	0	630	0	0	0	0	0	0	0	0	0
Mali	0	0	0	0	0	0	0	487	0	0	0
Côte d'Ivoire	0	0	273	0	0	0	0	0	0	0	0
Zaire	0	0	312	0	0	0	0	0	0	0	0
Hong Kong	0	0	0	0	0	0	0	0	0	0	49
Niger	398	0	0	0	0	0	0	0	0	0	0
Sub-total	29,008	28,645	32,318	16,063	12,809	18,994	8,753	16,193	15,338	9,456	3,734
Coconut oil (1507.92)											
Papua New Guinea	0	602	3,789	6,349	2,965	1,196	853	322	0	0	0
Philippines	0	0	0	0	0	0	5,313	200	213	237	191
Sri Lanka	0	0	0	0	0	0	0	0	0	0	87
Malaysia	0	0	0	553	0	0	0	0	0	0	0
Fiji	0	0	1,219	2,433	0	0	0	0	0	0	0
West Indies	0	0	0	508	0	0	0	0	0	0	0
Sub-total	0	602	5,008	9,843	2,965	1,196	6,166	522	213	237	278
Palm kernel oil (1507.93)											
Malaysia	0	0	0	0	0	0	0	0	0	2,147	1,522
Singapore	0	0	0	0	0	0	0	0	0	493	0
Zaire	0	0	0	0	309	0	0	0	0	0	0
Nigeria	0	0	0	232	0	0	0	0	0	0	0
Sub-total	0	0	0	232	309	0	0	0	0	2,640	1,522
Sunflower seed oil (1507.88)											
Argentina	0	0	0	0	0	0	781	0	0	2,673	2,958
Malaysia	0	0	0	0	0	0	0	0	0	0	1,731
Indonesia	0	0	0	0	0	0	0	0	0	0	674
Sub-total	0	0	0	0	0	0	781	0	0	2,673	5,363
Cottonseed oil (1507.85)											
Argentina	0	0	0	0	0	0	0	944	0	0	0
Brazil	0	0	0	0	0	0	0	0	311	0	2,351
Sub-total	0	0	0	0	0	0	0	944	311	0	2,351
Soya bean oil (1507.86)											
Malaysia	0	0	0	0	0	0	0	0	255	0	0
Nigeria	0	0	0	0	0	0	0	0	0	0	354
Sub-total	0	0	0	0	0	0	0	0	255	0	354
Maize oil (1507.94)											
Egypt	0	0	0	0	0	0	0	0	204	0	0
Argentina	0	0	0	0	0	0	0	0	155	0	0
Sub-total	0	0	0	0	0	0	0	0	359	0	0

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Other oils (1507.98)											
India	81	1,084	1,321	2,543	2,543	3,314	2,733	3,270	4,361	4,297	4,311
Argentina	0	0	6,288	3,335	0	0	1,237	363	180	0	0
Brazil	0	0	0	0	0	0	0	1,638	0	0	0
Hong Kong	0	0	0	48	61	77	66	91	136	125	184
Malaysia	0	482	0	0	0	0	0	0	0	0	0
Philippines	0	0	0	0	0	0	0	0	0	0	55
Singapore	0	0	0	0	0	0	69	48	41	32	64
China	0	0	0	0	0	0	0	0	0	43	0
Sub-total	81	1,566	7,609	5,926	2,604	3,391	4,105	5,410	4,718	4,497	4,614
Grand total	34,688	32,073	50,593	46,023	37,089	65,366	206,720	182,881	165,603	177,868	125,199
Total excluding 'other than crude' palm oil from Malaysia:	33,308	31,235	44,935	33,537	19,925	24,790	22,381	24,203	24,332	24,171	26,892
Percentage of grand total	96.0%	97.4%	88.8%	72.9%	53.7%	37.9%	10.8%	13.2%	14.7%	13.6%	21.5%

Source: NIMEXE

APPENDIX 2 INFORMATION ON THE EUROPEAN COMMUNITY

Some background information on the nature and structure of the EC is presented in this appendix which is relevant to the study on two counts: firstly, because of the special relationship between the EC and a major group of developing countries in Africa, the Caribbean and Pacific regions (the ACP countries) through the Lomé convention; and, secondly, because the expansion in stages from the original membership of six countries of the EC to its present membership of twelve means that statistics relating to the EC must be clearly related to the structure of the EC at the time to which the data refer.

Origins and history

The Treaty of Rome, signed in 1957 laid down the foundations for the formation of the European Economic Community, or Common Market, in 1959. The central objective was to form a customs union between the member countries, namely: Belgium, France, Italy, Luxembourg, the Netherlands and the Federal Republic of Germany (EUR 6). By 1966 internal tariffs on trade in industrial products had been abolished, and a common external tariff was established.

Following the Hague summit in 1969, full membership of the Community was extended to the United Kingdom, Denmark and the Irish Republic from January 1973 (EUR 9). Greece joined the EC in 1981 (EUR 10). Most recently, membership of the Community was expanded to twelve countries (EUR 12) with the inclusion of Spain and Portugal from January 1986.

European Community relations with developing countries

One of the Implementing Conventions for the Treaty of Rome provided for a system of unilateral aid and trade association between the Community and its member states' overseas countries and territories (eventually to evolve as the Yaounde Convention and subsequently the Lomé Convention). The EC's special relationship with developing countries was also reflected by the setting up of the European Development Fund, for financing infrastructure development projects for beneficiary countries.

In the years following establishment of the Common Market, many of the member states' overseas countries and territories achieved independence, and the association with the EC was renegotiated within the framework of the Yaounde convention, signed in 1963 and renegotiated in 1969. An important feature of the convention was that preferential treatment would be given to signatories for import of goods into the Community.

With the expansion of the Community to nine in 1973, United Kingdom Commonwealth countries had the opportunity to negotiate special relations with the EC. This led to the signature of the first Lomé Convention between the 'Europe of the Nine' and 46 states of the African, Caribbean and Pacific regions, (the ACP states). The second Lomé Convention, signed in 1979, was negotiated with 57 ACP states. The third Lomé Convention was signed in 1984 between Europe of the Ten (EUR 10) and 65 countries. The full text of the Convention is given in *The Courier*, **89**, Jan-Feb 1985.

The 65 developing countries signatory to Lomé III include:

Antigua and Barbuda	Ghana	St Vincent and The
Bahamas	Grenada	Grenadines
Barbados	Guinea	Sao Tome and Principe
Belize	Guinea Bissau	Senegal
Benin	Guyana	Seychelles
Botswana	Jamaica	Sierra Leone
Burkina Faso	Kenya	Solomon Islands
Burundi	Kiribati	Somalia
Cameroon	Lesotho	Sudan
Cape Verde	Liberia	Surinam
Central African Republic	Madagascar	Swaziland
Chad	Malawi	Tanzania
Comoros	Mali	Togo
Congo	Mauritania	Tonga
Côte d'Ivoire	Mauritius	Trinidad and Tobago
Djibouti	Mozambique	Tuvalu
Dominica	Niger	Uganda
Equatorial Guinea	Nigeria	Western Samoa
Ethiopia	Papua New Guinea	Vanuatu
Fiji	Rwanda	Zaire
Gabon	St Kitts and Nevis	Zambia
Gambia	St Lucia	Zimbabwe

APPENDIX 3 BIBLIOGRAPHY

Previous studies

McNerney (1983), working for the Commonwealth Secretariat, completed a desk study with supporting field work in the Philippines and Sri Lanka. The primary objective was to look at the benefits of downstream processing of coconut oil. It was concluded that while export of semi-refined (i.e. refined and bleached but not deodorized) coconut oil would be feasible, technical problems associated with bulk transport would constrain exports of fully refined oils.

Various papers have been published by the Palm Oil Research Institute of Malaysia (PORIM) concerning technical problems in the bulk shipment of refined palm oil (for example Berger, 1978, 1984; Berger *et al.*, 1983). Although measures for transporting refined oils in bulk without deterioration have been proposed, it is not clear from the literature to what extent they have been adopted and proved successful.

A study of the United Kingdom market for palm oil, commissioned by PORIM and carried out by International Marketing and Economic Services UK Ltd (IMES/PORIM, 1982), specifically addressed the question of whether it was better for Malaysia to export crude or refined oil to this market. Unfortunately, there was no clear answer to the question, but the report identifies a number of key issues:

- (a) United Kingdom refiners' attitudes 'ranged from hostile to fatalistic', their resistance to buying refined-at-source palm oil being based on:
 - deterioration in the quality of refined oil in shipment; and
 - lower profitability of part processing of oils; there is already excess refining capacity in Europe.
- (b) Dealers, brokers and agents had a neutral attitude to handling refined-at-source palm oil.
- (c) End users, in principle, are prepared to buy from any source, but have very specific requirements concerning:
 - frequency and reliability of delivery;
 - flexibility in supply arrangements;
 - quality, and (in particular) freshness of oil.

The study noted the importance of credit facilities and close technical and commercial liaison offered by the United Kingdom refiners to their customers, and also their ability to offer blended oils, which a Malaysian refiner could not.

Barriers to trade in refined vegetable oils include progressive import tariffs in some of the major importing countries, with rates of duty increasing with degree of processing of the commodity. The European Community has import tariffs which are alleged to be particularly disadvantageous to developing country exports of refined oils. Takase (1984) has reviewed sources of information on tariffs and other barriers to trade in vegetable oils.

A recent study (UNIDO, 1985) examined the potential trade expansion effects which would result from a complete removal of tariffs by eight major importers. It was concluded that, overall, the net effects of tariff removal would be marginal.

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RAJ KUMAR SHAH (1984) *Shipping and insurance requirements*. In: PORIM (1984).

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Quality requirements and economic values in trading of oils. *Journal of the American Oil Chemists' Society*, **60** (2), 292-94.

TAMOTSU TAKASE (1984)

Technical and other trade barriers (in palm oil trade). In: PORIM (1984)

UNIDO (1984) The vegetable oils and fats industry in developing countries: outlook and perspectives. *Sectoral studies series No.13*, Vol.1. Report UNIDO/IS.477 dated 16 July 1984. Vienna: United Nations Industrial Development Organization.

UNIDO (1985)

Tariff and non-tariff measures in the world trade of oilseeds, vegetable oils and related products. (prepared by the UNCTAD secretariat)

Sectoral Working Paper Series No. 28, Report UNIDO/IS.519 dated 11 March 1985. Vienna: United Nations Industrial Development Organization.

WEISS, T. J. (1983) *Food oils and their uses, (2nd edition)*. Chichester, United Kingdom: Ellis Horwood, 310pp.

APPENDIX 4 NOTE ON NIMEXE CLASSIFICATION FOR VEGETABLE OIL IMPORTS

Vegetable oil and fat imports are recorded in NIMEXE under the Standard International Trade Classification (SITC) category 1507, 'Fixed vegetable oils, fluid or solid, crude, refined or purified'. This is sub-divided into 41 sub-categories:

1507.05 to .13: Types of olive oil.

1507.14: China wood and oiticica oils, myrtle and Japan waxes.

1507.15 to .17: Castor oil.

1507.19 to .39: Crude vegetable oils, for industrial uses, including:
palm, soya bean, rapeseed (including colza and mustard seed), linseed, coconut, palm kernel and 'other' oils.

1507.51 to .58: Vegetable oils, other than crude, for industrial uses, including:
tobacco-seed, soya bean, linseed and 'other' oils.

1507.61 to.63: Palm oil, for foodstuffs, crude and other than crude.

1507.65: Solid vegetable oils in packages of maximum 1 kilogram for foodstuffs, other than palm oil.

1507.72 to .82: Crude vegetable oils, either solid in packages over 1 kilogram or fluid, for foodstuffs, including:
cotton seed, soya bean, groundnut, sunflower seed, rapeseed (including colza and mustard seed), coconut, palm kernel, maize and 'other' oils.

1507.83 to .98: Vegetable oils, not crude, either solid in packages over 1 kilogram or fluid, for foodstuffs, including:
cottonseed, soya bean, groundnut, sunflower seed, rapeseed (including colza and mustard seed), coconut, palm kernel, maize and 'other' oils.

For each sub-category, imports are given by volume and value for each of the member countries and by the EC in total, broken down by country of origin.

Other relevant categories include:

1508: Animal and vegetable oils, boiled, oxidised, dehydrated, sulphurized, blown or polymerized by heat in vacuum or in inert gas, or otherwise modified.

This category is not broken down by type of oil, either between animal and vegetable oils, or by type of modification.

1512: Animal or vegetable oils and fats, wholly or partly hydrogenated, or solidified or hardened by any other process, whether or not refined, but not further prepared.

Sub-category deals with oils and fats in packages up to 1 kilogram, but does not distinguish between animal and vegetable oils. Sub-category 1512.95 specifically covers vegetable oils, but only in packages of over 1 kilogram weight.

1513: Margarine, imitation lard and other prepared edible fats.

Sub-category 1513.10 deals specifically with margarine, but gives no breakdown of margarine imports by type of product or type of raw material.

APPENDIX 5 EUROPEAN COMMUNITY IMPORT DUTIES ON VEGETABLE OILS

Tariff heading and trade description	MFN rate	GSP rate	ACP rate
12.01B Oilseeds and oleaginous fruit, whole or broken, other than for sowing	Free	Free	Free
12.02A Flours or meals of soya beans	7%	7%	Free
12.02B Flours or meals of oil seeds or oleaginous fruit, non-defatted (excluding mustard flour), other than of soya beans	Free	Free	Free
15.04C Fats and oils, of fish and marine animals, whether or not refined (other than fish-liver oil, whale oil and oils of other cretaceans)	Free	Free	Free
15.07DI Fixed vegetable oils for technical or industrial uses other than the manufacture of foodstuffs for human consumption			
(a) crude oils			
1 Palm oil	4%	2.5%	Free
2 Tobacco-seed oil	Free	Free	Free
3 Linseed oil, ground-nut oil, sunflower seed oil, rapeseed and colza oils	5%	5%	Free
3 Other oils	5%	2.5%	Free
(b) Other than crude oils			
1 Tobacco seed oil	Free	Free	Free
2 Palm kernel and coconut oils	8%	6.5%	Free
2 Other oils	8%	8%	Free
15.07DII Fixed vegetable oils, for foodstuffs			
(a) Palm oil			
1 Crude	6%	4%	Free
2 Other than crude	14%	12%	Free
(b) Other oils			
1 Solid, in immediate packings of a net capacity of 1 kg or less	20%	18%	Free
2 Solid oils, other than in immediate packings of 1 kg or less, or fluid			
(aa) crude oils			
—Palm kernel and coconut oils	10%	7%	Free
—Other oils	10%	10%	Free
(bb) Other than crude oils			
—Palm kernel and coconut oils	15%	13%	Free
—Other oils	15%	15%	Free
15.12 Animal or vegetable oils and fats, wholly or partly hydrogenated, or solidified or hardened by any other process, whether or not refined, but not further processed			
A. In immediate packings of a net capacity of 1 kg or less	20%	16%	Free
B. Other	17%	11%	Free
15.13 Margarine, imitation lard and other prepared edible fats	25%	25%	Free

Notes to the tariff schedule

The information in the schedule, provided by the United Kingdom Ministry of Agriculture, Fisheries and Food, concerns EC import duties on vegetable oils and related trade categories, valid in June 1987. It is subject to possible revision at any time.

The MFN (most favoured nation) rate is the rate normally applicable to EC imports.

The GSP (Generalized System of Preferences) rate is applicable to certain developing countries who qualify for tariff reduction under UNCTAD/GATT arrangements.

The ACP (African, Pacific and Caribbean states) rate applies to signatories of the Lomé Convention (see Appendix 2).

APPENDIX 6 FURTHER SOURCES OF INFORMATION

The list of addresses provided in this appendix primarily documents sources of information used in the present study, and organizations from whom lists of companies, and in some cases statistics, are available. More comprehensive lists of organizations in the EC as a whole can be found in the directories listed at the end of this appendix.

UNITED KINGDOM

The Federation of Oils, Seeds and Fats Associations FOSFA
24, St Mary Axe, EC3A 8ER.

The Leatherhead Food Research Association
Randalls Road, Surrey KT22 7RY

The National Edible Oil Distributors Association NEODA
6, Catherine Street, London WC2B 5JJ.

The Margarine & Shortening Manufacturers' Association MSMA
6, Catherine Street, London WC2B 5JJ.

Seed Crushers' and Oil Processors' Association SCOPA
6, Catherine Street, London WC2B 5JJ.

NETHERLANDS

Vereniging van Nederlandse Fabrikanten van Eetbare Olien en Vetten VERNOF
(Dutch Association of Edible Oil and Fat Processors)
Raamweg 44, 2596 HN 's-Gravenhage.

Bond van Nederlandse Margarinefabrikanten BNM
(Dutch Margarine Manufacturers Association)
Raamweg 44, 2596 HN 's-Gravenhage.

Produktshap voor Margarine, Vetten en Olien, (Commodity Board for Margarine, Fats and Oils), Stadhoudersplantsoen 12, 2517 JL 's-Gravenhage. PMVO

ITALY

Associazione Italiana dell'Industria Olearia ASSITOL
(Italian Oil Industry Association)
3, Via del Governo Vecchio, 00186 Roma.

SPAIN

Asociacion Nacional de Exportadores de Aceite de Soja
(Spanish Soya Bean Oil Exporters Association)
Diego de Leon 34, Madrid-6.

Asociacion Nacional de Envasadores de Aceites Comestibles
(National Association of Edible Oil Bottlers)
Ayala 7, 28001 Madrid.

Asociacion Espanola de la Industria y Comercio Exportador de Aceite de Oliva ASOLIVA
(Spanish Association of the Olive Oil Industry and Trade)
Jose Abascal 40, 28003 Madrid.

GENERAL

EC Seed Crushers' and Oil Processors' Federation FEDIOL
Rue de la Loi 74, Bte 4, 1040 Bruxelles, Belgium.

Directories of the industry and further sources of information

Oils and Fats International Directory

Occasional; international coverage; latest issue, 1986.

Published by International Trade Publications Ltd.

Queensway House, 2 Queensway, Redhill, Surrey RH1 1QS, England.

Soya Bluebook

Annual; international coverage.

Published by the American Soybean Association

777 Craig Road, PO Box 27300, St Louis, MO 63141, USA.

Anuario Espanol de Aceites, Grasas e Industrias Auxiliares

Occasional; all sectors of the Spanish industry; latest issue, 1985.

Published by Tecnipublicaciones S.A., Fernando VI 27,

28004 Madrid, Spain.

Oil World

Various publications; international coverage of statistics and market intelligence.

ISTA Mielke GmbH, 2100 Hamburg 90, P.O.B. 90 08 03, Federal Republic of Germany.

Information sources on the vegetable oil processing industry

UNIDO Guides to Information Sources No. 7 (1977)

Published by the United Nations Industrial Development Organization, and available from:

Sales Section, United Nations Office, Palais des Nations, CH-1211 Geneva 10, Switzerland.

