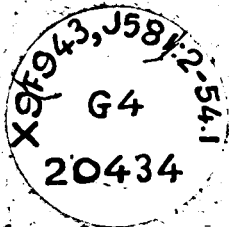


SURVEY OF OILSEEDS AND
VEGETABLE OILS.

Vol. 3.

Ground Nut Products.



2043

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SURVEY OF OILSEEDS AND VEGETABLE OILS

VOLUME III

GROUND NUT PRODUCTS

A SUMMARY OF PRODUCTION AND TRADE IN
BRITISH EMPIRE AND FOREIGN COUNTRIES

Prepared by the Intelligence Branch of the
Imperial Economic Committee



OCTOBER, 1934

LONDON

PRINTED AND PUBLISHED FOR THE IMPERIAL ECONOMIC COMMITTEE
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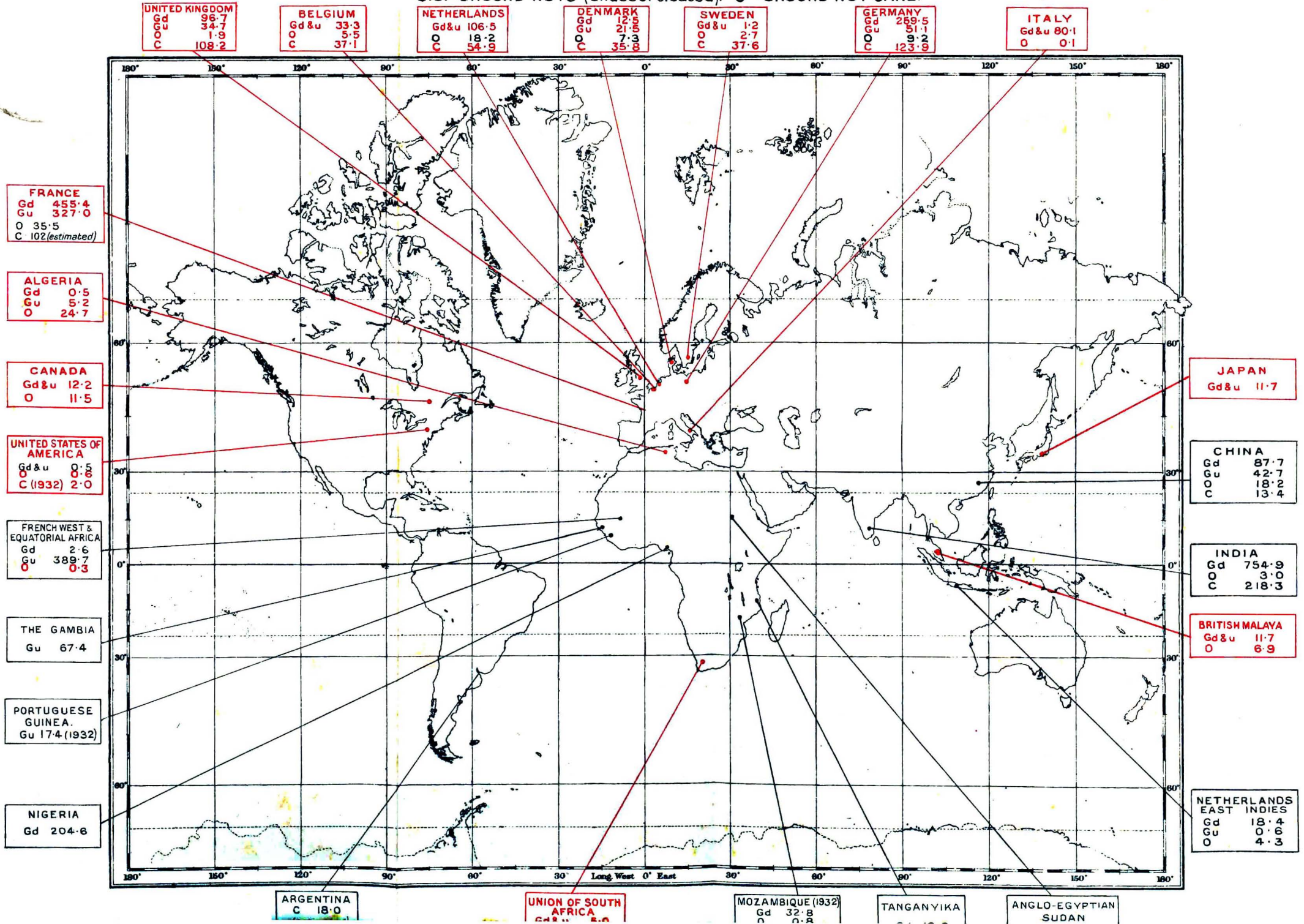
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DIAGRAM I - WORLD TRADE IN GROUND NUT PRODUCTS, 1933.

EXPORT BALANCE — IMPORT BALANCE — .

(IN THOUSANDS OF TONS).

G.d. = GROUND NUTS (decorticated), O = GROUND NUT OIL.
G.u. = GROUND NUTS (undecorticated), C = GROUND NUT CAKE.





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FOREWORD

THIS, the third volume of a Survey of Oilseeds and Vegetable Oils, like the two preceding volumes, was undertaken by the Empire Marketing Board. Following the adoption by all the Governments of the Empire of the Report of the Imperial Committee on Economic Consultation and Co-operation, 1933,* set up by a resolution of the Imperial Economic Conference held at Ottawa in 1932, the Empire Marketing Board ceased to function on 30th September, 1933. The Board's Statistics and Intelligence Services, under the terms of the Report, were taken over by the Imperial Economic Committee on 1st October, 1933, and the present Volume, then in course of preparation, was accordingly completed by the Intelligence Branch of the Imperial Economic Committee.

The Empire Marketing Board had from time to time received applications from a number of the Colonies for information upon the vegetable oil industry, particularly as regards its future and the extent of substitution between one vegetable oil and another and between vegetable oils and marine oils. The Board's Agricultural Economics Committee accordingly suggested that the Statistics and Intelligence Branch of the Board should undertake a statistical survey of world production and consumption of oilseeds and nuts for the information of producers, traders and utilisers of these commodities. A preliminary survey, entitled "Copra and Competitive Products," very brief and covering only the most easily accessible figures, was compiled early in the year 1931 and circulated among the Government Departments of the Empire countries concerned, and it was intended to follow this by a more detailed analysis on the lines of the surveys already issued relating to Oranges (E.M.B. 15) and Cocoa (E.M.B. 27).

During the work of preparation, it soon became apparent that the subject was too wide to be confined to one volume and it was decided

* Cmd. 4335.

to issue a series of volumes, each dealing with a convenient group of these commodities. The first of these, dealing with oil palm products, appeared in June, 1932 (E.M.B. 54) and the second, dealing with coconut palm products, in December, 1932 (E.M.B. 61).

The present volume covers the products of the ground nut plant—ground nuts, ground nut oil, ground nut cake and meal—and follows much the same lines as the previous surveys referred to above. It is essentially a statistical record of the trade in these products in recent years with some indication of the general trend of production and consumption. Where possible, an attempt has been made to indicate the effect of the competition of substitutable oils, vegetable, animal and marine. In this connection, difficulty has been experienced in estimating the degree of substitution that is being effected in some countries, on account of the absence of statistics of the oils and fats utilised by the more important industries concerned, namely the edible oil, margarine and soap industries.

Certain minor difficulties have also been encountered in connection with the trade statistics, which frequently do not separate decorticated (shelled) from undecorticated ground nuts and in some cases do not separate ground nuts and ground nut oil from other oilseeds and oils. The figures of acreage, production and trade published in this Survey represent the latest statistics available. Where official figures of acreage or production are lacking the most authoritative estimate, whether official or otherwise, has been adopted in order that the data presented may be as complete as possible. Aggregates for the world, and for the British Empire, and in some instances individual figures, may accordingly differ from those given in other publications of the Empire Marketing Board or of other bodies publishing similar statistics.

In the compilation of this Survey, the Statistics and Intelligence Branch of the Empire Marketing Board and the Intelligence Branch of the Imperial Economic Committee have had the skilled and ungrudging assistance of many official, statistical and trade bodies in all the important countries of the world interested in the production of and foreign trade in ground nut products both within and without the Empire, and the Imperial Economic Committee desire to take this opportunity of expressing their keen appreciation of this valuable co-operation.

The proofs of this Survey have been scrutinised by :—

Sir Arthur Hill, K.C.M.G., D.Sc., F.R.S., Director, Royal Botanic Gardens, Kew ;
F. A. Stockdale, Esq., C.M.G., C.B.E., M.A., F.L.S., Agricultural Adviser to the Secretary of State for the Colonies ;
The Imperial Institute ;
F. D'Arcy Cooper, Esq., Joint Chairman of Messrs. Unilever, Ltd. ;
F. M. Dyke, Esq., of Messrs. Lever Bros. ;
F. E. Fehr, Esq., C.B.E., of Messrs. Frank Fehr and Company ;
J. W. Pearson, Esq., of the British Oil and Cake Mills, Ltd. ;
E. Steiner, Esq., of Messrs. Volkart Bros. ; and
The International Institute of Agriculture, Rome.

In addition, the proofs of those chapters of the Survey, on which they are specially competent to advise, have been scrutinised by :—

Sir Robert Cahill, C.M.G., Commercial Counsellor, His Britannic Majesty's Embassy, Paris ;
The late J. W. F. Thelwall, Esq., C.M.G., M.C., Commercial Counsellor, His Britannic Majesty's Embassy, Berlin ;
G. Janson, Esq., Compagnie du Congo pour le Commerce et l'Industrie, Brussels ; and
S. Sørensen, Esq., Agricultural Counsellor to the Danish Government, London.

The Committee desire to take this opportunity of expressing their sincere appreciation of the valuable help thus furnished.

Intelligence Branch,
Imperial Economic Committee.

October, 1934.

INTRODUCTION

Ground nuts, the fruit of a tropical to sub-tropical annual plant, *Arachis hypogaea*, are so called because the nuts mature in the ground ; they are also known as earth nuts, peanuts—the kernels growing inside pods like peas—and monkey nuts. The nuts are used for human food, as food for live stock—chiefly pigs which are turned into the field to do the harvesting—or crushed for oil and oilcake. All but a small proportion of the ground nuts entering world trade are destined for the production of oil. The following chapters deal mainly with the part of the crop that is exported and the relatively small amounts of ground nut oil and cake leaving the ground nut producing areas.

THE GROUND NUT PLANT

Arachis hypogaea is of South American origin, but was introduced into Africa and Asia in the sixteenth century*. India, China and West Africa, with the addition of the United States of America, remain the principal sources of supply. The ground nut plant thrives best on a well-drained, rich, sandy loam well supplied with lime, in areas free from frost during the period of growth which lasts about five months, and having an annual rainfall of 30 to 50 inches so distributed as to provide dry weather during the ripening and harvesting of the crop when adequate sunshine is needed. The absence of frost and the avoidance of heavy or stiff soils are essential to successful cultivation, but ground nuts can be produced under a variety of conditions of soil and climate, and in addition to the areas already mentioned they are grown in other parts of Africa—notably in Mozambique, Tanganyika, the Anglo-Egyptian Sudan and the Union of South Africa—in North Australia, British Malaya, Spain, Japan, the Netherlands East Indies, the West Indies, and South America. Where the soil is inclined to be heavy, as in some parts of Nigeria, greater cultivation is needed to keep it sufficiently friable to enable the flower stalks to bury their ovaries. Where the soil is dark and discolours the shells, as in some parts of South Africa, the shells are often bleached to improve the marketing prospects of the nuts. An insufficient rainfall during the earlier months of growth can be counteracted by irrigation, as is done for the summer crop in Madras.

* See Kew Bulletin, 1901, pp. 175, 182.

To face page 9.



ERECT AND TRAILING TYPES OF GROUND NUT PLANTS
(Reproduced by courtesy of the High Commissioner for India)

After the soil has been pulverised to a depth of 4 to 5 inches, the nuts are sown, sometimes in their shells, about 1 to 2 inches deep and 3 to 4 inches apart with 24 to 36 inches between the rows. Usually nuts from the previous crop are used, but a periodic renewal of the seed stock is desirable to maintain the yield and strengthen resistance to attacks by insects and disease. The habit of growth depends upon the variety of seed planted. The many varieties of ground nuts fall into two main divisions—the erect or bunch, and the trailing types. Plants of the erect varieties have a bushy growth and reach a height of 12 to 18 inches, the pods clustering round the “bunched” stems. Plants of the trailing varieties creep along the ground and soon cover it, the pods forming all along the “running” stems. Whatever the variety, the flower withers after fertilization, its stalk elongates and turns earthward burying its point about 3 inches in the soil where the ovary develops into a pod or shell $\frac{3}{4}$ to $1\frac{1}{2}$ inches long, greyish white or light buff in colour and containing one to five, but usually two or three, ovoid kernels each of which is covered with a thin skin varying in colour according to its variety from cinnamon shade to blood red. The sizes and weights of the shells and kernels differ in each variety, but on the average the shells are about one-third of the weight of the kernels and the number of kernels to the ounce varies between 30 and 40 in the varieties bearing the larger nuts, and between 60 and 80 in the varieties bearing the smaller nuts. The average yield per acre is about 900 lb. of nuts in the shell, but a good yield may reach 1,500 or 2,000 lb. of nuts in the shell and 1 to 2 tons of haulms, which may be used for feeding stock.

The ground nut is a hardy plant and easy to grow; it needs little cultivation beyond weeding—two or three hoeings before the nuts form usually suffice—and it requires little manure except when grown for several consecutive years on comparatively heavy soil. It is often grown in a three-year rotation with a cereal and cotton, or in a two-year rotation with one of these.

Ground nut plants are attacked by locusts, rosette disease, leaf spot, and wilts (*Fusarium* and bacterial). The locust problem is receiving the active attention of the authorities in those areas where losses are serious.

Rosette disease is transmitted by a sucking insect (an *Aphis*, *A. Laburni*, sometimes called *A. leguminosae*), and it has been found that its incidence is increased by drought, wide and late plantings,

and by clean cultivation. In certain areas it has been found that closer and early planting gives an effective practical control of this disease.

Rosette disease and leaf spot, both of which seriously reduce the yield of the plants affected, are being overcome by selecting varieties of seed showing the greatest resistance to the disease.

No satisfactory method other than adequate rotation is known for controlling wilts, the bacterial form of which (due to the well-known *Bacterium solanacearum*) causes considerable losses in the Netherlands East Indies and elsewhere.

Ground nuts of the erect varieties, being easier to harvest, are more suited to heavier soils, whilst the trailing varieties give the highest yields on light soils, but the problem facing the producers and their advisers is to determine which of the many varieties in each type is best suited to the conditions of a particular area. The Virginia Bunch, Spanish Bunch, Valencia, Natal, Small Japan and Philippine Pink are examples of the erect type, and Bombay Bold, Coromandel, West African, Virginia Runner, Philippine White and Mauritius are examples of the trailing type. Ground nuts of the Virginia Bunch variety are preferred by the confectionery and barrow trades because of their large size and flavour, but there is little difference in the commercial value of the different varieties of ground nuts where the nuts are intended for the manufacture of oil.

Harvesting is the most costly operation in the production of ground nuts, and in the United States of America about one-quarter of the crop is left in the ground to be "hogged off" by pigs. In most areas outside the United States of America the bulk of the crop is harvested without the aid of machinery, although in some countries the authorities are encouraging the increased use of ploughs. In the United States of America machinery is used for digging, picking, cleaning and decorticating the nuts. The world's ground nut crop is almost entirely produced on small holdings and harvesting employs the whole family; the availability of cheap labour accounts in part for the increased production that has accompanied low prices, a further factor being the alternative use of ground nuts as a food crop or cash crop.

The foliage of the ground nut plants from which the nuts have been harvested is sometimes dug in as a fertiliser and sometimes dried and stored as "hay," but is often wasted.

GROUND NUTS

The proportion of the crop which is consumed as nuts is not known. In the United States of America almost all the ground nuts harvested are eaten either as raw or roasted nuts, in confectionery or after manufacture into peanut butter ; but this is exceptional and in the other producing areas, although actual figures are not available, it is known that substantial proportions of the production are crushed locally or exported to Europe for the manufacture of oil. On the average over 40 per cent. of the weight of ground nut kernels consists of oil, but the proportion varies slightly according to the variety of the nut and the area where it is produced.

Table 1 shows the results of tests made to ascertain approximately the number and weight of the kernels of the principal varieties entering world trade, together with the oil content of the kernels and the free fatty acid content of their oil, which vary both from year to year and according to the time of shipment.

It is important that the nuts should be thoroughly dried before being stored. Artificial drying is sometimes used for this purpose, but the method usually adopted is to stack the harvested plants in the field until they are dry or to spread out the unshelled nuts in the sun for about a week, protecting them at night. If the nuts are not properly dried they become discoloured and develop an unpleasant smell, and, if shipped or stored in a damp condition, damage through heating may render the oil produced from them fit only for the manufacture of soap and the cake unfit for cattle food. The nuts are exported both in the decorticated and undecorticated state ; if decorticated, the shelling process is not undertaken until the nuts are ready to be marketed. As a rule, producing areas that are relatively near their export markets, ship their ground nuts in the undecorticated state, while producing areas far removed from their export markets decorticate their ground nuts before shipment. The heavier cost of transport over greater distances is offset by the reduction of 25 per cent. in weight and about 50 per cent. in space effected by decortication. The nuts are exported undecorticated notably from the Gambia and French West Africa. When not wasted, the shells are used as manure, as fuel—for example in cotton ginneries and oilseed mills, for polishing in the tin-plate industry, as bait in the sardine-fishing industry of France, or ground and mixed with molasses for use as a cattle food.

TABLE 1.—*The Principal Varieties of Ground Nuts Entering World Trade*

	Indian (a).				Nigerian (b).	Gambian (b).	Rufisque (b).	Chinese (c) (excluding Spanish type).
	Bombay Bold.	Coro-mandel.	Khan-deish.	Red Natal (Small Japan).				
Kernels (in per cent.) :—								
3 kernels or more	40	8	—	5	1	3	—	} Generally two kernels.
2 kernels	50	80	90	85	78	87	76	
1 kernel	10	12	10	10	21	10	24	
Number of kernels per ounce.	44-53	62-66	78-85	65-75	58-68	79-90	66 (average).	26-42
Oil content of kernel (in per cent.) (d).	46.0-47.2	48.3-49.6	47.9-49.6	46.1-47.9	47.0-49.2	47.0-49.0	50.0 (average).	42.0-43.7
Free fatty acids in the oil (in per cent.).	1.3-4.8	2.7-5.4	2.4-6.7	1.0-9.1	0.5-8.3	2.0 (average).	1.0-5.0	1.2-3.3

(a) Based on "A few notes on Indian Ground Nuts" by E. Lieberherr, of Messrs. Volkart Bros., Bombay, and information published by the Incorporated Oil Seed Association, London.

(b) Based on information supplied through the Seed, Oil, Cake and General Produce Association (Incorporated) of Liverpool.

(c) The number of kernels per ounce is the range of standard sizes for decorticated nuts when graded. Oil content and free fatty acids based on information published by the Incorporated Oil Seed Association, London.

(d) This represents the oil content and not the percentage of oil extracted from the kernels. In practice about 5 per cent. of the oil content of the kernel is left in the residual cake when the oil is obtained by expression, which is the usual method.

Allowing for the weight of the shells, there is no marked difference in the prices paid by importers for decorticated and undecorticated ground nuts for the manufacture of oil, but Rufisque (French West Africa) ground nuts command a small premium and Chinese ground nuts fetch less than the average price. The quality of India's exports has been considerably improved by substituting machine shelling of dry nuts for decortication by hand after wetting the nuts, and screening combined with official inspections of exports from the Gambia have reduced the percentage of sand and sticks in the consignments to less than the trade allowance of 2 per cent.

The export balances of decorticated and undecorticated ground nuts from the principal ground nut producing areas rose from an annual average of 600,000 tons (decorticated basis) in the pre-war quinquennium to about 1,500,000 tons between 1928 and 1931, but fell to about 1,200,000 tons in 1932 and 1933. The British Empire—principally India—supplied over 60 per cent. of these exports; France, Germany and the United Kingdom were the principal markets.

GROUND NUT OIL

The ground nut oil produced in the ground nut producing areas is obtained for the most part by primitive methods, but modern plants have been set up in India, China and other areas which manufacture ground nut oil for export. The largest export of ground nut oil in any year from the ground nut producing areas was little more than 50,000 tons, and is thus of small importance as compared with the exports of ground nuts.

The best grades of oil are produced from undecorticated nuts, but oil of very good quality is produced from decorticated nuts including those exported in that state. Decorticated ground nuts suffer some fermentation in transit which is increased by the presence of broken kernels, the free fatty acid content of which increases during storage and transport to a greater extent than is the case with whole nuts.

A good ground nut oil is clear, thin, amber coloured and slightly nutty in flavour. Two grades, differing in quality and use, are usually produced in the crushing of the nuts. The first pressing, after heating, gives an oil which is used for edible purposes and the manufacture of margarine; the second pressing produces an oil slightly inferior but used for the manufacture of margarine and soap. In France, a preliminary pressing, cold-drawn, yields an edible oil which is refined for table or culinary use. Ground nut oil is also obtained

by the use of solvents, a method which secures higher yields of oil than are obtained by crushing the nuts and hence is of value in treating low grade nuts or in cases where the maximum oil recovery is essential. It is reported that experiments are being made in India to ascertain the possibilities of extracting the oil by a bacterial process.*

The use of ground nut oil as a salad and cooking oil has increased in recent years at the expense of olive oil, but its use in margarine and soap has declined in favour of cheaper oils such as whale oil and soya bean oil. Ground nut oil is also used as a minor constituent in compound lubricants, as a preserving oil in the canning of fish, and to a small extent in the wool textile industry. The aggregate amounts available for consumption in the principal consuming centres of Europe rose from about 230,000 tons in 1924 to over 590,000 tons in 1929, but declined to about 425,000 tons in 1932 and 1933. France, Germany and the United Kingdom are the largest European consumers.

Prior to the War the oilseed and nut crushing industry had shown a more rapid development on the Continent than in the United Kingdom. In the seventeenth century linseed and rapeseed oil production was an established industry, and at the beginning of the nineteenth century about 500 windmills, situated for the most part in the Netherlands, were crushing these seeds.† The industry grew up around the principal oilseed importing ports, such as Hull and Liverpool in the United Kingdom, Hamburg and Bremen in Germany and the Rhine towns supplied by the ports of Antwerp and Rotterdam. These centres of production were also convenient centres of distribution for the oil and oil cake extracted by the crushing mills.

The crushing of ground nuts for ground nut oil was to a large extent a French development, as regards the European aspect of the industry, although ground nut oil had been produced and utilised in the ground nut areas a long time prior to the first shipments of ground nuts to Europe. For a considerable period prior to the War Marseilles was the seat of an important vegetable oil industry, and France consumed about 70 per cent. of the ground nuts exported during the pre-war quinquennium. Other countries which participated in this trade were Germany and the Netherlands, but imports into the United Kingdom were then unimportant.

* Madras Agricultural Department Report, 1932-33 (page 40).

† See "Organisation and Business Methods of the Oilseed Trade," by G. N. Chapman, Secretary of the International Association of Seed-Crushers.

The principal object of the crushing industry in the United Kingdom before the War was the production of oil cake for cattle-feed, whilst on the Continent, and especially in some parts of France and Germany, the principal demand was for oils and more particularly edible oils for table use, culinary purposes or the manufacture of margarine; at that time, oils for these purposes were in less demand in the United Kingdom than on the Continent and there was little demand for any other oilseed cakes than linseed and cottonseed. During and since the War the margarine industry and the consumption of vegetable oils for culinary and edible purposes have made great strides in the United Kingdom with the result that the crushing of oilseeds and nuts for the production of edible oils has considerably increased.

In regard to the crushing methods adopted, little change has occurred since the introduction of the so-called Anglo-American system about 1872. Modern practice usually involves two operations: the first being generally a preliminary treatment in a unit of the Anderson Expeller type, and the second, a treatment of the residue from the expeller in an hydraulic press. The general development of the oil crushing industry has been in the direction of increasing the capacity of the mills, as the larger mills have proved to be more economical. The extraction of oil from the seed by means of solvents, as opposed to the crushing of the seed, was introduced about the beginning of the present century and has since been widely adopted for low grade nuts or where maximum oil recovery is essential, on account of the higher yield of oil obtained by this method.

GROUND NUT CAKE

The residue from the crushing of the nuts is known as ground nut cake, whilst the residue from extraction by solvents is known as ground nut meal. Both cake and meal are valuable as fertilisers or as cattle feed, but the latter is the only important use outside the ground nut producing areas. Ground nut cake contains a higher percentage of oil than ground nut meal and is of greater nutritive value. The cake left from the crushing of decorticated ground nuts is somewhat similar in composition to decorticated cotton cake and possesses a feeding value not surpassed by any other oilcake, though the choice of oilcake is considerably determined by local preferences. The feeding value of undecorticated ground nut cake is rather lower, but both varieties are valuable feeding stuffs suitable for milch cows and cattle generally and for sheep. It has been

suggested that ground nut cake might be used in the manufacture of patent foods for human consumption, but enquiries have failed to provide any evidence that it is so used.

In recent years over 1 million tons of ground nut cake and meal have been consumed annually in the principal consuming centres of Europe, of which Germany, France and the United Kingdom are the most important. Ground nut cake is not separated from ground nut meal in any trade returns and the references to ground nut cake that follow should be interpreted to include ground nut meal.

GENERAL

The following chapters indicate the recent development of the production and export of ground nut products from the principal producing areas, and their distribution to the principal centres of consumption. British Empire countries have been treated apart, and in this group have been included the mandated territory of Tanganyika and the Anglo-Egyptian Sudan. The order in which the various countries in this and the foreign countries group have been treated was determined by their importance as exporters or importers.

Precise agreement between corresponding tables is not to be expected owing to variations in the method of classification of exports and imports, and particularly owing to the different ways of recording their origin and destination.

The unit of weight used throughout the Survey is the long ton of 2,240 lb. and except where otherwise stated the conversion factors used are as follows :—

100 tons of undecorticated ground nuts	= 75 tons of kernels
	= 30 tons of ground nut oil
	= 70 tons of undecorticated ground nut cake
100 tons of decorticated ground nuts	= 40 tons of ground nut oil
	= 60 tons of decorticated ground nut cake
243 gallons of ground nut oil	= 1 ton

The estimates made of the available supplies of ground nut cake in the ground nut importing countries include the weight of shells where the ground nuts are imported undecorticated.

The trade figures relate to the total foreign trade of the country in question except where the tables are headed "Special Trade," in which case the imports relate only to those quantities intended for domestic consumption and the exports to domestic produce together with such part of the imports intended for domestic consumption as were subsequently re-exported.

Except where otherwise stated, annual figures relate to calendar years.

PART I

PRODUCTION AND EXPORT

BRITISH EMPIRE COUNTRIES

CHAPTER 1

INDIA

It is generally believed that ground nuts were introduced into India in the 16th century, but the crop remained unimportant until the second half of the 19th century. Between 1850 and 1890, the recorded acreage increased from 4,000 to 275,000 acres, but considerable damage by disease resulted in a greatly reduced area being sown during the succeeding decade. A change in the variety of seed reduced the liability to disease and the crop regained and increased its former popularity so that by the outbreak of the War it covered over 2 million acres. The area has since been increased to about 8 million acres, and India is now by far the largest producer of ground nuts in the world.

Table 2 shows annually from 1913-14 the growth of the ground nut acreage and its increasing importance in the total oilseed crops of the country. The reported acreages are incomplete, the returns from year to year excluding a varying number of Indian States, but they cover the principal ground nut growing districts, and the only change of importance after 1913-14 in the number of reporting States occurred in 1919-20 when Hyderabad reported for the first time. The figures are therefore not comparable over the whole period, but those from 1913-14 to 1918-19 are approximately comparable with one another as are those from 1919-20.

The closing early in the War of the Marseilles mills, to which a large proportion of the exports had been consigned, led to a decreased area under ground nuts in 1915-16, and the consequential disorganisation of the trade, together with the difficulties of transport, resulted in a downward trend in acreage during the War years. In 1918-19 there were 1.5 million acres under ground nuts, as compared with rather more than 2 million acres in 1913-14. After the War there was a continuous increase in acreage to nearly $6\frac{1}{2}$ million acres in 1928-29. The acreage fell to $5\frac{1}{2}$ million acres in 1931-32, then rose to about 8 million acres in 1933-34, but judging from the second official forecast, a reduction in acreage in 1934-35 seems probable.

TABLE 2.—*Acreage under Ground Nuts and other Oilseeds in India.*(a)
(In thousands of acres)

Year. (b)	Ground Nuts.	Sesame.	Rape and Mustard.	Linseed.	Other Oilseeds. (c)	All Oilseeds. (c) (d)	Share of Ground Nuts (in per cent.)
1913-14(e) ..	(f) 2,106	5,013	4,307	2,550	5,017	18,993	11
1914-15(e) ..	2,379	5,297	4,680	2,755	3,279	18,390	13
1915-16(e) ..	1,639	4,822	4,412	2,767	3,365	17,005	10
1916-17(e) ..	2,317	4,849	4,324	2,911	3,222	17,623	13
1917-18(e) ..	1,982	3,911	4,758	3,404	3,090	17,145	12
1918-19(e) ..	1,464	3,754	3,179	1,619	2,652	12,668	12
1919-20 ..	1,705	4,685	3,991	2,712	4,290	17,383	10
1920-21 ..	2,323	4,954	3,136	1,975	4,171	16,559	14
1921-22 ..	2,367	5,226	4,573	2,471	4,558	19,195	12
1922-23 ..	2,774	4,652	4,365	2,860	4,379	19,030	15
1923-24 ..	2,958	4,639	4,026	3,299	4,417	19,339	15
1924-25 ..	3,181	5,038	4,390	3,270	4,586	20,465	16
1925-26 ..	4,259	4,808	3,412	3,189	4,728	20,396	21
1926-27 ..	4,442	4,396	3,560	2,844	4,511	19,753	22
1927-28 ..	5,536	4,945	3,691	2,877	4,615	21,664	26
1928-29 ..	6,436	5,193	4,862	2,793	4,806	24,090	27
1929-30 ..	6,177	4,876	3,823	2,710	4,459	22,045	28
1930-31 (g) ..	6,579	5,618	6,632	3,009	(h)4,500	26,338	25
1931-32 (g) ..	5,489	5,639	6,220	3,309	(h)4,500	25,157	22
1932-33 (g) ..	7,005	6,025	6,079	3,250	(h)4,500	26,859	26
1933-34 (j) ..	8,115	6,192	6,033	3,257	(h)4,500	28,097	29

(a) Source: "Agricultural Statistics of India," except where otherwise stated below.

(b) Years ending 30th June for 75 per cent. of the total Oilseed Acreage.

(c) Ignores the acreage under cotton, which is omitted from the oilseed acreages shown in "Agricultural Statistics of India." The proportion of the cotton acreage used to supply cottonseed for oil is not known.

(d) An estimate of 1,000,000 acres has been included for Coconuts in respect of each of the years 1913-14 to 1919-20, for which no coconut figures are given in "Agricultural Statistics of India."

(e) Approximately comparable with each other, but not with later years, because returns were not received from Hyderabad until 1919-20.

(f) From "Estimates of Area and Yield of Principal Crops in India." The acreage shown in "Agricultural Statistics of India" for 1913-14 is clearly incomplete.

(g) From "Estimates of Area and Yield of Principal Crops in India, 1932-33."

(h) Based on the average acreage 1920-21 to 1929-30.

(j) From the "Indian Trade Journal," 31st May, 1934.

This quadrupling of the ground nut area was not repeated in the case of any other important oil bearing crop ; the acreage under other oilseeds remained relatively stable and in consequence the share of ground nuts in the total area under oilseeds in India increased substantially, rising from about 10 per cent. in 1913-14 to about 30 per cent. in 1933-34.

Both the trailing and the erect types of ground nuts are grown in India. The trailing type grown in Bombay is known commercially as "Bombay Bold," and that grown in Madras as "Coromandel." Of the erect types, the "Khandeish" is a Natal or Small Japan variety, the cultivation of which has spread from the Khandeish district across the Deccan to Mysore and Coimbatore, whilst the "Red Natal" is virtually confined to Bombay. The cultivation of the "Khandeish" ground nut has shown the largest increase in recent years, but Coromandel ground nuts still constitute the bulk of the exports, exports of "Khandeish" and "Bombay Bold" each being about one-fifth the exports of Coromandel, while the exports of "Red Natal" are much smaller.

Most of the ground nuts grown in India are sown between May and August and harvested between November and January, but a summer crop, grown on irrigated land in Madras and forming about 5 per cent. of the total area under the crop, is sown in February and March and harvested in July and August. Experimental stations have been established to carry out varietal tests and to investigate the best time to harvest the different varieties in order to secure the maximum oil content and it is anticipated that these experiments will result in an increase in the oil yield of the nuts.

Madras was the first Province to cultivate ground nuts, and it is still the largest producer with about $3\frac{1}{2}$ million acres although its relative importance has steadily declined and it now has only about one-half of the total acreage under ground nuts in India as compared with about three-quarters before the War. The second largest area is in Bombay, where ground nuts have steadily increased in importance, the 1933-34 area of 1.8 million acres being nearly five times that sown in 1924-25. Hyderabad and Burma are the remaining areas cultivating ground nuts in large quantities, and together they have over $1\frac{1}{2}$ million acres or one-fifth of the total for India. The acreages devoted to ground nuts in these four Provinces in 1913-14 and annually since 1924-25 are shown in Table 3, which also indicates the yields obtained. As the figures for the earlier years did

TABLE 3.—*Acreege and yield of Ground Nuts in the principal Ground Nut producing areas of India (a).*

Province or State.	1913-14.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33 (f).	1933-34 (g).
<i>Madras—</i>											
Area (in thous. of acres) ..	1,605	1,904	2,599	2,680	3,337	3,679	3,209	3,572	2,635	3,517	3,830
Yield (in thous. of tons) ..	411	948	1,264	1,207	1,671	1,830	1,522	1,765	1,234	1,729	1,711
Yield per acre (in hundreds of lb.)	(b) 6	11	11	10	11	11	11	11	10	11	10
<i>Bombay (c)—</i>											
Area (in thous. of acres) ..	254	385	685	813	1,064	1,423	1,349	1,603	1,507	1,666	1,844
Yield (in thous. of tons) ..	160	231	326	421	555	704	513	662	671	684	850
Yield per acre (in hundreds of lb.)	14	13	11	12	12	11	9	9	10	9	10
<i>Hyderabad—</i>											
Area (in thous. of acres) ..	(d)	134	190	305	485	650	619	691	775	1,118	1,384
Yield (in thous. of tons) ..	(d)	11	21	25	42	81	145	165	213	320	374
Yield per acre (in hundreds of lb.)	(d)	2	2	2	2	3	5	5	6	6	6
<i>Burma—</i>											
Area (in thous. of acres) ..	247	462	499	523	540	599	571	565	408	522	615
Yield (in thous. of tons) ..	88	165	165	165	145	160	190	175	125	157	190
Yield per acre (in hundreds of lb.)	8	8	7	7	6	6	7	7	7	7	7
<i>Total of above Provinces and States—</i>											
Area (in thous. of acres) ..	} (e)	2,885	3,973	4,321	5,426	6,351	5,748	6,431	5,325	6,823	7,673
Yield (in thous. of tons) ..		1,355	1,776	1,818	2,413	2,775	2,370	2,767	2,243	2,890	3,125
Yield per acre (in hundreds of lb.)		11	10	9	10	10	9	10	9	9	9
Percentage of acreage in Madras	(e)	66	65	62	62	58	56	56	49	52	50

(a) Source : " Estimates of Area and Yield of the Principal Crops in India." Yields shown are weights of nuts in shell, and refer to the crop year.

(b) An exceptionally low yield ; the average for the three preceding years was 842 lb. per acre.

(c) Province and States.

(d) No returns rendered until 1919-20.

(e) Not available.

(f) Provisional.

(g) Final Official Forecast, see " Indian Trade Journal," February 22nd, 1934.

not include all grown tracts, they are not strictly comparable with those for later years.

The increased yields per acre recorded for Hyderabad from 1929-30 and the smaller yields per acre recorded for Bombay from 1928-29 arise from improved methods of computation. From 1931-32, the average yield for the four principal ground nut producing areas of India taken as a whole was 900 lb. per acre or approximately the same as the average for the world.

About 95 per cent. of the ground nut acreage of India is in these four areas where the annual production increased from under 700,000 tons in the immediate pre-war period to $1\frac{1}{2}$ million tons in 1924-25 and over 3 million tons in 1933-34.

Although one-half to three-quarters of the crop is retained for domestic consumption, India provides nearly one half of the ground nuts entering international trade from the ground nut producing areas. The bulk of the trade is done through the British ports but large quantities of ground nuts, mainly the produce of British India, are shipped through French, Portuguese and Kathiawar ports. The trade returns available for Portuguese India and the Kathiawar States cover only a few years. There is no recorded trade over the land frontiers.

In the pre-war quinquennium, 30 per cent. of the total exports of ground nuts through British and French ports in India were shipped from French ports, but the percentage declined to an average of about 10 per cent. during the post-war period under review. The trade returns of the Government of India show the volume of the exports from the French ports but not the distribution; the trade returns issued by the French Authorities show the distribution of the exports but are not available after 1928. The trade returns issued by the Government of India have therefore been used for Table 4, which shows the foreign trade in ground nuts through British and French ports in India. No ground nuts are imported through the French ports in India.

The figures in Table 4 do not represent the total exports of ground nuts from India, since they do not include ground nuts exported through ports in Portuguese India or the Kathiawar States. The published trade returns do not give a complete run of figures, but

TABLE 4—Foreign trade in Ground Nuts through British and French ports in India (a)

	1909-10 to 1913-14 (Average).	1924- 25.	1925- 26.	1926- 27.	1927- 28.	1928- 29.	1929- 30.	1930- 31.	1931- 32.	1932- 33.	1933- 34.
<i>British Ports—</i>	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Exports	211,810	376,123	454,954	367,908	613,360	788,407	714,157	601,204	671,973	433,012	546,546
Imports	159	103	53	18	60	61	132	30	66	5	(b)
Export Balance ..	211,651	376,020	454,901	367,890	613,300	788,346	714,025	601,174	671,907	433,007	546,541
<i>French Ports—</i>											
Exports	91,986	61,043	51,734	65,416	80,400	79,717	97,277	70,435	36,551	25,000 (c)	30,000 (c)
Export Balance ..	303,637	437,063	506,635	433,306	693,700	868,063	811,302	671,609	708,458	458,007 (d)	576,541 (d)
Export balance in oil equivalent ..	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.
	122	175	203	173	278	347	324	269	283	183 (d)	231 (d)
Percentage of exports shipped from French Ports	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
	30	14	10	15	12	9	12	10	5	5 (e)	5 (e)

(a) The figures, which relate to the twelve months ending March 31st, do not take account of trade through Portuguese and Kathiawar ports, particulars of which are not available over the whole period under review.

(b) Not available, assumed same as in the preceding year.

(c) Estimated on basis of the changes in exports through British ports.

(d) Partly estimated.

(e) Assumed same as in 1931-32.

exports from Portuguese Indian ports, almost wholly a transit trade, averaged 138,000 tons per annum in the period 1927-33, exports in those years being (in thousands of tons) :—

1927	1928	1929	1930	1931	1932	1933
84	151	184	146	165	90	148

Exports from the Kathiawar States' ports averaged 21,000 tons per annum in the period 1931-32 to 1933-34. Together, therefore, these two groups of exports represent an addition of about one-quarter to the export balance recorded for recent years in Table 4.

The export balance from British and French ports, which was about 300,000 tons per annum in the pre-war quinquennium, had increased to about 440,000 tons in 1924-25, and rose, with an interruption in 1926-27, to a peak of nearly 870,000 tons in 1928-29. The subsequent decline, slight at first, was most marked in 1932-33 when the export balance fell from about 700,000 tons to about 460,000 tons, or little more than one-half of the peak figure. This downward trend is probably a result of the general economic depression, whilst the decrease in 1926-27 has been attributed to the holding of supplies in the hope that prices, which were then beginning to fall, would recover. Falling prices in the year 1932-33 may also account for the magnitude of the drop in exports during that year, while the failure of prices to recover apparently led to the release of larger quantities in 1933-34, when the export balance amounted to 580,000 tons.

Table 5 shows the distribution of the exports through British ports in India during the pre-war quinquennium and annually from 1924-25. France is the principal market for ground nuts exported through the French ports in India, the annual averages so consigned being 66,000 tons in the pre-war quinquennium and 40,000 tons in the period 1924-28; later figures are not available. As already stated, the information available for exports from both Portuguese India and the Kathiawar States covers a short period only. In the years 1927-31, Germany with an average of 55,000 tons a year, the Netherlands with an average of 37,000 tons and Italy with an average of 20,000 tons, were the principal destinations for exports from Portuguese Indian ports; while between 1931-32 and 1933-34, exports from the Kathiawar States' ports to the Netherlands averaged 8,000 tons per annum and to the United Kingdom about 5,000 tons per annum.

TABLE 5.—*Distribution of Ground Nuts exported through British ports in India (a)*
(In tons)

Countries.	1909-10 to 1913-14 (Average).	1924- 25.	1925- 26.	1926- 27.	1927- 28.	1928- 29.	1929- 30.	1930- 31.	1931- 32.	1932- 33.	1933- 34. (Pro- visional). (e)
France	169,120	198,087	203,826	125,379	151,199	216,150	210,866	172,232	223,241	219,447	148,884
Netherlands	135	39,057	75,412	76,729	112,106	132,488	154,165	167,350	147,192	87,474	59,472
Germany	7,369	40,332	90,921	87,334	218,330	241,228	210,068	119,797	121,751	48,129	72,289
Italy	723	21,607	37,266	50,333	80,075	121,267	54,708	76,975	80,344	28,214	67,369
United Kingdom	1,903	35,411	9,670	16,969	25,414	47,952	53,240	47,159	77,933	31,643	25,281
Norway	—	—	—	—	—	—	3,969	9,514	4,989	2,496	(b)
Belgium	15,341	16,308	11,913	6,362	14,948	9,471	8,108	2,229	4,457	8,627	10,112
Sweden	—	—	583	—	—	—	2,002	2,000	4,712	—	—
Denmark	(b)	699	1,000	—	—	10	2,718	900	4,133	1,501	—
Natal	—	—	—	11	150	400	850	900	1,400	700	—
Spain	1,155	23,444	23,090	4,000	6,976	695	100	550	100	—	—
Egypt	2,395	398	84	41	2,171	121	6,466	76	592	3,026	(b)
Austria	6,903(d)	250	48	—	1,012	1,700	1,363	26	22	—	—
Straits Settlements (including Labuan)	863	—	180	70	—	11,080	551	2	193	67	—
Hong Kong	4,893	40	45	31	—	1,573	477	—	—	—	—
Other countries	1,010	490	916	649	979	4,272	4,506	1,494	914	1,688	163,139 (c)
Total	211,810	376,123	454,954	367,908	613,360	788,407	714,157	601,204	671,973	433,012	546,546
Percentage of exports taken by France..	80	53	45	34	25	27	30	29	33	51	27

(a) Years ending March 31st.

(b) Included in "Other countries."

(c) Details not yet available.

(d) Pre-war frontiers.

(e) The provisional figures in previous years have been subject to considerable modification.

As in the pre-war quinquennium, France remained throughout the post-war period under review the principal market for ground nuts exported from the British ports in India. In the pre-war quinquennium, the exports to France averaged 170,000 tons per annum, but increased to 190,000 tons per annum in the period 1924-25 to 1932-33. The provisional figure for 1933-34 shows a heavy fall to 149,000 tons but, judging by the modifications made in the provisional figure in previous years, this will be ultimately increased and on the basis of the imports of Indian ground nuts into France the definitive figure for 1933-34 may be considerably higher than in any previous year. But the relative importance of the trade with France has declined, that country taking 80 per cent. of the total exports in the pre-war quinquennium but, with the exception of 1932-33, only about 30 per cent. since 1926-27. A further decline may be expected to result from the import duties and licensing regulations introduced by France in August, 1933, and January, 1934, respectively.*

The Netherlands, Germany and Italy are the next largest consignees. Exports to the Netherlands, which were less than 150 tons per annum in the pre-war quinquennium but amounted to nearly 40,000 tons in 1924-25, increased consistently to nearly 170,000 tons in 1930-31 but fell to about 60,000 tons in 1933-34. A very large proportion of these exports was not consumed in the Netherlands but was re-exported. Exports to Germany and Italy are also considerably in excess of their pre-war level, but they have shown a downward trend since 1928-29, which was the peak year for the total exports from India, although in both cases there was a substantial increase in 1933-34 compared with 1932-33. Most of the other important markets have considerably increased their trade as compared with the pre-war quinquennium, but Belgium and Spain are notable exceptions, and the trade with Austria, Hong Kong and Egypt, which accounted together for 15,000 tons per annum in the pre-war quinquennium, has since been of little importance. Belgium now obtains the bulk of its ground nuts from French West Africa instead of from India, whilst official Decrees have severely restricted the imports of ground nuts into Spain from 1926.

The relative importance of the various markets is not greatly changed by the addition to the exports through British ports of the exports through the French ports in India ; the share of France is increased by about 3 per cent. but the downward trend remains.

* See page 146.

The trade returns of British India do not differentiate between decorticated and undecorticated ground nuts, but it is known that the exports are almost wholly decorticated. More than half are sent to France, Germany and the United Kingdom, and the trade returns of these countries show that less than 2 per cent. of their ground nut imports from India arrive in the shell. The nuts are shipped shelled in order to reduce the cost of transport and of sacks; shelled nuts occupy only half the space that would be required for the same number of unshelled nuts, and transport costs are of considerable importance in the case of India owing to the distance of its principal markets, which lie in Europe.

When the nuts are decorticated by hand they are first moistened, but, although this facilitates the shelling, it discolours the kernels and tends to increase the liability to rancidity in the oil. There are several types of simple but effective machines for decortivating the dry nuts, and it is now usual for nuts destined for export to be machine-shelled.

Considerable quantities of ground nuts are crushed in India, judging for instance by the cake exported. The methods employed include both primitive hand presses and modern power presses; and, as

TABLE 6.—*Foreign Trade in Ground Nut Oil through British Ports in India*
(In tons)

Year (a).	Exports.	Imports.	Export Balance.
1909-10 to 1913-14 (average)	780	39	741
1924-25	156	18	138
1925-26	720	39	681
1926-27	170	14	156
1927-28	397	19	378
1928-29	1,812	24	1,788
1929-30	723	8	715
1930-31	682	6	676
1931-32	1,871	11	1,860
1932-33	3,775	11	3,764
1933-34	2,947	(b)	2,936 (c)

(a) Years ending 31st March.

(b) Not yet available; assumed same as in 1932-33 in export balance.

(c) Partly estimated.

already stated, experiments are being made to test bacterial methods of oil extraction. The oil produced is almost entirely consumed in the country and exports are small. The extent of the foreign trade in ground nut oil through British ports is shown in Table 6. Exports through French ports in India averaged 45 tons per annum in the pre-war quinquennium but were not separately recorded in the post-war period under review; there are no imports. Exports from Portuguese India and the Kathiawar States averaged about 100 and 70 tons per annum respectively in the years for which information is available.

There has been considerable variation within the small volume of these exports, the movement in recent years being steeply upward. There was a decline in 1933-34 to about 3,000 tons as compared with the peak of nearly 4,000 tons exported in the previous year. Mauritius, Ceylon and British Malaya took 96 per cent. of the exports in the pre-war quinquennium and 90 per cent. of the exports from 1924-25 to 1930-31, but from 1931-32 to 1933-34, 70 per cent. of the exports were consigned to the United Kingdom.

Table 7 shows, in terms of oil, the aggregate exports of ground nuts and ground nut oil through British and French ports in India during the pre-war quinquennium and annually from 1924-25.

TABLE 7.—*Aggregate Exports of Ground Nuts and Ground Nut Oil from British and French ports in India in Oil Equivalent (a)*
(In thousands of tons)

	1909-10 to 1913-14 (Average).	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Export Balance of Ground Nuts in oil equivalent (b)	122	175	203	173	278	347	324	269	283	183	231
Export Balance of Ground Nut Oil	1	(c)	1	(c)	(c)	2	1	1	2	4	3
Total	123	175	204	173	278	349	325	270	285	187	234

(a) The figures, which relate to the twelve months ending 31st March, do not take account of trade through Portuguese or Kathiawar ports. The estimated oil equivalent of these exports, in the years for which information is available, was as follows (in thousands of tons) :

	1927	1928	1929	1930	1931	1932	1933
Portuguese ports	33	60	74	58	66	36	59
Kathiawar ports		Not available			9	4	12

(b) Oil equivalent computed at 40 per cent. of weight of ground nuts, the nuts being generally decorticated before export.

(c) Less than 500 tons.

The exports of ground nut oil form only a small fraction of the trade, but in recent years this has shown a tendency to increase. As already stated, over one-half of the ground nuts produced in India is consumed in the country as can be seen from Table 8 which compares the production of ground nuts with the export trade in nuts and oil from 1924-25.

TABLE 8.—*Estimated amount of Ground Nut Oil and Ground Nuts (in oil equivalent) available for consumption in India (a)*
(In thousands of tons)

	1927- 28.	1928- 29.	1929- 30.	1930- 31.	1931- 32.	1932- 33.	1933- 34.
Estimated production of Ground Nuts in oil equivalent (b) ..	739	844	764	890	720	930	1,000
Export balance of Ground Nuts and Ground Nut Oil, in oil equivalent (c) ..	311	409	399	328	351	223	293
Estimated amount available for consumption	428	435	365	562	369	707	707
Estimated percentage of crop retained ..	58	52	48	63	51	76	71

(a) Years ending 31st March.

(b) Based on the yields shown in "Estimates of Area and Yield of the Principal Crops in India" and the acreages shown in "Agricultural Statistics of India." The latter publication gives a more complete acreage figure than the former.

(c) Export balances of ground nuts through British, French and Portuguese ports and ground nut oil through British ports (see Table 7). The Portuguese figures relate to the twelve months ending 31st December of the year indicated.

Note.—According to the Tables "Percentage of Exports of certain Principal Crops to Total Production" in the annual "Review of the Trade of India," the proportion of the ground nut crop retained is considerably greater than is indicated above; the difference is, for the most part, apparently due to the "Review of the Trade of India" taking account of exports from British ports in India only and not allowing for the fact that the nuts exported are mostly decorticated.

During the post-war period under review, the estimated amount of ground nuts and ground nut oil available for domestic consumption, as shown in Table 8, has more than doubled, rising from 316,000 tons (oil equivalent) in 1924-25 to over 750,000 tons in 1933-34. The proportion of the crop retained showed an upward trend from 1930-31; two-thirds of the crop was retained in the period 1930-31 to 1933-34,

TABLE 9.—Exports of Ground Nut Cake through British Ports in India (a)
(In tons)

Countries.	1912-13 to 1913-14 (Average).	1924- 25.	1925- 26.	1926- 27.	1927- 28.	1928- 29.	1929- 30.	1930- 31.	1931- 32.	1932- 33.	1933- 34. (Provis- ional).
Germany	5,796	19,907	9,237	23,913	40,004	38,540	28,139	35,865	51,899	66,303	23,132
United Kingdom	11,578	56,553	43,114	58,418	56,268	66,060	76,525	93,995	68,778	43,200	100,700
Netherlands	20	1,083	1,644	4,740	11,549	17,574	25,874	18,146	26,855	26,269	27,145
Belgium	—	805	3,520	1,911	6,417	12,512	12,764	7,637	12,117	12,261	11,699
Ceylon	6,426	14,534	24,562	32,199	29,745	25,058	25,560	21,613	20,340	8,190	9,920
British Malaya	569	677	758	2,071	1,306	2,391	1,568	1,484	1,126	674	} 17,159 (b)
Other Countries	496	1,490	412	3,443	2,182	1,027	2,037	3,031	2,642	1,929	
Total	24,885	95,049	83,247	126,695	147,471	163,162	172,467	181,771	183,757	158,826	189,755

(a) Twelve months ending 31st March.

(b) Further details not yet available.

as compared with 55 per cent. in the period 1927-28 to 1929-30, thus exemplifying the lessened incentive to export when prices are low.

Ground nut cake is used in India as a fertiliser for high-priced crops such as tea, as cattle feed, and, in some areas, for human consumption; considerable quantities are also exported. Exports of ground nut cake have increased fairly consistently from an average of 25,000 tons per annum in 1912-13 to 1913-14, to 95,000 tons in 1924-25 and to about 190,000 tons in 1933-34, mainly as a result of the increased use of ground nut cake as cattle feed in European countries. The distribution of the exports through British ports over the period 1912-13 to 1913-14 and annually since 1924-25 is shown in Table 9. Ground nut cake was not separately classified in the trade returns of British India prior to 1912-13, and the only information available regarding exports through the French ports relates to the pre-war quinquennium when an average of 1,862 tons per annum was exported, mainly to British Empire countries. The available trade returns show exports of ground nut cake from Portuguese Indian ports in the period 1927-31 averaging 4,600 tons per annum, of which Germany took 2,800 tons; exports from the Kathiawar States in the period 1931-32 to 1933-34 averaged 24,000 tons a year, of which Germany took 11,000 tons. There are no recorded imports.

In the pre-war quinquennium, the United Kingdom took 47 per cent., Ceylon 26 per cent. and Germany 23 per cent. of the ground nut cake exported through the British ports in India. In the period 1924-25 to 1930-31 these three countries took about 85 per cent. of the total exports, but exports to Germany slightly exceeded those to Ceylon. Exports to Germany continued to increase, and, at about 66,000 tons in 1932-33, represented 40 per cent. of the total, whereas exports to the United Kingdom and Ceylon fell in that year to 43,000 and 8,000 tons respectively. In 1933-34, however, exports to Germany were drastically reduced, amounting to only 23,000 tons, while the United Kingdom took 100,000 tons, or over half the total exports. Exports to the Netherlands and Belgium, negligible before the war, increased considerably during the post-war period under review and amounted to 27,000 and 12,000 tons respectively in 1933-4.

The shells of the nuts are sometimes used for manure but, more often, as fuel in cotton ginneries. In many parts of India the stalks and leaves of the plant are used for cattle feed, either fresh or dried, but they are often wasted.

CHAPTER 2

BRITISH WEST AFRICA

Ground nuts are grown in all the Colonies of British West Africa, but are only important in Nigeria and the Gambia, the former exporting on the average over 150,000 tons of kernels per annum in recent years and the latter about 50,000 tons, decorticated equivalent. Exports of ground nuts from the other British West African Colonies are insignificant ; those from Sierra Leone have averaged only 10 tons per annum since 1924, and those from the Gold Coast only 3 tons per annum. Cocoa is the principal export from the Gold Coast, and oil palm products are the main items in the foreign trade of Sierra Leone and Nigeria, whereas ground nuts constitute almost the whole of the exports from the Gambia.

Table 10 shows the annual exports of ground nuts from Nigeria and the Gambia since 1924, together with the average for the pre-war quinquennium.

TABLE 10.—*Exports of Ground Nuts from British West Africa*
(In thousands of tons : decorticated)

Colony.	1909- 13 (Aver- age).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
Nigeria ..	5	78	127	127	91	103	147	146	160	188	205
The Gambia (a)	44	45	37	46	52	58	44	59	55	(b) 30	(b) 53
Total ..	49	123	164	173	143	161	191	205	215	(b)218	(b) 258
Estimated Oil Equivalent..	20	49	66	69	57	64	76	82	86	(b) 87	(b) 103

(a) Estimated weight of kernels including transit trade. The nuts are exported undecorticated.

(b) Includes an estimate of the Gambia's transit trade.

The order of importance has been reversed since the pre-war quinquennium, when exports from the Gambia were 44,000 tons per annum (decorticated basis) against only 5,000 tons per annum from Nigeria. In 1924 Nigeria exported 78,000 tons and the Gambia 45,000 tons ; by 1933 Nigeria had increased its exports more than two and a half times, while the Gambia had increased its supplies by less than 20 per cent. on the average.

NIGERIA

Ground nuts are of secondary importance to the fruit of the oil palm among the oleaginous products of Nigeria. Before the War, they were mainly grown for domestic consumption, but the export trade has since attained considerable importance, about 200,000 tons of kernels being exported in 1933. The oil palm flourishes in the Southern Provinces, but ground nut cultivation is largely confined to the Northern Provinces where, in the sandy areas, they need no manure and are easily harvested. Trailing varieties predominate; they are generally sown in June and harvested in November, but the growing season is three months earlier in the Southern Provinces. The cultivation is wholly in the hands of the indigenous population, but Syrians and Arabs often act as intermediaries between the growers and the European merchants. Complaints regarding consignments of wet nuts are said to be traceable to the fact that these intermediaries make purchases early in the season before the nuts have been thoroughly dried, a process which normally takes about a week, though a shorter period suffices late in the season.

The ground nuts are decorticated locally and brought to Kano and other railheads, by camels and donkeys; motor transport has been used, but it is not economical at the present price level. The nuts are generally decorticated with a wooden pestle in a wooden mortar. This method results in a very high proportion of broken kernels and the winnowing leaves some shell, undecorticated nuts and dirt with the kernels. The method of decortication is important when the quantities destined for export are large for damaged kernels travel badly and the oil made from them is more liable to show a high free fatty acid content. In this connection it is important to note that about 80 per cent. of the exports from Nigeria have to be carried over 700 miles by rail from Kano to the coast and that at the height of the season stocks accumulate at Kano, because the railway is unable to deal with the calls then made upon it. The railway line connecting Kano with the coast was opened in 1913, and, by making large exports possible, has resulted in a considerable extension of the ground nut area in Nigeria.

At the Agricultural Census of 1930 the ground nut acreage was recorded at 998,000 acres in the Northern Provinces, and 42,000 acres in the Southern Provinces, giving a total of 1,040,000 acres for the whole of Nigeria; the total production was recorded as 316,684 tons.

Some uncertainty attaches to these figures, which may over-estimate the acreage and production. The production figure is about one-and-a-half times the weight of the exports (uncorticated basis) in 1930. According to a commercial report, the production in the season 1933-34 was estimated to amount to about 220,000 tons. Statistics of the acreage and production for years earlier than 1930 are not available and there is, therefore, no statistical evidence of the development of the cultivation of ground nuts apart from exports which increased from 2,500 tons in 1912 to nearly 200,000 tons in the season 1932-33. The export figures are shown in Table 11. The marketing season overlaps the calendar year and export figures have therefore been shown by crop years since 1923-24, the first year for which they are available.

TABLE 11.—*Exports of Ground Nuts from Nigeria*
(In tons: decorticated.)

Calendar Year.	Amount.	Crop Year (1st Oct.— 30th Sept.).	Amount.
1902-1906 (average) ..	804	1923-24	60,000
1907-1911 (average) ..	1,476	1924-25	132,000
1912	2,518	1925-26	110,000
1913	19,288	1926-27	90,000
1914	16,997	1927-28	86,000
1915	8,910	1928-29	135,000
1916	50,368	1929-30	147,000
1917	50,334	1930-31	154,000
1918	57,554	1931-32	165,000
1919	39,334	1932-33	197,000
1920	45,409		
1921	50,979		
1922	23,890		
1923	22,887		

The export trade, as already stated, received a considerable impetus from the opening of the railway to Kano in 1913 when exports rose from 2,500 tons to over 19,000 tons. Further encouragement was given during the War period when exports increased to more than 50,000 tons per annum because shipping difficulties made it imperative that the United Kingdom, then the principal importer

of Nigerian ground nuts, should obtain its supplies of oilseeds from the nearest producing areas. Since 1923-24, exports have averaged about 130,000 tons per season and have increased consistently since 1927-28, when they amounted to 86,000 tons rising, as already stated, to about 200,000 tons in 1932-33. In two of the more recent post-war years exports fell below 100,000 tons; in 1926-27 owing to increased domestic consumption of ground nuts on account of a shortage of other food-stuffs, and in 1927-28 as a result of disease in the ground nut crop, an unusual occurrence in Nigeria. The increased exports in 1928-29 and 1929-30 followed extensions of the railway line, to Gusau in 1928 and to Nguru in 1929, and would probably have been greater if prices had not fallen.

In order to lessen the effect of the price fall on the growers, the export duty of 10s. per ton was withdrawn on 1st July, 1930, and railway and shipping freights were subsequently reduced considerably. Research is proceeding with a view to extending the cultivation of ground nuts on the heavier soils and securing a higher yield generally. Efforts are also being made to improve the method of decortication, as it is realised that the export of ground nuts in their shells is, in the case of Nigeria, not commercially profitable.

Table 12 shows the distribution of the exports of Nigerian ground nuts by calendar years from 1924 and during the pre-war quinquennium. There are no exports of ground nut oil.

The United Kingdom, taking 3,000 tons per annum, and Germany, taking 2,000 tons per annum, were the only important consignees during the pre-war quinquennium, but the distribution of the trade has widened as its volume has increased. In the post-war period under review, the annual exports to the United Kingdom were always less than one-half of the exports to Germany until 1932, and the exports to France since 1928 have on the whole appreciably exceeded those to Germany. The exports to France in the period 1928-33 averaged 79,000 tons per annum, to Germany 42,000 tons, to the United Kingdom 17,000 tons, and to the Netherlands 13,000 tons. Comparison with the averages for the four years preceding 1928 shows a similarity with the later exports to the United Kingdom and the Netherlands, but the average export to France in the earlier period was 25,000 tons per annum, and to Germany 54,000 tons. The increase in exports to France was most marked between 1930 and 1932 when 132,000 tons were so consigned as compared with

TABLE 12.—*Distribution of Exports of Ground Nuts (Domestic Produce) from Nigeria*
(In tons: decorticated)

Countries.	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
France	(a)	16,729	22,753	27,825	31,795	51,535	62,734	38,364	73,081	132,307	115,065
United Kingdom ..	3,009	15,668	13,290	14,280	6,726	3,650	11,542	24,465	17,757	19,732	23,517
Germany	2,005	33,508	61,842	75,804	44,781	36,286	44,629	71,185	51,170	17,362	28,288
Italy	(a)	—	—	849	2,517	870	1,403	1,240	4,241	7,449	15,503
Netherlands	(a)	8,631	28,507	4,140	2,623	9,860	24,212	9,355	10,459	5,753	15,512
Denmark	(a)	—	—	—	259	617	701	1,633	1,250	4,007	724
Spain	(a)	—	—	2,810	1,022	—	—	—	—	—	—
Belgium	(a)	3,720	781	1,082	1,029	300	820	—	—	1,001	—
Other Countries ..	105	10	53	9	21	43	1,338	129	1,781	512	5,997
Total	5,119	78,266	127,226	126,799	90,773	103,161	147,379	146,371	159,739	188,123	204,606
Estimated oil equivalent (in thousands of tons)	2	31	51	51	36	41	59	58	64	75	82

(a) Included, if any, in "Other countries."

73,000 tons in 1931 and 38,000 tons in 1930. Exports to Germany, on the other hand, fell heavily between 1930 and 1932, only partially recovering in 1933 to 28,000 tons as against 71,000 tons in 1930. Exports to Denmark have also decreased after having shown a rising trend, whilst the trade with Spain, never very large, has now ceased for Spain is fostering its domestic production of oilseeds. Belgium is obtaining most of its ground nuts from French West Africa, and exports from Nigeria to Belgium are only occasional.

The trade returns show a small transit trade in ground nuts from French West and Equatorial Africa amounting to 2,151 tons in 1929, 1,613 tons in 1930 and 2,477 tons in 1933, but no trade of this nature was recorded in the other years under review. In 1929 and 1933 ground nuts imported in transit were almost all consigned to France, whilst in 1930 the bulk went to the Netherlands and the balance of 36 tons to Germany.

There is no record that ground nuts are exported from the British Cameroons, which territory is administered under mandate as part of the Colony and Protectorate of Nigeria.

THE GAMBIA

The ground nut was introduced early in the 19th century by freed slaves from America, and the Gambia is now almost entirely dependent upon this crop for its prosperity. Acreage and production figures are not available, but the ground nut crop occupies the bulk of the cultivated land, and exports which have averaged in recent years about 60,000 tons of undecorticated ground nuts per annum represent over 90 per cent. of the value of the aggregate exports from the Colony. The area under rice, cereals and root crops is gradually being increased in order that the Gambia may become less dependent upon imports for its food supply.

Ground nuts are sown in June or July and harvested in November. As from 1925 the buying season had been fixed by the Government from 1st December to 30th April, but this control was removed in 1930. The Authorities are devoting considerable attention to the problem of increasing yields and reducing costs. Valuable information has been obtained from investigations into the control of rosette disease and from annual trials aimed at the discovery of the variety of seed which will combine the highest yield with the greatest resistance to disease. The use of ploughs would increase the production but their

general introduction presents difficulties as the Gambian farmers have always practised "shifting cultivation," preparing the land for sowing by burning the bush and two years later moving to other land. This leaves undisturbed roots and stumps which would have to be removed before ploughs could be introduced, and it would be difficult to persuade the farmers to undertake this additional labour. Efforts are, however, being made to test types of ploughs which would be suitable for the conditions in the Gambia and to encourage their use where conditions are favourable. Labour costs could be reduced by increasing the local supply of foodstuffs at low cost; success has already been attained in this direction and may be expected to increase if the proposed introduction of a simple method of irrigation materialises.

The size of the crop is largely dependent upon the distribution of the rainfall, but is affected also by the available supplies of labour, foodstuffs and seed.

The ground nuts are grown entirely by African farmers. It was estimated in 1925* that one-third of the crop was grown by "Strange Farmers" who arrive from other districts of the Gambia, from the French Sudan and elsewhere. The number of immigrants from the French Sudan has considerably declined in recent years as a result of improved railway and road transport in their own country which reduces the difficulties of marketing the ground nuts they can grow there.

Government supplies of rice for food and of ground nut seed have resulted in financial loss equivalent to about 6 per cent. of the value of the average annual export since 1924. Debts of over £30,000 due for rice and seed were written off early in 1925 because this claim upon the proceeds of the ground nut crop had led to reduced cultivation in 1924, and payment of a further £20,000 for rice alone was postponed in February, 1931. In 1926, the Government started a "Ground Nuts Seed Supply Scheme" to finance the purchase and supply of seed until the farmers could be persuaded to save sufficient themselves; the initial loan has been repaid and a Reserve Fund built up which was more than sufficient to cover the debts outstanding at the end of 1930. Farmers in two Provinces having demonstrated their ability to produce a normal crop with

* Annual Report of the Department of Agriculture for the year 1925, page 8.

very little Government assistance, all farmers were warned early in 1931 that issues of ground nut seed would be reserved for emergencies ; they are now required to deposit at least one bag of seed per annum in their village store in addition to saving seed themselves and the new arrangements are working satisfactorily.

Table 13 shows the quantities of ground nut seed distributed annually from 1926 to 1931, the crop produced and the number of "Strange Farmers" as recorded in the Annual Reports of the Director of Agriculture.

TABLE 13.—*Quantities of Ground Nuts distributed as seed, Ground Nuts produced, and number of "Strange Farmers" in the Gambia*

Year.	Seed Distributed. (Bags of 4 bushels = 1 cwt.)	Crop Produced. (a) (Tons.)	Strange Farmers. (No.)
1926	5,800	65,107	13,553
1927	14,095	74,442	17,237
1928	17,041	56,355	20,640
1929	20,209	74,761	18,874
1930	9,361	66,811	16,592
1931	400	37,315	9,736

(a) Exports of domestic produce in the years following those stated.

The quality and cleanness of Gambian ground nuts have been markedly improved since the Department of Agriculture was revived in 1923. The percentage of adulteration with sand, sticks, etc., which occasionally formed 17 per cent. of the consignments, has now been reduced to about 2 per cent.—the trade allowance— and the free fatty acid content from more than 4 per cent. to about 2 per cent. Among the methods employed to secure these improvements are the careful selection of seed, a greater attention to weeding, the use of raised platforms for the storage of nuts, and compulsory screening. Opposition to compulsory screening has gradually been overcome and the system is now running smoothly. The Gambia has no railways, but motor lorries are reducing the use of porters, donkeys and canoes for the transport of ground nuts.

Some of the ground nuts grown in the Gambia are exported through French territory ; the quantities are not known but are believed to have increased since 1924 owing to the opening up in Senegal of motor roads which approach the boundary of the Gambia. On the other hand, since 1919 the Gambia has exported, mostly to France, an average of about 2,000 tons per annum of ground nuts, the produce of neighbouring French territory. The volume of this transit trade since 1924 is shown in Table 14 which also shows the exports of domestic produce and the total exports, together with corresponding figures for the pre-war quinquennium.

TABLE 14.—*Exports of Ground Nuts from the Gambia*
(In tons : undecorticated)

Year.	Domestic Produce.	Transit Trade.	Total.
1909-13 (average) ..	58,321	—	58,321
1924	58,980	1,642	60,622
1925	46,583	2,117	48,700
1926	57,344	3,728	61,072
1927	65,107	4,133	69,240
1928	74,442	2,330	76,772
1929	56,355	1,735	58,090
1930	74,761	3,815	78,576
1931	66,811	6,063	72,874
1932	37,315	(a)	40,000(b)
1933	67,370	(a)	70,000(b)

(a) Not yet available.

(b) Partly estimated.

The total exports of ground nuts have shown a tendency to increase, rising from about 60,000 tons per annum in the pre-war quinquennium to over 70,000 tons per annum in 1930 and 1931 ; the average in the period 1924-33 amounted to about 64,000 tons per annum. There were large decreases in domestic exports in 1925, 1929 and 1932. As already stated, the small export of 47,000 tons in 1925 was due to debts discouraging production. In 1929 when 56,000 tons were exported there was a poor harvest due partly to the seed having been planted too early and partly to the lack of animal manure caused by the loss of 16,000 head of cattle by disease. The marked decline

to 37,000 tons in 1932 was mainly due to the planting of other food-stuffs—particularly cassava and sweet potatoes—in preference to ground nuts, a measure which was officially commended to the farmers.

An export duty on home-grown ground nuts has been imposed in the Gambia since 1862; the rate, which had been £1 per ton since 1874, was reduced to 10s. per ton on 1st September, 1931, as a measure of relief to growers. A toll of 1s. per ton is imposed on ground nuts in transit.

The nuts are all exported in the shell and are intended for the manufacture of oil; the export of selected nuts for the confectionery trade will probably receive further consideration when marketing prospects improve. The distribution of the exports in the pre-war quinquennium and annually since 1924 is shown in Table 15 together with estimates of the weight of the kernels and of their oil equivalent.

TABLE 15.—*Distribution of the Exports of Ground Nuts from the Gambia*

(In tons: undecorticated)

Countries.	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932. (a)	1933. (a)
France ..	47,198	20,495	17,624	17,405	30,760	25,451	20,640	33,505	43,409	23,506	24,735
Germany ..	5,224	1,918	2,648	9,785	14,123	15,358	16,121	14,156	13,746	—	4,245
Netherlands ..	3,404	2,867	3,245	7,854	14,108	4,909	6,239	12,108	12,421	3,669	11,151
United Kingdom	1,420	32,350	21,689	23,675	4,488	25,092	9,114	14,071	1,595	7,619	23,902
Belgium ..	89	1,592	—	—	4,044	1,298	1,674	—	1,558	2,497	—
Denmark ..	451	1,197	3,303	2,135	950	4,617	4,262	4,521	—	—	1,730
Other Countries	535	203	191	218	767	47	40	215	145	24	1,607
Total ..	58,321	60,622	48,700	61,072	69,240	76,772	58,090	78,576	72,874	37,315	67,370
Estimated weight, decorticated basis ..					<i>In thousands of tons</i>						
	44	45	37	46	52	58	44	59	55	(b) 30	(b) 53
Estimated oil equivalent	18	18	15	18	21	23	17	24	22	(b) 12	(b) 21

(a) Domestic produce only. Particulars of the transit trade are not yet available.

(b) Includes an estimate of the transit trade.

France was the principal consignee in the pre-war period and again since 1927, but this trade has declined both relatively and absolutely since the pre-war quinquennium. In that period, France took on an average 47,000 tons per annum, representing 81 per cent., of the ground nuts exported from the Gambia; in the quinquennium ending 1933 the volume had fallen to an annual average of 29,000 tons and the share to 46 per cent. Germany, the Netherlands and the United Kingdom were the other principal markets both in the pre-war quinquennium and the post-war period under review. After a heavy decline in 1932 in the exports to all these countries except the United Kingdom, there was an appreciable recovery in 1933 in every case except that of France. Assisted by the United Kingdom tariffs from which Empire produce is exempted, exports to the United Kingdom rose from 1,600 tons in 1931 to 24,000 tons in 1933, when the United Kingdom was almost as important a market as France for Gambian ground nuts.

CHAPTER 3

TANGANYIKA

The cultivation of ground nuts in Tanganyika is entirely in the hands of the indigenous population, to whom it is only less important as an industrial crop than cotton. The crop generally receives little cultivation, and the yield is largely dependent upon climatic conditions which have often been adverse in recent years. Comprehensive statistics of acreage and production are not available, but the average area in recent years may be estimated at about 100,000 acres*. The export figures are not a true guide to production as, largely owing to the fall in prices, there is an increasing local consumption of the nuts and oil for food and for lighting and lubrication.

The greater part of Tanganyika is suitable for ground nut cultivation and the expansion of the ground nut acreage is being encouraged by a "Plant More Crops" campaign, and assisted by the extension of the railway system and the improvement of the roads. The Virginia Bunch type is rapidly replacing the indigenous variety as it gives a higher yield, is easier to harvest and has a greater resistance to rosette disease. The authorities are continuing experiments designed to ascertain what varieties, spacing and times of planting give the highest yields, and they are endeavouring to persuade the farmers to use ploughs.

The ground nuts are all decorticated before export. Table 16 shows the exports of ground nuts grown in Tanganyika during the period 1909-1912, and annually from 1924. In some years there was a small transit trade in ground nuts from the Belgian Congo, but this averaged less than 10 tons per annum.

Exports have varied considerably during the post-war period under review, when they averaged about 13,000 tons or four times the pre-war level. Unfavourable seasons resulted in poor crops in 1925, 1928 and 1929, and in 1931 a large part of the crop failed or was eaten by locusts and exports returned to the pre-war level of 3,000 tons. In 1932 exports rose to about 16,000 tons and reached a peak of 19,000 tons in 1933.

* Based on statistics in Tanganyika Territory Blue Books.

TABLE 16.—Exports of Ground Nuts (Domestic Produce) from Tanganyika
(In tons : decorticated)

Countries.	1909-12 (a) (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
United Kingdom	—	—	—	25	333	102	302	—	47	8,982	6,791
France	(b)	5,871	2,090	2,099	6,373	6,014	2,082	3,999	917	3,689	2,036
Kenya and Uganda	(b)	7,342	4,620	10,243	4,368	1,357	665	929	549	996	1,445
Union of South Africa	(b)	—	—	178	655	268	99	118	1,007	695	1,856
Germany	627	3,047	1,223	1,099	1,107	252	2,672	2,626	198	550	3,339
Zanzibar	88	414	295	246	330	214	222	233	142	157	192
Italy	(b)	897	305	150	13	1,876	1,355	4,116	100	300	1,633
Netherlands ..	(b)	1,067	522	968	910	400	300	3,739	25	502	1,277
Other Countries ..	2,535 (c)	46	—	859	58	112	68	1,573	85	2	608
Total	3,250	18,684	9,055	15,867	14,147	10,595	7,765	17,333	3,070	15,873	19,177
Estimated oil equivalent (in thousands of tons)	1	7	4	6	6	4	3	7	1	6	8

(a) Particulars of exports in 1913 not traced.

(b) Included, if any, in "Other Countries."

(c) Includes 2,357 tons to "Rest of Africa" (i.e. other than Zanzibar).

France and Germany have in most years been the principal consignees, and together they have taken, on the average, about 40 per cent. of the total exports during the post-war period under review. Exports to other countries varied considerably from year to year, Italy taking an average of 2,500 tons in the period 1928-30, the Netherlands nearly 4,000 tons in 1930, the Union of South Africa 1,000 tons in 1931 and nearly 2,000 tons in 1933, and the United Kingdom 9,000 tons in 1932 and nearly 7,000 tons in 1933, but in almost every other year the exports to each of these countries was less than 1,000 tons. In 1932, the United Kingdom took half the total exports and in 1933 about one-third on a higher total, whereas this market was of very small importance to Tanganyika in the earlier years under review. This very large increase may be attributed to the new tariff policy of the United Kingdom, inaugurated toward the end of 1931.

There is a small export trade in ground nut oil, averaging less than 10 tons per annum, and in ground nut cake, averaging about 80 tons per annum.

CHAPTER 4
UNION OF SOUTH AFRICA

The ground nut crop of the Union was of little importance until European farmers began to cultivate it about 20 years ago, and in recent years, they have been responsible for about 80 per cent. of the total production, which has increased from an annual average of 4,000 tons in the period 1919-20 to 1921-22 to an average of 7,000 tons in the period 1927-28 to 1929-30. Following a decline to 2,700 tons in 1931-32, largely the result of reduced yields attributable to unfavourable climatic conditions, production increased to about 10,000 tons in 1933-34. The annual acreage and production figures are shown from 1919-20 in Table 17.

TABLE 17.—*Area and Yield of Ground Nuts in the Union of South Africa*

Season.	Acreage.	Production. (In tons: undecorticated.)	Yield per acre. (In hundreds of lb.: undecorticated.)
1919-20	13,220	2,903	5
1920-21	19,053	6,358	7
1921-22	17,290	3,349	4
1922-23	15,214	4,604	7
1923-24	16,228	6,419	9
1924-25	27,399	8,704	7
1925-26	28,681	5,959	5
1926-27	27,052	7,011	6
1927-28	29,342	6,766	5
1928-29	39,414	6,117	3
1929-30	29,274	8,914	7
1930-31	(a)	4,661	(a)
1931-32	(a)	2,680	(a)
1932-33	(a)	6,250	(a)
1933-34	(a)	10,180(b)	(a)

(a) Not available.

(b) Provisional.

The Transvaal is the Province best suited to the cultivation of ground nuts and it produces about 75 per cent. of the Union crop. Natal, the Orange Free State and the Cape Province follow in that order of importance. The yield per acre throughout the Union shows wide variations from season to season but averages about 600 lb. as compared with the world average of about 900 lb.

The Virginia Bunch variety is grown almost exclusively, and about 60 per cent. have three or four kernels. The seed is planted in October or November, and the crop harvested about five months later. A grading scheme has been drawn up by the Department of Agriculture for nuts of this variety. The grading, like the gathering, is generally done by hand and the nuts are marketed in the shell.

The foliage is stored in silos for use as a winter feed for live stock. Those ground nuts not used for the expression of oil are consumed chiefly by labourers in the mining compounds. The imported nuts, which are generally received decorticated, are inferior in quality to the exported nuts which are mainly of the superior grades required for the confectionery and fruit trades. The shells of the ground nuts grown in red soil often require bleaching before they can enter this trade, and the Department of Agriculture has recently published the results of its experiments with various bleaching agents*. Relatively high costs of production make it difficult for South Africa to compete successfully with such countries as India, West Africa and China in the export of ground nuts for the manufacture of ground nut oil. In view of the record 1933-34 crop, a conference of growers and local oil pressers was called to devise, as an emergency measure, a means of aiding in the disposal of the crop. The pressers agreed to purchase 2,000 tons of ground nuts, if offered to them within a few months, at a price exceeding the world price by £2 10s. a ton plus the cost of import.

The foreign trade of the Union of South Africa in ground nuts in the pre-war quinquennium and annually from 1924 is summarised in Table 18, which also shows the supplies available for consumption.

Imports of ground nuts considerably exceed exports, and during the post-war period under review the import balance represented about 35 per cent. of the consumption. Until 1931, about 80 per cent. of the imports were supplied by Portuguese East Africa, but in the years 1932 and 1933, India, Tanganyika and Kenya supplied one-half of the appreciably larger imports. The United Kingdom takes about 70 per cent. of the small volume of exports, which rarely exceed 200 tons per annum or 3 per cent. of the domestic production. The available supplies of ground nuts remained fairly stable in recent

* See "Reprint No. 17 of 1932," obtainable from the Division of Chemistry, Pretoria.

years at between 7,000 and 8,000 tons, but in 1933 supplies rose to 10,000 tons.

Imports of ground nut oil were first separately distinguished in the trade returns for 1933, when the total amounted to about 800 tons, principally supplied by Portuguese East Africa.

The trade returns do not separately record any exports of ground nut oil or the trade in ground nut cake, but the amounts involved are probably negligible.

TABLE 18.—*Foreign Trade of the Union of South Africa in Ground Nuts, and the available supplies*

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Imports (a)—											
India ..	7	—	—	—	14	2	1	2	301	1,302	601
Tanganyika	—	—	—	25	175	226	93	65	1,190	983	1,154
Portuguese East Africa	1,036	496	1,043	1,353	1,574	2,548	2,184	1,204	2,956	944	1,898
Kenya ..	(b) 2	18	60	224	32	31	5	20	19	411	985
S. Rhodesia	(c)	76	219	44	315	445	229	72	142	—	148
Other Countries	211	74	87	18	5	39	1	125	22	373	259
Total ..	1,256	664	1,409	1,664	2,115	3,291	2,513	1,488	4,630	4,013	5,045
Exports (d)—											
United Kingdom	—	9	40	17	104	406	167	256	65	7	75
Other Countries	80	10	39	23	35	26	38	148	110	11	10
Total ..	80	19	79	40	139	432	205	404	175	18	85
Import balance	1,176	645	1,330	1,624	1,976	2,859	2,308	1,084	4,455	3,995	4,960
Domestic production (e)	(f)	6,419	8,704	5,959	7,011	6,766	6,117	8,914	4,661	2,680	6,250
Estimated weight of kernels available for consumption ..	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.
	1	5	8	6	7	8	7	8	8	6	10

(a) Mostly decorticated.

(b) British East Africa.

(c) Not available: but not exceeding 3 tons.

(d) Mostly undecorticated, and including occasional small re-exports.

(e) Undecorticated. The figures refer to seasons ending in the year shown.

(f) Not available, but known to be negligible.

CHAPTER 5 AUSTRALIA

The production of ground nuts in Australia has increased considerably during the last decade, particularly in Queensland where the bulk of the crop is grown. North Australia is the second largest producer in the Commonwealth but despite marked expansion the peak production of 410 tons in 1931 was only one-sixth of the production in Queensland.

The area and yield of ground nuts in Queensland are shown in Table 19 from 1924.

TABLE 19.—*Area and Yield of Ground Nuts in Queensland(a)*

Year of Crop.	Area (Acres.)	Production. (In tons : undecorti- cated.)	Yield per acre. (In hundreds of lb. : undecorti- cated.)
1924	691	231	7
1925	450	142	7
1926	3,000	827	6
1927	6,500	2,246	8
1928	11,500	2,886	6
1929	5,500	3,618	15
1930	2,300	727	7
1931	5,000	2,673	12
1932	2,000	551	6
1933	2,700	1,205	10
1934 (Provisional) ..	10,000	3,000	7

(a) Source: Queensland Agricultural Journal, 1st July, 1934, page 85.

The area under ground nuts in Queensland increased rapidly from less than 1,000 acres prior to 1926 to 11,500 acres in 1928. During the next five years, the area was much reduced and in no year reached one-half of the 1928 peak, but provisional figures for 1934 indicate a renewed expansion to about 10,000 acres. Production has varied considerably owing to changes both in acreage and yield per acre. The maximum production of 3,600 tons was reached in 1929 and the provisional estimate for 1934 suggests that production may again amount to 3,000 tons.

A Peanut Board was set up in Queensland in 1924 to regulate the marketing of the crop but some growers in Queensland refused to sell their groundnuts to the Board, and a recent proposal to set up a similar body in North Australia has been abandoned. The Queensland Board, which consists of four elected representatives of the growers and the State Director of Marketing, makes levies on the industry to provide storage and other facilities for the marketing of the ground nut crop of the State which is delivered to the Board undecorticated. In 1929 the Board secured the re-introduction of an embargo on imports of ground nuts other than those intended for the manufacture of oil, an earlier embargo having been withdrawn shortly after it was imposed. By this means the Board was able to clear its stocks of ground nuts which amounted to 1,000 tons on 30th June, 1929. In subsequent years it again became necessary to import small quantities of ground nuts not intended for the manufacture of oil; but between July, 1930, and December, 1933, the import of both shelled and unshelled ground nuts was allowed only on the consent of the Minister of State for Trade and Customs.

The production of the Virginia Bunch variety, particularly suited for the roasted nut trade, is now larger than the Spanish types of ground nut, and the trade in unshelled nuts has been captured from China. Table 20 shows the imports of ground nuts into Australia annually from 1924; these imports were not separately classified in the trade returns for the pre-war quinquennium.

TABLE 20.—*Imports of Ground Nuts into Australia*
(In tons)

Year ended 30th June.	Total Imports.	Imports from China.
1924-25	1,457	1,365
1925-26	2,203	1,925
1926-27	2,620	2,384
1927-28	821	814
1928-29	1,133	1,123
1929-30	667	667
1930-31	11	11
1931-32	201	201
1932-33	932	686

Imports, over 90 per cent. of which usually come from China, increased by 80 per cent. between 1924-25 and 1926-27 when they exceeded 2,500 tons. The decline to an average of 900 tons per annum in the years 1927-28 and 1928-29, coincided with the large increase in production, and the subsequent decline to 11 tons in 1930-31 and 200 tons in 1931-32 resulted from the embargo on imports not intended for the manufacture of oil. Imports again exceeded 900 tons in 1932-33 following the decline in production.

The trade returns do not separately record the imports of decorticated and undecorticated ground nuts, but they show the clearances of nuts according to the rates of duty paid (if any). These figures of clearances show that at least 75 per cent. of the imports consists of undecorticated nuts.

Exports of ground nuts are not separately classified in the trade returns nor is the foreign trade in ground nut oil or ground nut cake recorded. By a Trade Agreement of 1931, Australia has secured a potential market in Canada for a greatly increased export of ground nuts. Rather more than 10,000 tons of ground nuts are imported into Canada annually, those from British countries being exempted from the import duty of 1 cent. per lb. but the Trade Agreement embodies a proposal to raise the duty to 4 cents per lb. on all ground nuts, except those from Australia, when the latter country is able to supply Canadian requirements.

CHAPTER 6

OTHER BRITISH COUNTRIES

Kenya and Uganda, and Rhodesia are by far the most important of the other British Empire countries which grow ground nuts, but the crop is also cultivated to a smaller extent in Nyasaland, Swaziland, Mauritius, St. Vincent, Cyprus, North Borneo and the Fiji Islands.

There are over 100,000 acres devoted to ground nuts in Kenya and Uganda from which about 15,000 tons of ground nuts are produced annually by the indigenous population. Bunch types are more widely grown than the trailing varieties because they are more easily handled and give a larger yield, but, in 1931, the locusts which considerably damaged the bunch types hardly touched the trailing varieties. Damage by locusts reduced the domestic exports from an average of over 2,000 tons of ground nuts per annum in the period 1928-30 to 900 tons in 1931, and re-exports from 500 to 20 tons. Domestic exports recovered to about 1,600 tons in 1932, while re-exports expanded to some 1,800 tons, but both totalled less than half these amounts in 1933. Most of the exports are consigned to Europe, notably Italy, Germany and the Netherlands, and the remainder to other African countries. About 1,000 tons of ground nuts are imported annually from Tanganyika. Imports and exports of ground nut oil and ground nut cake are negligible.

The Rhodesias produce an average of about 2,500 tons of ground nuts per annum from about 9,000 acres, more than five-sixths of which are in Southern Rhodesia. The nuts are consumed locally, partly as food for the labourers in the mines and partly for the production of oil, the residual cake being also used locally as cattle fodder. Consumption is about equal to production, the export balance of about 500 tons per annum from Southern Rhodesia being offset by the import balance of Northern Rhodesia. Southern Rhodesia's export balance in 1932 was exceptionally large, amounting to nearly 1,500 tons; but in the following year there was an import balance of about 400 tons. Most of the trade is with other parts of Africa, an exception being exports of ground nuts to the United Kingdom which reached a peak of about 300 tons in 1932. There is no separately recorded foreign trade in ground nut oil or ground nut cake. As a result of the Imperial Economic Conference of 1932, Canada exempted Rhodesian and Australian ground nuts from import duty, and this may assist Rhodesia to overcome the difficulties of price which now limit her production. It has been estimated that, with favourable conditions, Rhodesia's output of ground nuts could be increased to 8,000 tons per annum within ten years.*

* "Ottawa Conference. Report of the Committee to report to the (S. Rhodesia) Government on Empire and World Trade", page 21.

CHAPTER 7
ANGLO-EGYPTIAN SUDAN

Millet is the principal crop of the Anglo-Egyptian Sudan, and sesame and cotton are also more widely grown than ground nuts. Nevertheless, ground nuts, known locally as Ful Sudani or Sudan Beans, constitute an important subsidiary crop of the country, production in recent years averaging over 20,000 tons per annum, mainly from the light soils of the Kordofan and White Nile Provinces. Table 21 shows estimates of the area and yield in the principal ground nut producing provinces of the Anglo-Egyptian Sudan annually from 1924. Only broad deductions can be drawn from these estimates, since difficulties of collection make accurate figures or closer approximations impossible.

TABLE 21.—*Area and Yield of Ground Nuts in the Principal Producing Areas of the Anglo-Egyptian Sudan (a)*

Year.	Area. (In acres.)	Production (In tons: undecorticated)	Yield per acre (In hundreds of lb.: undecorticated).
1924	29,701	(b)	(b)
1925	43,538	14,830	8
1926	38,150	15,941	9
1927	29,698	5,098	4
1928	48,730	21,593	10
1929	80,469	46,704	13
1930	25,188	8,926	8
1931	21,158	(b)	(b)
1932	34,179	7,073	5

Sources: Reports on the Finances, Administration and Condition of the Sudan, and correspondence with the Director of Agriculture and Forests.

(a) Excluding the Provinces of Darfur, Upper Nile, Mongalla and Bahr-el-Ghazal, for which no figures are available.

(b) Not available.

The area and yield of ground nuts vary considerably from year to year, estimates of acreage ranging from 21,000 acres in 1931 to 80,500 acres in 1929 and estimates of production from 5,000 tons in 1927 to 47,000 tons in 1929. The yield is largely affected by the

amount of rainfall; this was very poor in 1927 but exceptionally good in 1929. The average yield throughout the period under review was about 900 lb. per acre, which conforms closely to the world's average. The yield in the Anglo-Egyptian Sudan can be considerably increased by extending the cultivation of ground nuts on irrigated land. In 1931 and 1932 less than 500 acres of this land were so employed, but extension is not practicable at the prices ruling in recent years.

The rainfall also affects the size of the ground nut area, since, when the stocks of grain have been drawn upon to meet deficiencies in the millet harvest, there is a tendency to grow more millet and less ground nuts in the following year. For example, part of the falling off in the ground nut acreage in 1926 and 1927 may be attributed to the fact that stocks of millet were very low in 1925 as is evidenced by the fact that export of this grain had to be prohibited.

On the average, about 70 per cent. of the ground nut crop is retained in the Anglo-Egyptian Sudan where the nuts are roasted and eaten as a delicacy. This is also their principal use in Egypt, the chief export market. Table 22 shows the exports of ground nuts from the Anglo-Egyptian Sudan in the pre-war quinquennium and annually from 1924; the nuts are all exported in the shell. There are no recorded imports of ground nuts, nor do the trade returns show any trade in ground nut oil or ground nut cake.

TABLE 22.—*Exports of Ground Nuts from the Anglo-Egyptian Sudan*
(In tons: undecorticated)

Countries.	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
Egypt	585	3,231	6,698	3,934	1,491	1,381	1,873	3,216	2,075	155	2,899
United Kingdom	2	5,415	3,323	2,776	48	137	1,526	752	568	756	1
France	68	810	1,242	1,211	50	50	10	208	—	—	—
Other Countries	110	804	351	1,797	21	218	277	582	138	377	202
Total	765	10,260	11,614	9,718	1,610	1,786	3,686	4,758	2,781	1,288	3,102
Estimated weight of kernels (in thousands of tons)	1	8	9	7	1	1	3	4	2	1	2
Percentage of exports taken by Egypt	76	32	58	41	93	77	51	86	75	12	93

Exports which vary considerably from year to year, averaged 750 tons per annum in the pre-war quinquennium, 10,000 tons per annum in the period 1924-26, and about 3,000 tons per annum in the period 1927-33. Production was very small in 1927 and 1930, whilst in 1929, when it was exceptionally heavy, retentions were also unusually high.

Egypt was the principal export market in the pre-war quinquennium when she took 76 per cent. of the ground nuts exported from the Anglo-Egyptian Sudan, and she maintained her lead over the period 1924-33 although taking only 53 per cent. of the aggregate exports in those years. Exports to Egypt in the period 1924-33 varied between 150 and 6,700 tons per annum and averaged 2,700 tons per annum as compared with an annual average of 600 tons in the pre-war quinquennium. Exports to the United Kingdom averaged only 2 tons per annum in the pre-war quinquennium, and varied between 1 ton and 5,000 tons per annum in the post-war period under review with an annual average of about 1,500 tons.

Decorticated ground nuts are not favoured in Egypt and although a bigger margin of profit and increased trade with Europe might be secured if large quantities of decorticated ground nuts were exported, decortication in the Anglo-Egyptian Sudan is not likely to prove profitable unless production can be so largely increased as to make the Egyptian market relatively unimportant. There are considerable difficulties in the way of such a large expansion of production, notably the absence of a steady demand at remunerative prices and the recurrence of years of inadequate rainfall which not only reduce the yield of ground nuts but result also in diverting cultivation from ground nuts to grain crops.

FOREIGN COUNTRIES

CHAPTER 8

CHINA

Although ground nuts have been grown in Southern China since the 17th century, the crop was of little consequence until towards the end of the 19th century when several factors led to large-scale cultivation in Northern and Central China. At this period the large American type of ground nut was introduced into Shantung Province and was found to be vastly superior to the "indigenous" variety. This development coincided with and was probably due to the following circumstances. In the first place the canning of meat and fish in ground nut oil was increasing the demand for ground nuts; secondly, ground nut cultivation in Southern China was being reduced in favour of mulberry trees; and thirdly, improved facilities for marketing were afforded by the opening of the Peking-Hankow Railway.

Ground nuts are now grown in almost all the Provinces of China. Estimates of acreage and production vary considerably.* According to official estimates made in 1930†, there are about $2\frac{1}{4}$ million acres under ground nuts in the average normal year, representing less than one-third of India's ground nut acreage. The probable production from this acreage is about 1 million tons of ground nuts in shell per annum.

The most important ground nut area lies between the Yangtze and Yellow Rivers; Shantung Province, most of which is within this zone, produces about one-half of the ground nuts grown in China. The 1933 crop of this Province was severely damaged by floods from the Yellow River. The annual production of ground nuts in Manchukuo is probably less than 100,000 tons.

At least ten varieties of ground nuts are grown in China—some of the "bunch" and some of the "trailing" type—but little attention

* The "Chinese Economic Journal," February, 1932, page 129, gives an area of 19,316,233 mow (about $3\frac{1}{4}$ million acres); on the basis of the average yield of ground nuts throughout the world (0.4 tons undecorticated per acre) this acreage suggests a production of about $1\frac{1}{4}$ million tons per annum. The International Year Book of Agricultural Statistics puts the production in 1924 at about 600,000 tons undecorticated.

† As published in the League of Nations' Statistical Year Book 1931-32, page 85.

appears to be paid to seed selection. The seed is sown in April in the main ground nut area, but earlier in the south and later in Manchukuo. The crop receives little cultivation during the four or five months of growth, but the harvesting requires a large labour force. After the vines have been cut down or uprooted, the ground is carefully dug over and riddled through a rocking sieve which retains the nuts, which are then dried in the sun for several days.

There is a very large local consumption of ground nuts in China and the home market is of greater importance than the export market. Only about one-quarter of the estimated production of about 1 million tons weight in the shell is exported. The smaller ("indigenous") nuts grown mainly in Southern China, are mostly consumed locally as nuts, and a considerable proportion of the crop grown in Northern and Central China is consigned to the Southern Provinces for consumption as nuts or for conversion into oil for culinary purposes; soya bean oil is more generally used for such purposes in the Northern provinces.

Ground nuts are exported both for consumption as nuts, mainly to the United States of America, and for the manufacture of oil. The nuts intended for export in the undecorticated state are sometimes bleached to remove discolourations from the shells; those for export in the decorticated state are generally shelled by machinery. The nuts or kernels for export are usually graded according to size. There are usually two kernels in a pod, the number of kernels per ounce varying from 26 to 42 except in the case of the small red (Spanish) nuts which are smaller and are not graded.

In the pre-war period the practice was to ship in the shell, but the bulk are now decorticated before export. Table 23 shows annually from 1912 the exports of ground nuts classified into decorticated and undecorticated. The Chinese Maritime Customs Returns, from which these figures are taken, do not give separate figures for earlier years. The Chinese Maritime Customs Service has inland stations on the frontiers of Korea, French Indo-China and Burma and along part of the Soviet Union (Russia) frontier. The trade returns of India record no imports of ground nuts over the land frontiers, and the trade returns of the Soviet Union (Russia) do not separately classify imports of ground nuts, ground nut oil or ground nut cake. It is clear, therefore, that the statistics of the Chinese Maritime Customs virtually represent the whole of China's exports of ground

nut products. They include, however, exports to Hong Kong which do not all enter strictly into the foreign trade of China, as this port acts as an entrepôt for trade between North and South China, at least one-quarter of the Chinese imports into Hong Kong being re-exported to Northern China. Exports from Manchukuo are not included in the Chinese Maritime Customs Returns after June, 1932, and the exports from China for 1932 and 1933 are therefore not strictly comparable with earlier years,

TABLE 23.—*Exports of Ground Nuts from China*
(In thousands of tons)

Year.	Decorticated.	Undecorticated.	Total (decorticated basis).	Share of Decorticated (in per cent.).
1912	5	46	40	12
1913	5	63	52	10
1914	35	35	61	57
1915	13	20	28	46
1916	25	13	35	71
1917	22	6	27	81
1918	29	3	31	94
1919	69	8	75	92
1920	69	6	74	93
1921	68	24	86	79
1922	53	26	73	73
1923	82	52	121	68
1924	159	57	202	79
1925	122	53	162	75
1926	120	58	164	73
1927	92	54	132	69
1928	45	56	87	52
1929	51	45	85	60
1930	135	57	178	76
1931	153	94	223	69
1932(a)	135	49	172	78
1933(a)	88	43	120	73

(a) Excluding exports from Manchukuo after June, 1932, which amounted to 3,033 tons of decorticated and 9,813 tons of undecorticated ground nuts in the second half of 1932, and 31,181 tons and 23,448 tons respectively in 1933.

Exports increased over 50 per cent. during the period 1912-14, the weight of kernels shipped averaging about 50,000 tons per annum ; in the period 1915-18 difficulties of transport reduced this average to about 30,000 tons. But exports of ground nut oil during this period nearly doubled, and the oil equivalent of nuts and oil exported was over 15 per cent. above the pre-war level of 35,000 tons. After the War, the weight of exported ground nuts (decorticated basis) again increased—slowly up to 1922 and then rapidly—averaging about 80,000 tons per annum in the period 1919-22 and about 160,000 tons per annum in the period 1923-26. From 1919 to 1922 exports of ground nut oil fell heavily, and the oil equivalent of the nuts and oil exported was halved from 103,000 to 52,000 tons, but from 1923 to 1931 the exports of ground nut oil roughly kept pace with the exports of ground nuts at about one-quarter of their weight calculated on the decorticated basis. A moderate fall in the exports of nuts to 132,000 tons in 1927 was followed by a sharp decline to less than 90,000 tons per annum in 1928 and 1929, but exports then again rose rapidly and the weight of kernels averaged about 190,000 tons per annum in the period 1930-32 with a peak of 223,000 tons in 1931. The decline in exports of ground nuts from China in 1932 and 1933 is partly accounted for by the separation of Manchukuo. There coincided also a marked fall in exports of ground nut oil, and the oil equivalent of the nuts and oil exported in 1933 totalled only 66,000 tons. From May, 1934, the duties levied on exports of ground nuts and ground nut oil were reduced to less than half the rates which had been in force for several years. The reduction may be expected to result in a rise in the volume of exports.

Whereas decorticated nuts formed only about 10 per cent. of the estimated weight of ground nut kernels exported from China in 1912 and 1913, about 70 per cent. of the nuts exported in recent years were decorticated. The change commenced in the War years when heavy freight charges offered a powerful incentive to the more economical form of shipment, and in the last War year 94 per cent. of the exports (decorticated basis) were so shipped. After 1920 the percentage shipped decorticated never reached 80 per cent. and was as low as 52 per cent. in 1928 since when it has averaged 72 per cent.

Table 24 shows the distribution of the ground nuts exported from China in the period 1912-13 and annually from 1924.

TABLE 24.—*Distribution of Ground Nut Exports from China.*

D. = Decorticated.

U. = Undecorticated.

T. = Estimated Total (decorticated basis).

Countries.	1912-13 (Average). (a)	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932. (b)	1933. (b)
<i>France—</i>											
D. (Tons) ..	1,099	24,257	11,583	8,488	14,041	1,184	1,111	19,750	24,782	40,948	13,792
U. (Tons) ..	19,425	10,819	14,920	10,718	13,636	13,426	6,173	7,384	9,573	8,410	8,491
T. (Thous. tons) ..	16	32	23	17	24	11	6	25	32	47	20
<i>Germany—</i>											
D. (Tons) ..	183	16,631	12,065	29,705	11,350	1,318	6,023	33,490	31,174	28,070	18,121
U. (Tons) ..	4,590	5,253	4,542	6,155	5,003	3,154	3,490	7,215	13,021	6,593	6,187
T. (Thous. tons) ..	4	21	16	34	15	4	9	39	41	33	23
<i>Netherlands—</i>											
D. (Tons) ..	154	19,585	12,307	20,110	14,053	264	5,723	27,937	30,449	19,279	26,626
U. (Tons) ..	7,401	12,475	10,966	12,755	7,831	7,142	7,572	10,658	21,760	9,163	9,461
T. (Thous. tons) ..	6	29	21	30	20	6	11	36	47	26	34
<i>Japan—</i>											
D. (Tons) ..	26	12,710	9,431	10,099	7,946	7,889	10,054	12,256	15,398	10,189	6,748
U. (Tons) ..	236	3,937	2,742	3,897	3,207	4,435	5,701	4,750	10,724	4,582	1,999
T. (Thous. tons) ..	0.2	16	12	13	10	11	14	16	23	14	8
<i>Hong Kong—</i>											
D. (Tons) ..	2,208	7,377	4,117	2,669	7,951	8,515	9,896	13,580	11,072	9,064	6,908
U. (Tons) ..	15,251	3,949	1,507	2,074	3,490	2,270	2,629	2,010	2,201	1,429	346
T. (Thous. tons) ..	14	10	5	4	11	10	12	15	13	10	7

<i>United Kingdom—</i>											
D. (Tons) ..	99	10,245	7,228	2,548	1,110	495	475	11,196	8,184	3,909	1,643
U. (Tons) ..	1,074	7,855	6,947	7,356	4,805	4,726	2,898	4,645	8,160	2,860	3,185
T. (Thous. tons) ..	1	16	12	8	5	4	3	15	14	6	4
<i>Italy—</i>											
D. (Tons) ..	392	8,189	5,237	6,263	4,309	1,363	2,376	1,804	8,264	4,050	2,982
U. (Tons) ..	2,252	6,307	4,231	7,345	8,192	7,589	6,860	10,887	10,789	7,709	7,165
T. (Thous. tons) ..	2	13	8	12	10	7	8	10	16	10	8
<i>United States of America—</i>											
D. (Tons) ..	94	27,884	29,596	20,004	16,506	20,410	9,242	5,227	8,706	2,147	404
U. (Tons) ..	216	3,755	5,179	2,738	3,196	7,636	3,061	3,000	6,908	1,368	307
T. (Thous. tons) ..	0.3	31	33	22	19	26	11	7	14	3	1
<i>Spain—</i>											
D. (Tons) ..	22	23,509	24,794	9,644	3,715	—	—	—	5	—	—
U. (Tons) ..	114	2	150	—	—	—	—	150	50	—	—
T. (Thous. tons) ..	0.1	24	25	10	4	—	—	0.1	—	—	—
<i>Other countries—</i>											
D. (Tons) ..	934	8,139	5,921	10,535	10,737	3,820	6,407	9,802	14,738	17,228	10,480
U. (Tons) ..	3,651	3,048	2,090	5,459	5,016	5,141	6,365	6,579	10,468	6,706	5,590
T. (Thous. tons) ..	3	10	7	14	14	8	11	15	22	23	15
<i>Grand Totals—</i>											
D. (Tons) ..	5,211	158,526	122,279	120,065	91,718	45,258	51,307	135,042	152,772	134,884	87,704
U. (Tons) ..	54,210	57,400	53,274	58,497	54,376	55,519	44,749	57,278	93,654	48,820	42,731
T. (Thous. tons) ..	46	202	162	164	132	87	85	178	223	172	120

(a) Separate figures for ground nuts exported in the shell and ground nuts exported decorticated are not available until 1912.
(b) Excluding exports from Manchukuo after June, 1932. See Footnote to Table 23.

In the immediate pre-war period, the export trade of China was very largely dependent upon two markets—France and Hong Kong. Each of these took about one-third of the total exports, and, with the Netherlands, the third largest market, they accounted for over 75 per cent. of the whole, which amounted to 46,000 tons (decorticated basis). With the increase in this trade in the post-war period, China also succeeded in extending her markets notably to Germany, Japan, Italy, the United Kingdom and the United States. France, the Netherlands and Hong Kong are still important markets, but in 1931–33 they together took about 45 per cent. of the total exports (decorticated basis) as against 75 per cent. in 1912–13. The increased trade between 1929 and 1931 was noticeable in all the markets except the United States of America, but in 1932 and 1933 there was a sharp fall in the trade with all these countries. Exports to the United States of America declined, as a result of increased import duties, from an annual average of 33,000 tons of decorticated and 5,000 tons of undecorticated nuts in the period 1924–28 to an annual average of 6,000 tons of decorticated and 4,000 tons of undecorticated nuts in the period 1929–32. Exports of decorticated and undecorticated nuts in 1933 were each less than 500 tons. In 1929 the United States' duties were increased from 4 cents per lb. to 6 cents per lb. for decorticated nuts and from 3 cents to 4½ cents per lb. for undecorticated nuts, and the duty on decorticated nuts was further increased to 7 cents per lb. in June, 1930. In *ad valorem* equivalent, the duties rose from about 70 per cent. on decorticated and undecorticated nuts in 1928 to about 250 per cent. for decorticated and 180 per cent. for undecorticated nuts in 1932.

Exports to Spain also declined heavily after 1925 and have now virtually ceased. In the years 1924–25 they averaged 24,000 tons per annum of decorticated nuts, but imports of ground nuts into Spain were prohibited in June, 1926, and subsequently allowed to enter under conditions which were virtually prohibitive. The object of these measures was to assist the home production of ground nuts and other oleaginous crops, notably olives. As a result, exports of ground nuts from China to Spain fell to about 10,000 tons in 1926, and about 4,000 tons in 1927. Since then the trade has been negligible.

In addition to her large exports of ground nuts, China exports more ground nut oil than any other ground nut producing country. The oil is prepared by a variety of methods. Primitive methods,

which are the most usual, consist in heating the nuts over a fire until the shells crack ; the kernels are then removed, steamed and fed into presses operated by wedges. Another method is to crush the nuts between heavy rollers and then press the kernels under primitive presses. In certain mills the cleaning, decorticating, winnowing, crushing, cold pressing and refining are all performed with the aid of modern machinery. There are several modern mills at Tientsin, Shanghai, Tsingtao and elsewhere, and their number is increasing. The primitive methods give an oil yield of about 35 per cent. of the weight of the kernels, whilst 40 per cent. or more is obtained by the modern machinery.

The distribution of the exports of ground nut oil from China in the pre-war quinquennium and annually from 1924 is shown in Table 25.

TABLE 25.—*Exports of Ground Nut Oil from China*
(In tons)

Countries.	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932. (a)	1933. (a)
Hong Kong ..	13,683	14,498	12,967	13,357	13,137	10,637	9,193	9,102	11,727	10,821	8,763
Singapore, Straits Settlements, etc...	2,350	5,982	4,961	6,916	7,730	6,610	7,202	7,777	7,682	4,117	2,176
Philippine Islands	—	1,297	1,044	1,551	2,314	1,530	1,792	1,901	2,290	2,212	461
United Kingdom	29	3,444	6,028	5,139	5,099	—	—	1,826	6,451	1,518	—
Netherlands ..	—	1,510	1,240	727	3,314	—	—	—	127	429	—
Canada ..	—	33	22	1,002	26	40	26	4,169	1,595	8	2,806
United States of America	8	12,501	7,544	18,891	1,818	619	41	22,780	16,358	3	3,772
Japan ..	1	342	124	329	157	49	17	1,509	1,093	1	12
Other Countries	166	406	1,071	1,056	1,621	302	196	433	1,152	178	194
Total ..	16,237	40,013	35,001	48,968	35,216	19,787	18,467	49,497	48,475	19,287	18,184

(a) Excludes exports from Manchukuo after June, 1932, which amounted to 27 tons in the second half of 1932 and 7 tons in 1933.

The average annual export of ground nut oil, which was about 16,000 tons in the pre-war quinquennium, rose to about 40,000 tons in the period 1924-27 but fell to about 19,000 tons in the years 1928-29 when the exports of all China's ground nut products declined. In the

following year exports of oil reached a peak of nearly 50,000 tons, but declining slightly in 1931 they fell heavily in 1932 and 1933 to considerably less than half the volume of 1931.

In the pre-war quinquennium, Hong Kong took about 85 per cent. of China's exports of ground nut oil, and Singapore and the Straits Settlements took nearly all the balance. During the post-war period under review, exports to Hong Kong remained at first approximately at the pre-war level of 14,000 tons per annum but subsequently declined to under 9,000 tons in 1933, while those to Singapore and the Straits Settlements after averaging over 7,000 tons or about three times the pre-war level between 1926 and 1931 fell to 2,000 tons in 1933.

Exports to the United States of America, which according to China's trade returns were abnormally high in 1926, 1930 and 1931—they exceeded 20,000 tons in 1930—have shown wide variations and fell below 100 tons in some years. The trade returns of the United States of America also show wide variations in the annual imports of ground nut oil from China, but the weights there shown, and included in Table 47 on page 97 of this Survey, are considerably less than those shown in the Chinese returns. The difference is largely due to the fact that some of the oil consigned from China to the United States of America is destined for Canada. The United Kingdom, the Philippine Islands, Canada and Japan have been moderately important markets to China in recent years, although exports thereto in the pre-war quinquennium were negligible, and all, except Canada, took only small quantities in 1933.

Ground nut cake is largely used in China as a fertiliser, particularly in the cultivation of sugar in Southern China, and as a concentrated feed for pigs, but a substantial amount is exported. The distribution of the exports, which have increased considerably since 1912 when they were first separately classified in the trade returns, is shown in Table 26 which covers the periods 1912–13 and 1924–33. The total exports, which averaged only about 2,000 tons per annum in the earlier period, averaged 11,000 tons per annum in the period 1924–28, and 13,000 tons per annum between 1929 and 1933, despite a fall to 6,600 tons in 1932.

Almost the whole of the exports in the pre-war period were consigned to Hong Kong, but Japan has been by far the most important market since 1924, except in 1930 when the United States of America,

normally occupying second place but importing relatively little of this commodity from China, had a small lead. In the period 1924-33 these two countries took nearly 90 per cent. of the total exports. Exports to the United States of America gained appreciable ground in 1929 and 1930 when they averaged over 5,000 tons per annum, but they declined to about 2,400 tons in 1931 and 1,800 tons in 1933, doubtless as a consequence of the imposition in June, 1930, of an import duty of 0·3 cents per lb., equivalent to 35 per cent. *ad valorem* in 1932.

TABLE 26.—*Exports of Ground Nut Cake from China.*
(In tons)

Countries.	1912-13 (Average) (a)	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932. (b)	1933. (b)
Japan	34	8,007	7,805	9,623	11,214	7,020	6,088	5,681	13,288	4,444	11,211
United States of America	—	933	295	1,054	1,674	1,526	4,330	6,722	2,377	1,508	1,796
Singapore, Straits Settlements, etc.	9	75	13	232	986	1,401	2,399	447	909	419	254
Hong Kong	2,042	501	172	109	635	1,386	809	556	35	56	4
Siam	27	179	151	127	126	107	140	122	159	115	68
Other Countries ..	4	24	245	2	1	430	39	22	66	71	80
Total	2,116	9,719	8,681	11,147	14,636	11,870	13,805	13,550	16,834	6,613	13,413

(a) Exports of Ground Nut Cake were not separately classified in the trade returns until 1912.

(b) Excludes exports from Manchukuo after June, 1932. The amount exported in the second half of 1932 is not known but was probably small. In 1933, exports from Manchukuo totalled 140 tons.

Table 27 summarises China's foreign trade in ground nut products during the pre-war period and annually from 1924. The comparatively small quantities of ground nuts imported into China are indicated, but the trade returns do not separately classify imports of ground nut oil or ground nut cake which are probably negligible and have been ignored in Table 27.

China now occupies the fourth place as an exporter of ground nut products, being surpassed by India, Senegal and Nigeria. In these four countries the exports of ground nuts are of greater importance than the exports of ground nut oil and cake, but whilst exports of ground

nut oil are of little importance to India, Senegal or Nigeria, the exports of ground nut oil from China represent about 40 per cent. of the oil equivalent of the total exports of ground nut products.

TABLE 27.—*The Foreign Trade of China in Ground Nut Products*
(In thousands of tons)

	1912-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932. (a)	1933. (a)
<i>Ground Nuts—</i>											
<i>Exports—</i>											
Decorticated.. ..	5	159	122	120	92	45	51	135	153	135	88
Undecorticated	54	57	53	58	54	56	45	57	94	49	43
Total	59	216	175	178	146	101	96	192	247	184	131
<i>Imports—</i>											
Decorticated.. ..	} 12(b)	10(b){	5	1	5	30	15	4	(c)	(c)	(c)
Undecorticated			3	1	1	4	2	1	(c)	(c)	(c)
Total	12	10	8	2	6	34	17	5	(c)	(c)	(c)
<i>Export balance—</i>											
Actual weight	47	206	167	176	140	67	79	187	247	184	131
Estimated weight of kernels	37	193	155	162	127	54	68	173	223	172	120
Estimated oil equivalent	15	77	62	65	51	22	27	69	89	69	48
<i>Ground Nut Oil—</i>											
Exports	17	40	35	49	35	20	18	49	48	19	18
<i>Nuts and Oil—</i>											
Estimated export balance of ground nuts and ground nut oil, in oil equivalent	32	117	97	114	86	42	45	118	137	88	66
<i>Ground Nut Cake—</i>											
Exports	2	10	9	11	15	12	14	14	17	7	13

(a) Excluding the trade of Manchukuo after June, 1932.

(b) Details not available.

(c) Less than 500 tons.

The export balance of ground nuts and ground nut oil from China, in its estimated oil equivalent, rose from about 30,000 tons per annum in the years 1912-13 to nearly 120,000 tons in 1924. In the period

1925-29 the export balance so expressed averaged only 77,000 tons per annum but it increased appreciably during the period 1930-31 and in the latter year reached a peak of 137,000 tons or about 17 per cent. above the 1924 level and more than four times that of the pre-war period. There followed a marked reduction in 1932, and in this and the following year the export balance returned to the 1925-29 level.

The decline between 1925 and 1929 was partly due to political unrest and in particular to the resultant difficulties in transporting the crop to the ports. The period was also marked by an abnormally wet season in 1926 and a very small crop in 1927. In 1926 many nuts were exported so wet that the cargoes moulded and this, in conjunction with a very large crop of Coromandel ground nuts in 1927, reduced the demand for the Chinese product. In 1930, when the upward movement again set in, the crop was exceptionally heavy, and in that year and the next the export trade of China was assisted by the favourable silver exchange. The 1932 and 1933 figures are not strictly comparable with those for earlier years, owing to the exclusion of the Manchukuo trade from June, 1932, which accounts for a part of the recorded decline.

CHAPTER 9

FRENCH WEST AND EQUATORIAL AFRICA

The Colonies and Mandated Territories dealt with in this chapter are indicated in Table 28. Ground nuts are grown in all of them, and are of outstanding importance in Senegal, but the oil palm is the principal oleaginous crop in French West Africa as a whole.

There are about 3 million acres under ground nuts in French West and Equatorial Africa of which about one half are in Senegal. This compares with about 8 million acres in India, about 2½ million acres in China and less than 2 million acres in British West Africa.

Estimates of the production of ground nuts in French West and Equatorial Africa in 1930 are shown in Table 28, but the figures are necessarily approximate and are chiefly useful as an indication of the relative importance of the individual areas.

TABLE 28.—*Production of Ground Nuts in French West and Equatorial Africa in 1930*

Territory.	Production (In thousands of tons : undecorticated).
French West Africa (a) :—	
Senegal	489
French Sudan	115
Upper Volta	36
Dahomey	30
French Guinea	25
Ivory Coast	14
Niger Colony	(b)
Mauretania	4
French Equatorial Africa (c)	95
Mandated Territories (c) :—	
Cameroons	30
Togoland	(b)
Total	838(d)

(a) Source : Returns for the World Agricultural Census, 1930, as reported in the "Bulletin Mensuel de l'Agence Economique de l'Afrique Occidentale Française," August, 1931.

(b) Not available, but known to be small.

(c) Source : "International Year Book of Agricultural Statistics," 1931-32. Separate figures are not available for the individual Colonies in French Equatorial Africa.

(d) Incomplete—excludes Niger Colony and Togoland.

The ground nut production of French West and Equatorial Africa is about four-fifths of the production in China as computed from the official estimate of acreage under ground nuts in 1930*. Senegal is responsible for about 60 per cent. of the whole and its production is four times as large as that of the French Sudan, the next largest producer in French West and Equatorial Africa.

The ground nut crop is grown entirely by the indigenous populations, mainly on land not well suited to other products. Cultivation is on similar lines to those followed in British West Africa. The Authorities have found it necessary to distribute seed on credit and are experimenting with ploughs and seed-sowers. Experiments with Indian varieties have produced larger yields in a shorter growing period and their cultivation on a commercial scale is probable.

Production increased steadily from 1924 to 1930, rising in Senegal from 430,000 to 490,000 tons, in French Sudan from 30,000 to 115,000 tons and in French Equatorial Africa from 80,000 to 95,000 tons. Judging by the latest reports, production in 1933 in French West Africa as a whole did not differ materially from 1930. Senegal's production was exceptionally low in 1931, but the 1930 level was regained in 1932 and 1933. Productive capacity has been considerably assisted by improvements in transport facilities, particularly by railway extensions. As a consequence of the better marketing facilities so afforded, new areas have been opened up for the cultivation of ground nuts, and labour which previously migrated to the Gambia for the ground nut season has been retained for home production.

There is a considerable local consumption of ground nuts throughout the whole area, but the export trade is very important, particularly in Senegal where ground nuts represent over 90 per cent. of the value of the total exports. In order to lessen the effect on producers of the fall in ground nut prices, the export duty was reduced from 44 to 22 francs per 1,000 kilogrammes in November, 1930, and suspended from November, 1933. The Government also reduced railway freights and, in 1932, instituted the scheme of seed distribution already mentioned. Almost all the nuts are exported in the shell; although the quantity exported decorticated has increased appreciably in recent years it still represents less than 2 per cent. of the whole.

* See page 58.

TABLE 29.—Exports of Ground Nuts from French West and Equatorial Africa

U. = Undecorticated. D. = Decorticated.

	1909-13 (Average). (a)	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933. (b)
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>French West Africa—</i>											
Senegal .. U.	202,961	305,403	439,798	476,199	398,863	406,556	400,140	500,064	446,579	188,405	381,803
D.	—	5,197	20	37	255	187	112	14	1,580	2,734	2,411
French Guinea.. U.	1,740	1,235	3,973	3,499	4,872	6,568	5,013	2,153	1,369	1,998	U3,965 D (c) 72 (c)
D.	—	—	—	—	—	—	—	—	—	31	
French Sudan .. U.	4,597	3,030	2,650	3,592	702	3,060	671	92	—	—	85 307
D.	—	—	—	—	—	—	—	—	—	—	
Niger Colony .. U.	—	—	—	2,951	9,840	6,058	6,037	4,458	—	—	285 27
D.	—	—	—	—	—	—	—	—	—	—	
Other Colonies U.	15	1	20	111	—	4	2	27	—	—	184 27
D.	10	—	13	116	2	199	706	805	—	—	
Total .. U.	209,313	309,669	446,441	486,352	414,277	422,246	411,863	506,794	447,948	190,995	385,768
D.	10	5,197	33	153	257	386	818	819	1,764	2,877	2,483
<i>French Equatorial Africa—</i>											
Oubangui-Chari- U.	—	81	7	40	80	66	180	—	11	—	(d)
D.	—	—	—	1	—	—	110	171	6	126	(d)
Tchad .. U.	—	42	1	—	—	51	—	—	—	1	(d)
D.	—	—	—	—	—	—	—	—	—	—	(d)
Other Colonies U.	—	—	—	—	—	—	—	—	—	—	(d)
D.	—	—	—	—	—	—	—	—	—	—	(d)
Total .. U.	—	123	8	40	80	117	180	—	11	1	(d)
D.	—	—	—	1	—	—	110	171	6	126	(d)
<i>French Mandated Territories—</i>											
Cameroons .. U.	—	42	118	438	51	422	2,400	141	237	2,982	3,775
D.	—	—	—	—	—	—	—	—	—	—	—
Togoland .. U.	93	13	—	13	32	119	266	127	138	130	(d)
D.	—	—	1	—	—	—	—	24	—	—	(d)
Total .. U.	93	55	118	451	83	541	2,666	268	375	3,112	(c)
D.	—	—	1	—	—	—	—	24	—	—	(c)
Grand Total U.	209,406	309,847	446,567	486,843	414,440	422,904	414,709	507,062	448,334	194,108	389,674
D.	10	5,197	34	154	257	386	928	1,014	1,770	3,003	2,609
Estimated weight of kernels	Thous. tons. 157	Thous. tons. 238	Thous. tons. 335	Thous. tons. 365	Thous. tons. 311	Thous. tons. 318	Thous. tons. 312	Thous. tons. 381	Thous. tons. 338	Thous. tons. 149	Thous. tons. 295

(a) Source: International Year Book of Agricultural Statistics.

(b) Provisional.

(c) Details not yet available.

The relative importance of the various territories as exporters of ground nuts is indicated in Table 29 which covers the pre-war quinquennium and the period 1924-33. This table, and later tables dealing with the foreign trade in ground nuts of French West and Equatorial Africa, have been compiled from information specially supplied by the International Institute of Agriculture, L'Agence Economique du Gouvernement de l'Afrique Occidentale Française, L'Agence Economique de l'Afrique Equatoriale Française and L'Agence Economique des Territoires Africains sous Mandat Français. Complete accuracy is not possible as exports from the inland territories are sometimes included again in the export statistics of the coastal colonies. The International Institute of Agriculture is taking steps *vis-à-vis* the competent authorities to obviate these inconsistencies in future.

Senegal provided over 90 per cent. of the exports in every year. The ground nuts exported undecorticated from Senegal during the period 1924-33 averaged 394,000 tons per annum or double the weight exported in the immediate pre-war period, despite a decline in 1932 to 188,000 tons or well below the pre-war figure, on account of a fall in production in the previous year. In most of these years, the exports of decorticated ground nuts have been less than 300 tons, but 2,200 tons a year were exported from Senegal in the period 1931-33. Exports from the other territories have varied widely, particularly in the case of the Niger Colony which exported an average of 6,000 tons per annum—all undecorticated—during the quinquennium 1926-30, but for which no earlier or later exports are recorded during the period under review except 300 tons in 1932.

In recent years the exports of decorticated ground nuts have shown a marked tendency to increase. They were negligible before the War, averaged 200 tons per annum in the period 1925-28 and about 1,900 tons per annum in the period 1929-33. The 1932 level of 3,000 tons is the highest reached in recent years but over 5,000 tons were exported in 1924. The estimated weight of the ground nut kernels exported from French West and Equatorial Africa, including those in the undecorticated state, averaged 157,000 tons per annum in the pre-war quinquennium and 304,000 tons per annum in the period 1924-33, despite a fall to about half that weight in 1932.

Almost all the ground nuts exported from French West Africa are consigned to France or other French Colonies, whilst those from French Equatorial Africa are sent to the Belgian Congo. The distribution of the relatively small exports from the mandated territories is not indicated in the official returns. The distribution annually from 1924 of the exports of ground nuts in the shell from French West Africa, which constitute almost the whole of the exports from the areas under review, is shown in Table 30.

TABLE 30.—*Distribution of Exports of Ground Nuts in the Shell from French West Africa*

(In tons)

Countries.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933. (a)
France and French Colonies	241,958	309,368	314,228	287,164	283,187	270,975	352,171	317,983	154,124	317,7
Netherlands	21,719	28,278	46,603	34,419	30,957	36,523	55,419	34,224	9,551	14,1
Germany	7,186	38,671	72,423	46,760	37,694	33,028	46,338	26,636	10,605	8,7
Norway, Sweden and Denmark	2,994	5,340	7,454	5,894	16,308	17,811	19,156	24,885	8,569	(c)
Belgium	11,997	21,858	18,217	18,845	17,957	16,784	21,981	23,062	5,538	23,2
United Kingdom and other British Countries	22,631	42,794	27,240	21,004	35,998	33,782	11,544	21,073	2,499	(c)
Other Countries	1,184	132	187	191	145	3,778	185	85	109	21,9
Total	309,669	446,441	486,352	414,277	422,246	412,681 (b)	506,794	447,948	190,995	385,7

(a) Provisional.

(b) Includes 818 tons of decorticated ground nuts, the separate distribution of which is not known.

(c) Not yet available: included in "Other countries."

France is the principal market for French West African ground nuts; consignments to France and her colonies averaged about 285,000 tons per annum during the period under review and represent about 70 per cent. of the total export. The importance of the French market is likely to increase as a result of the tariff and import regulations introduced in August, 1933 and January, 1934, respectively.* Exports to the Netherlands and Germany averaged about 30,000 tons per annum in each case; the Scandinavian countries, Belgium and the United Kingdom (including other British countries) were the only other important markets.

* See page 151.

Recorded imports of ground nuts into French West and Equatorial Africa and the mandated territories are relatively negligible but it appears that there is an inter-Colonial trade in this commodity within French West Africa which is not always recorded in the official returns.

There is a small foreign trade in ground nut oil in French West Africa and French Equatorial Africa, details of which are shown in Table 31. French West Africa had an export balance from 1928 until 1932, but there are no exports of ground nut oil from French Equatorial Africa. The mandated territories neither export nor import ground nut oil.

TABLE 31.—*Foreign Trade of French West and Equatorial Africa in Ground Nut Oil*
(In tons)

	1909-13 (Average). (a)	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933. (b)
<i>French West Africa—</i>											
<i>Exports—</i>											
Senegal ..	—	5 (c)	25 (c)	41 7	95 1	206 —	1,557 951	2,775 1,282	2,045 68	7 155	34 (c)
Other Colonies	—										
Total ..	—	5	25	48	96	206	2,508	4,057	2,113	162	34
<i>Imports—</i>											
Senegal ..	84	181 (c)	215 (c)	666 44	124 77	111 84	113 139	90 72	83 73	91 93	212 (c)
Other Colonies	7										
Total ..	91	181	215	710	201	195	252	162	156	184	212
<i>French Equatorial Africa—</i>											
Imports ..	—	7	16	18	23	31	51	67	79	73	(d)
<i>Import Balance (—)</i>											
<i>or</i>											
<i>Export Balance (+)</i>											
Senegal ..	-84	-183 (c)	-206 (c)	-625 -55	-29 -99	+95 -115	+1,444 +761	+2,685 +1,143	+1,962 -84	-84 -11	-251
Other Colonies ..	-7										
Total ..	-91	-183	-206	-680	-128	-20	+2,205	+3,828	+1,878	-95	-251

(a) Source : " International Year Book of Agricultural Statistics."

(b) Provisional.

(c) Details not available.

(d) Not yet available : assumed same as 1932 in import balance.

Exports of ground nut oil exceeded 250 tons only in 1929, 1930 and 1931 when they averaged about 3,000 tons per annum. On the average over 70 per cent. of the ground nut oil exported from French West Africa is provided by Senegal and about 65 per cent. is consigned to France. France supplies virtually all the imports which have amounted to about 200 tons in most of the post-war years, or double the pre-war figure.

No imports of ground nut oil into French Equatorial Africa were recorded in the pre-war quinquennium, but small amounts have been shown since the war, increasing from 7 tons in 1924 to over 70 tons in 1931 and 1932.

French West and Equatorial Africa, taken as a whole, was on balance an importer of ground nut oil in each year under review except 1929, 1930 and 1931, when unusually heavy exports turned an import balance averaging about 200 tons per annum to an export balance averaging nearly 3,000 tons per annum.

The foreign trade of French West and Equatorial Africa in ground nuts and ground nut oil during the pre-war quinquennium and annually from 1924 is summarised in Table 32.

TABLE 32.—*Foreign Trade of French West and Equatorial Africa in Ground Nut Oil and Ground Nuts (in Oil Equivalent)*

(In thousands of tons)

	1909- 13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
Export balance of Ground Nuts in Oil Equivalent	63	95	134	146	124	127	125	152	135	60	118
Import balance (-) or Export balance (+) of Ground Nut Oil	(a)	(a)	(a)	- 1	(a)	(a)	+ 2	+ 4	+ 2	(a)	(a)
Export balance in Oil Equivalent	63	95	134	145	124	127	127	156	137	60	118

(a) Less than 500 tons.

There was, on the whole, a marked rise in the export balance of ground nuts and ground nut oil until 1932. From an average of 63,000 tons per annum, oil equivalent, in the pre-war quinquennium the balance increased to 95,000 tons in 1924 and to 145,000 tons in 1926. During the quinquennium 1927-31 there was some fluctuation at a slightly lower level, the average for the period being about 135,000 tons per annum, but in 1932 there was, as already stated, a heavy fall to less than half the level of 1931 and below the level in the pre-war quinquennium. This sharp decline was reversed in 1933, when the export balance amounted to 118,000 tons.

There is no recorded foreign trade in ground nut cake, such quantities as are available probably being consumed locally as fertiliser.

CHAPTER 10

MOZAMBIQUE

The ground nut crop is of considerable importance to this Portuguese East African Colony. There is a large local consumption of the nuts as food and the exports of ground nut products represent about 20 per cent. of the value of the export trade of the Colony. Reliable figures of area and production are not available, but it is known that the bulk of the crop is grown by the indigenous population in the districts of Mozambique and Quelimane. The Mozambique ground nut has an oil content slightly above the average, which may be attributed to the fact that these nuts reach Europe in a drier state than most other ground nuts.

Table 33 shows the exports of ground nuts from Mozambique in the period 1910-13 and annually from 1924; the nuts are all decorticated before export.

TABLE 33.—Exports of Ground Nuts from Mozambique (a)
(In tons : decorticated)

Countries.	1910-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
France	(b) 10,859	(b) 13,242	6,595	10,248	17,969	17,089	9,138	5,794	6,694	11,846
Netherlands ..			2,204	1,873	3,716	1,270	3,040	10,302	7,323	8,337
Germany			788	7,878	8,786	12,808	6,018	3,283	6,779	9,328
Union of South Africa			1,020	870	932	2,307	2,052	451	1,775	979
United Kingdom ..			94	178	308	380	698	1,410	511	174
Denmark			—	—	—	—	102	398	1,436	902
Italy			—	—	54	21	733	1,960	772	277
Other Countries..			245	142	925	207	541	896	722	1,005
Total ..	10,859	13,242	10,946	21,189	32,690	34,082	22,322	24,494	26,012	32,848

(a) The figures up to 1929 exclude about 2,500 tons per annum exported from the territories administered by the Mozambique and Nyasa Companies, details of which are not available. From 1930, the figures cover the whole of Mozambique.

(b) Source: "Year Book of International Institute of Agriculture, Rome." Details not available.

Exports in 1924 and 1925 were not much larger than in the pre-war period when they averaged 11,000 tons per annum, but in succeeding years this figure was more than doubled, and in 1927, 1928 and 1932 trebled. France took about one-half of the exports from 1925 to 1929 and one-third in 1932; but in 1930 and 1931 exports to France had fallen to about one-quarter or 6,000 tons. Exports to the Netherlands have shown a marked upward trend and that country was the principal market in 1930 and 1931 with an average of about 9,000 tons per annum. Apart from Germany with an average over the period 1925-32 of about 7,000 tons per annum, the other markets are relatively small, but some of them show signs of expansion.

The available information regarding exports of ground nut oil and ground nut cake relates to the State territory only, thus excluding the trade (if any) of the territories administered by the Mozambique and Nyasa Companies. The recorded exports are still small but have increased considerably during the post-war period under review. The Union of South Africa is the principal market for each commodity.

The available figures are as follows (in tons) :—

	1924	1925	1926	1927	1928	1929	1930	1931	1932
Ground nut oil	85	129	101	154	204	566	896	734	772
Ground nut cake	(a)	312	33	432	605	1,290	1,159	1,951	1,509

(a) Not available.

There are only negligible imports of ground nuts; the imports of ground nut oil are not separately classified in the trade returns, and there are no recorded imports of ground nut cake.

CHAPTER 11
PORTUGUESE GUINEA

Reliable statistics of the production of ground nuts in Portuguese Guinea are not available, but about 70,000 acres are devoted to this crop each year, and exports exceed 20,000 tons per annum. The annual exports from 1924 are shown in Table 34 together with the average for the period 1910-13.

TABLE 34.—*Exports of Ground Nuts from Portuguese Guinea*

Year.	Exports. (Tons.)	Estimated Weight : decorticated basis. (Thous. tons.)	Year.	Exports. (Tons.)	Estimated Weight : decorticated basis. (Thous. tons.)
1910-13 (Average)	8,378	6	1928 ..	23,763	18
1924 ..	20,072	15	1929 ..	21,427	16
1925 ..	21,255	16	1930 ..	21,789	16
1926 ..	14,419	11	1931 ..	24,589	18
1927 ..	20,649	15	1932 ..	17,447	13

Exports in 1924 amounted to 20,000 tons or two and a half times the average annual exports in the pre-war period but the subsequent increase was less pronounced, exports reaching a peak of 24,590 tons in 1931 ; there was a fall to 17,500 tons in 1932.

The trade returns of Portuguese Guinea do not indicate whether these ground nuts are exported decorticated or undecorticated and the trade returns of Portugal, the principal market, include all imported oilseeds under one heading. But the trade returns of Germany and the United Kingdom, the only important markets for which the information is available, show that all their imports of ground nuts from Portuguese Guinea were received undecorticated, and it has therefore been assumed in estimating the decorticated weight of the exports, as shown in Table 34, that all the ground nuts were exported undecorticated.

Table 35 shows the distribution of the exports in each of the years 1928-32, the only period for which this information is available.

TABLE 35.—*Distribution of Exports of Ground Nuts from Portuguese Guinea*

(In tons)

Countries.	1928.	1929.	1930.	1931.	1932.
Portugal.. ..	14,161	12,486	8,434	11,010	11,136
France	1,585	—	—	6,502	5,461
Germany	6,475	3,039	6,518	5,173	842
United Kingdom ..	1,423	5,390	4,932	1,090	—
Other Countries ..	119	512	1,905	814	8
Total	23,763	21,427	21,789	24,589	17,447

Portugal took an average of 11,000 tons per annum during the period 1928-32 or about one-half of the whole. France, Germany and the United Kingdom are the only other important markets, but there were no recorded exports to France in 1929 and 1930 or to the United Kingdom in 1932.

There is no recorded trade in ground nut oil or ground nut cake.

CHAPTER 12

NETHERLANDS EAST INDIES

The ground nut crop of the Netherlands East Indies is mainly produced in Java and Madura ; complete statistics are not available for the Outer Islands but it is known that the ground nut area there is about 15,000 acres as compared with 500,000 acres in Java and Madura. About 40 per cent. of the crop is grown on irrigated land which is often used also for rice ; the non-irrigated crop is harvested in July and the irrigated crop in November. Erect varieties predominate, and nearly 90 per cent. of the nuts are consumed locally.

Table 36 shows the acreage and production of Java and Madura annually from 1924. Comparable figures for the pre-war quinquennium are not available.

TABLE 36.—*Area and Yield of Ground Nuts in Java and Madura*

Year.	Area (a). (Thous. acres.)	Yield (a). (Thous. tons: undecorticated)	Yield per acre. (Hundreds of lb : un- decorticated.)
1924	477	181	8
1925	462	191	9
1926	484	188	9
1927	521	197	8
1928	563	214	9
1929	526	205	9
1930	554	218	9
1931	474	186	9
1932	526	212	9

(a) Source : "The Export Crops of the Netherlands East Indies." As regards the yield, one-third has been added to the weight of kernels produced in order to obtain the weight in shell.

The area under ground nuts in Java and Madura increased from about 480,000 acres in 1924 to about 530,000 acres in 1932. During this period, the yield per acre remained fairly steady at about 900 lb., which is the average yield throughout the world, and production increased from 180,000 tons to 210,000 tons (undecorticated weight).

TABLE 37.—Foreign Trade of the Netherlands East Indies in Ground Nuts

D. = Decorticated.

U. = Undecorticated.

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
<i>Exports to—</i>											
Singapore .. D.	3,349	3,160	5,441	5,351	5,996	7,453	5,206	4,305	3,810	4,256	9,581
U.	3,386	1,846	3,753	2,060	3,007	3,520	2,370	2,194	1,684	1,456	616
United Kingdom D.	288	1,489	1,812	2,223	3,334	2,158	2,655	3,200	3,327	4,790	4,456
U.	148	29	10	(a)	55	102	(a)	16	(a)	(a)	—
Penang .. D.	492	570	783	994	1,210	1,055	1,102	941	734	518	594
U.	338	305	250	252	246	264	353	287	261	212	118
Netherlands D.	334	619	346	437	1,137	1,028	756	726	561	1,006	1,152
U.	265	901	78	(a)	131	216	(a)	(a)	(a)	(a)	—
Hong Kong D.	98	297	65	(a)	(a)	11,482	3,009	528	155	1,194	799
U.	671	11	(a)	(a)	(a)	1,318	200	(a)	(a)	(a)	—
France .. D.	2,536	30	213	(a)	243	62	20	(a)	(a)	(a)	(a)
U.	5,789	751	465	40	292	596	14	(a)	(a)	(a)	—
Other Countries D.	1,166	2,673	1,248	1,582	2,332	3,399	3,129	2,074	1,704	1,500	1,954
U.	2,449	2,137	153	58	279	627	96	34	30	48	—
Total .. D.	8,263	8,838	9,908	10,587	14,252	26,637	15,877	11,774	10,291	13,264	18,536
U.	13,046	5,980	4,709	2,410	4,010	6,643	3,033	2,531	1,975	1,716	734
<i>Imports from—</i>											
Singapore .. D.	103	95	97	155	142	168	148	140	125	93	} (b)
U.	57	54	69	51	66	188	130	112	97	107	
Other Countries D.	11	13	5	4	7	9	9	5	4	5	} (b)
U.	16	12	10	7	3	2	—	5	6	2	
Total .. D.	114	108	102	159	149	177	157	145	129	98	} (b)
U.	73	66	79	58	69	190	130	117	103	109	
Export balance D.	8,149	8,730	9,806	10,428	14,103	26,460	15,720	11,629	10,162	13,166	18,438
U.	12,973	5,914	4,630	2,352	3,941	6,453	2,903	2,414	1,872	1,607	625
	Thous. tons	Thous. tons	Thous. tons	Thous. tons	Thous. tons	Thous. tons	Thous. tons	Thous. tons	Thous. tons	Thous. tons	Thous. tons
Export balance, de- corticated basis ..	18	13	13	12	17	31	18	13	12	14	19
Export balance in oil equivalent ..	7	5	5	5	7	12	7	5	5	6	8

(a) Included, if any, in "Other Countries."

(b) Not yet available: assumed the same as in 1932 in export balance.

The foreign trade of the Netherlands East Indies in ground nuts is relatively small; exports as already mentioned represent about 10 per cent. of production and averaged about 16,000 tons per annum (decorticated basis) during the period 1924-33, while imports were less than 300 tons per annum. Details of the trade in the pre-war quinquennium and annually from 1924 are shown in Table 37.

The exports of decorticated ground nuts have materially increased and the exports of undecorticated ground nuts have considerably declined during the period under review, but, except for the pre-war quinquennium and the years 1927-29 and 1933, the total weight (decorticated basis) has remained fairly steady at about 13,000 tons. The loss of the pre-war market in France has not been fully compensated by increased exports to other markets, and the unusually high exports in the period 1927-29, averaging about 22,000 tons per annum (decorticated basis), were probably a consequence of the small exports from China in those years.

France and Singapore were the principal markets in the pre-war quinquennium, and together they then took over 70 per cent. of the exports of both decorticated and undecorticated ground nuts. By 1924, France had ceased to be an important market, and from 1929 exports thereto have been negligible. The weight of decorticated ground nuts exported to Singapore has increased slightly, being exceptionally large in 1933, but undecorticated nuts have declined. Nevertheless, in recent years Singapore has been the only appreciable market for the small volume of undecorticated ground nuts exported from the Netherlands East Indies. During the period 1924-33 the United Kingdom has occupied the second place in each year except 1928 and 1929, and it has been the only country to maintain a marked upward trend in its imports of ground nuts from this source.

Almost all the imports are received from Singapore, and are destined for the Outer Islands.

Table 38 shows the parts played by Java and Madura and by the Outer Islands in the export of ground nuts from the Netherlands East Indies during the pre-war quinquennium and annually from 1924.

Since 1924, exports from the Outer Islands have averaged 6 per cent. of the total exports from the Netherlands East Indies as compared with 12 per cent. in the pre-war quinquennium; but the

principal change shown in the following table concerns the relative importance of decorticated and undecorticated ground nuts in the exports from Java and Madura as well as from the Outer Islands. The proportion of the total exports (decorticated basis) exported in the decorticated state increased from 46 per cent. in the pre-war quinquennium to 68 per cent. in 1924 and to 97 per cent. in 1933.

TABLE 38.—*Sources of Supply of Ground Nuts Exported from the Netherlands East Indies*

Source of Supply.	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Decorticated—</i> Java and Madura ..	8,151	8,226	9,491	10,212	13,663	25,011	14,477	10,609	10,077	12,443	16,440
Outer Islands	112	612	417	375	589	1,626	1,400	1,165	214	821	2,096
Total ..	8,263	8,838	9,908	10,587	14,252	26,637	15,877	11,774	10,291	13,264	18,536
<i>Undecorticated—</i> Java and Madura ..	11,201	5,330	4,439	2,234	3,904	6,468	2,841	2,406	1,842	1,650	734
Outer Islands	1,845	650	270	176	106	175	192	125	133	66	—
Total ..	13,046	5,980	4,709	2,410	4,010	6,643	3,033	2,531	1,975	1,716	734
	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.
<i>Total exports</i> <i>(decorticated</i> <i>basis)—</i> Java and Madura ..	16	12	12	12	16	30	17	12	12	14	17
Outer Islands	2	1	1	(a)	1	2	1	1	(a)	1	2
Total ..	18	13	13	12	17	32	18	13	12	15	19
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Proportion of decorticated nuts ex- ported to total exports (decorticated basis) ..	46	68	76	88	84	83	88	91	86	91	97

(a) Less than 500 tons.

The Netherlands East Indies has a small foreign trade in ground nut oil, the exports being almost wholly from Java and Madura and the imports almost entirely for the Outer Islands. Details of this trade in the pre-war quinquennium and annually from 1924 are shown in Table 39.

TABLE 39.—*Foreign Trade of the Netherlands East Indies in Ground Nut Oil*

(In tons)

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Exports to—</i>											
Singapore ..	12	2	202	370	702	1,662	2,276	2,117	2,031	3,819	3,411
Other countries ..	15	86	554	11	144	2,915	941	41	169	518	1,751
Total ..	27	88	756	381	846	4,577	3,217	2,158	2,200	4,337	5,162
<i>Imports from—</i>											
Singapore ..	280	364	277	345	359	381	408	494	526	426	} (b)
Other countries ..	380	333	327	380	447	435	487	626	555	437	
Total ..	660	697	604	725	806	816	895	1,120	1,081	863	(b)
Export balance..	633 (a)	609 (a)	152	344 (a)	40	3,761	2,322	1,038	1,119	3,474	4,299

(a) Import balance.

(b) Not yet available: assumed the same as in 1932 in export balance.

Both exports and imports of ground nut oil have increased materially since the pre-war quinquennium, exports rising from an annual average of about 30 tons in the pre-war quinquennium to an annual average of nearly 4,000 tons in the period 1928–33, and imports from 660 to about 1,000 tons. By this means, a net import balance of 630 tons per annum in the pre-war quinquennium has given place to an export balance which exceeded 3,000 tons in 1928, 1932 and 1933.

The volume of the foreign trade in ground nuts and ground nut oil is, however, too small to affect materially the amount of ground nut oil available for consumption in the Netherlands East Indies. This is mainly dependent upon changes in the local production of ground

nuts, and during the period 1924-32 has varied little from the annual average of about 55,000 tons. Details are shown in Table 40 which summarises the statistics of production and foreign trade in ground nuts and ground nut oil annually from 1924; production figures are not available for the pre-war quinquennium.

TABLE 40.—*Estimated Amount of Ground Nut Oil and Ground Nuts (in Oil Equivalent) Available for Consumption in the Netherlands East Indies*

(In thousands of tons)

Year.	Production of Ground Nuts (in oil equivalent). (a)	Export Balances.			Ground Nut Oil and Ground Nuts (in oil equivalent) available for Consumption.
		Ground Nuts (in oil equivalent)	Ground Nut Oil.	Total.	
1924 ..	56	5	1 ^(b)	4	52
1925 ..	59	5	^(c)	5	54
1926 ..	58	5	^(b) ^(c)	5	53
1927 ..	61	7	^(c)	7	54
1928 ..	66	12	4	16	50
1929 ..	64	7	2	9	55
1930 ..	67	5	1	6	61
1931 ..	58	5	1	6	52
1932 ..	66	6	3	9	57
1933 ..	^(d)	8	4	12	^(d)

(a) Includes an estimate of 2,000 tons per annum in respect of the Outer Islands.

(b) Import balance.

(c) Less than 500 tons.

(d) Not yet available.

The proportion of the available supplies of ground nuts which is used for the manufacture of ground nut oil is not known and it is therefore not possible to estimate the available supplies of ground nut cake. Imports of ground nut cake are not separately classified in the trade returns and are probably negligible. Exports rarely exceed 100 tons per annum, the Netherlands being the principal market in recent years.

CHAPTER 13

UNITED STATES OF AMERICA

The United States of America holds a unique position among the world's ground nut producers. Unlike every other ground nut producing country of importance it produces almost exclusively for the home market, which is heavily protected* and utilises almost the whole of the harvested crop for consumption as nuts. Machinery is widely used in the cultivation of the crop and the production costs considerably exceed those in the other principal producing countries.† The total production is about 600,000 tons per annum, but rather more than one-quarter of the crop is not gathered being left as feed for pigs. This unharvested production has been excluded from the production figures that follow.

The ground nuts grown in the United States of America are of three main types—the Virginia type, grown principally in Virginia and North Carolina, the Spanish type grown throughout the Southern States but mainly in Georgia, Alabama and Texas, and the Runner type which is also produced in Alabama, Georgia and neighbouring States but is relatively unimportant.

The Virginia type yields the largest nuts; their oil content is smaller than the nuts of the other types but they are generally considered superior in flavour, and they are accordingly largely used for human consumption as nuts, almost monopolising this trade. Virginia and Spanish types of ground nuts are used in the manufacture of confectionery and peanut butter. In the United States of America as a rule only those nuts which are unfit for other uses reach the oil mills.

The cultivation of ground nuts on a commercial scale in the United States of America began about 1880 and expanded very considerably until 1918 since when there has been a heavy decline. In 1889, the

* The import duties are as follows :—

Decorticated nuts, 7 cents per lb.

Uncorticated nuts, 4½ cents per lb.

Ground nut oil, 4 cents per lb.

The *ad valorem* equivalents of these duties in 1932, the latest year for which information is available, were 247, 184 and 67 per cent. respectively.

† The average total cost, including transportation, per lb. of top grade American nuts delivered at New York in 1924–25 was 9·2 cents per lb. as compared with 5·4 cents per lb. (excluding duty) of top grade Chinese nuts (United States Tariff Commission's Report on Peanuts, 1929, page 51).

first year for which statistics are available, about 50,000 tons were produced from 200,000 acres; in 1918 about 550,000 tons were harvested from 1,900,000 acres; in 1933 there was a yield of about 400,000 tons from about 1,400,000 acres. A slightly increased acreage is foreshadowed for 1934. Table 41 shows the acreage and production in 1889, 1910 and each year from 1916, the earliest year from which a continuous run of figures is available.

TABLE 41.—*Area and Yield of Ground Nuts in the United States of America(a)*

Year.	Harvested Acreage.	Production: undecorticated.	Yield per acre.
	(Thous. acres.)	(Thous. tons.)	(Hundreds of lb.)
1889	204	47	5
1910	870	260	7
1916	1,043	410	9
1917	1,842	640	8
1918	1,865	554	7
1919	1,132	350	7
1920	1,181	376	7
1921	1,214	370	7
1922	1,005	283	6
1923	896	289	7
1924	1,187	333	6
1925	958	312	7
1926	843	282	7
1927	1,142	386	8
1928	1,211	382	7
1929	1,360	427	7
1930	1,133	334	7
1931	1,419	484	8
1932	1,607	463	6
1933	1,361	411	7

(a) Sources: 1889 and 1910, Report of the United States Tariff Commission on Peanuts, 1929, page 8. 1916-31, Year Books of the United States Department of Commerce. 1932 and 1933, United States General Crop Report, December, 1933.

The heavy increase in production up to 1918 was the result of the following influences*—(1) an increase in demand for ground nuts for consumption as nuts and for peanut butter, (2) the invention of automatic machinery for harvesting and threshing ground nuts, (3) their production as a cash crop in rotation with cotton or tobacco, (4) the substitution of ground nuts for cotton in areas infested with the boll weevil, and (5) the rapid growth of the ground nut oil industry during the War. The passing of the last of these incentives with the end of the War resulted in a heavy fall in production and, although there has since been a recovery, production in 1933 was only about 75 per cent. of 1918.

TABLE 42.—*Area and Yield of Ground Nuts in the United States of America, by States(a).*

State.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Georgia—</i>										
Area (thous. acres)	399	278	211	304	350	392	333	410	484	431
Yield (thous. tons)	107	62	49	98	84	114	97	121	103	114
Yield per acre (hundreds of lb.)	6	5	5	7	5	7	7	7	5	6
<i>Alabama—</i>										
Area (thous. acres)	270	180	140	230	225	229	195	273	328	262
Yield (thous. tons)	60	45	36	70	56	56	52	73	76	66
Yield per acre (hundreds of lb.)	5	6	6	7	6	6	6	6	5	6
<i>North Carolina—</i>										
Area (thous. acres)	195	185	180	211	205	230	218	266	271	208
Yield (thous. tons)	78	95	83	90	96	105	88	137	123	88
Yield per acre (hundreds of lb.)	9	12	10	10	11	10	9	12	10	9
<i>Texas—</i>										
Area (thous. acres)	75	65	71	117	126	163	124	161	180	167
Yield (thous. tons)	15	15	20	31	37	31	23	38	44	46
Yield per acre (hundreds of lb.)	5	5	6	6	7	4	4	5	6	6
<i>Virginia—</i>										
Area (thous. acres)	120	138	138	152	152	153	138	152	144	117
Yield (thous. tons)	35	64	61	55	63	70	44	73	69	50
Yield per acre (hundreds of lb.)	7	10	10	8	9	10	7	11	11	10
<i>Other States—</i>										
Area (thous. acres)	128	112	103	128	153	193	125	157	200	176
Yield (thous. tons)	38	31	33	42	46	51	30	42	48	47
Yield per acre (hundreds of lb.)	7	6	7	7	7	6	5	6	5	6
<i>Total—</i>										
Area (thous. acres)	1,187	958	843	1,142	1,211	1,360	1,133	1,419	1,607	1,361
Yield (thous. tons)	333	312	282	386	382	427	334	484	463	411
Yield per acre (hundreds of lb.)	6	7	7	8	7	7	7	8	6	7
Estimated weight of kernels (b) (thous. tons)	222	208	188	257	254	285	223	323	298	274

(a) Weights in the shell. Harvested areas only, i.e. excluding ground nuts grown as feed for pigs. Sources: Year Books of U.S. Department of Agriculture and U.S. General Crop Report, December, 1933.

(b) Calculated at two-thirds of the weight in shell, this being the factor used in the Year Books of the U.S. Department of Agriculture.

* Report of the United States Tariff Commission on Peanuts, 1929, page 8.

Table 42 shows annually from 1924 the harvested acreages and yields of ground nuts in the principal ground nut producing States and in the whole of the United States of America.

Ground nuts are grown in all the Southern coastal States from Virginia to Texas and in the adjoining States of Tennessee, Arkansas and Oklahoma, but one-half of the total acreage is in Georgia and North Carolina. The yield per acre varies widely from year to year and from State to State. North Carolina and Virginia have generally the highest yield per acre, averaging about 1,000 lb. during the post-war period under review, whilst Texas has generally the lowest yield averaging about 500 lb. per acre. Production followed an upward trend from 1924, and in the period 1931-33 averaged 450,000 tons per annum in the shell as compared with 310,000 tons in the period 1924-26, an increase of nearly 50 per cent. As regards the individual States, production since 1924 increased most in Texas (150 per cent.) and least in Virginia (20 per cent). This is explained by a greater growth in the demand for nuts of the Spanish and Runner types grown in Texas than for the larger Virginia nuts.

Imports, which have rarely represented more than 10 per cent. of domestic production, amounted to only about 1 per cent. in 1930 and 1931, and have since been negligible. Imports of decorticated nuts fell from 25,000 tons in 1928 to 12,000 tons in 1929 when the duty was increased from 4 cents to 6 cents per lb. In 1930, the duty was raised to 7 cents per lb. and imports fell below 3,000 tons. Imports of undecorticated nuts fell from 6,000 tons in 1928 to 2,000 tons in 1929 when the rate of duty was increased from 3 cents to 4½ cents per lb. Although the rates of duty have remained unchanged since June, 1930, the subsequent fall in ground nut prices has considerably increased their protective effect, and in 1933 only 51 tons of decorticated and 84 tons of undecorticated nuts were imported. The countries supplying the imports during the immediate pre-war period and annually from 1924 are shown in Table 43.

For the pre-war period Table 43 shows an average annual import of 1,200 tons of ground nuts from China and 4,000 tons from Japan. In the post-war period under review China supplied over 90 per cent. of the total imports, but in 1932 when imports were very small China's share fell to 30 per cent. The Report of the United States Tariff Commission on Peanuts states that the ground nuts imported from Japan in the pre-war period originated in China,*

* Report of the United States Tariff Commission on Peanuts (1929), page 17.

TABLE 43.—Imports of Ground Nuts into the United States of America.

D—Decorticated.
U—Undecorticated.

Countries.	1911-12 to 1913-14 (a) (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933. (e)
China .. D.	811	22,190	32,163	18,289	16,419	22,910	10,704	1,626	2,171	—	} D 51 U 84
U.	454	1,968	3,699	1,451	1,827	5,609	1,627	1,186	1,556	79	
Kwantung D.	—	239	4	300	429	721	734	223	176	11	
U.	—	—	—	45	—	45	89	49	150	—	
Japan .. D.	290	1,102	25	51	119	50	146	1	1	—	
U.	4,095	199	686	114	107	226	141	104	136	61	
Spain .. D.	1,297	518	47	—	—	98	—	—	—	—	
U.	1,168	20	81	82	14	62	27	53	—	—	
France .. D.	1,308	—	—	89	2	—	—	—	—	—	
U.	27	(b)	(b)	(b)	—	—	—	—	—	—	
Other Countries D.	1,726	940	410	284	355	1,159	305	(c)437	(c)433	15	
U.	608	24	202	89	56	191	174	45	67	71	
Total .. D.	5,432	24,989	32,649	19,013	17,324	24,938	11,889	2,287	2,781	26	
U.	6,352	2,211	4,668	1,781	2,004	6,133	2,058	1,437	1,909	211	
Estimated weight, decorticated basis (d) ..	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.
	10	26	36	20	19	29	13	3	4	(f)	(f)

(a) Twelve months ending 30th June. Decorticated nuts not shown separately from undecorticated nuts in earlier years.

(b) Included, if any, in "Other Countries."

(c) Almost all from the Philippines, from whence supplies in earlier years were either nil or negligible. The returns of general imports do not show whether these are decorticated or undecorticated, nor do the special trade returns for 1931, but in 1930 almost all the ground nuts imported from this source for consumption are shown as decorticated.

(d) Computed at 3 tons of undecorticated nuts to 2 tons of kernels, this being the factor used in the Year Books of the U.S. Department of Agriculture.

(e) Details not yet available.

(f) Less than 500 tons.

but this is not supported by the trade returns of the exporting countries, the Chinese returns showing an annual average export to the United States during the pre-war period of 300 tons, and the Japanese returns an average of 3,500 tons all of which is stated to be Japanese produce. The trade returns of China show even larger exports of ground nuts to the United States of America than are acknowledged in the trade returns of the United States, but as there

is a compensating difference in the trade returns of Canada, it appears that about 3,000 tons per annum of the ground nuts consigned from China to the United States of America up to 1933 were diverted to Canada *en route*. Imports of ground nuts into the United States of America from Spain and France averaged nearly 4,000 tons per annum in the pre-war period, but were negligible in the post-war years under review.

The export trade is also small as Table 44 shows.

TABLE 44.—Exports of Ground Nuts(a) from the United States of America
(In tons)

	1909-10 to 1913-14 (Aver- age). (b)	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Canada—</i>											
Exports ..	2,157	1,168	1,388	1,632	1,788	2,130	1,851	1,056	590	2,420	} (c)
Re-exports	83	318	1,184	922	948	1,009	870	413	979	45	
Total ..	2,240	1,486	2,572	2,554	2,736	3,139	2,721	1,469	1,569	2,465	
<i>Cuba</i>											
Exports ..	30	30	31	36	50	90	33	10	21	1	
Re-exports	12	523	476	500	642	261	220	166	219	125	
Total ..	42	553	507	536	692	351	253	176	240	126	
<i>Other Countries—</i>											
Exports ..	600	198	139	221	317	199	295	255	211	752	
Re-exports	251	48	451	746	2,170	273	184	225	177	34	
Total ..	851	246	590	967	2,487	472	479	480	388	786	
<i>Total—</i>											
Exports ..	2,787	1,396	1,558	1,889	2,155	2,419	2,179	1,321	822	3,173	632(c)
Re-exports	346	889	2,111	2,168	3,760	1,543	1,274	804	1,375	204	49(c)
Grand Total	3,133	2,285	3,669	4,057	5,915	3,962	3,453	2,125	2,197	3,377	681(c)

(a) Decorticated and undecorticated; separate figures not available.

(b) Twelve months ending 30th June.

(c) Details not yet available.

Apart from a short-lived expansion in 1926 and 1927 and the marked decline in 1933, there has been little change in the volume of the export trade during the pre-war and post-war periods under review but, on the average, a smaller part of the exports is now

domestic produce. In the pre-war quinquennium, about 90 per cent. of the ground nut exports were domestic produce, as against about 50 per cent. on the average since 1924. Canada was the principal market in the pre-war period and remained so while Cuba, generally the next largest market, rarely took more than one-fifth of the weights exported to Canada.

Table 45 shows the estimated weights of ground nut kernels available for consumption in the United States of America in 1910 and annually from 1916, ignoring stocks particulars of which are not available.

TABLE 45.—*Estimated weights of Ground Nuts available for consumption in the United States of America*
(In thousands of tons)

Year.	Home Production and Imports (decorticated basis). (a)			Exports including Re-exports (actual weight). (b)	Estimated Available Supply (decorticated basis). (c)
	Production.	Imports.	Total.		
1910 ..	173	5(d)	178	3(d)	175
1916 ..	273	15(e)	288	10(e)	278
1917 ..	427	34(e)	461	6(e)	455
1918 ..	369	31	400	6	394
1919 ..	233	13	246	9	237
1920 ..	251	52	303	4	299
1921 ..	247	17	264	7	257
1922 ..	189	5	194	6	188
1923 ..	193	22	215	3	212
1924 ..	222	26	248	2	246
1925 ..	208	36	244	4	240
1926 ..	188	20	208	4	204
1927 ..	257	19	276	6	270
1928 ..	255	29	284	4	280
1929 ..	285	13	298	3	295
1930 ..	223	3	226	2	224
1931 ..	323	4	327	2	325
1932 ..	309	(f)	309	3	306
1933 ..	274	(f)	274	1	273

(a) Calculated at two-thirds of the weight in shell, this being the factor used in the Year Books of the U.S. Department of Agriculture.

(b) Separate figures of decorticated and undecorticated nuts are not available.

(c) Assuming that all the exports are decorticated.

(d) Twelve months ending 30th June, 1912.

(e) Twelve months ending 30th June of year after that shown.

(f) Less than 500 tons.

Available supplies of ground nuts increased from an average of 175,000 tons in 1910 to an annual average of nearly 380,000 tons in the period 1916-18. After the War available supplies declined rapidly and in 1922 touched a low point little above the immediate pre-war level. The partial recovery since 1922 has been gradual, available supplies averaging 230,000 tons per annum in the period 1923-27 and 280,000 tons per annum in the period 1928-33. The percentage increase over the two latter periods (22 per cent.) is rather less than the increase in production because of the decline in the import balance which was converted to an export balance in 1932 and 1933.

Table 46 shows the quantities of nuts used in the manufacture of ground nut oil and the weights of oil produced.

TABLE 46.—*Production of Ground Nut Oil (Crude and Virgin) in the United States of America*

Year.	Production of Oil. (a) (Thous. tons.)	Weight of Kernels Crushed. (a) (Thous. tons.)	Estimated Weight of Kernels Available. (Thous. tons.)	Proportion of Available Kernels used for Oil Production. (In per cent.)
1912	0.2(b)	0.6(c)	175(d)	0.3
1916	13 (b)	36 (c)	278	13
1917	23 (b)	64 (c)	455	14
1918	43	122 (c)	394	11
1919	39	112 (c)	237	47
1920	6	17	299	6
1921	15	37	257	14
1922	10	26	188	14
1923	2	7	212	3
1924	3	9	246	4
1925	7	20	240	8
1926	5	13	204	6
1927	5	14	270	5
1928	6	16	280	6
1929	7	22	295	7
1930	11	33	224	15
1931	6	19	325	6
1932	5	16	306	5
1933	6	19 (e)	273	7

(a) Sources: 1912-32: Year Books of the U.S. Department of Agriculture. 1933: "Fats and Oils—Statistics of United States Production, Trade and Consumption, 1912-1933".

(b) Reported as edible and inedible oil.

(c) Calculated on an oil yield of 35 per cent. of the weight of the kernels, the approximate average secured during the period 1920-31.

(d) Year 1910. Production figure for 1912 not available.

(e) Estimated.

The production of ground nut oil in the United States of America, previously inconsiderable, increased very rapidly during the War years. Only 200 tons were produced in 1912, but 13,000 tons were produced in 1916 and 43,000 tons in 1918. Between 1912 and 1918, the production of ground nuts more than doubled but the much heavier demand for ground nut oil raised the price of ground nuts for crushing sufficiently to attract over 10 per cent. of the crop to the mills as compared with less than 1 per cent. in 1912. Production of ground nuts and of ground nut oil commenced to decline in 1919, but, whereas the production of oil in that year only declined by 10 per cent., the production of ground nuts declined by 40 per cent., thereby raising the proportion of ground nuts used for oil from 11 to 47 per cent. The production of oil fell to 2,000 tons by 1923 when the production of ground nuts was about 200,000 tons. From 1924 the production of oil showed an upward trend, averaging 5,000 tons per annum in the period 1924-27 and a slightly higher figure in the succeeding period. This increase was greater than the increase of about 18 per cent. in the available supplies of ground nuts, and is partly accounted for by a narrowing of the price margin existing in favour of ground nuts for direct consumption. The proportion of available supplies utilised for the manufacture of oil is very low in the United States of America, averaging less than 8 per cent. in the period 1928-33.

The United States of America has a foreign trade in ground nut oil, the import balance averaging since 1924 about 1,500 tons per annum, or about one-quarter of domestic production. Table 47 shows details of this foreign trade in the two years immediately preceding the War and annually from 1924.

Imports of ground nut oil, which averaged 5,000 tons per annum in the pre-war period and 7,000 tons in 1924, declined to 600 tons in 1933 the fall being interrupted by imports of nearly 7,000 tons in 1930 and 1931, the greater part of which, however, was re-exported. France, Germany and the Netherlands were the only important sources of supply in the pre-war period, but they have since lost most of their importance in this market, and from 1924 the bulk of the imports has been received from China and Hong Kong, the former averaging 2,200 tons per annum and the latter 700 tons. According to the Chinese trade returns, China exported to the United States of America during this period an annual average of 10,000 tons of ground nut oil, but this exceeds the total average annual imports recorded in the American trade returns, and it is suggested* that part of the Chinese exports to the United States were diverted before arrival to Canada.

* Information furnished by the Inspectorate General of Chinese Maritime Customs.

TABLE 47.—Foreign Trade of the United States of America in Ground Nut Oil

(In tons)

	1911-12 to 1913-14 (a) (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Imports—</i>											
China ..	222	5,331	255	2,399	34	666	65	6,166	5,252	62	} 589(c)
Hong Kong	306	778	671	776	682	569	638	663	705	536	
Germany	1,053	—	25	—	—	582	571	—	571	—	
Netherlands	1,051	25	38	46	75	50	78	84	93	65	
France ..	1,997	477	325	402	369	247	79	19	15	—	
Other countries	70	262	37	74	111	6	11	17	10	2	
Total ..	4,699	6,873	1,351	3,697	1,271	2,120	1,442	6,949	6,646	665	589
<i>Re-exports—</i>											
Canada ..	1	4,544	743	121	382	4	29	3,430	5,431	946	} 2(c)
Other countries	3	10	11	21	19	15	17	8	533	1	
Total ..	4	4,554	754	142	401	19	46	3,438	5,964	947		2
Import Balance	4,695	2,319	597	3,555	870	2,101	1,396	3,511	682	(b)282	587

(a) Years ending 30th June. Ground Nut Oil was not separately classified in the trade returns for earlier years.

(b) Export balance.

(c) Details not yet available.

Exports of ground nut oil produced in the United States of America totalled less than 20 tons in 1924 and were not separately classified in the trade returns for later years. Re-exports, which were also negligible in the pre-war period, have varied between 2 tons and 6,000 tons per annum since 1924; about 90 per cent. of the re-exports are consigned to Canada.

The United States Department of Agriculture has published statistics compiled from reports of the Bureau of the Census* concerning the factory production, factory consumption, and stocks of ground nut oil in the United States since 1925 and these, together with the import balance of ground nut oil, are summarised in Table 48.

* See "Foreign Crops and Markets", 23rd June, 1930, 10th August, 1931, 25th July, 1932 and 25th September, 1933.

TABLE 48.—*Imports, Factory Production and Consumption, and Stocks of Ground Nut Oil in the United States of America*
(In thousands of tons)

Year.	Production.		Import Balance of Oil.	Consumption. (a)		Stocks at End of Year. (b)	
	Crude and Virgin Oil.	Refined Oil.		Crude and Virgin Oil.	Refined Oil.	Crude and Virgin Oil.	Refined Oil.
1925	7	4	1	5	4	1	(c)
1926	5	4	4	5	4	1	(c)
1927	5	4	1	5	3	1	1
1928	6	4	2	6	4	1	1
1929	7	5	1	6	4	1	1
1930	11	8	4	11	8	4	2
1931	6	5	1	5	5	2	1
1932	6(d)	4(d)	(e)	5(d)	3(d)	1(d)	1(d)

(a) Includes consumption other than that used for ordinary purposes by householders, retailers, etc.

(b) Includes all stocks other than those in the hands of households, local tradesmen, etc., except such as may be held in public warehouses. Stocks in the hands of importers and exporters are included.

(c) Less than 500 tons.

(d) Provisional.

(e) Export balance, but less than 500 tons.

The production and consumption of ground nut oil in factories remained fairly steady throughout the period 1925-32 except for high points in 1930, production averaging about 7,000 tons of crude and virgin oil and 5,000 tons of refined oil, and consumption averaging about 6,000 tons of crude and virgin oil and 4,500 tons of refined oil. It should be observed that in judging the volume of consumption of ground nut oil from the above figures, the crude oil figures alone should be taken into account, since the crude oil "consumed" for refining is included therein and duplication would occur if the crude and refined oil figures were added together. Reported stocks at the end of 1932 stood at 1,000 tons of crude and virgin oil and 1,000 tons of refined oil, being in each case approximately equal to the average

for the period under review. There is an appreciable but unknown consumption of ground nut oil not included in the figures of factory consumption shown in the preceding table and the figures of stocks there shown are also incomplete. These omissions, no doubt, account for the apparent lack of agreement between the imports, production, consumption and stocks shown in the table.

About one-half of the factory consumption of ground nut oil in the United States of America is used in the manufacture of margarine. Table 49 shows the annual quantities of the principal oils and fats employed for the manufacture of oleo-margarine in the United States from 1924-25.

TABLE 49.—*Oils and Fats used in the Manufacture of Oleo-Margarine in the United States of America*(a)
(In tons)

	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<i>Vegetable oils—</i>									
Coconut oil ..	35,468	43,887	48,060	62,946	76,523	82,619	69,622	57,128	60,013
Cottonseed oil ..	9,360	11,432	10,434	11,072	12,577	13,488	9,838	6,640	7,157
Ground nut oil ..	1,961	2,347	2,175	2,437	2,954	2,551	2,362	1,687	1,044
Palm oil ..	} 155	384	261	426	602	492	1,237	} (b)	(b)
Palm kernel oil ..		120	24	58	7	1	—		(b)
Soya bean oil ..	—	—	15	—	—	276	1,010	6	3
Sesame oil ..	120	83	58	18	—	—	44	(c)	(c)
Corn oil ..	88	78	82	17	—	—	70	33	46
Miscellaneous ..	17	15	50	25	5	22	22	(d) 379	(d) 384
Total ..	47,169	58,346	61,159	76,999	92,668	99,449	84,205	65,873	68,647
								(d)	(d)
<i>Animal oils and fats—</i>									
Oleo oil ..	19,688	21,169	21,759	20,302	21,065	20,229	12,517	6,837	5,561
Neutral lard ..	11,461	11,238	11,103	11,177	10,799	8,764	4,545	4,713	4,076
Oleo stearine ..	2,344	2,372	2,297	2,470	2,604	2,799	2,448	1,936	1,466
Butter ..	674	1,040	924	1,109	1,166	1,168	452	17	7
Oleo stock ..	1,421	1,376	1,139	776	578	531	458	286	256
Miscellaneous ..	57	160	153	88	11	7	—	(c)	(c)
Total ..	35,645	37,355	37,375	35,922	36,223	33,498	20,420	13,789	11,366
Grand total ..	82,814	95,701	98,534	112,921	128,891	132,947	104,625	79,662	80,013

(a) Sources: 1924-25 to 1930-31.—Report to the Congress on Certain Vegetable Oils, Whale Oil and Copra, by United States Tariff Commission, 1932, Report No. 41, second series. 1931-32 and 1932-33.—Yearbook of the U. S. Department of Agriculture, 1934.

(b) Included in "Miscellaneous vegetable oils."

(c) Included, if any, under "Miscellaneous vegetable oils."

(d) May include small quantities of animal fats and oils.

Note.—The years refer to the twelve months ending 30th June.

Ground nut oil is of much less importance as a raw material for oleo-margarine than either coconut oil or cottonseed oil, but it stands third among the vegetable oils so employed. The quantity used for margarine increased up to 1928-29 and subsequently declined, but throughout the period 1924-25 to 1932-33 it has only varied between 1,000 and 3,000 tons per annum and has formed little more than 2 per cent. of the total weight of oils and fats used. This is about half the share held in 1917 and two-thirds of its share in 1912. Nevertheless, ground nut oil suffered less than cottonseed oil from the greatly increased use of coconut oil, probably because cottonseed oil is not an admissible constituent of "nut margarine." Table 50 shows the relative importance of the oil and fat constituents of margarine in 1912, 1917 and annually since 1924-25.

TABLE 50.—*Oils and Fats used in the Manufacture of Oleo-Margarine in the United States of America*(a)
(In per cent.)

	1912.	1917.	1924- 25.	1925- 26.	1926- 27.	1927- 28.	1928- 29.	1929- 30.	1930- 31.	1931- 32.	1932- 33.
<i>Vegetable—</i>											
Coconut oil ..	0.4	7.9	42.9	45.8	48.8	55.7	59.4	62.1	66.5	71.7	75.0
Cottonseed oil ..	26.8	25.3	11.3	12.0	10.6	9.8	9.8	10.1	9.4	8.3	8.0
Ground nut oil ..	3.7	4.2	2.4	2.5	2.2	2.2	2.3	1.9	2.3	2.1	1.0
Palm kernel oil ..				0.1	0.02	0.05	0.01	—	—		
Palm oil ..			0.2	0.4	0.3	0.4	0.5	0.4	1.2	(b)	(b)
Sesame oil ..			0.1	0.1	0.05	0.01	—	—	0.04	(c)	(c)
Corn oil ..	1.4	3.0	0.1	0.1	0.1	0.01	—	—	0.07	0.04	0.0
Soya bean oil ..			—	—	0.01	—	—	0.2	1.0	0.01	0.0
Miscellaneous ..			—	—	0.05	—	—	—	—	(d) 0.5	(d) 0.0
Total ..	32.3	40.4	57.0	61.0	62.1	68.2	72.0	74.7	80.5	(d) 82.7	(d) 85.0
<i>Animal—</i>											
Oleo oil ..	42.3	38.5	23.8	22.1	22.1	17.9	16.3	15.3	12.1	8.6	7.0
Neutral lard ..	22.2	16.9	13.8	11.7	11.3	9.9	8.4	6.6	4.3	5.9	5.0
Oleo stearin ..	1.4	0.9	2.8	2.5	2.3	2.2	2.0	2.1	2.3	2.4	1.0
Oleo stock ..	0.1	1.4	1.7	1.4	1.1	0.7	0.4	0.4	0.4	0.4	0.0
Butter ..			0.8	1.1	0.9	1.0	0.9	0.9	0.4	0.02	0.0
Miscellaneous ..	1.7	1.9	0.1	0.2	0.2	0.1	—	—	—	(c)	(c)
Total ..	67.7	59.6	43.0	39.0	37.9	31.8	28.0	25.3	19.5	17.3	14.0
Grand Total ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Source: *Years 1912 and 1917—*"Copra and Coconut Oil," by K. Snodgrass; the figures are stated to have been taken from official sources. *Years 1924-25 onwards—*based on figures in Table 49 above.

(b) Included under "Miscellaneous vegetable oils."

(c) Included, if any, under "Miscellaneous vegetable oils."

(d) May include small quantities of animal fats and oils.

The manufacture of soap affords another outlet for ground nut oil, but its importance in this industry is very small owing to its relatively high price. The published statistics of the oils and fats utilised by the soap industry of the United States of America show that the weight of ground nut oil increased considerably from 1912 to 1921 when it amounted to 4,900 tons or less than 3 per cent. of the aggregate vegetable fats and oils utilised. Thereafter there was a fairly consistent decline both in the absolute amount and proportion utilised, and by 1932 only 700 tons or less than 0.3 per cent. were so used. The available statistics regarding the principal oils and fats used in the soap industry in the United States of America are summarised in Tables 104-106 in Volume II of this series*.

The difference between the weight of kernels crushed and the weight of oil produced in the United States of America, as shown in the second and third columns of Table 46, represents the approximate weight of ground nut cake produced. This increased from an annual average of 9,000 tons in the period 1924-27 to an annual average of 16,000 tons in the period 1928-30, but fell to 13,000 tons in the period 1931-33. Imports for consumption averaged 1,300 tons in the earlier and 6,700 tons in the later period, but fell to about 2,000 tons in 1931 and 1932. The decline commenced in June, 1930, when a duty of 0.3 cents per lb. was imposed on these imports which had previously been admitted free. Exports of ground nut cake are not separately classified in the trade returns, and it may be assumed that they are small.

* E.M.B. 61. Survey of Oilseeds and Vegetable Oils ; Coconut Palm Products.

CHAPTER 14

SPAIN

The ground nut acreage in Spain is small and stationary ; it averaged less than 19,000 acres in the pre-war quinquennium and about 20,000 acres in recent years. It thus stands in marked contrast to that under olives, Spain's most important oleaginous product, which increased from about 3½ million acres in the pre-war quinquennium to about 4½ million acres in recent years. The acreage and production of ground nuts in Spain during the pre-war quinquennium and annually from 1924 is shown in Table 51 ; it will be observed that the recorded yield is unusually high.

TABLE 51.—*Area under Ground Nuts and Production in Spain(a)*

Year.	Area. (In acres.)	Production. (In tons : undecorticated)	Yield per acre. (In hundreds of lb : undecorticated)
1909-13 (Average) ..	18,715	15,476	19
1924	20,954	21,032	25
1925	19,830	21,168	24
1926	18,730	20,504	24
1927	21,102	24,055	25
1928	22,464	26,785	27
1929	20,178	25,591	28
1930	19,158	26,686	31
1931	19,585	18,700	21
1932	22,204	20,049	20

(a) Source : Year Books of the International Institute of Agriculture, Rome.

Ground nuts are not separately classified in the Spanish foreign trade returns, and Table 52, showing the figures during the pre-war quinquennium and annually from 1924, has accordingly been compiled from the trade returns of other countries ; these should be regarded as approximate estimates. These estimates and the figures for miscellaneous oilseeds, including ground nuts, recorded in the Spanish trade returns show the same downward trend in imports

during the post-war period under review with a very marked decline from 1927, and a consistently small export trade. Imports of ground nuts into Spain as estimated in Table 52 averaged 30,000 tons per

TABLE 52.—*Foreign Trade of Spain in Ground Nuts*
(In thousands of tons)

D. = Decorticated. U. = Undecorticated. T. = Estimated Total (decorticated basis).

Note.—In the absence of details of the foreign trade in Ground Nuts in the Spanish Trade Returns, the following figures have been compiled from the Trade Returns of the consignee and consignor countries.

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Exports to Spain from—</i>											
India .. D.	1.2	23.4	23.1	4.0	7.0	0.7	0.1	0.6	0.1	—	(b)
China .. D.	(a)	23.5	24.8	9.6	3.7	—	—	—	(a)	—	—
U.	0.1	(a)	0.2	—	—	—	—	0.1	0.1	—	—
France .. D.	4.2	0.2	0.2	(a)	(a)	(a)	(a)	(a)	—	(b)	(b)
U.	1.3	0.4	0.2	0.2	0.1	0.1	0.1	0.1	(a)	(b)	(b)
Nigeria .. U.	(b)	—	—	2.8	1.0	—	—	—	—	—	(b)
Total .. D.	5.4	47.1	48.1	13.6	10.7	0.7	0.1	0.6	0.1	} (b)	(b)
U.	1.4	0.4	0.4	3.0	1.1	0.1	0.1	0.2	0.1		
T.	6	47	48	16	12	1	(c)	1	(c)		
<i>Imports from Spain by—</i>											
Netherlands D. & U.	} 1.1	1.1	0.8	0.8	0.7	0.8	0.8	0.9	0.8	0.7	0.6
United States of America D.		1.3	0.5	(a)	—	—	0.1	—	—	—	} (b)
U.	1.2	(a)	0.1	0.1	(a)	0.1	(a)	0.1	—		
Canada .. D.	} (b)	0.3	0.1	0.1	(b)	(b)	(b)	(b)	(b)	(b)	
U.		(a)	(a)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	
Total D. & U.	3.6	1.9	1.0	1.0	0.7	1.0	0.8	1.0	0.8	0.7	0.6
T.	3	2	1	1	1	1	1	1	1	1	1
<i>Import balance—</i>											
D. and U. ..	3.2	45.6	47.5	15.6	11.1	(d) 0.2	(d) 0.6	(d) 0.2	(d) 0.6	(d) 0.7	(d) 0.6
T. ..	3	45	47	15	11	(a) (d)	(d) 1	(a) (d)	(d) 1	(d) 1	(d) 1

(a) Negligible.

(b) Not available but known to be small and ignored in totals and balances.

(c) Less than 500 tons.

(d) Export balance.

annum in the period 1924-27 and less than 1,000 tons per annum in the period 1928-31 ; imports of miscellaneous oilseeds as recorded in the Spanish trade returns averaged 45,000 tons per annum in the earlier period and 2,000 tons per annum in the latter. In the pre-war quinquennium all oilseeds and nuts were shown under one heading in the Spanish trade returns, but on the available evidence only a small part of the annual average import of 70,000 tons was ground nuts.

Imports, almost all of which were supplied by India and China, according to the foregoing estimate and the information available from the trade returns, rose from about 6,000 tons per annum in the pre-war quinquennium to nearly 50,000 tons per annum in 1924 and 1925, but fell to less than one-third of this weight in 1926 and 1927 and then virtually ceased. This followed upon a decree promulgated in June 1926 prohibiting the import of ground nuts and certain other oilseeds, but the ban was temporarily lifted during part of 1927 because of the partial failure of the 1926-27 olive crop. No appreciable quantity of ground nut oil was imported into Spain in any of the years under review.

Spain exports only small quantities of ground nuts, the annual averages for the pre-war quinquennium and for the post-war period under review being 3,000 and 1,000 tons respectively. Spain has had no appreciable foreign trade in ground nuts since 1927 when the ban on imports became fully effective.

The foreign trade of Spain in ground nut oil and ground nut cake is known to be small, and neither commodity is separately classified in the trade returns.

If all the available ground nuts had been used for oil the available supplies of ground nut oil, ignoring stocks, would have averaged 5,000 tons per annum in the pre-war quinquennium, 20,000 tons per annum in the period 1924-27 and 10,000 tons per annum in the period 1928-31, but, although details are not available, it is known that appreciable quantities of ground nuts are consumed as nuts.

CHAPTER 15

JAPAN

The ground nut crop of Japan is comparatively unimportant, both in relation to world production of ground nuts and in relation to the other crops of Japan. Furthermore its importance is declining, the area under ground nuts having fallen from an average of 20,000 acres in the pre-war quinquennium to an average of less than 15,000 acres in the quinquennium 1927-31, and the production from 19,000 tons to 11,000 tons of nuts in the shell. Thus the reduction in acreage was accompanied by a smaller recorded yield per acre, but, having regard to yields in other countries, it is possible that the earlier yields were over-stated. The acreages and yields recorded in the pre-war quinquennium and annually from 1924 to 1931, the latest year for which information is available, are shown in Table 53.

TABLE 53.—*Area under Ground Nuts and Production in Japan(a)*

Year.	Area. (In acres.)	Production. (In tons : un- decorticated.)	Yield per acre. (In hundreds of lb. : un- decorticated.)
1909-13 (Average) ..	19,976	19,416	22
1924	23,321	16,456	16
1925	20,551	13,971	15
1926	16,484	12,511	17
1927	14,868	11,052	17
1928	14,406	10,670	17
1929	14,352	10,118	16
1930	14,001	10,432	17
1931	15,219	11,062	16

(a) Source : Year Books of the International Institute of Agriculture, Rome.

The trade returns of Japan only record trade with foreign countries, but imports from Formosa are the only ground nut statistics thereby excluded. These are shown up to 1930 in the export figures published by Formosa, and are included for those years in Table 54 which shows the foreign trade of Japan in ground nuts in the pre-war

TABLE 54.—*Foreign Trade of Japan in Ground Nuts*
(In tons)

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Imports—</i>											
China ..	} (a)	13,077	9,214	10,967	9,760	9,610	10,874	10,634	15,073	10,911	} 11,724 (d)
Kwantung Province		1,159	1,165	560	1,008	1,638	3,910	5,599	9,815	2,327	
Other Countries (b)		101	120	29	268	585	53	72	5	864	
Total ..	(a)	14,337	10,499	11,556	11,036	11,833	14,837	16,305	24,893	14,102	11,724
<i>Exports—</i>											
United States of America	3,350	36	763	3	1	136	—	—	1	—	} 7 (d)
Other Countries	961	141	555	158	126	155	62	67	66	8	
Total ..		4,311	177	1,318	161	127	291	67	67	8	7
Import balance	4,000 (c)	14,160	9,181	11,395	10,909	11,542	14,775	16,238	24,826	14,094	11,717
<i>Estimated Composition of Import Balance (in thousands of tons)</i>											
Decorticated	—	11	7	8	8	8	9	12	15	10	9
Undecorticated	(c) 4	3	2	3	3	4	5	4	10	4	3
Total (decorticated basis)	(c) 3	13	9	10	10	11	13	15	22	13	11
Percentage of decorticated nuts in import balance (decorticated basis) ..	—	85	78	80	80	73	69	80	68	77	82

(a) Not available. Judging by the exports to Japan from China which subsequently provided the bulk of the supplies, imports into Japan before the war probably did not much exceed 200 tons per annum.

(b) Including Formosa.

(c) Export balance.

(d) Details not yet available.

quinquennium and annually from 1924. Imports from Formosa reached a peak of 300 tons in 1928 but declined to 24 tons in 1930 and were not separately classified in later years when it may be assumed that they were negligible. The Japanese trade returns do not differentiate between decorticated and undecorticated ground nuts, but exports were negligible in the post-war period under review and about 80 per cent. of the imports were received from China in whose trade returns the two classes are shown separately. It is therefore possible to make a fairly close estimate of the weight of decorticated ground nuts included in the Japanese import balance ; this has been done for each year from 1924 and the estimated weight of undecorticated ground nuts in the import balance thus obtained. Table 54 summarises the foreign trade in ground nuts.

Imports of ground nuts were not separately classified in the trade returns of Japan before the war, but judging by the imports from China the pre-war figure may be estimated at between 200 and 300 tons. Imports have exceeded 10,000 tons in every year from 1924 ; a peak of 25,000 tons was reached in 1931, but imports had declined to less than half that amount by 1933. As already stated, China supplies about 80 per cent. of these imports ; most of the balance is provided by Kwantung Province.

Exports are small and declining. Only 7 tons were exported in 1933 but exports exceeded 4,000 tons per annum in the pre-war quinquennium, mostly in the shell, and were consigned to the United States of America.* Decorticated ground nuts form the bulk of the import balance.

The statistics of production and foreign trade show that the decorticated weight of ground nuts available for consumption in Japan from 1924 to 1931 averaged about 22,000 tons per annum. This is equivalent to about 9,000 tons of ground nut oil, and, as the foreign trade of Japan in ground nut oil is not separately classified in the trade returns, a closer estimate of the ground nut oil available for consumption in Japan is not obtainable. The foreign trade in ground nut cake is also not separately classified.

* In this connection *see* page 91.

CHAPTER 16

ARGENTINA

Argentina like the United States of America retains almost all the ground nuts it produces, but whereas very little of the crop of the United States of America is crushed for oil, about three-fifths of the ground nuts produced in Argentina are used for that purpose. The ground nut acreage in Argentina trebled between the pre-war quinquennium and 1924; subsequently there was little variation until 1932, about 60,000 tons of ground nuts being produced annually from about 130,000 acres, concentrated largely in the Province of Cordoba. In 1933, production increased to 102,000 tons from a record area of over 200,000 acres. Linseed is, of course, the principal oleaginous crop of Argentina, covering an area more than 50 times as great as that usually devoted to ground nuts. Table 55 shows the area and production of ground nuts in Argentina during the pre-war quinquennium and annually from 1924.

TABLE 55.—*Acreage and Production of Ground Nuts in Argentina (a)*

Year.	Area. (In acres.)	Production. (In tons: uncorticated)	Yield per acre. (In hundreds of lb: uncorticated)
1909-13 (Average) ..	38,488	17,000(b)	10(b)
1924	130,629	46,817	8
1925	147,025	67,476	10
1926	130,111	57,651	10
1927	139,152	63,688	10
1928	130,899	58,000(b)	10(b)
1929	111,442	64,536	13
1930	123,758	65,382	12
1931	116,088	57,724	11
1932	193,393	77,034	9
1933 (c)	205,600	102,300	11

(a) Source: Year Books of Agricultural Statistics, published by the International Institute of Agriculture, Rome.

(b) Estimates based on the average yield in the other years shown, i.e., 1,000 lb. per acre.

(c) Provisional. Source: Monthly Crop Report of the International Institute of Agriculture, September, 1934.

Imports of ground nuts, which averaged about 2,500 tons per annum in the pre-war quinquennium, varied irregularly during the post-war period under review from 3 tons in 1927 to over 6,000 tons in 1931, averaging about 2,000 tons per annum or about 3 per cent. of the domestic production. Germany and China are usually the principal consignors. Exports were less than 50 tons in every year after 1925. Table 56 shows the foreign trade in ground nuts in the pre-war quinquennium and annually from 1924, together with the estimated available supplies of ground nuts in those years, ignoring stocks particulars of which are not available. The trade returns do not

TABLE 56.—*The Foreign Trade of Argentina in Ground Nuts, and the Estimated Available Supplies*

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Imports from—</i>										
Germany	299	5	1,296	627	—	—	1,600	345	2,158	—
China	522	50	689	1,253	—	—	199	2,544	1,507	—
British Possessions	331	—	151	99	—	—	1,236	—	1,408	—
Other Countries	(a) 1,320	193	81	405	3	5	1,347	227	1,135	(b) 98
Total	2,472	248	2,217	2,384	3	5	4,382	3,116	6,208	98
Exports	15	1,287	146	19	15	35	36	10	25	44
Import Balance (actual weight)	2,457	(c) 1,039	2,071	2,365	(c) 12	(c) 30	4,346	3,106	6,183	54
Import Balance (estimated decorticated equivalent)	2	(c) 1	2	2	(c) (d)	(c) (d)	4	3	5	(d)
Domestic Production (decorticated basis)	13	35	51	43	48	44	48	38	43	58
Available for consumption (decorticated basis) ..	15	34	53	45	48	44	52	41	48	58

- (a) Includes 695 tons from France.
- (b) All from "French Possessions."
- (c) Export balance.
- (d) Less than 500 tons.

separate decorticated from undecorticated ground nuts but the amounts involved are relatively small and, for the purpose of estimating the weights on a decorticated basis as shown in Table 56, it has been assumed that one-half were decorticated and one-half undecorticated. The margin of error involved does not exceed 1,200 tons in 1931, the peak year.

During the period 1924–33 the estimated supplies of ground nuts available for consumption in Argentina averaged about 50,000 tons (decorticated basis) per annum or the equivalent of about 20,000 tons of ground nut oil. During this period the production of ground nut oil averaged about 12,000 tons per annum and it therefore appears that 40 per cent. of the available supplies of ground nuts were consumed in other manufactures or were eaten as nuts. Imports of ground nut oil are not separately classified in the trade returns of Argentina but they are clearly very small and exports of ground nut oil are negligible.

From the average annual production of 12,000 tons of ground nut oil there remains a residue of about 23,000 tons of ground nut cake most of which is exported as the Argentine live stock industry does not utilise concentrated feed to any extent. The trade returns of Argentina do not separately classify exports of ground nut cake, but Table 57 shows the position from 1929 as revealed by the trade returns of the importing countries. The table commences with 1929 because the trade returns of Germany, the principal market, did not separately classify ground nut cake in earlier years.

TABLE 57.—*Estimated Exports of Ground Nut Cake from Argentina*
(In tons)

	1929.	1930.	1931.	1932.	1933.
<i>Imports from Argentina by—</i>					
Germany	17,596	9,064	15,254	15,562	9,434
Sweden	1,687	1,327	5,134	1,543	2,896
United Kingdom	1,450	1,238	1,288	418	4,816
Netherlands	1,648	404	526	346	905
Total	22,381	12,033	22,202	17,869	18,051

Exports of ground nut cake from Argentina to Germany (which took three-fourths of the whole), Sweden, the United Kingdom and the Netherlands averaged about 20,000 tons per annum during the period 1929-33. This is probably a close estimate of the total exports of ground nut cake from Argentina, for the countries named above took 90 per cent. of all the oil cakes exported from Argentina during the period in question. Argentina was the second largest exporter of ground nut cake among the ground nut producing areas during the period in question, India being first with an annual average of 175,000 tons.

CHAPTER 17

OTHER FOREIGN COUNTRIES

The other producing countries grow ground nuts mainly for domestic consumption, and are unimportant as exporters. Egypt is the principal exporter of this residual group, her exports averaging less than 600 tons of ground nuts per annum in the period 1929-32. Her production during this period amounted to about 16,000 tons per annum. Formosa produced two or three times this average amount during the same period, and the Belgian Congo about five times as much, but in each case the average exports of ground nuts were less than 200 tons per annum. Korea, Indo-China and the Philippine Islands are other Asiatic countries producing ground nuts ; Madagascar and Ruanda Urundi are additional African producers ; and Uruguay, Paraguay and Mexico contribute to the production of the American continent.

There is no appreciable export of ground nut oil or ground nut cake from any ground nut producing country not already dealt with in preceding chapters.

PART II

IMPORT

BRITISH EMPIRE COUNTRIES

CHAPTER 18

UNITED KINGDOM

Imports of ground nuts into the United Kingdom were unimportant before the War, but increased rapidly during the War period; some ground was lost during the slump of 1921 and 1922, but most of this has since been regained.

Ground nuts now rank fifth among the oilseeds and nuts imported into the United Kingdom. The annual imports have averaged 121,000 tons in the period 1930-33, as compared with 476,000 tons of cottonseed, 292,000 tons of linseed, 134,000 tons of palm kernels and 130,000 tons of soya beans. Only France and Germany are larger importers of ground nuts, but they each import more than twice as much as the United Kingdom, which, though third, in order of importance, takes only slightly more than the Netherlands or Italy which come next on the list of importing countries.

The trade returns of the United Kingdom do not reveal the total imports of ground nuts, but only those imported for the manufacture of oil. Other ground nuts—for use in cakes or sweetmeats or for consumption as nuts—are included under the heading "Fruit, and nuts used as fruit; unenumerated." The weight of ground nuts included under this heading is not known, but such imports from China, which are probably all ground nuts, averaged about 4,500 tons per annum in the period 1924-32. Ground nuts probably form part of the imports recorded under this heading from Java, India and other countries, but even if all such imports were of ground nuts, which is not likely, the aggregate imports of ground nuts for purposes other than the manufacture of oil would not have exceeded 20,000 tons per annum in recent years. Probably they did not attain even half this amount, and it may thus be estimated that over 90 per cent. of the ground nut imports into the United Kingdom are used for the manufacture of oil.

Imports of ground nuts for the manufacture of oil were not separately classified in the trade returns of the United Kingdom until 1917, but the trade returns of the principal exporting countries show an average annual export to the United Kingdom in the pre-war

quinquennium of about 3,000 tons of decorticated and 5,000 tons of undecorticated ground nuts. The small imports before the War are due to the fact that the oil milling industry was then largely interested in the production of oil-cake and meal and therefore concentrated on the working up of seeds and nuts with a low oil content. The War brought a huge demand for oils and fats, and gave an impetus to the import, *inter alia*, of ground nuts. The foreign trade of the United Kingdom in ground nuts intended for the manufacture of oil is shown annually from 1917 in Table 58.

Imports of ground nuts in the years 1917-19 averaged about 100,000 tons, decorticated basis, or more than ten times the estimated annual imports in the pre-war quinquennium. Imports varied considerably between 1920 and 1927, but they consistently exceeded 100,000 tons, decorticated basis, per annum from 1928 to 1933 except in 1932 when they were not much less. Re-exports are small, averaging only 1,500 tons per annum since 1928. Variations in the retentions of ground nuts are to some extent dependent upon the variations in the imports of ground nut oil, and examination of the trends is therefore postponed to a later paragraph.

From 1920, the first year in which imports of decorticated ground nuts were separated in the trade returns from imports of undecorticated nuts, imports of decorticated ground nuts declined more rapidly than imports of undecorticated nuts. The proportion of kernels imported as such fell from 41 per cent. of the total imports, decorticated basis, in 1920 to 25 per cent. in 1923. The subsequent recovery in ground nut imports was marked by increased imports of decorticated nuts and decreased imports of undecorticated nuts, the proportion of kernels imported as such rising from 40 per cent. in 1924 to 87 per cent. in 1932.

The principal sources of supply of the ground nuts imported into the United Kingdom annually from 1924 are shown in Table 59. The proportion of these imports, decorticated basis, received from Empire countries increased from 60 per cent. in 1924 to 75 per cent. in 1931. In 1932 and 1933 the share of Empire countries rose still further, as a result of the 10 per cent. tariff imposed in March, 1932, on ground nuts imported from foreign countries. In 1933, the United Kingdom derived 99 per cent. of its decorticated and 96 per cent. of its undecorticated ground nuts from Empire sources.

TABLE 58.—*Foreign Trade of the United Kingdom in Ground Nuts intended for the Manufacture of Oil*

Year.	Imports.						Re-exports.		Amount retained.		Total, decorticated basis. (Thous. tons)
	From British countries.		From Foreign countries.		Total.		Decorticated. (Tons)	Undecorticated. (Tons)	Decorticated. (Tons)	Undecorticated. (Tons)	
	Decorticated. (Tons)	Undecorticated. (Tons)	Decorticated. (Tons)	Undecorticated. (Tons)	Decorticated. (Tons)	Undecorticated. (Tons)					
1917	97,472		40,286		137,758		1,370		136,388		113 (a)
1918	128,783		6,985		135,768		—		135,768		113 (a)
1919	100,977		6,131		107,108		521		106,587		89 (a)
1920	39,277	75,332	3,846	5,839	43,123	81,171	459	1,384	42,664	79,787	103
1921	30,824	45,407	2,581	16,591	33,405	61,998	8,369	2,701	25,036	59,297	70
1922	9,627	31,491	2,594	22,044	12,221	53,535	2,778	866	9,443	52,669	49
1923	17,652	30,733	1,618	46,600	19,270	77,333	3,069	1,390	16,201	75,943	73
1924	23,785	34,944	9,476	31,021	33,261	65,965	7,912	2,999	25,349	62,966	73
1925	46,733	29,587	12,653	44,289	59,386	73,876	8,119	1,221	51,267	72,655	106
1926	31,090	25,906	4,453	40,525	35,543	66,431	3,630	1,717	31,913	64,714	80
1927	20,959	4,650	5,548	17,770	26,507	22,420	1,951	206	24,556	22,214	41
1928	49,298	25,693	1,115	45,111	50,413	70,804	1,088	485	49,325	70,319	102
1929	83,212	12,848	1,391	36,879	84,603	49,727	1,837	562	82,766	49,165	120
1930	64,379	18,462	18,054	14,352	82,433	32,814	478	839	81,955	31,975	106
1931	93,979	5,862	16,279	22,550	110,258	28,412	1,122	1,608	109,136	26,804	129
1932	73,299	12,263	7,597	3,656	80,896	15,919	291	511	80,605	15,408	92
1933	96,149	33,209	565	1,627	96,714	34,836	10	125	96,704	34,711	123

(a) Assuming the same proportion between decorticated and undecorticated ground nuts as in the period 1920–21. Decorticated and undecorticated ground nuts were not shown separately in the trade returns until 1920.

TABLE 59.—Imports of Ground Nuts into the United Kingdom for the Manufacture of Oil

D. = Decorticated.

U. = Undecorticated.

T. = Estimated Total (decorticated basis).

Countries.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>British countries—</i>										
<i>India (British ports)—</i>										
D. (tons)	11,484	36,223	20,555	17,119	44,966	73,254	43,824	79,483	53,535	62,903
U. (tons)	1,178	684	17	143	972	2,197	1,219	1,819	4,050	6,941
T. (thous. tons)	12	37	21	17	46	75	45	81	57	68
<i>Nigeria—</i>										
D. (tons)	10,979	10,403	9,923	2,884	3,836	9,498	18,317	14,367	9,429	25,885
U. (tons)	515	2,709	2,759	1,248	21	539	4,258	309	1,118	3,026
T. (thous. tons)	11	12	12	4	4	10	21	15	10	28
<i>Gambia—</i>										
D. (tons)	—	—	—	—	—	—	—	—	—	31
U. (tons)	29,907	22,306	20,830	2,995	24,285	8,982	11,900	2,920	5,922	23,186
T. (thous. tons)	23	17	16	2	18	7	9	2	4	18
<i>Other British countries—</i>										
D. (tons)	1,322	107	612	956	496	460	2,238	129	10,335	7,330
U. (tons)	3,344	3,888	2,300	264	415	1,130	1,085	814	(a) 1,173	(a) 56
T. (thous. tons)	4	3	2	1	1	1	3	1	11	7
<i>Total—</i>										
D. (tons)	23,785	46,733	31,090	20,959	49,298	83,212	64,379	93,979	73,299	96,149
U. (tons)	34,944	29,587	25,906	4,650	25,693	12,848	18,462	5,862	12,263	33,209
T. (thous. tons)	50	69	51	24	69	93	78	99	82	121
<i>Foreign countries—</i>										
<i>French West and Equatorial Africa—</i>										
D. (tons)	—	2,164	1,540	—	77	233	539	18	—	10
U. (tons)	23,548	37,294	29,473	5,838	33,429	27,706	8,765	18,278	2,820	—
T. (thous. tons)	18	30	24	4	25	21	7	14	2	(b)

China—											
D. (tons)	8,887	3,635	2,245	2,833	323	446	9,476	9,244	671	33	
U. (tons)	3,975	2,032	5,071	3,936	3,033	2,265	961	1,313	185	249	
T. (thous. tons)	12	5	6	6	3	2	10	10	1	(b)	
India (Foreign ports)—											
D. (tons)	—	5,672	—	1,425	—	—	5,244	5,662	5,925	350	
U. (tons)	—	—	900	—	—	—	500	—	—	—	
T. (thous. tons)	—	6	1	1	—	—	6	6	6	(b)	
Other Foreign countries—											
D. (tons)	589	1,182	668	1,290	715	712	2,795	1,355	1,001	172	
U. (tons)	3,498	4,963	5,081	7,998	8,649	6,908	4,128	2,959	651	1,378	
T. (thous. tons)	3	5	4	8	7	6	6	3	1	1	
Total—											
D. (tons)	9,476	12,653	4,453	5,548	1,115	1,391	18,054	16,279	7,597	565	
U. (tons)	31,021	44,289	40,525	17,770	45,111	36,879	14,352	22,550	3,656	1,627	
T. (thous. tons)	33	46	35	19	35	29	29	33	10	2	
and Total—											
D. (tons)	33,261	59,386	35,543	26,507	50,413	84,603	82,433	110,258	80,896	96,714	
U. (tons)	65,965	73,876	66,431	22,420	70,804	49,727	32,814	28,412	15,919	34,836	
T. (thous. tons)	83	115	86	43	104	122	107	132	92	123	
Percentages of total im- } D.											
ports derived from } U.	72	79	87	79	98	98	78	85	90	99	
British countries } T.	53	40	39	21	36	26	56	21	77	96	
	60	60	59	56	66	76	73	75	89	98	
Proportion (in per cent.) of decorticated nuts imported to total imports (decorticated basis)											
	40	52	41	62	48	69	77	84	88	79	
Percentage of world supplies (decorticated basis) taken by the United Kingdom ..											
	8	9	7	3	7	8	7	9	9	9	

(a) All from British East Africa in 1932 and the bulk in 1933.

(b) Less than 500 tons.

Apart from British East Africa which supplied 10,000 tons of decorticated ground nuts in 1932 and 7,000 tons in 1933, compared with less than 500 tons per annum previously, the increase in the imports of decorticated ground nuts from Empire countries is most marked in the case of imports from British ports in India which supplied an average of 21,000 tons per annum in the period 1924-27 and an average of 60,000 tons in the period 1928-33. Imports from foreign ports in India, which are mainly the produce of British India, averaged 1,800 tons per annum in the former period and 2,900 tons per annum in the latter. Nigeria, the only other important Empire source of decorticated ground nuts prior to 1932, maintained a relatively stable trade averaging 12,000 tons per annum apart from 1927 and 1928 when disease in the crop materially reduced her exports. There was a marked increase in 1933, when the trade amounted to nearly 26,000 tons. The Gambia supplies about one-third of the undecorticated ground nuts imported into the United Kingdom for the manufacture of oil, and imports from this source fell from an average of 19,000 tons per annum in the period 1924-27 to an average of 13,000 tons in the period 1928-33.

French West and Equatorial Africa was the principal foreign source of supply in most years since 1924, but the volume imported varied appreciably from year to year. It fell for instance from 24,000 tons, decorticated basis, in 1926 to 4,000 tons in 1927, and following a recovery to 25,000 tons in 1928, has since shown a downward trend. China is the second principal foreign country supplying ground nuts to the United Kingdom, but imports from this source declined heavily from about 12,000 tons, decorticated basis, in 1924 to less than 1,000 tons in 1933 with a break in 1930 and 1931, when they reached 10,000 tons per annum. Imports from China are mainly in the decorticated state, while imports from French West and Equatorial Africa are almost entirely undecorticated.

A small and decreasing part of the ground nuts imported into the United Kingdom is re-exported. In the period 1924-27 an average of about 6,500 tons, decorticated basis, out of the average gross imports of 82,000 tons were re-exported annually, whereas in the period 1928-32 the re-exports averaged about 1,000 tons out of gross imports of 110,000 tons and in 1933 less than 150 tons were re-exported. Until 1930, when the position was reversed, decorticated ground nuts constituted the bulk of the re-export trade which up to 1932, was carried on mainly with Germany and the Netherlands. The re-export trade is summarised in Table 60.

TABLE 60.—*Re-exports of Ground Nuts from the United Kingdom*

D. = Decorticated. U. = Undecorticated. T. = Estimated Total (decorticated basis)

Countries.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Germany—</i>										
D. (tons)	3,088	4,061	439	799	418	1,516	241	257	140	—
U. (tons)	674	358	276	25	87	316	111	189	—	—
<i>Netherlands—</i>										
D. (tons)	4,526	3,910	2,376	1,057	388	222	205	40	—	—
U. (tons)	1,967	665	479	100	362	170	233	606	—	21
<i>Other Countries—</i>										
D. (tons)	298	148	815	95	282	99	32	825	151	10
U. (tons)	358	198	962	81	36	76	495	813	511	104
<i>Total—</i>										
D. (tons)	7,912	8,119	3,630	1,951	1,088	1,837	478	1,122	291	10
U. (tons)	2,999	1,221	1,717	206	485	562	839	1,608	511	125
T. (thous. tons) ..	10	9	5	2	1	2	1	2	1	(a)

(a) Less than 500 tons.

The bulk of the oil manufactured from the imports of ground nuts is consumed in the United Kingdom ; a decreasing amount is exported, partly in the refined and partly in the unrefined state. Table 61 shows annually from 1924 the distribution of the exports of unrefined and refined ground nut oil produced in the United Kingdom.

TABLE 61.—*Exports of Ground Nut Oil produced in the United Kingdom*
(In tons)

	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Unrefined Oil—</i>										
Netherlands ..	3,799	9,474	7,434	2,313	7,530	4,400	3	1,100	41	7
Canada ..	(a)	(a)	(a)	—	1,433	3,898	1,250	950	366	2,259
Germany ..	2,298	9	—	988	10	20	—	400	18	18
Belgium ..	1,866	954	70	—	—	—	—	—	—	—
United States of America ..	—	—	1,148	2	1,411	20	—	—	—	—
Other Countries	245	100	447	247	156	97	149	67	109	41
Total ..	8,208	10,537	9,099	3,550	10,540	8,435	1,402	2,517	534	2,325
<i>Refined Oil—</i>										
British Countries	422	361	525	410	817	1,403	1,170	1,871	832	631
Foreign Countries	1,095	455	242	216	140	873	506	374	295	512
Total ..	1,517	816	767	626	957	2,276	1,676	2,245	1,127	1,143
Grand Total ..	9,725	11,353	9,866	4,176	11,497	10,711	3,078	4,762	1,661	3,468

(a) Included, if any, in " Other Countries."

In the period 1924-29 exports of unrefined ground nut oil averaged about 8,000 tons per annum or about eight times the exports of refined oil, but in the years 1930-33 the exports of refined and unrefined oil were about 1,500 tons and 1,700 tons per annum respectively. The Netherlands was the principal market for unrefined ground nut oil exported from the United Kingdom between 1924 and 1929, but Canada held that position in the period 1930-33. Germany, Belgium and the United States of America were important markets in some of the earlier years of the period under review, but have taken little or nothing since 1928. The greater part of the exports of refined oil were consigned to foreign countries in 1924 and 1925, but Empire countries, notably the Irish Free State, were the heavier importers in subsequent years.

Since 1920, with the exception of 1923 and 1924, the United Kingdom has imported larger quantities of ground nut oil than it has exported. These imports, together with the re-exports and retentions, are shown in Table 62 annually from 1920, the first year in which ground nut oil was separately classified in the trade returns.

TABLE 62.—*Foreign Trade of the United Kingdom in Imported Ground Nut Oil*
(In tons)

Year.	Imports.			Re-exports.	Amount of Imported Oil retained.
	Unrefined.	Refined.	Total.		
1920	9,698	552	10,250	360	9,890
1921	7,294	1,671	8,965	78	8,887
1922	5,222	2,748	7,970	174	7,796
1923	1,109	2,096	3,205	4	3,201
1924	2,094	2,945	5,039	137	4,902
1925	3,036	8,468	11,504	277	11,227
1926	10,895	2,589	13,484	235	13,249
1927	16,393	4,462	20,855	136	20,719
1928	11,104	4,739	15,843	193	15,650
1929	17,657	4,676	22,333	216	22,117
1930	15,734	6,637	22,371	130	22,241
1931	13,222	5,765	18,987	107	18,880
1932	3,663	1,348	5,011	16	4,995
1933	4,012	1,402	5,414	3	5,411

Between 1920 and 1923 imports of ground nut oil into the United Kingdom declined from 10,000 to 3,000 tons despite an appreciable increase in the imports of the refined oil. Imports of refined and unrefined ground nut oil then increased rapidly to an aggregate of over 22,000 tons in 1929 and 1930. Imports declined to 19,000 tons in 1931, and fell heavily in 1932 and 1933 when they returned to the 1924 level of about 5,000 tons. Re-exports have not reached 300 tons in any year since 1920.

There are no appreciable imports of refined ground nut oil from Empire countries and almost all the unrefined oil imported into the United Kingdom before 1931 was received from foreign countries, but in that year imports of unrefined oil from India, previously less than 100 tons per annum, rose to 626 tons and in 1932 1,516 tons were received from this source. With a view to increasing the proportion of imports derived from Empire sources, an import duty of 10 per cent. *ad valorem* was imposed in March, 1932, on ground nut oil imported from foreign sources, and this was increased to 15 per cent. under the Ottawa Agreements Act with effect from 1st January, 1933. As a result, during 1933 imports from India aggregated 3,780 tons, or 70 per cent. of the total imports of ground nut oil.

The countries supplying the bulk of the ground nut oil imported into the United Kingdom since 1924 are shown in Table 63.

TABLE 63.—*Sources of Supply of Imports of Ground Nut Oil into the United Kingdom*
(In tons)

	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Unrefined Oil—</i>										
Germany	—	307	476	4,374	6,811	14,596	11,643	4,505	190	49
China	1,760	724	1,444	4,433	—	—	1,705	5,921	1,616	—
Netherlands ..	137	1,780	8,826	6,186	3,608	2,858	2,064	380	132	159
Other Countries ..	197	225	149	1,400	685	203	322	2,416	1,725	3,804 (a)
Total	2,094	3,036	10,895	16,393	11,104	17,657	15,734	13,222	3,663	4,012
<i>Refined Oil—</i>										
Netherlands ..	2,537	8,216	2,269	2,957	3,471	2,988	4,287	3,597	792	648
Germany	—	14	18	269	196	1,164	1,083	342	45	254
Sweden	29	20	105	822	561	209	583	508	68	—
France	188	101	130	148	249	176	124	179	101	112
Other Countries ..	191	117	67	266	262	139	560	1,139	342	388
Total	2,945	8,468	2,589	4,462	4,739	4,676	6,637	5,765	1,348	1,402
Grand Total.. ..	5,039	11,504	13,484	20,855	15,843	22,333	22,371	18,987	5,011	5,414

(a) Includes 3,780 tons from India compared with 626 tons in 1931 and 1,516 tons in 1932. Corresponding figures for all years between 1924 and 1931 are not available, but imports from India are known to have been small in those years.

During the period 1924–33 the average annual import of unrefined oil was 9,800 tons of which Germany supplied 4,300 tons, the Netherlands 2,600 tons and China 1,800 tons. The trade is marked by wide fluctuations in the importance of the principal sources of supply. For example there were no recorded imports from China in 1928 or 1929 but that country was the principal source of supply in 1924, 1931 and 1932. Changes in the volume of the imports and sources of supply of refined ground nut oil were much less marked. The bulk of the imports was supplied by the Netherlands in each year of the period under review, but the proportion fell from 93 per cent. in the period 1924–26 to 62 per cent. in the period 1929–33, chiefly as a result of increased imports from Germany.

Table 64 shows the estimated amount of ground nut oil available for consumption in the United Kingdom in each year from 1920, ignoring changes in stocks, particulars of which are not available. The Census of Production Reports for 1924 and 1930 show the production as about 30,000 tons in 1924 and about 50,000 tons in

TABLE 64.—*Estimated Amount of Ground Nut Oil Available for Consumption in the United Kingdom*
(In thousands of tons)

Year.	Estimated Oil Equivalent of Ground Nuts retained.	Exports of Oil Produced in the United Kingdom.	United Kingdom Production retained.	Retentions of Imported Oil.	Estimated Amount available for Consumption.
1920 ..	41	1	40	10	50
1921 ..	28	3	25	9	34
1922 ..	20	3	17	8	25
1923 ..	29	5	24	3	27
1924 ..	29	10	19	5	24
1925 ..	42	11	31	11	42
1926 ..	32	10	22	13	35
1927 ..	16	4	12	21	33
1928 ..	41	11	30	16	46
1929 ..	48	11	37	22	59
1930 ..	42	3	39	22	61
1931 ..	52	5	47	19	66
1932 ..	37	2	35	5	40
1933 ..	51	3	48	5	53

1930, as compared with estimates of 29,000 and 42,000 tons shown in Table 64. The differences probably represent the utilisation of nuts from stock, which was no doubt larger in 1930, when the price of ground nuts was falling heavily, than in 1924 when the price was still rising. The Census of Production also shows that ground nut oil was the only vegetable oil of which considerably more was produced in 1930 than in 1924.

The estimated amount of ground nut oil available for consumption in the United Kingdom fell from 50,000 tons in 1920 to 24,000 tons in 1924, the retentions of imported oil and domestic production both being halved. The decline in the retentions of imported oil was wholly the result of smaller imports, but the fall in the retentions of oil produced in the United Kingdom was attributable partly to smaller imports of ground nuts and partly to increased exports of oil. Between 1920 and 1924, retentions of ground nuts fell from 41,000 tons (oil equivalent), to 29,000 tons, whilst exports of ground nut oil produced in the United Kingdom rose from 1,000 to 10,000 tons. In 1923 and 1924, by exception, the exports of ground nut oil produced in the United Kingdom exceeded the retentions of imported oil. In 1925 and 1926 the retained imports of ground nuts and ground nut oil were larger than in 1924 and the exports of oil produced in the United Kingdom remained about the same. The estimated amounts of ground nut oil available for consumption in 1925 and 1926 were therefore greater than in 1924, but the supplies in 1926 were smaller than in 1925 and a further decline occurred in 1927. Subsequently, domestic exports of ground nut oil declined and retentions of domestic and imported ground nut oil increased, the estimated amount of ground nut oil available for consumption in the United Kingdom consequently rising from 46,000 tons in 1928 to 66,000 tons in 1931. This increase was partly due to the increased use of ground nut oil for salad oil and for culinary purposes, and partly to its increased use in the manufacture of margarine and compound lard. The smaller demand for margarine and the substitution of cheaper oils and fats in that industry largely explain the fall in the supplies of ground nut oil from 66,000 tons in 1931 to 40,000 tons in 1932. In 1933, the amount of ground nut oil consumed in the manufacture of margarine, compound lard and soap showed little change compared with the previous year (*see* Table 69) and the heavy increase in supplies in that year can therefore only be explained either by a further widening of the miscellaneous uses for this oil or by a large addition to stocks.

Table 65 shows the oils and fats used annually from 1927 in the manufacture of margarine in the United Kingdom as indicated on returns made to the Empire Marketing Board and the Imperial Economic Committee by firms responsible for about 90 per cent. of the total production.

TABLE 65.—*Oils and Fats used in the Manufacture of Margarine in the United Kingdom by Reporting Firms (a)*
(In thousands of tons)

	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Vegetable oils and fats—</i>							
Coconut	44	56	57	45	45	37	28
Ground nut	17	18	31	32	28	12	13
Cottonseed	20	17	16	19	15	13	5
Palm kernel	22	14	11	18	11	18	14
Soya bean	12	11	4	6	7	14	14
Sunflower seed ..	—	6	11	4	3	11	7
Miscellaneous ..	2	2	2	4	2	3	2
Total	117	124	132	128	111	108	83
<i>Animal oils and fats—</i>							
Oleo	9	6	7	5	3	2	2
Stearine	2	2	2	3	3	3	3
Butter	1	1	1	1	2	2	1
Premier jus	2	2	2	1	2	2	2
Lard	3	3	3	2	1	1	1
Total	17	14	15	12	11	10	9
<i>Whale oil</i>	25	29	29	32	34	46	56
Grand Total ..	159	167	176	172	156	164	148

(a) Compiled from returns collected by the Empire Marketing Board and the Imperial Economic Committee from manufacturers responsible for about 90 per cent. of the total production.

Throughout the period 1927–33, coconut oil was the principal vegetable oil used in the manufacture of margarine in the United Kingdom. Ground nut oil ranked fourth in 1927, was second from 1928 to 1931, and fifth in 1932 when only 12,000 tons were used as

compared with a peak of 32,000 tons in 1930. In 1933, the consumption of vegetable oils fell by nearly 25 per cent. compared with the previous year; but the consumption of ground nut oil was about 1,000 tons greater than in 1932. Ground nut oil is usually the dearest of the competing vegetable oils, and its use is therefore largely dependent upon the demand for the better grades of margarine. In 1932 and 1933, the demand for the better grades of margarine had fallen, owing to the low price of butter, and the use of ground nut oil in margarine was in consequence the smallest during the period under review. As shown in Table 66, the ground nut oil then used for the

TABLE 66.—*Oils and Fats used in the Manufacture of Margarine in the United Kingdom by Reporting Firms*(a)
(In per cent.)

	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Vegetable oils and fats—</i>							
Coconut	28	33	32	26	29	22	19
Ground nut	11	11	18	19	18	8	9
Cottonseed	12	10	9	11	10	8	4
Palm kernel	14	8	6	11	7	11	9
Soya bean	7	7	2	3	4	9	9
Sunflower seed ..	—	4	6	2	2	6	5
Miscellaneous ..	1	1	1	2	1	2	1
Total	73	74	74	74	71	66	56
<i>Animal oils and fats—</i>							
Oleo	6	4	4	3	2	1	1
Stearine	1	1	1	1	2	2	2
Butter	1	1	1	1	1	1	1
Premier jus	1	1	1	1	1	1	1
Lard	2	2	2	1	1	1	1
Total	11	9	9	7	7	6	6
<i>Whale oil</i>	16	17	17	19	22	28	38
Grand Total ..	100	100	100	100	100	100	100

(a) Compiled from returns collected by the Empire Marketing Board and the Imperial Economic Committee from manufacturers responsible for about 90 per cent. of the total production.

manufacture of margarine represented only 8 and 9 per cent. respectively of the total oils and fats used in the industry, as compared with 11 per cent. in 1927 and a peak of 19 per cent. in 1930. The rise in the proportion of whale oil and soya bean oil utilised is a further consequence of the shift in demand to the cheaper varieties of margarine.

The quantity of fats and oils used in the production of compound lard in the United Kingdom increased by over 50 per cent. between 1927 and 1933, according to returns rendered to the Imperial Economic Committee by firms responsible for about 85 per cent. of the total production. Table 67, which has been compiled from these returns, shows the quantities of the various fats and oils used in the manufacture of compound lard annually from 1927.

TABLE 67.—*Oils and Fats used in the Manufacture of Compound Lard in the United Kingdom by Reporting Firms (a)*
(In thousands of tons)

	1927(b).	1928(b).	1929.	1930.	1931.	1932.	1933.
<i>Vegetable oils and fats—</i>							
Cotton seed	12	11	14	14	14	14	16
Ground nut	5	6	6	7	10	9	9
Soya bean	5	6	6	6	6	9	9
Palm	(c)	(c)	2	2	2	2	2
Palm Kernel	1	1	1	1	1	1	(c)
Miscellaneous	(c)	(c)	(c)	(c)	(c)	1	2
Total	23	24	29	30	33	36	38
<i>Animal oils and fats</i> (Principally stearine)..	1	1	1	1	1	1	1
<i>Marine oils</i> (Almost entirely whale)	5	6	6	6	7	7	8
Grand Total	29	31	36	37	41	44	47

(a) Compiled from returns collected by the Imperial Economic Committee from manufacturers responsible for about 85 per cent. of the total production.

(b) Incomplete; omits one firm included in 1929 and subsequent years. The firm consumed about 2,000 tons of oils and fats in 1929.

(c) Less than 500 tons.

Throughout the period shown, cottonseed oil was the principal oil used and together with ground nut, soya bean and whale oil, represented about 90 per cent. of the total oils and fats consumed. Compound lard is used largely as a shortening in biscuit and confectionery making, for domestic cooking, and for frying to an extent which depends on the relative price of lard. Ground nut oil being a relatively dear oil, enters principally into the better grades of compound lard; nevertheless, of the total oils and fats consumed for this purpose in the United Kingdom, ground nut oil represented 17 per cent. in 1927 and increased to 24 per cent. in 1931 but has since somewhat declined. It is thus relatively more important in the manufacture of compound lard than in the manufacture of margarine or soap.

TABLE 68.—*Oils and Fats used in the Manufacture of Soap in the United Kingdom by Reporting Firms(a)*
(In thousands of tons)

	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Vegetable oils and fats—</i>							
Palm	47	50	44	40	37	37	46
Palm kernel	40	38	33	33	32	32	31
Coconut	7	8	13	14	14	15	15
Cotton	12	4	8	7	5	4	1
CN/PK acid	6	5	5	4	4	4	5
Soya bean	2	10	6	3	3	3	1
Ground nut	1	1	1	2	2	1	1
Miscellaneous	4	5	9	12	15	9	12
Total	119	121	119	115	112	105	112
<i>Animal oils and fats—</i>							
Tallow	64	61	58	58	61	62	57
Bone grease	6	6	6	6	5	7	6
Miscellaneous	1	1	1	1	1	1	1
Total	71	68	65	65	67	70	64
<i>Whale oil</i>	10	12	14	21	20	24	25
Grand Total	200	201	198	201	199	199	201

(a) Compiled from returns collected by the Empire Marketing Board and the Imperial Economic Committee from manufacturers responsible for about 90 per cent. of the total production.

Tallow, palm oil and palm kernel oil are the principal oils and fats used in the United Kingdom for the manufacture of soap, which industry absorbs less ground nut oil than does the manufacture of either margarine or compound lard. The total consumption of oils and fats in the manufacture of soap in the United Kingdom remained remarkably steady at about 200,000 tons per annum during the period 1927-33, but the share of ground nut oil was less than 1 per cent. Ground nut oil has no outstanding technical advantage over competing oils in the manufacture of soap and its relatively high price considerably restricts its use for this purpose. The quantities of the various oils and fats used in the manufacture of soap annually from 1927 is shown in Table 68, which has been compiled from returns rendered to the Empire Marketing Board and the Imperial Economic Committee, by firms responsible for about 90 per cent. of the total production.

Table 69 shows annually from 1927 the consumption of ground nut oil in the United Kingdom by categories.

TABLE 69.—*The Consumption of Ground Nut Oil in the United Kingdom, by Categories*

Year.	Estimated available Supplies of Ground Nut Oil.	Margarine.		Compound Lard.		Soap.		Balance for Other Uses. (b)	
		Estimated Weight of Ground Nut Oil consumed. (a)	Proportion of available Supplies.	Estimated Weight of Ground Nut Oil consumed. (a)	Proportion of available Supplies.	Estimated Weight of Ground Nut Oil consumed. (a)	Proportion of available Supplies.	Estimated Weight of Ground Nut Oil.	Proportion of available Supplies.
	Thous. tons.	Thous. tons.	Per cent.	Thous. tons.	Per cent.	Thous. tons.	Per cent.	Thous. tons.	Per cent.
1927	33	19	58	6	18	1	3	7	21
1928	46	20	44	7	15	1	2	18	39
1929	59	34	57	7	12	1	2	17	29
1930	61	36	59	8	13	2	3	15	25
1931	66	31	47	12	18	2	3	21	32
1932	40	13	33	11	28	1	2	15	37
1933	53	14	26	11	21	1	2	27	51

(a) Estimated on the basis that the figures of ground nut oil consumption in Tables 65 and 68 represent 90 per cent. of the total and in Table 67, 85 per cent. of the total.

(b) Including additions to stock.

The manufacture of margarine, compound lard and soap absorbed about two thirds of the supplies of ground nut oil available in the United Kingdom during the period 1927-33. The actual weight of ground nut oils so used was greatest in the years 1929-31 amounting to 44,000 tons a year, but fell to about 25,000 tons in 1932 and 1933. The proportion of the available supplies used for margarine, compound lard and soap fell from three-quarters in 1930 to one-half in 1933. The balance of the ground nut oil is used in a variety of ways, but principally as salad oil and for culinary purposes. In recent years these uses have increased their call upon ground nut oil and the proportion of available supplies so used has no doubt increased although the heavy increase in 1933 in supplies available for purposes other than margarine, soap and compound lard is probably attributable in large part to a rise in stocks.

Most of the ground nut cake or meal remaining from the manufacture of oil from ground nuts is consumed as cattle food, either alone or mixed with other oilseed residuals. These supplies are supplemented by imports of about equal weight, the total forming about 10 per cent. of the available supplies of all oilseed cake in the United Kingdom. Table 70 shows the estimated supplies of ground nut cake available annually in the United Kingdom from 1924, ignoring stocks

TABLE 70.—*Estimated Amount of Ground Nut Cake available for consumption in the United Kingdom*

Year.	Estimated Oilcake equivalent of retained Imports of Ground Nuts.	Exports of Ground Nut Cake manufactured in United Kingdom.	Retentions of Ground Nut Cake manufactured in United Kingdom.	Retained Imports of Ground Nut Cake.	Available Supplies.	Proportion of Domestic Produce in Supplies.
	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Per cent.
1924	59	5	54	75	129	42
1925	82	2	80	59	139	58
1926	65	7	58	52	110	53
1927	31	3	28	71	99	28
1928	79	6	73	77	150	49
1929	84	2	82	84	166	49
1930	72	1	71	98	169	42
1931	84	1	83	101	184	45
1932	59	2	57	48	105	54
1933	80	1	79	109	188	42

particulars of which are not available. The figures for 1924 and 1930 agree approximately with those shown in the Census of Production for those years.

Available supplies of ground nut cake and meal showed a marked rising trend in recent years, although in 1932 they fell by 79,000 tons to 105,000 tons. Except in 1927 when imports of ground nuts were unusually low, about one-half of these supplies was produced in the United Kingdom.

The principal sources of the imported supplies are shown in Table 71 which summarises the foreign trade of the United Kingdom in ground nut cake during the period 1924-33.

TABLE 71.—*Foreign Trade of the United Kingdom in Ground Nut Cake*
(In tons)

	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Imports from—</i>										
British										
Countries—										
India.. ..	62,237	53,376	48,189	64,982	69,345	73,514	85,040	94,371	46,212	102,830
Other British										
Countries ..	5,455	439	235	155	243	501	271	837	989	1,968
Total ..	67,692	53,815	48,424	65,137	69,588	74,015	85,311	95,208	47,201	104,800
Foreign										
Countries—										
France ..	3,164	3,477	2,274	3,189	5,387	2,570	7,748	3,894	415	558
Other Foreign										
Countries ..	5,706	5,762	5,547	6,886	5,542	8,816	7,443	3,499	1,245	5,151
Total ..	8,870	9,239	7,821	10,075	10,929	11,386	15,191	7,393	1,660	5,706
Grand Total ..	76,562	63,054	56,245	75,212	80,517	85,401	100,502	102,601	48,861	110,506
<i>Exports and</i>										
<i>Re-exports—</i>										
Exports ..	4,675	2,047	7,423	2,840	5,551	2,410	1,140	1,344	1,838	1,314
Re-exports ..	1,730	4,347	4,091	4,124	3,286	1,396	2,691	2,041	960	1,042
Total ..	6,405	6,394	11,514	6,964	8,837	3,806	3,831	3,385	2,798	2,356
Import balance ..	70,157	56,660	44,731	68,248	71,680	81,595	96,671	99,216	46,063	108,150
Percentage of im- ports derived from British Countries ..	88	85	86	87	86	87	85	93	97	95

India is by far the largest source of these imports and is responsible for almost all the Empire supplies which exceeded 90 per cent. of the total between 1931 and 1933. Total imports averaged about 70,000 tons per annum in the period 1924-27 and about 90,000 tons per annum in the period 1928-31 ; they fell below 50,000 tons in 1932 but exceeded 110,000 tons in 1933. In recent years between 1,000 and 2,000 tons per annum were re-exported and exports of ground nut cake produced in the United Kingdom were of about the same magnitude.

CHAPTER 19

CANADA

Canada differs from most other industrialised countries in that she has only a small seed-crushing industry and, apart from linseed, imports almost all the vegetable oils she utilises. During the period 1924-33 Canada imported an annual average of about 12,000 tons of ground nut oil and about 10,000 tons of ground nuts (decorticated basis), but probably only a small proportion of the nuts was used for the production of oil. Statistics are not available to show the utilisation of ground nuts in Canada, but the consumption of ground nuts as edible nuts is believed to be large.

Ground nuts were not separately classified in the trade returns of Canada for the pre-war quinquennium. Table 72 shows the imports of ground nuts annually from 1924. Decorticated and undecorticated ground nuts were shown separately up to 1929 and

TABLE 72.—Imports of Ground Nuts into Canada

D. = Decorticated.
U. = Undecorticated.

Countries.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
	(a)	(a)								
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
China D.	1,601	1,816	1,945	1,783	2,391	3,257	} 8,758	11,042	6,978	11,163
U.	1,578	1,852	2,213	2,390	2,961	2,809				
United States of D.	1,292	3,050	3,596	3,488	3,245	3,316	} 2,050	1,578	2,814	625
America. U.	877	678	692	618	726	814				
Netherlands East D.	1,305	577	662	1,455	1,186	1,356	} 889	604	292	330
Indies. U.	14	—	(b)	(b)	(b)	—				
Other countries D.	356	208	409	69	45	45	} 43	45	51	38
U.	186	172	99	107	33	23				
Total D.	4,554	5,651	6,612	6,795	6,867	7,974	} 11,740	13,269	10,135	12,156
U.	2,655	2,702	3,004	3,115	3,720	3,646				
Estimated Total (decorticated basis)	Thous. tons. 7	Thous. tons. 8	Thous. tons. 9	Thous. tons. 9	Thous. tons. 10	Thous. tons. 11	Thous. tons. 11	Thous. tons. 12	Thous. tons. 9	Thous. tons. 11

(a) Fiscal year ending 31st March of year following that indicated.

(b) Included, if any, in "Other countries."

decorticated ground nuts formed between 70 and 75 per cent. of the total imports (decorticated basis) in each year from 1924 to 1929, but from 1930 imported ground nuts were classified either as "peanuts, green, shelled or not" or as "peanuts, not otherwise provided for."

The total weight (decorticated basis) of the ground nut imports averaged about 90 per cent. of the total actual weight of decorticated and undecorticated nuts imported during the period 1924-29 and did not vary from the average by more than 1 per cent. in any year during the period. The total weight (decorticated basis) of the imports during the years 1930-33 as shown in the last line of Table 72 has therefore been estimated at 90 per cent. of the total actual weight.

Imports, estimated for the pre-war quinquennium from the trade returns of exporting countries at only 3,000 tons per annum, rose steadily from 7,000 tons (decorticated basis) in 1924-25 to an annual average of about 11,000 tons between 1928 and 1933. Over 90 per cent. was received from China and the United States of America, supplies recorded as coming from China being about double those from the United States; but one-quarter of the latter or an average of about 800 tons per annum were Chinese nuts re-exported. The Canadian returns show larger quantities of ground nuts imported from China than are shown in the trade returns of China as exported to Canada, but the trade returns of the United States of America show smaller imports of ground nuts from China than are recorded in the Chinese trade returns. The differences approximately counterbalanced one another and are probably attributable to some confusion in the Chinese returns between exports to Canada and the United States.

Imports from Australia are as yet too small to be separately classified in the trade returns of either Canada or Australia, but by a Trade Agreement of 1931 Canada has agreed to put an import duty of 4 cents per lb. on all ground nuts except those from Australia when the Commonwealth is able to supply all Canada's requirements of ground nuts. At present there is a duty of 1 to 2 cents per lb. on ground nuts imported from other than British Empire countries, but this preference has not yet resulted in any appreciable import from Empire sources.

There are no recorded re-exports of ground nuts.

The pre-war trade returns contained no heading confined to ground nut oil and the only type of ground nut oil separately classified in the trade returns for the period 1924-32 was crude ground nut oil imported for refining for edible purposes. Ground nut oil imports for food, for the manufacture of soap, and for the canning of fish were, until March, 1933, shown under different headings each of which included at least one other oil. Nevertheless it is clear from these returns that the great bulk of the ground nut oil imported into Canada was crude oil for refining for edible purposes, and this is supported by the returns for the year ended 31st March, 1934, which, under a new system of classification introduced on 1st April, 1933, show the following details of the imports of ground nut oil.

	<i>Tons.</i>
Ground nut oil, crude, for refining for edible purposes	18,338
Ground nut oil for the manufacture of soap or for the canning of fish	1,734
Ground nut oil, edible	242

Table 73 shows annually from 1924 the imports of crude ground nut oil for refining for edible purposes.

TABLE 73.—*Imports of Crude Ground Nut Oil into Canada for Refining for Edible Purposes*

(In tons)

Countries.	1924. (a)	1925. (a)	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
China	4,584	3,205	12,257	1,134	180	—	9,139	12,230	1,045	2,659
United Kingdom	—	601	756	—	1,882	4,345	665	1,202	493	2,970
United States of America	6,982	2,751	4,136	1,014	1,982	2,430	15,052	6,714	190	976
Germany	—	—	—	—	2,289	7,081	392	—	344	2,546
Other countries	122	—	170	—	—	—	—	—	—	2,392
Total	11,688	6,557	17,319	2,148	6,333	13,856	25,248	20,146	2,072	11,543

(a) Fiscal year ending 31st March of year following that indicated.

Imports of crude ground nut oil for refining for edible purposes varied widely during the period under review, ranging from 2,000 tons to 25,000 tons. Germany and the United Kingdom supplied the bulk of the imports in 1928 and 1929 and nearly one-half in 1933, but comparatively little in other years when the bulk of the supplies came from China and the United States of America. The United States of America exports very little of its domestic production of ground nut oil and most of the recorded Canadian imports of oil from the United States consist of re-exports of Chinese produce. As already mentioned on page 96 of this Survey, part of the exports of ground nut oil from China to the United States of America is diverted to Canada before arrival in the United States. It is clear therefore that in most years the bulk of the ground nut oil imported into Canada was of Chinese origin.

The production and sale of margarine in Canada is prohibited and this limits to some extent the consumption of ground nut oil. The ground nut oil used for the manufacture of soap averaged only 300 tons per annum during the period 1924-32 as compared with over 10,000 tons per annum consumed as edible oil. Table 74 shows the annual quantities of the principal oils and fats employed for the manufacture of soap in Canada during the period 1924-32.

TABLE 74.—*Oils and Fats used in the Manufacture of Soap in Canada (a)*

(In tons)

	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
Coconut oil	4,210	3,870	5,167	6,366	7,457	9,089	8,869	7,847	8,067
Palm oil	1,163	2,965	2,676	2,985	2,773	2,513	2,543	3,861	2,833
Soya bean oil	1,003	1,174	1,370	959	1,126	2,812	2,748	1,609	780
Ground nut oil	160	312	203	199	195	253	596	599	281
Cotton-seed oil	65	79	147	78	100	67	88	80	315
Other vegetable oils	269	287	261	229	197	123	158	86	149
Fatty acids (stearic, etc.)	392	1,148	999	1,352	1,019	590	116	84	85
Tallow, grease and other soap stock	18,585	16,369	18,499	18,923	21,130	20,583	22,566	25,917	21,914
Total	25,847	26,204	29,322	31,091	33,997	36,030	37,684	40,083	34,424

(a) Sources: 1924-30—"Chemicals and Allied Products in Canada." 1931-32—"The Soap, Cleaning and Washing Compounds Industry in Canada, 1932." Both published by the Department of Trade and Commerce, Dominion Bureau of Statistics.

Canada's cattle, sheep and pig population, which numbers 17 million head, supplies much of the animal fats which form more than one-half of the oils and fats used in the manufacture of soap in Canada and limits the consumption of vegetable substitutes.

Plentiful supplies of fodder are supplemented by small imports of oilseed cake but there are no recorded imports of ground nut cake. Any exports of ground nut cake, which presumably would be small, are not separately classified.

CHAPTER 20

BRITISH MALAYA

British Malaya is an important source of supply of copra and is rapidly increasing in importance as an exporter of oil palm products. An Inter-Departmental Conference held in 1932 reviewed the possibilities of ground nut cultivation, which as yet is negligible. Details of the foreign trade in ground nuts, during the pre-war quinquennium and annually from 1924 are given in Table 75 which shows an import balance in each of the years under review. The trade returns do not differentiate between decorticated and undecorticated ground nuts, but an estimate of the weight of the kernels retained in British Malaya is given in the following Table.

TABLE 75.—Foreign Trade of British Malaya in Ground Nuts

	1909-13 (Average). (a)	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Imports from—</i>	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Netherlands	8,203	6,394	10,204	8,378	11,305	13,690	10,417	9,147	7,444	7,820	11,611
East Indies											
Other Countries	1,076	288	393	343	243	10,508 (b)	2,367 (c)	406	346	393	1,415
Total ..	9,279	6,682	10,597	8,721	11,548	24,198	12,784	9,553	7,790	8,213	13,026
<i>Exports to—</i>											
Siam ..	403	617	1,289	1,037	1,409	1,691	1,263	940	510	722	716
Netherlands											
East Indies	192	144	190	170	160	165	160	118	176	113	103
Hong Kong	2,046	27	342	1	419	11,224	1,928	110	70	439	188
Other Countries	610	123	972	545	910	2,659	1,081	439	253	243	280
Total ..	3,251	911	2,793	1,753	2,898	15,739	4,432	1,607	1,009	1,517	1,287
Import balance	6,028	5,771	7,804	6,968	8,650	8,459	8,352	7,946	6,781	6,696	11,739
<i>Estimated weight of kernels retained</i> (d)	Thous. tons. 5	Thous. tons. 5	Thous. tons. 7	Thous. tons. 6	Thous. tons. 8	Thous. tons. 8	Thous. tons. 8	Thous. tons. 7	Thous. tons. 6	Thous. tons. 6	Thous. tons. 11

(a) These figures represent the trade of the Straits Settlements after deducting the trade with the other Malayan States. Complete statistics for the whole of British Malaya are not available for this period, but the figures given here represent the bulk of the foreign trade.

(b) Includes 9,952 tons from India.

(c) Includes 2,124 tons from India.

(d) The trade returns of the Netherlands East Indies, the principal source of supply, show that two-thirds, by weight, of their exports of ground nuts to British Malaya are decorticated. Allowance has been made for the heavy shipments from India in 1928 and 1929; probably these were all decorticated. It has been assumed that the proportion of decorticated to undecorticated nuts is the same for exports as for imports.

The trade, which is confined to Asiatic countries, has fluctuated considerably, but the import balance remained fairly stable from 1925 to 1932 at about 7,000 to 8,000 tons per annum. Thus, the rise in imports in 1928 to over 24,000 tons, or nearly double the volume for any other year during the period under review, did not materially disturb the import balance which only rose to 8,500 tons. Import duties imposed in October, 1932, increased the incentive to import nuts rather than oil, and resulted in the erection of four or five oil mills. In 1933 imports of ground nuts rose by 50 per cent. and the import balance exceeded 11,000 tons. The Netherlands East Indies normally supplies over 90 per cent. of the imports, but its share was reduced to 57 per cent. in 1928 and to 81 per cent. in 1929 by exceptionally heavy shipments from India. Siam is the principal market for ground nuts exported from British Malaya, but in 1928 when the imports were abnormally high, Hong Kong, whose trade in ground nuts is mainly an entrepôt trade and normally of small importance to British Malaya, took over 11,000 tons.

In addition to its foreign trade in ground nuts, British Malaya has an appreciable trade in ground nut oil as shown in Table 76.

TABLE 76.—*Foreign Trade of British Malaya in Ground Nut Oil*
(In tons)

	1909- 13 (Average). (a)	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Imports from—</i>											
China ..	2,667	5,630	4,959	7,483	7,286	6,871	8,514	11,566	12,332	6,326	3,740
Netherlands											
East Indies	38	73	553	368	696	1,753	2,241	2,257	1,979	3,973	3,765
Hong Kong ..	4,023	3,789	3,746	3,611	4,083	3,505	2,058	572	84	50	397
Other Countries	7	27	145	14	8	1,065	808	36	22	52	261
Total ..	6,735	9,519	9,403	11,476	12,073	13,194	13,621	14,431	14,417	10,401	8,163
<i>Exports to—</i>											
Netherlands											
East Indies	260	452	347	467	480	453	487	570	531	447	523
Siam ..	88	285	335	311	337	377	307	306	317	363	384
Sarawak ..	7	52	61	58	75	149	240	279	231	274	319
Other Countries	23	136	132	167	83	343	274	90	47	29	52
Total ..	378	925	875	1,003	975	1,322	1,308	1,245	1,126	1,113	1,278
Import balance ..	6,357	8,594	8,528	10,473	11,098	11,872	12,313	13,186	13,291	9,288	6,885

(a) These figures represent the trade of the Straits Settlements after deducting the trade with the other Malayan States. Complete statistics for the whole of British Malaya are not available for this period, but the figures here given represent the bulk of the foreign trade.

Imports of ground nut oil steadily increased from 6,700 tons per annum in the pre-war quinquennium to 9,500 tons in 1924 and 14,400 tons in 1931, but fell to 10,000 tons in 1932 and 8,000 tons in 1933 as a result of the import duties already mentioned. Imports from China constituted about 40 per cent. of the trade in the pre-war quinquennium and about 60 per cent. in each of the post-war years under review prior to 1930. In 1930 and 1931 they averaged 12,000 tons per annum and represented 80 per cent. of the trade but in 1932 and 1933 they averaged only 5,000 tons or 55 per cent. In these years imports from the Netherlands East Indies, the next largest source of supply, were about doubled, averaging nearly 4,000 tons whilst Hong Kong, which supplied over 3,000 tons per annum prior to 1929, was responsible for less than 300 tons per annum in subsequent years.

The estimated supplies of ground nut oil and ground nuts (in oil equivalent) available for consumption in British Malaya during the pre-war quinquennium and annually since 1924 are shown in Table 77.

TABLE 77.—*Estimated quantities of Ground Nut Oil and Ground Nuts (in oil equivalent) available for consumption in British Malaya*
(In thousands of tons)

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
Import balance of ground nut oil ..	6	9	9	10	11	12	12	13	13	9	7
Import balance of ground nuts (in oil equivalent)	2	2	3	2	3	3	3	3	2	2	4
Total ..	8	11	12	12	14	15	15	16	15	11	11

The increasing import balance of ground nut oil and the comparative stability of the import balance of nuts until 1933 have already been mentioned. As a result, the proportion of oil retentions to the available supplies of oil and nuts in oil equivalent has risen from 75 per cent. in the pre-war quinquennium to more than 80 per cent. over the period 1924-32. In 1933, for the reason already given, the proportion fell to 60 per cent.

The trade in ground nut cake is not separately classified.

FOREIGN COUNTRIES

CHAPTER 21

FRANCE

France, the first European country to import ground nuts, was the largest importer in the world before the War. After the War, imports into Germany increased very considerably, and in some recent years they were slightly greater than the imports into France which in 1933 amounted to 700,000 tons, decorticated basis, as compared with about 350,000 tons in the pre-war quinquennium.

Table 78 summarises the foreign trade of France in ground nuts annually from 1909.

TABLE 78.—*Foreign Trade of France in Ground Nuts*
(Special Trade)

Year.	Imports.		Re-exports.		Retentions.		
	Decorticated.	Un-decorticated.	Decorticated.	Un-decorticated.	Decorticated.	Un-decorticated.	Total (decorticated basis).
	(Tons.)	(Tons.)	(Tons.)	(Tons.)	(Tons.)	(Tons.)	(Thous. tons.)
1909 ..	157,578	215,701	10,545	15,068	147,033	200,633	298
1910 ..	175,229	237,349	9,887	16,699	165,342	220,650	331
1911 ..	175,525	213,302	4,288	14,895	171,237	198,407	320
1912 ..	241,312	218,822	5,574	13,426	235,738	205,396	390
1913 ..	233,950	251,622	2,157	16,727	231,793	234,895	408
1914 ..	265,497	265,871	1,879	12,333	263,618	253,538	454
1915 ..	125,636	269,718	3,556	7,887	122,080	261,831	318
1916 ..	217,866	140,328	1,378	3,066	216,488	137,262	319
1917 ..	104,001	131,633	104	485	103,897	131,148	202
1918 ..	9,470	72,659	14	339	9,456	72,320	64
1919 ..	81,065	142,213	299	506	80,766	141,707	187
1920 ..	173,654	213,576	496	1,823	173,158	211,753	332
1921 ..	152,444	229,902	678	4,216	151,766	225,686	321
1922 ..	214,004	236,029	1,041	3,959	212,963	232,070	387
1923 ..	261,061	237,995	672	5,730	260,389	232,265	435
1924 ..	212,056	288,566	1,199	6,130	210,857	282,436	423
1925 ..	228,689	328,211	1,463	4,983	227,226	323,228	470
1926 ..	237,603	320,478	1,026	5,008	236,577	315,470	473
1927 ..	210,413	333,473	817	3,858	209,596	329,615	457
1928 ..	324,528	286,161	596	3,779	323,932	282,382	536
1929 ..	359,712	304,512	1,052	3,647	358,660	300,865	584
1930 ..	336,261	369,431	218	1,944	336,043	367,487	612
1931 ..	339,064	351,572	550	1,540	338,514	350,032	601
1932 ..	445,969	220,456	501	963	445,468	219,493	610
1933 (a)	455,444	327,364	80	377	455,364	326,987	701

(a) Provisional.

From 1909 to 1914 imports of ground nuts rose and re-exports fell, the weight retained (decorticated basis) increasing from about 300,000 tons to about 450,000 tons per annum. During the War imports and re-exports progressively declined, the movement being most marked in 1917 and 1918. In the latter year imports totalled only 64,000 tons (decorticated basis), and re-exports were less than 500 tons. Post-war recovery was rapid as regards imports, but re-exports have never regained their pre-war dimensions and in recent years have formed less than one per cent. of the gross imports (decorticated basis) as compared with about 5 per cent. in the pre-war quinquennium. By 1923 retentions had almost returned to their 1914 level; they continued to increase fairly consistently but at a faster rate after 1927, and have exceeded 600,000 tons (decorticated basis) per annum since 1930 rising to 700,000 tons in 1933.

Decorticated ground nuts have generally constituted over one-half of the weight of ground nuts imported (decorticated basis), but in 1918, when imports were very small and mostly derived from Senegal, the proportion of decorticated nuts fell to 15 per cent. In recent years, the proportion of decorticated nuts increased substantially and in 1932-33 they formed two-thirds of the total imports of ground nuts (decorticated basis).

Table 79 shows the principal countries from which ground nuts were imported into France in the pre-war quinquennium and annually from 1924.

India supplies most of the French imports of decorticated ground nuts, and French West Africa, principally Senegal, the bulk of the undecorticated nuts. The share of the trade in decorticated nuts passing through British ports in India increased from about 60 per cent. in the pre-war quinquennium to about 80 per cent. in each of the years 1924 to 1929, but subsequently declined as a result of increased imports from West Africa and returned to 60 per cent. in 1932-33. Adding recorded imports from French ports in India—and these are mainly British produce—the pre-war share exceeded 90 per cent.; but the post-war shares were not materially different from those of British ports in India only. Except for the pre-war quinquennium, imports from French ports in India were considerably less than the recorded exports from these ports to France, but the totals for all India show much smaller differences. This is probably because the French trade returns are compiled by reference to the countries from which the goods are actually consigned to France.

TABLE 79.—Imports of Ground Nuts into France
(Special Trade)

D. = Decorticated. U. = Undecorticated. T. = Estimated Total (decorticated basis).

Countries	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933. (a)
<i>India (b)—</i>											
D. (tons)	117,923	163,130	182,654	194,154	157,391	261,294	287,967	250,170	242,306	255,387	302,086
U. (tons)	16,287	8,704	11,668	9,804	7,063	2,562	2,450	4,400	3,298	1,513	717
T. (thous. tons)	130	169	191	202	163	263	290	253	245	256	303
<i>French West Africa—</i>											
D. (tons)	632	4,496	11,313	6,404	129	(c)	3,449	6,487	1,540	5,333	4,926
U. (tons)	151,815	223,818	269,955	284,026	280,803	254,127	281,112	338,626	292,031	167,271	286,139
T. (thous. tons)	114	173	214	219	211	(d) 191	214	260	221	131	219
<i>British West Africa—</i>											
D. (tons)	536	12,777	19,761	23,074	24,886	39,938	57,165	45,257	62,156	115,618(a)	124,846
U. (tons)	44,420	18,880	16,931	14,805	22,851	21,437	16,502	23,209	46,248	44,162(a)	35,683
T. (thous. tons)	34	27	32	34	42	56	69	63	97	149(a)	152
<i>China—</i>											
D. (tons)	9,807	13,715	8,032	5,171	8,962	942	1,041	22,702	22,440	39,147	16,600
U. (tons)	1,438	13,361	10,039	5,748	11,536	4,970	3,360	1,678	3,662	2,873	4,546
T. (thous. tons)	11	24	16	10	18	5	4	24	25	41	20

<i>Other countries—</i>											
D. (tons)	67,821	17,938	6,929	8,800	19,045	22,354	10,090	11,645	10,622	30,484 ^(a)	6,986
U. (tons)	13,399	23,803	19,618	6,095	11,220	3,065	1,088	1,518	6,333	4,637 ^(a)	279
T. (thous. tons)	78	36	22	13	27	24	11	13	16	34 ^(a)	7
<i>Total—</i>											
D. (tons)	196,719	212,056	228,689	237,603	210,413	324,528	359,712	336,261	339,064	445,969	455,444
U. (tons)	227,359	288,566	328,211	320,478	333,473	286,161	304,512	369,431	351,572	220,456	327,364
T. (thous. tons)	367	429	475	478	461	539	588	613	603	611	701
Proportion (in per cent.) of imports of undecorticated ground nuts derived from French West Africa	67	78	82	89	84	89	92	92	83	76	87
Proportion (in per cent.) of decorticated nuts imported to total imports (decorticated basis)	54	49	48	50	46	60	61	55	56	73	65
Proportion (in per cent.) of world supplies (decorticated basis) taken by France	63	41	39	40	34	36	41	41	39	57	52

(a) Provisional.

(b) British India only; the only recorded imports from French India, included in the Table under "Other countries," during the years under review were as follows:—

	1909-13. (Average).	1924.	1926.	1928.	1930.	1932.
D. (tons)	63,486	98	—	4,880	634	191
U. (tons)	4,081	—	689	—	—	—

(c) Included in "Other countries."

(d) Incomplete.

In the pre-war quinquennium about 130,000 tons (decorticated basis) were recorded as imported from British ports in India and over 60,000 tons from French India as compared with about 110,000 tons from French West Africa. From 1924 to 1931 India's advantage was considerably less and in some years disappeared, but in 1932 and 1933 the annual imports from the British ports alone considerably exceeded the imports from French West Africa. In recent years from 400,000 to 500,000 tons, decorticated basis, have been received in the aggregate from these two countries annually, whereas less than 100,000 tons per annum were received from British West Africa until 1932 and less than 50,000 tons from China, the next largest consignors. Imports from British West Africa increased to about 150,000 tons in 1932 and 1933.

Prior to 11th August, 1933, no import duty was payable on ground nuts imported into France, but from that date, ground nuts, other than those produced in the French Colonies and Protectorates, were subjected to a duty of 8 francs per 100 kilogrammes if undecorticated and 11 francs per 100 kilogrammes if decorticated.† The French Colonies and Protectorates should also benefit from the fact that one-half of the revenue from the new duties referred to above and from the additional duties imposed as from the same date on oilseeds, animal, vegetable and marine oils, and manufactured articles derived from them such as margarine, soap, paint and linoleum, is to be used to subsidise the production of oilseeds in these territories. Further benefit may be expected from the system of import licences introduced on 23rd January, 1934. It is understood that licences are being issued on the following basis :—

Importers satisfying the following percentages of their requirements from French Colonies and Protectorates :—

99 undecorticated
 *75 undecorticated
 *50 decorticated,

may have licences to import the following percentages from other sources :—

1 undecorticated
 *25 decorticated
 *50 decorticated.

† These duties were increased by 4 per cent. of the duty from 16th August, 1934.

* These percentages have been altered on two occasions. During the first month of the scheme, the quota for decorticated nuts from French Colonies and Protectorates was 30 per cent. From February 22nd to July 12th, the quota for undecorticated nuts from French Colonies and Protectorates was 45 per cent., and for undecorticated nuts 70 per cent.

These provisions set no limit to total imports, but they promise a decided impetus to trade between France and her Colonies and Protectorates. In the first six months of the scheme (February-July, 1934), the total imports of ground nuts (decorticated basis) amounted to 367,000 tons compared with 398,000 tons in the same period of 1933; but whereas imports of undecorticated nuts increased by 44 per cent., there was a decline of more than one-third in the imports of decorticated nuts. The French Colonies and Protectorates supplied almost the whole of the imports of undecorticated nuts in these four months of 1934 compared with 84 per cent. in the corresponding period of the previous year and 19 per cent. of the decorticated nuts compared with a hitherto negligible share. Thus the quotas restore to these areas over 90 per cent. of the trade in undecorticated ground nuts, a share which they enjoyed in the period 1926-30, while the imports of decorticated ground nuts from foreign sources are substantially reduced both relatively and absolutely.

Table 80 shows the distribution of the small exports of ground nuts in the pre-war quinquennium and annually from 1924.

TABLE 80.—*Exports of Ground Nuts from France*
(Special Trade)

D. = Decorticated. U. = Undecorticated. T. = Estimated Total (decorticated basis).

Countries.	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933. (a)
<i>French Colonies and Protectorates—</i>											
D. (tons)	62	117	156	211	230	266	193	141	444	311	57
U. (tons)	2,468	2,139	1,709	1,705	1,509	1,883	2,095	1,122	1,051	733	328
T. (thous. tons) ..	2	2	1	2	1	2	2	1	1	1	(b)
<i>Other Countries—</i>											
D. (tons)	6,428	1,082	1,307	815	587	330	859	77	106	190	23
U. (tons)	12,895	3,991	3,274	3,303	2,349	1,896	1,552	822	489	230	49
T. (thous. tons) ...	16	4	4	3	3	2	2	1	1	(b)	(b)
<i>Total—</i>											
D. (tons)	6,490	1,199	1,463	1,026	817	596	1,052	218	550	501	80
U. (tons)	15,363	6,130	4,983	5,008	3,858	3,779	3,647	1,944	1,540	963	377
T. (thous. tons) ..	18	6	5	5	4	4	4	2	2	1	(b)

(a) Provisional.

(b) Less than 500 tons.

In the pre-war quinquennium nearly 90 per cent. of the exports were consigned to foreign countries, but by 1933 the proportion had fallen to less than one-quarter. In the pre-war quinquennium Russia and Austria-Hungary took one-half of the exports of undecorticated ground nuts, and Spain took two-thirds of the decorticated nuts, Algeria being the principal colonial market for

TABLE 81.—*Foreign Trade of France in Ground Nut Oil*
(Special Trade) (In tons)

Year.	Exports.	Imports.	Export Balance.
1909	16,994	90	16,904
1910	26,512	35	26,477
1911	18,542	57	18,485
1912	18,747	83	18,664
1913	23,847	31	23,816
1914	20,195	24	20,171
1915	26,611	887	25,724
1916	11,543	3,004	8,539
1917	5,211	2,035	3,176
1918	1,545	976	569
1919	1,788	3,248	1,460 ^(a)
1920	12,061	7,423	4,638
1921	36,959	4,644	32,315
1922	20,275	876	19,399
1923	26,482	549	25,933
1924	29,630	1,408	28,222
1925	23,988	1,567	22,421
1926	30,039	4,435	25,604
1927	27,889	5,680	22,209
1928	34,288	5,933	28,355
1929	38,478	5,953	32,525
1930	31,151	6,416	24,735
1931	43,841	3,013	40,828
1932	37,412	3,646	33,766
1933 (b) ..	39,824	4,352	35,472

(a) Import balance.

(b) Provisional. Estimated at eleven-twelfths of the gross weight, that being the average proportion in the years 1924-32.

each type. There were no recorded exports in the post-war period to the areas now included within the frontiers of Russia, Austria and Hungary, and exports to Spain declined heavily from 1926 as a result of import restrictions. Tripoli and Italy were the principal foreign markets, and Algeria and Tunis the principal colonial markets during the post-war period under review.

France is, on balance, a considerable exporter of ground nut oil. Apart from the War period, exports of ground nut oil have generally represented about 15 per cent. of production, whilst imports only exceeded 5 per cent. of available supplies in one year (1920) since 1909, and have generally been much smaller. In the pre-war quinquennium imports were negligible and the average export exceeded 20,000 tons. During the War, exports declined heavily and imports increased somewhat, so that the export balance fell rapidly to less than 600 tons in 1918. Exports increased less than imports in 1919, doubtless because of the time necessary to resume full production after the War, and an import balance of 1,500 tons resulted. The export balance was restored in 1920 and subsequently increased, averaging about 26,000 tons per annum in the period 1921-23, over 25,000 tons per annum in the quinquennium 1924-28 and about 35,000 tons in the period 1929-33. The foreign trade of France in ground nut oil annually from 1909 is summarised in Table 81.

Table 82 shows the distribution of the exports of ground nut oil in the pre-war quinquennium and annually from 1924.

The proportion of the total exports consigned to French Colonies and Protectorates increased from 27 per cent. in the pre-war quinquennium to 56 per cent. in 1924 and exceeded 80 per cent. in the period 1930-33. Algeria was the largest individual market and the only important colonial market in the pre-war quinquennium when it took an annual average of 5,400 tons. Several other French Colonies, notably Tunis, Morocco and Martinique, now take appreciable quantities of ground nut oil from France, but Algeria continues to be the most important market, taking over 20,000 tons per annum or about 60 per cent. of the total exports in the period 1929-33. Italy, the second largest market in the pre-war quinquennium, took only

TABLE 82.—*Exports of Ground Nut Oil from France*
(Special Trade)
(In tons)

Countries.	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933. (a)
<i>French Colonies and Protectorates—</i>											
Algeria	5,400	12,417	10,508	9,731	10,479	15,570	19,154	19,811	26,771	25,297	28,875
Tunis	16	555	761	2,050	2,850	2,444	2,507	859	2,321	1,226	602
Morocco	(b)	1,121	720	758	527	593	1,115	1,289	1,914	1,624	1,778
Martinique	(b)	877	574	692	264	383	1,190	1,451	1,777	1,088	2,052
Guadeloupe	(b)	659	648	652	223	483	861	938	1,228	773	1,279
Others	256	958	1,092	1,717	989	1,422	1,541	1,487	1,472	1,996	2,017
Total	5,672	16,587	14,303	15,600	15,332	20,895	26,368	25,835	35,483	32,004	36,603
<i>Foreign Countries—</i>											
Switzerland	1,845	4,487	2,771	3,084	2,568	3,021	3,098	2,657	3,248	2,572	1,653
Turkey	79	79	(b)	301	1,372	2,091	2,446	(b)	1,360	636	(c)
Belgium	828	738	475	534	(b)	151	340	875	1,210	1,058	656
Italy	3,726	3,513	3,158	6,761	6,901	6,136	3,804	265	457		
United States of America ..	2,950	222	438	343	266	334	(b)	(b)	(b)	1,142	912
United Kingdom	1,929	401	163	159	220	340	(b)	(b)	228	(c)	(c)
Others	3,899	3,603	2,680	3,257	1,230	1,320	2,422	1,519	1,855		
Total	15,256	13,043	9,685	14,439	12,557	13,393	12,110	5,316	8,358	5,408	3,221
Grand Total	20,928	29,630	23,988	30,039	27,889	34,288	38,478	31,151	43,841	37,412	39,824
Percentage exported to French Colonies and Protectorates ..	27	56	60	52	55	61	69	83	81	86	92

(a) Provisional. Net weights have been estimated at eleven-twelfths of the gross weight, that being the average proportion in the years 1924-32.

(b) Included, if any, in "Other countries."

(c) Not yet available.

small quantities after 1929 and the United States of America and the United Kingdom, which took 3,000 and 2,000 tons respectively in the pre-war quinquennium, have each taken less than 500 tons per annum in the post-war period under review. Switzerland was the principal market for ground nut oil exported from France to foreign countries in the period 1929-32, but the annual average was only about 3,000 tons.

Imports of ground nut oil, which previously only exceeded 1,000 tons per annum in the period 1916-21, rose from 1,400 tons in 1924 to 6,400 tons in 1930. They declined in 1931 and 1932 to about one-half of the 1930 level, but rose to 4,000 tons in 1933. A further decline is to be expected from the increased import duties imposed in August and October, 1933, and the quota restrictions introduced at the end of December, 1933. The "Minimum" tariff rates on ground nut oil in July, 1933, and the current rates which are to remain operative until 1st January, 1937, are as follows:—

Utilisation.	" Minimum " Rates, July, 1933.	Current " Minimum " Rates to 1st January, 1937 ^(a) .
	Francs per 100 kilogrammes.	Francs per 100 kilogrammes.
Soap-making	30	53
Edible fats	24	47
Other purposes	50	73

(a) Subject to an increase of 4 per cent. of the duty from 16th August, 1934.

The import quota for the first half of 1934, limited the imports of pure fixed vegetable oils for edible use or for the manufacture of edible fats to 5,800 metric tons or about one-half of the imports during the first half of each of the two preceding years. For the second half of 1934, no quota was allocated to ground nut oil, and the quota for other vegetable oils for edible use or for the manufacture of edible fats was reduced to 4,000 metric tons. The produce of French Colonies is not subject to import duties or quota restrictions, but exports of ground nut oil from these areas are small.

Table 83 shows the principal countries from which ground nut oil was consigned to France in the pre-war quinquennium and annually from 1924, and the purposes for which the imports are destined.

TABLE 83.—*Imports of Ground Nut Oil into France*
(Special Trade)
(In tons)

Countries.	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933. (a)
Netherlands ..	11	307	993	3,153	3,974	2,085	977	1,337	1,274	3,112	} 4,352
French West Africa	—	—	—	(b)	(b)	(b)	1,384	1,969	710	103	
Germany ..	(b)	(b)	11	(b)	(b)	75	1,973	1,854	1,677	584	
United Kingdom ..	(b)	1,030	323	908	932	333	544	828	354	45	
Belgium ..	36	36	—	201	188	1,006	794	150	75	21	
Other Countries ..	12	35	240	173	511	536	400	455	16	59	
Total ..	59	1,408	1,567	4,435	5,680	5,933	5,953	6,416	3,013	3,646	4,352
<i>Purposes for which imported—</i>											
Soap ..	} (c) 17	{ 906	1,108	4,243	2,787	4,795	4,427	4,226	1,504	495	841
Edible fats ..			327	133	1,155	542	46	175	813	3,018	3,468
Miscellaneous ..			25	132	59	1,738	596	1,480	2,015	696	133	43

(a) Provisional. Net weight and figures for individual countries not yet available, but only 29 tons were received from French Colonies and Protectorates. One-twelfth of the gross weights has been deducted to estimate the net weights, that being the average difference in the years 1924-32.

(b) Included, if any, in "Other Countries."

(c) 1913 only, not available for earlier years.

The Netherlands was the principal source of supply from 1925 to 1928 and again in 1931 and 1932, but imports from Germany, previously negligible, increased very considerably from 1928, and from French West Africa in 1929, the former taking the lead from the Netherlands in 1929 and the latter succeeding to it in 1930. In 1932 and 1933 imports from French West Africa declined heavily. The United Kingdom was the principal source of supply in 1924 but imports from that source were never large and have on the whole shown a tendency to decline.

In most of the years under review the imported ground nut oil was chiefly for utilisation in the soap industry and can on that account be assumed to have been for the main part of inferior quality. But the proportion of the imports for utilisation in the edible fats and miscellaneous industries has been growing in recent years and stood at about 80 per cent. in 1932 and 1933.

Table 84 shows the estimated amount of ground nut oil available for consumption in France annually from 1909, ignoring stocks, particulars of which are not available, and assuming that all the available supplies of ground nuts are used for oil.

TABLE 84.—*Estimated Amount of Ground Nut Oil available for Consumption in France*

(In thousands of tons)

Year.	Estimated Oil Equivalent of Retained Imports of Ground Nuts.	Export Balance of Ground Nut Oil.	Estimated Amount of Ground Nut Oil available for Consumption.
1909	119	17	102
1910	132	26	106
1911	128	18	110
1912	156	19	137
1913	163	24	139
1914	182	20	162
1915	127	26	101
1916	128	9	119
1917	81	3	78
1918	26	1	25
1919	75	1 ^(a)	76
1920	133	5	128
1921	128	32	96
1922	155	19	136
1923	174	26	148
1924	169	28	141
1925	188	22	166
1926	189	26	163
1927	183	22	161
1928	214	28	186
1929	234	33	201
1930	245	25	220
1931	240	41	199
1932	244	34	210
1933	280	35	245

(a) Import balance.

The available supplies of ground nut oil rose from about 100,000 tons in 1909 to about 160,000 tons in 1914, but fell to 25,000 tons in 1918. Since the War, supplies have increased with marked consistency, the 1914 level being regained in 1925 and the annual average since 1929 exceeding 200,000 tons.

There are no official statistics showing the relative importance of the various uses to which ground nut oil is put in France, but the Union Syndicale de l'Huilerie Française has supplied the following estimates, the total being as great as the highest shown in the preceding table.

	<i>Tons.</i>
Salad and cooking oil	140,000
Soap	60,000
Margarine	5,000
Miscellaneous uses (including utilisation in the wool textile and metallurgical trades)	40,000
Total	245,000

Thus the bulk of the ground nut oil available for consumption in France is used as a salad or cooking oil, in which uses it is gaining importance at the expense of olive oil. Supplies of olive oil in France during recent years were only about 10 per cent. above the average for the pre-war quinquennium, whereas supplies of ground nut oil had increased by nearly 70 per cent. It appears from the foregoing estimates that ground nut oil represents in each case about 15 per cent. of the weight of soap and margarine produced in France. These are larger proportions than obtain in the other countries for which information is available.

The French trade returns do not separately classify the imports or exports of ground nut cake, but show an export balance of all oil cakes, which averaged about 80,000 tons per annum in the pre-war quinquennium, about 100,000 tons per annum in the period 1924-27, and about 120,000 tons per annum in the period 1928-33. Exports of oil cakes were restricted during the War and until July, 1927. From the end of December, 1933, imports of oil cakes

have been restricted by quotas, amounting for the first nine months of 1934 to 58,000 metric tons or about 70 per cent. of the weight imported during the same period of 1933. Imported oil cakes with an oil content exceeding 12 per cent., are subject to a duty of 1 to 2 francs* per 100 kilogrammes according to the oil content ; further, imports under the quota scheme are subject to a license tax varying from 5 to 30 francs per 100 kilogrammes according to the oil content of the cake. From the figures of ground nut retentions, it may be estimated that approximately 400,000 tons of ground nut cake were produced annually in the period 1924-33, and it is clear that the bulk of this was retained for utilisation in the country.

* Subject to an increase of 4 per cent. of the duty from 16th August, 1934.

CHAPTER 22

GERMANY

Germany was, next to France, the largest importer of ground nuts during the pre-war quinquennium and for most of the post-war period under review, but whereas the imports of France were six times as large as Germany's during the pre-war quinquennium and in 1924, the margin thereafter narrowed considerably, and in 1928 and 1929 Germany imported more ground nuts than France or any other country. The annual imports into Germany, which were about 60,000 tons (decorticated basis) in the pre-war quinquennium and 70,000 tons in 1924 rose to over 350,000 tons in the period 1925-27 and to 600,000 tons in the period 1928-31. A heavy fall to 230,000 tons in 1932 was followed by a partial recovery to 300,000 tons in 1933. In April, 1933, the Maize Monopoly Law was applied to ground nuts and other oilseeds, but the small Monopoly Tax of 1 Rm. per metric ton* did not impede the rise in imports, which continued in 1934 when imports during the first nine months were 58 per cent. greater than in the same period of 1933.

Almost all the ground nuts imported are retained in Germany, principally for the manufacture of ground nut oil and cake. Until the heavy decline in the imports of ground nuts in 1932, ground nut oil was the principal vegetable oil consumed in Germany, its importance in comparison with other vegetable oils and with marine oil being indicated by the following official figures.

TABLE 85.—*Relative importance of the Vegetable and Marine Oils Consumed in Germany (a)*
(In per cent.)

	1929.	1930.	1931.	1932.
Ground nut oil	25	25	25	9
Soya bean oil	14	15	17	17
Linseed oil	13	10	13	16
Palm kernel oil	11	11	11	13
Coconut oil (including vegetable tallow)	15	10	9	9
Other vegetable oils and fats	8	10	9	11
Marine oil	14	19	16	25
Total	100	100	100	100

(a) Source : "Wirtschaft und Statistik," 1933, page 165.

* 120 Rm. per metric ton if for cattle feed.

Table 86 shows the imports of ground nuts into Germany during the pre-war quinquennium and annually from 1924. Decorticated and undecorticated ground nuts were not shown separately in the trade returns until 1928, and the total weights (decorticated basis) shown in the table as imported during the earlier years have been calculated on the proportions of decorticated and undecorticated ground nuts recorded as exported to Germany from the principal sources of supply.

The German trade returns show greater imports from the principal sources of supply than are credited to Germany in the trade returns of the exporting countries, the greatest differences relating to Indian ground nuts. As the Indian trade returns classify exports according to their declared final destination and the German trade returns are compiled by reference to the declared countries of origin, the apparent discrepancies are probably in part attributable to the fact that ground nuts shipped to the Netherlands and other entrepôts are subsequently consigned to Germany; while ground nuts exported through Portuguese ports in India account for a further part of the discrepancy.

The German trade returns show that India and French West Africa were close rivals in the German market during the pre-war quinquennium, each supplying about one-third of the 70,000 tons (actual weight) of ground nuts imported; during the post-war period under review India alone supplied nearly two-thirds of the annual average of over 400,000 tons imported. At their peak—nearly 500,000 tons in 1929—supplies from India were more than twenty times their pre-war average, whereas the combined imports from other countries increased less than five-fold. Until 1931, French West Africa continued to supply more than one-half of the undecorticated ground nuts imported into Germany, but the total imports of undecorticated ground nuts averaged under 70,000 tons per annum in the period 1928-33 as compared with nearly 430,000 tons of decorticated ground nuts. In 1932 and 1933 China supplanted French West Africa as the largest consignor of undecorticated ground nuts and also replaced British West Africa as India's closest competitor in the supply of decorticated ground nuts.

The increased imports from India raised the estimated share of decorticated ground nuts in the total imports (decorticated basis) from less than 60 per cent. in the pre-war quinquennium to over 80 per cent. in the post-war period under review. The increase in purchases of Indian nuts is attributed to the introduction of African

TABLE 86.—Imports of Ground Nuts into Germany
(Special Trade)

D. = Decorticated.
U. = Undecorticated.
T. = Estimated Total (decorticated basis).

Countries.	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.						
<i>India—</i>																	
D. (tons) ..	} 23,146	9,499	139,116	210,574	242,650	{ 451,272	492,182	412,376	396,013	150,069	208,097						
U. (tons) ..												(a)	(a)	7,421	2,841	10,701	
T. (thous. tons)												23	9	139	211	243	451	492	414	402	152	216
<i>China—</i>																	
D. (tons) ..	} 7,419	22,992	52,606	43,524	22,574	{ 3,527	4,285	50,565	39,780	38,083	23,249						
U. (tons) ..												6,538	5,363	6,947	16,814	11,676	14,205
T. (thous. tons)												6	22	48	41	21	9	8	56	52	47	34
<i>British West Africa—</i>																	
D. (tons) ..	} 7,264	21,972	60,002	57,982	51,923	{ 27,269	42,315	64,573	42,878	13,276	17,405						
U. (tons) ..												17,657	16,087	26,369	18,099	1,990	6,123
T. (thous. tons)												6	22	59	56	49	41	54	84	56	15	22
<i>French West Africa—</i>																	
D. (tons) ..	} 22,438	6,773	35,370	88,610	71,762	{ 2,956	2,326	1,369	379	2,054	976						
U. (tons) ..												44,302	46,141	54,686	35,270	7,168	13,548
T. (thous. tons)												17	6	28	67	64	36	37	43	27	8	11

<i>Portuguese East Africa—</i>																	
D. (tons) ..	} 2,828	105	—	1,463	1,966	{ 3,981	3,785	2,018	4,024	6,469	3,522						
U. (tons) ..												744	(a) 162	248	245	(a) 4	
T. (thous. tons)												3	—	—	1	2	4
<i>British East Africa—</i>																	
D. (tons) ..	} 525	7,447	13,093	19,035	16,038	{ 15,541	8,268	5,964	4,530	3,182	4,043						
U. (tons) ..												1,726	846	409	344	467	322
T. (thous. tons)												1	7	13	19	16	17	9	6	5	4	4
<i>Other Countries—</i>																	
D. (tons) ..	} 6,665	4,938	18,162	15,232	8,431	{ 6,138	9,785	1,909	3,737	1,120	2,205						
U. (tons) ..												3,733	2,476	3,843	5,878	93	6,206
T. (thous. tons)												6	6	17	14	7	9	12	5	8	1	7
<i>Total—</i>																	
D. (tons) ..	} 70,285	73,726	318,349	436,420	415,344	{ 510,684	562,946	538,774	491,341	214,253	259,497						
U. (tons) ..												74,700	70,913	94,823	84,074	24,480	51,105
T. (thous. tons)												62	70	304	409	392	567	616	610	554	232	298
Proportion (in per cent.) of decorticated nuts imported to total imports (decorticated basis) ..	(b) 58	(b) 84	(b) 86	(b) 81	(b) 82	91	91	88	89	92	87						
Proportion (in per cent.) of world supplies (decorticated basis) taken by Germany ..	11	7	25	34	29	38	43	41	36	22	22						

(a) Included, if any, in "Other Countries."

(b) Estimated.

varieties into India, to an improvement in the quality of the nuts on arrival in Germany and to a preference for decorticated nuts formed when ground nuts were subjected to an import duty which was the same for decorticated and undecorticated ground nuts*.

Exports of ground nuts are not separately classified in the trade returns, but it is clear that they averaged less than 1,000 tons per annum in the period under review.

The available statistics of Germany's foreign trade in ground nut oil during the pre-war quinquennium and annually from 1924 are summarised in Table 87; exports of ground nut oil were not separately classified in the trade returns until 1926, but estimates for 1924 and 1925 have been computed in the manner indicated in footnote (c) to the table.

TABLE 87.—*Foreign Trade of Germany in Ground Nut Oil*
(Special Trade) (In tons)

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Exports—</i>											
Czechoslovakia				172	287	776	1,503	1,390	1,264	2,177	804
Netherlands ..				7,811	17,681	26,992	22,615	17,676	4,436	1,469	245
France ..				—	5	38	(b)	(b)	942	987	334
Switzerland ..				19	498	623	586	792	1,407	910	798
Belgium ..				99	89	143	113	476	939	588	1,205
Austria ..	(a)	(a)	(a)	529	583	1,037	1,420	1,129	877	250	482
United Kingdom				121	1,339	575	6,088	10,629	4,111	194	47
Sweden ..				1,050	760	1,507	1,537	1,224	641	27	42
United States of America ..				—	1	2,887	9,652	1,563	2,846	(b)	(b)
Other Countries				1,008	2,193	2,809	7,042	3,857	3,671	1,359	5,551 (e)
Total ..	(a)	2,686 (c)	5,825 (c)	10,809	23,436	37,387	50,556	38,736	21,134	7,961	9,508
<i>Imports—</i>											
Netherlands ..	365	3,727	7,355	1,728	2,264	1,123	1,334	1,328	757	294	270
Belgium ..	185	85	55	61	65	98	188	74	78	54	(b)
United Kingdom	1	2,323	265	25	170	181	159	(b)	544	49	(b)
Other Countries	105	21	2,598	20	117	30	108	106	204	254	56
Total ..	656	6,156	10,273	1,834	2,616	1,432	1,789	1,508	1,583	651	326
Export balance ..	(a)	3,470 (d)	4,448 (d)	8,975	20,820	35,955	48,767	37,228	19,551	7,310	9,182

(a) Not available.

(b) Included, if any, in "Other Countries."

(c) Estimated at 98 per cent. of the combined exports of ground nut oil and sesame oil, that being the average proportion in the period 1926-27.

(d) Import balance.

(e) Including 4,491 tons to Canada, an unimportant market in other years.

* See "Die Deutsche Oelmuehlenindustrie," 1930, page 370 (published by E. S. Mittler & Sohn, Berlin).

Exports of ground nut oil rose from less than 3,000 tons in 1924 to over 50,000 tons in 1929, but declined to 8,000 tons in 1932 and 9,500 tons in 1933. They are widely distributed throughout Europe, with the United States of America also taking considerable quantities in some years. The Netherlands, averaging nearly 20,000 tons per annum, was by far the largest market up to 1930 but consignments then declined heavily and the premier position was taken by Czechoslovakia in 1932 and by Canada in 1933.

The Netherlands also figures prominently in the import trade of Germany in ground nut oil, supplying rather more than one-half of the 650 tons per annum imported during the pre-war quinquennium and about two-thirds of the annual average of 3,000 tons in the post-war period under review. Belgium and the United Kingdom are the only other important sources of supply. Ground nut oil, not denatured for the manufacture of soap, is subject to an import duty which was increased from 2.50 to 4 Rm. per 100 kilos. on 1st February, 1933, but during the period 1930-32 about 60 per cent. of the total imports of ground nut oil were admitted duty free.

In April, 1933, ground nut oil, in common with other oils and fats, was brought under a State monopoly which controls imports and sales. From 12th April to 30th June, 1933, imports of ground nut oil were restricted by licences to one-eighth of the total imports in 1932; from 1st July, 1933, licences were still required to import ground nut oil but no limit to their issue from that date has been announced. The trade returns show that imports during the second half of 1933 were about one-half of the imports during the first half and about one-third of the 380 tons imported during the second half of 1932. The Reich Office for Oils and Fats buys all the ground nut oil produced in or imported into Germany and re-sells it at a premium (Monopoly Tax) of 0.20 Rm. per 100 kilos. for German oil and 0.25 Rm. per 100 kilos. for imported oil.

The marked increase in exports and the heavy decline in imports from 1925 changed an import balance of about 4,000 tons in 1924 and 1925 to an export balance which rose from 9,000 tons in 1926 to 49,000 tons in 1929. Thereafter both imports and exports fell, the export balance declining to 7,000 tons in 1932 and 9,000 tons in 1933.

Table 88 shows the estimated quantities of ground nut oil available for consumption in Germany annually from 1924. The estimates ignore stocks of ground nut oil, particulars of which are not available, and assume that all the available supplies of ground nuts were used for the manufacture of oil.

TABLE 88.—*Estimated Amounts of Ground Nut Oil available for Consumption in Germany*

(In thousands of tons)

	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
Estimated oil equivalent of ground nuts imported	28	122	164	157	227	246	244	222	93	116
Export balance of ground nut oil ..	3 ^(a)	4 ^(a)	9	21	36	49	37	20	7	9
Estimated amount of ground nut oil available for consumption	31	126	155	136	191	197	207	202	86	116

(a) Import balance.

The estimated amount of ground nut oil available for consumption in Germany, which depends mainly on the imports of ground nuts, rose from 31,000 tons in 1924 to an average of about 170,000 tons per annum in the period 1925-31, and after falling to about one-half of this weight in 1932 partially recovered to 110,000 tons in 1933. Particulars of the exports of ground nut oil during the pre-war quinquennium are not available, but it is clear from the import of ground nuts and ground nut oil that the available supplies, ignoring stocks, did not average more than 25,000 tons per annum.

The only available statistics of the utilisation of ground nut oil in Germany show the oil and fat constituents of margarine and soap manufactured during 1928. These follow as Tables 89 and 90, and suggest that margarine absorbed about 60 to 70 per cent. of the available supplies of ground nut oil and the manufacture of soap about 10 to 15 per cent., the balance being consumed as edible oil.

TABLE 89.—*Oils and Fats used in the Manufacture of Margarine in Germany in 1928(a)*

	Weight. (In tons.)	Share. (In per cent.)
<i>Vegetable—</i>		
Hardened vegetable fat	89,722	21·8
Coconut oil	84,779	20·6
Soya bean oil	43,479	10·5
Ground nut oil	41,831	10·2
Palm kernel oil	35,249	8·5
Palm oil	4,904	1·2
Cottonseed oil	2,183	0·5
Sesame oil	1,132	0·3
Miscellaneous	20,136	4·9
Total	323,415	78·5
<i>Animal—</i>		
Premier jus	10,238	2·5
Oleomargarine	8,330	2·0
Neutral lard	4,420	1·1
Miscellaneous	746	0·2
Total	23,734	5·8
<i>Marine—</i>		
Hardened marine oil	64,850	15·7
Grand Total	411,999	100·0

(a) Source: "Sonderhefte zu Wirtschaft und Statistik," No. 8, 1931, page 179.

The preceding table shows 42,000 tons of ground nut oil used for the manufacture of margarine in Germany in 1928, but according to reliable information by far the largest part of the 90,000 tons of "hardened vegetable fat" was also ground nut oil. On this assumption more than 100,000 tons of ground nut oil went into margarine, and ground nut oil accounted for over 25 per cent. of the oils and fats used for this manufacture as compared with 11 per cent. in the United Kingdom and 2 per cent. in the United States of America. Table 88 shows an annual average of about 160,000 tons of ground nut oil available in Germany during the years 1927-28, the period during

which supplies consumed in 1928 would presumably be obtained. On this basis, about two-thirds of the available supplies of ground nut oil were used for the manufacture of margarine in 1928, and ground nut oil was the most important of the vegetable oils used in that industry.

TABLE 90.—*Oils and Fats used in the Manufacture of Soap in Germany in 1928(a)*

	Weight. (In tons.)	Share. (In per cent.)
<i>Vegetable—</i>		
Palm kernel oil	49,727	24·1
Linseed oil	25,165	12·2
Refined acid oils	17,496	8·5
Palm oil	15,529	7·5
Coconut oil	8,471	4·1
Ground nut oil	4,867	2·4
Cottonseed oil	4,802	2·3
Castor oil	3,627	1·8
Soya bean oil	3,306	1·6
Olive oil	1,678	0·8
Hardened vegetable oil	754	0·4
Miscellaneous	1,736	0·8
Total	137,158	66·5
<i>Animal—</i>		
Tallow, including Premier jus	49,292	23·9
Animal offal fats	10,205	4·9
Stearine, oleine, etc.	2,062	1·0
Total	61,559	29·8
<i>Marine—</i>		
Hardened marine oil	5,013	2·4
Other marine oil	2,676	1·3
Total	7,689	3·7
Grand Total	206,406	100·0

(a) Source : "Wirtschaft und Statistik," 1931, page 272.

Relatively little ground nut oil is used in Germany for the manufacture of soap, the total for 1928 probably being less than 20,000 tons after amply allowing for the ground nut oil included in Table 90 under the item "Refined acid oils."

The increased use of ground nut oil in Germany during the post-war period was largely due to a greater production of margarine, whilst the reduced supplies in 1932 were partly attributable to the substitution of cheaper oils, such as whale oil and soya bean oil, in the manufacture of this product.

Statistics of margarine production are not available, but the trend is approximately indicated by the following statistics of consumption which however may overstate the margarine consumption by as much as 10 per cent., since the margarine figures include compound and artificial fats.

TABLE 91.—*Per capita Consumption of Margarine and Butter in Germany(a)*
(In lb.)

	1913.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
Margarine	6.6	14.3	15.6	15.7	16.4	17.3	17.5	16.2	17.6
Butter	15.0	12.5	13.2	14.6	15.7	15.9	16.7	16.2	15.7
Total	21.6	26.8	28.8	30.3	32.1	33.2	34.2	32.4	33.3

(a) Source; "Blätter für Landwirts chaftliche Marktforschung," January/February, 1933, page 417.

The consumption of margarine was less than one-half of the consumption of butter during the pre-war year, but slightly exceeded butter consumption during the post-war period under review. The average *per capita* consumption of butter and margarine during the quinquennium 1928–32 averaged about 33 lb. or about 50 per cent. more than in the pre-war year, whilst the average annual *per capita* consumption of margarine alone increased by 150 per cent. to about 17 lb. This increased consumption of margarine was accompanied by an increased production of margarine and a consequential increase in the demand for ground nut oil.

Changes in the constituents of margarine also assisted to increase the demand for ground nut oil. The importance of vegetable oils in the manufacture of margarine rose from between 40 and 45 per cent.

of the total oils and fats in 1913 to 78 per cent. in 1928, whilst animal fats declined from between 55 and 60 to 6 per cent. Marine oils, mainly whale oil, were not used for the manufacture of margarine before the War, but constituted 16 per cent. of the oils and fats used in 1928. Subsequently marine oils gained importance at the expense of both animal and vegetable oils, but the latter still form over 60 per cent. of the total oils and fats.*

The importance of ground nut oil relative to other vegetable oils also declined in recent years as the demand for margarine shifted to the cheaper grades. Considerations of cost result in more whale oil and soya bean oil and less ground nut oil being used in these grades. Between 1930 and 1932 the available supplies of whale oil and soya bean oil in Germany increased by about 80,000 tons per annum whilst the available supplies of ground nut oil declined by about 120,000 tons.

From April, 1933, the Reich monopolised the sales of margarine and restricted the quarterly production to 60 per cent. of the production in the last quarter of 1932.† From May 1st, 1933, a consumption tax of 0·5 Rm. per kilo. was imposed on margarine, the proceeds to be devoted in the first place to the cheapening of margarine for those with small incomes. From 1st November, 1933, it was provided that at least 50 per cent. of the margarine produced should be "low-priced" margarine, but it should be borne in mind that margarine prices had advanced generally‡. Despite these restrictions on margarine production, imports of ground nuts partially recovered from their heavy fall in 1932 and the available supplies of ground nut oil, ignoring stocks, increased from 86,000 tons in 1932 to 110,000 tons in 1933. Ground nut oil probably benefited to some extent from the lessened competition of coconut and palm kernel oils, available supplies of which were in total about 40,000 tons less in 1933 than in the corresponding period of 1932. Another factor affecting the supply of ground nut oil in 1933 and 1934 was the encouragement to the import of ground nuts arising from the demand for domestic ground nut cake. The marked decline in the import balance of cake, to which reference is made later, necessitated heavier domestic production.

* "The present distribution is 61 per cent. vegetable oils and fats, 35 per cent. fish oils, and only 4 per cent. animal fats."—"Foreign Crops and Markets," 31st July 1933, page 104.

† The production quota was subsequently increased on more than one occasion but the amount now allowed is not published.

‡ From 14th November, 1933, the prices of margarine were reduced and fixed

Table 92 shows annually from 1929 the foreign trade of Germany in ground nut cake and the estimated available supplies, ignoring stocks and assuming that all the ground nuts imported were used for the manufacture of ground nut oil and cake. Ground nut cake was not separately classified in the German trade returns until 1929, but is the oilcake most used in Germany.

Imports of ground nut cake averaged 150,000 tons per annum during the period 1929-33, reaching a peak of 186,000 tons in 1932 and falling to the low point of 126,000 tons in 1933. One-third of the imports were supplied by India, and France was the second largest source of supply with an annual average of about 40,000 tons. Argentina and a number of European countries supplied an annual average of between 5,000 and 15,000 tons, the Netherlands supplying an average of 11,000 tons and taking an average of 30,000 tons per annum. This represents one-third of the total exports which exceeded 100,000 tons in each of the years 1929-31, but dropped to 10,000 tons in 1932 and 2,000 tons in 1933. The import balance of 124,000 tons in 1933 was 50,000 tons less than in the previous year but twice as heavy as in 1931, whilst in 1929 it was 10,000 tons and in 1930 was converted into an export balance of 28,000 tons. Efforts to increase the use of domestic feeding stuffs and to favour domestic seed crushers resulted in a sharp decline in imports of oil cakes in the first half of 1934. In the period January-September, 1934, the import balance of ground nut cake fell to about 2,000 tons compared with 119,000 tons in the same months of 1933. Contrary movements in the estimated production of ground nut cake in Germany, which varied between 150,000 tons in 1932 and 400,000 tons in 1930, resulted in a relative stability in the available supplies which averaged 350,000 tons per annum during the period under review, declining from a peak of 415,000 tons in 1931 to about 320,000 tons in 1932 and 1933. In the period 1929-31 over 90 per cent. of the estimated available supplies were produced in Germany, but only about one-half were so obtained in 1932 and 1933. It appears certain that 1934 will show a return to the 1929-31 position.

There is no import duty on ground nut cake, but from April, 1933, the marketing of the product became a monopoly of the Reich, the selling price being fixed for the period 1st September-31st December, 1934, at 31 Rm. per metric ton above the monopoly purchase price. From 6th July, 1934, a duty of 100 Rm. per metric ton was imposed on exports of oil cakes.

TABLE 92.—*Foreign Trade of Germany in Ground Nut Cake and the Estimated Available Supplies*

(Special Trade)

	1929.	1930.	1931.	1932.	1933.
	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Imports from—</i>					
India	40,943	37,573	74,327	77,211	56,961
France	21,245	37,145	28,250	65,715	41,121
Argentina	17,596	9,064	15,254	15,562	9,434
Czechoslovakia	6,542	9,161	8,626	5,720	2,846
Netherlands.. .. .	15,375	13,725	14,953	5,096	4,301
Belgium	1,196	3,132	4,634	3,313	2,175
Switzerland	3,923	5,092	6,579	3,284	2,138
Denmark	647	696	2,438	3,282	2,634
Italy	27,031	6,124	9,638	3,028	1,586
Other Countries	6,760	4,480	3,466	4,175	2,963
Total	141,258	126,192	168,165	186,386	126,159
<i>Exports to—</i>					
Netherlands.. .. .	49,704	49,329	38,348	6,433	1,421
Denmark	64,628	86,356	43,773	1,577	257
Poland	2,355	2,288	1,680	506	112
Sweden	8,603	9,259	13,115	339	(b)
Other Countries	6,264	6,575	8,590	1,685	448
Total	131,554	153,807	105,506	10,540	2,238
	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.
Import balance of ground nut cake	10	28(a)	63	176	124
Estimated oilcake equivalent of ground nuts crushed	388	390	353	146	192
Estimated supplies of ground nut cake available for con- sumption	398	362	416	322	316

(a) Export balance.

(b) Included, if any, in "Other Countries."

CHAPTER 23 THE NETHERLANDS

The importance of the Netherlands as an importer of ground nuts is largely attributable to its geographical position by reason of which it has a considerable transit trade in ground nuts exported from India, China and West Africa for consumption in Germany and other European countries. This transit trade, direct and after warehousing, averaged about 180,000 tons per annum in the period 1924-33 or two-thirds of the total imports. The following figures show the volume of the general trade of the Netherlands in ground nuts.

TABLE 93.—*Total Foreign Trade of the Netherlands in Ground Nuts*
(In tons)

	1909- 13 (Aver- age).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931. (a)	1932. (a)	1933. (a)
Imports	89,646	120,645	241,103	281,299	251,514	264,781	338,556	392,893	411,551	189,583	296,877
Exports	50,383	56,528	139,542	177,750	170,428	192,576	249,066	286,247	284,793	114,141	109,338
Import balance	39,263	64,117	101,561	103,549	81,086	72,205	89,490	106,646	126,758	75,442	106,539

(a) Excluding ground nuts in transit without transshipment, particulars of which are not available. These averaged 6,000 tons per annum in the period 1929-30.

In 1924, imports were one-third and exports one-tenth greater than in the pre-war quinquennium when the annual averages were 90,000 tons and 50,000 tons respectively. The upward trends continued up to 1931 when imports and exports were respectively more than four and five times the pre-war averages, and although imports and exports both declined in 1932 they were still more than double the annual average for the pre-war quinquennium. Exports declined still further in 1933, but imports were nearly 60 per cent. greater than in the previous year, and the import balance was 40 per cent. heavier than in 1932.

Details of the special trade in ground nuts are shown annually from 1924 in Table 94. Because of the absence of the necessary details concerning the whole trade, this table and the later tables showing the

TABLE 94.—*Foreign Trade of the Netherlands in Ground Nuts.*
(Special Trade)
(In tons)

	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Imports from—</i>										
India	8,096	6,847	30,074	22,888	36,679	35,149	43,689	57,284	25,306	39,589
French West and Equatorial Africa	29,317	1,284	36,231	29,875	20,264	31,787	34,800	32,167	9,748	11,920
China	16,443	9,539	14,170	11,357	8,032	8,986	11,269	18,350	17,353	26,736
British West Africa	3,132	162	5,664	10,249	5,612	9,458	11,923	14,241	12,638	14,232
United Kingdom	1,257	47,516	5,855	40	28	76	44	17	9	(a)
France	3,659	26,881	8,307	—	—	—	1	18	(a)	(a)
Other countries	4,390	10,226	4,711	8,625	3,239	5,393	6,210	5,991	11,197	14,654
Total	66,294	102,455	105,012	83,034	73,854	90,849	107,936	128,068	76,251	107,131
<i>Re-exports to—</i>										
Germany	1,849	478	892	1,186	1,106	784	805	1,062	542	356
Other countries	328	416	571	762	543	575	485	248	267	236
Total	2,177	894	1,463	1,948	1,649	1,359	1,290	1,310	809	592
<i>Estimated composition of import balance.</i> (In thous. tons.)										
Import balance	64	102	104	81	72	89	107	127	75	107
of which—										
Decorticated	23	74	49	35	42	49	60	77	61	81
Undecorticated	41	28	55	46	30	40	47	50	14	26
Estimated weight of import balance (decorticated basis)	54	95	90	70	65	79	95	115	72	101
Estimated oil content of import balance of ground nuts	22	38	36	28	26	32	38	46	29	40

(a) Included in "Other countries."

channels of the Netherlands' foreign trade in ground nut oil and ground nut cake refer in detail only to the post-war period under review and deal only with special trade.

The trade returns of the Netherlands do not separate decorticated from undecorticated ground nuts, but the table contains estimates of the amounts of each in the import balance based on the proportions of each category imported from the principal sources of supply.

The United Kingdom and France are shown as supplying appreciable quantities of ground nuts in the period 1924-26, but virtually none in later years. This sudden change, judging by the trade returns of those two countries, is not due to any alteration in the sources of supply. There is no doubt, judging by the trade returns of the exporting countries, that over 90 per cent. of the Netherlands' imports of ground nuts during this period, as in subsequent years, were drawn from India, French West and Equatorial Africa, China and British West Africa in that order. The Netherlands' returns show that during the period 1927-33, imports from India averaged over 35,000 tons per annum as compared with about 25,000 tons from French West and Equatorial Africa, 15,000 tons from China and 11,000 tons from British West Africa. Imports from all these countries showed a rising trend up to 1931, the trend being most marked in the case of India which supplied 23,000 tons in 1927 and 57,000 tons in 1931, but imports from India and French West and Equatorial Africa were on lower levels in 1932 and 1933.

Re-exports, two-thirds of which were consigned to Germany, rarely exceeded 1,500 tons per annum and averaged less than 2 per cent. of the imports intended for internal consumption.

The proportion of decorticated ground nuts in the weight of the total import balance of ground nuts (decorticated basis) showed an upward trend, averaging 60 per cent. in the period 1924-27 and 70 per cent. in the period 1928-33, but the change was not sufficiently large to make the trends revealed by the weights of the import balances on the decorticated basis differ from those shown by the actual weights of the import balances. The weight of the import balance (decorticated basis) rose from 54,000 tons in 1924 to 115,000 tons in 1931 with set-backs in 1926, 1927 and 1928; after a decline to 72,000 tons in 1932, the import balance in 1933 was 101,000 tons. The effect of these changes was largely counter-balanced by opposite movements in the trade in ground nut oil. Details of the special trade of the Netherlands in ground nut oil are shown in Table 95 annually

from 1924. Particulars of the direct transit trade are not available, but transit after warehousing averaged 3,000 tons per annum during the post-war period under review as compared with special trade imports averaging 18,000 tons per annum.

In addition to the trade shown in Table 95 there is a substantial export of hardened ground nut oil, mainly to Belgium, which is not separately classified in the trade returns. From the information available, the annual amount involved is approximately 6,000 tons.

TABLE 95.—*Foreign Trade of the Netherlands in Ground Nut Oil*
(Special trade: gross weight)
(In tons)

	1909- 13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Imports from—</i>											
Germany ..	(a)	2,571	1,472	7,073	17,090	25,340	22,002	15,211	3,398	303	166
China ..		1,642	1,987	1,893	4,812	3	—	—	233	229	31
Belgium ..		511	233	156	357	112	77	51	105	76	9
United Kingdom		3,291	11,583	16,224	4,657	6,478	5,060	—	609	2	1
Other Countries		524	2,672	1,397	663	22	18	42	106	181	109
Total ..		(a)	8,539	17,947	26,743	27,579	31,955	27,157	15,304	4,451	791	316
<i>Exports to—</i>											
Belgium ..	(a)	1,197	1,653	1,304	2,181	3,508	3,772	4,217	6,122	4,580	4,398
France ..		531	363	105	2,621	916	341	194	757	3,139	3,806
Switzerland		390	215	298	492	888	626	985	371	1,387	3,279
Sweden ..		698	782	1,754	1,053	961	1,354	1,672	1,621	662	1,380
Germany ..		3,907	4,382	1,893	2,169	981	1,004	1,336	450	577	676
United Kingdom		1,199	1,248	2,453	1,926	2,098	2,040	2,648	2,262	681	630
Austria ..		269	238	323	592	710	504	534	506	462	456
Norway ..		2,057	1,810	1,783	1,895	2,127	2,153	1,380	1,290	350	297
Czechoslovakia		187	169	261	555	634	601	415	474	1,424	243
Other Countries		402	895	1,829	2,020	2,739	3,229	2,214	2,429	1,368	3,396
Total (b) .	(a)	10,837	11,755	12,003	15,504	15,562	15,624	15,595	16,282	14,630	18,561
Import balance	—	—	6,192	14,740	12,075	16,393	11,533	—	—	—	—
Export balance	6,989	2,298	—	—	—	—	—	291	11,831	13,839	18,245

(a) Comparable figures not available.

(b) Excluding hardened ground nut oil, estimated in recent years at about 6,000 tons per annum.

Imports of ground nut oil trebled between 1924 and 1926 when they amounted to about 27,000 tons. About 60 per cent. of the supplies during this period came from the United Kingdom, while Germany supplied the bulk of the remainder and China—the only other important source of supply—an average of nearly 2,000 tons per annum. In 1927 imports from the United Kingdom fell by 75 per cent. to less than 5,000 tons and Germany with 17,000 tons took the lead which she has since retained. In that year China occupied the second place with about 5,000 tons although since then the Netherlands has not imported any appreciable quantity of ground nut oil from that source. Imports of ground nut oil reached a peak of 32,000 tons in 1928, when retentions of ground nuts touched a low point, but fell to one-half of this weight by 1930 when retentions of ground nuts had again risen heavily. The precipitate fall continued down to 1933 when only 300 tons of ground nut oil were imported, and, except in 1932, was coincident with further marked rises in the import balance of ground nuts.

Exports, which rose from 11,000 tons in 1924 to over 18,000 tons in 1933, were distributed throughout Europe. Germany was the principal market in the period 1924–27 with an annual average of 3,000 tons and Belgium in the period 1928–32 with an annual average of 4,500 tons. Exports to the United Kingdom were unusually small in 1932 and 1933, and France became the second largest market, taking over 3,000 tons per annum.

The wide fluctuations in the imports of ground nut oil and the comparative stability in the exports resulted in changes in the direction of the trade balances. An export balance of 2,000 tons in 1924 gave place to import balances averaging 12,000 tons per annum during the period 1925–29, but an export balance was restored in 1930 and rose in 1933 to about 18,000 tons, or two and a half times the average export balance during the pre-war quinquennium when gross imports averaged 4,000 tons per annum and gross exports 11,000 tons.

Table 96 shows the estimated amount of ground nut oil available for consumption in the Netherlands during the pre-war quinquennium and annually from 1924, ignoring changes in stocks particulars of which are not available and assuming that all the available supplies of ground nuts were used for oil. These figures, however, overstate the available supplies by a substantial quantity—estimated at

TABLE 96.—*Estimated Amount of Ground Nut Oil Available for Consumption in the Netherlands*

(In thousands of tons)

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
Estimated oil content of import balance of ground nuts	12	22	38	36	28	26	32	38	46	29	40
Import balance of ground nut oil	—	—	6	15	12	16	12	—	—	—	—
Export balance of ground nut oil	7	2	—	—	—	—	—	(a)	12	14	18
Estimated amount of ground nut oil available for consumption ..	5	20	44	51	40	42	44	38	34	15	22

(a) Less than 500 tons.

approximately 6,000 tons per annum—since, as already explained, details of the amount of hardened ground nut oil exported are not available.

As a result of the partially compensating movements in the trade in ground nuts and ground nut oil already mentioned, the estimated available supplies of ground nut oil varied little during the period 1925–30 from the average of about 43,000 tons per annum, except for a peak of 51,000 tons in 1926. A moderate decline in 1930 and 1931 preceded a sharp fall to 15,000 tons in 1932, while in 1933, the supply amounted to 22,000 tons, which was about the same as that of 1924, but more than four times as great as the annual average during the pre-war quinquennium. Some of the decline was no doubt due to the smaller production of margarine in the Netherlands and the smaller part played by vegetable oils in that industry. Margarine production in 1933 fell to just over 60,000 tons, compared with the peak of 150,000 tons in 1927; while vegetable oils, which in 1927 represented about 80 per cent. of the materials used, amounted to less than 40 per cent. of the greatly reduced consumption. Other possible factors are a lessened consumption of ground nut oil as a salad or frying oil and the utilisation of accumulated stocks of ground nut oil, but no statistics are available on these points.

Table 97 shows the special trade of the Netherlands in ground nut cake annually from 1924, together with the average annual export balance during the pre-war quinquennium.

TABLE 97.—*Foreign Trade of the Netherlands in Ground Nut Cake.*
(Special Trade)
(In tons)

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.		
<i>Imports from—</i>													
India ..		(b)	836	6,130	7,526	16,632	33,799	15,871	20,966	20,036	27,671		
France ..		2,258	2,599	5,004	5,639	6,903	9,400	10,040	4,397	8,464	20,604		
Germany ..		4,494	12,745	24,617	15,404	24,615	50,236	47,965	39,493	6,551	1,957		
Belgium ..		5,572	2,273	2,545	2,125	2,027	2,927	854	1,544	2,679	5,235		
Other Countries		(a)	945	612	887	1,503	3,212	2,018	504	815	859	4,852	
Total ..		(a)	13,269	19,065	39,183	32,197	53,389	98,380	75,234	67,215	38,589	60,319	
<i>Exports to—</i>													
Germany ..		(a)	616	2,720	7,473	9,168	8,115	15,317	12,326	12,071	4,875	2,534	
Belgium ..			418	2,528	1,552	2,561	3,726	3,245	4,521	10,982	3,468	2,886	
Denmark ..			559	3,080	4,298	600	(b)	(b)	960	610	(b)	—	
Other Countries			406	2,304	2,586	2,326	2,565	2,023	636	1,335	61	1	
Total ..		(a)	1,999	10,632	15,909	14,655	14,406	20,585	18,443	24,998	8,404	5,421	
Import balance		(c)	7,437	11,270	8,433	23,274	17,542	38,983	77,795	56,791	42,217	30,185	54,898

- (a) Comparable figures not available.
(b) Included, if any, in "Other Countries."
(c) Export balance.

Outstanding features of the import trade in ground nut cake are the sustained increase in Indian supplies and the heavy imports from Germany between 1925 and 1931. Imports from India did not exceed 8,000 tons per annum until 1928, but they averaged nearly 23,000 tons per annum in the period 1931-33, and constituted more than one-half of the total imports in 1932. Imports from Germany rose from 4,500 tons in 1924 to over 50,000 tons in 1929 but declined to 2,000 tons in 1933. On the other hand imports from France and Belgium, the only other important sources of supply, increased considerably in 1933 when they exceeded 20,000 and 5,000 tons respectively.

From 1st November, 1933, the Netherlands restricted imports of cattle cake. For the first six months, quotas were fixed at 100 per cent. of the average quantity imported per six months of the basis period, 1st July, 1931, to 30th June, 1933, from each country of origin. The restrictions were continued on the same basis for a further period of three months, but for the twelve months ending 31st July, 1935, quotas are reduced to 60 per cent. of the average annual quantity imported from each country in the basis period. The actual imports of ground nut cake received from the principal sources of supply in the first nine months of restriction are shown below together with the imports received therefrom during the corresponding periods twelve months and two years earlier.

TABLE 98.—*Netherlands' Imports of Ground Nut Cake.*

Country.	1st November, 1933, to 31st July, 1934.		1st November, 1932, to 31st July, 1933.		1st November, 1931, to 31st July, 1932.	
	Weight. (In tons.)	Share. (In per cent.)	Weight. (In tons.)	Share. (In per cent.)	Weight. (In tons.)	Share. (In per cent.)
India	16,672	56	16,065	49	16,353	47
Germany	(a)	(a)	1,814	5	11,034	31
France	8,786	30	11,796	36	5,741	16
Belgium	1,803	6	2,170	6	1,529	4
Other Countries ..	2,264	8	1,201	4	612	2
Total	29,525	100	33,046	100	35,269	100

(a) Included, if any, in "Other countries."

Despite a decline in the total imports in the period November, 1933, to July, 1934, the quantity received from India increased both absolutely and relatively, while the marked decline in imports from Germany continued, a negligible quantity being received as compared with 11,000 tons in the same period two years earlier. Imports from both France and Belgium, though less than in the corresponding period a year earlier, were higher than two years ago.

As regards exports, Germany and Belgium have been the only important markets since 1926 when exports to Denmark last exceeded 1,000 tons. Exports to Germany averaged about 13,000 tons per annum in the period 1929-31, but less than 4,000 tons in 1932-33, and the average exports to Belgium fell from 6,000 to about 3,000 tons per annum.

In the pre-war quinquennium the Netherlands had an export balance of over 7,000 tons of ground nut cake, but there was an import balance in each of the post-war years under review; the volume rose from 11,000 tons in 1924 to 78,000 tons in 1929, and after falling to 30,000 tons in 1932, exceeded 50,000 tons in 1933.

Table 99 shows the estimated available supplies of ground nut cake in the Netherlands annually from 1924, ignoring stocks, particulars of which are not available, and assuming that all the available supplies of ground nuts were used for the manufacture of oil and cake.

TABLE 99.—*Estimated Amount of Ground Nut Cake Available for Consumption in the Netherlands*

(In thousands of tons)

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
Estimated residue from import balance of ground nuts	27	42	64	68	53	46	57	69	81	46	67
Import balance of ground nut cake	(a) 7	11	8	23	18	39	78	57	42	30	55
Estimated amount of ground nut cake available for consumption ..	20	53	72	91	71	85	135	126	123	76	122

(a) Export balance.

The estimated available supplies of ground nut cake in the Netherlands rose from about 20,000 tons per annum in the pre-war quinquennium to over 50,000 tons in 1924 and 135,000 tons in 1929. From 1930 the export trade of the Netherlands in beef and veal declined heavily, mainly owing to an increased duty on imports into

Germany, the principal market, and the use of concentrated cattle feeds declined, supplies of ground nut cake falling to 80,000 tons in 1932. The recovery in supplies to 120,000 tons in 1933 was in part due no doubt to the effect of the drought on the pastures. Similar, but less marked movements occurred in the available supplies of linseed cake, the only concentrated cattle feed used in the Netherlands to a greater extent than ground nut cake. Estimated supplies of linseed cake rose from about 300,000 tons per annum in the pre-war quinquennium to about 500,000 tons in 1929 and fell to about 400,000 tons in 1930-33. Despite the decline from 1930, supplies of concentrated cattle feed in the Netherlands were larger in 1933 than in the pre-war quinquennium, and ground nut cake not only profited by this increased consumption, but also increased its share of that consumption.

CHAPTER 24

ITALY

Although Italy is largely dependent upon her olive crop for the supply of vegetable oil—there are over 5 million acres under olives, producing about 170,000 tons of oil per annum—she has appreciably increased her consumption of ground nut oil since the war. By 1929, i.e., before the steps taken to protect the olive industry came into full effect, the available annual supplies of ground nut oil amounted to 70,000 tons as against 8,000 tons before the War.

Owing to the depression in the Italian olive industry the Government passed certain measures for its protection from the competition of imported oilseeds and oils. In December, 1929, the import duty on ground nuts was raised from 4·83 to 6·90 gold lire per 100 kilogrammes and the duty on ground nut oil from 24·0 to 29·50 gold lire per 100 kilogrammes, whilst the sale of olive oil mixed with other oils was prohibited. In February, 1930, the tax on the manufacture of edible oil from oilseeds, which term does not include the olive, was increased from 15 to 65 paper lire per 100 kilogrammes and again in September, 1934, to 120 paper lire. These measures and the marked fall in olive oil prices combined to produce a heavy decline in the demand for ground nuts and ground nut oil; imports of ground nuts fell from 168,000 tons in 1929 to 60,000 tons in 1930 and imports of ground nut oil fell from 3,700 tons to 540 tons. The import duties on oilseeds and vegetable oils have been increased on three occasions since December, 1929, and from 16th July, 1934, they stood at 56·70 paper lire per 100 kilogrammes for ground nuts and 198 paper lire per 100 kilogrammes for ground nut oil. The decline in imports of ground nut oil continued from 1931 to 1933, while imports of ground nuts, after increasing substantially in 1931, fell in 1932 to the 1930 level and only partially recovered to 80,000 tons in 1933.

Table 100 summarises the foreign trade of Italy in ground nuts from 1924. Pre-war figures are not available as ground nuts were then included with sesame seed in the Italian trade returns, but judging by the figures of the exporting countries Italy's imports of ground nuts in the pre-war quinquennium amounted to about 10,000 tons per annum, and the exports were negligible.

TABLE 100.—*Foreign Trade of Italy in Ground Nuts*
(Special trade)

	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Imports from—</i>	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
India	16,899	30,731	73,919	112,619	125,730	155,447	46,951	102,947	46,472	62,476
China	7,664	11,097	11,676	10,093	6,901	9,514	8,458	16,486	14,255	10,121
Other Countries	1,262	1,588	1,228	5,446	3,852	3,402	4,993	772	1,772	7,533
Total	25,825	43,416	86,823	128,158	136,483	168,363	60,402	120,205	62,499	80,130
<i>Exports</i>	21	19	1,262	18	26	32	49	18	11	10
Import balance ..	25,804	43,397	85,561	128,140	136,457	168,331	60,353	120,187	62,488	80,120
	<i>Estimated Composition of Import Balance.</i>									
Decorticated (thous. tons) ..	22	38	83	118	128	159	49	110	52	68
Undecorticated (thous. tons) ..	4	5	3	10	8	9	11	10	10	12
Total (decorticated basis) (thous. tons) ..	25	42	85	126	134	166	57	118	60	77
Proportion (in per cent.) of decorticated nuts to import balance (decorticated basis)	88	90	98	94	96	96	86	93	87	88

India and China together supplied over 80 per cent. of the imports during the pre-war quinquennium and over 95 per cent. during the period 1924–33, India being the chief source in each period. The trade returns of Italy do not separate decorticated and undecorticated ground nuts, but on the basis of the composition of the exports from China and India an estimate of the weights of decorticated and undecorticated nuts in the import balance has been computed and included in Table 100.

The estimates show a relative stability in the high proportion of decorticated ground nuts imported into Italy in the post-war period under review. On the basis of the estimated pre-war imports, the proportion of decorticated nuts in the import balance (decorticated basis) was 60 per cent. as against over 90 per cent. during the period 1924–33.

Italy's foreign trade in ground nut oil, like its foreign trade in ground nuts, is almost entirely an import trade. Details of this trade during the pre-war quinquennium and annually from 1924 are shown in Table 101.

TABLE 101.—*Foreign Trade of Italy in Ground Nut Oil*
(Special Trade)
(In tons)

	1909- 13 (Aver- age).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Imports—</i>											
Germany ..	1	—	—	52	529	1,058	628	179	78	63	} 125 (a)
Netherlands ..	1	6	17	200	173	541	612	251	174	49	
France ..	3,747	3,726	3,290	6,286	5,630	5,632	2,116	76	137	24	
Other Countries	299	109	743	116	1,072	827	357	34	121	18	
Total ..	4,048	3,841	4,050	6,654	7,404	8,058	3,713	540	510	154	125
<i>Exports ..</i>	1	1	47	47	76	37	48	66	58	38	10
Import balance ..	4,047	3,840	4,003	6,607	7,328	8,021	3,665	474	452	116	115

(a) Details not yet available.

France supplied over 90 per cent. of the ground nut oil imported into Italy during the pre-war quinquennium and only a slightly smaller proportion during the period 1924-29. But in the later years, when the total imports were very considerably less, imports from Germany and from the Netherlands exceeded those from France.

Table 102 shows the estimated available supplies of ground nut oil in Italy during the pre-war quinquennium and annually from 1924, ignoring stocks particulars of which are not available.

The estimated available supplies of ground nut oil in Italy rose from a total of about 8,000 tons per annum in the pre-war quinquennium to a peak of 70,000 tons in 1929, but averaged less than half that amount from 1930 to 1933. Most of it is used as salad or frying oil; very little margarine was produced or consumed in Italy, and since April 16th, 1934 the sale or use of margarine or other butter substitutes has been forbidden. Ground nut oil judging by the position in other countries is of minor importance to the Italian soap industry.

TABLE 102.—*Estimated Amount of Ground Nut Oil Available for Consumption in Italy*

(In thousands of tons)

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
Estimated oil equivalent of import balance of ground nuts	4	10	17	34	50	54	66	23	47	24	31
Import balance of ground nut oil	4	4	4	7	7	8	4	(a)	(a)	(a)	(a)
Estimated amount of ground nut oil available for consumption ..	8	14	21	41	57	62	70	23	47	24	31

(a) Less than 500 tons.

Ground nut cake is not separately classified in the trade returns of Italy, and the foreign trade in this commodity is probably negligible. From the retentions of ground nuts, an annual average of about 50,000 tons of ground nut cake was available to the Italian livestock industry during the post-war period under review.

CHAPTER 25

BELGIUM

Transit trade is an important element in the foreign trade of Belgium in ground nuts though its share of the gross imports declined sharply between 1929 and 1931, since which year details are not available. In the immediate pre-war period re-exports averaged 17,000 tons per annum and accounted for about two-thirds of the gross imports; in the period 1925-28 they averaged about 23,000 tons per annum and accounted for about one-half of the gross imports while in the period 1929-31 they averaged 10,000 tons per annum or about one-quarter of the gross imports.

Ground nuts were not separately classified in the trade returns for 1913 to 1924, but details of the trade during the periods 1909-12 and subsequent to 1925 are shown in Table 103. The trade returns do not separate decorticated from undecorticated ground nuts, but estimates have been computed of the amounts of each in the import balance based on the proportions of each category imported from the principal sources of supply.

India and French West Africa are the principal sources of supply and together they furnish over 80 per cent. of the gross imports. Imports from India are mostly decorticated nuts of which up to 1932 only small quantities were retained, but imports from French West Africa are mostly undecorticated nuts retained in Belgium. Indian supplies, which averaged more than 16,000 tons per annum in the immediate pre-war period under review, rose to 19,000 tons in 1928 but fell to 7,000 tons in 1931. In 1932 and 1933, the special trade returns, the only returns available for those years, show an average annual import of 8,000 tons of ground nuts from India, but the gross imports from this source were probably much greater. French West Africa, which does not figure largely in the transit trade of Belgium, supplied an average of 20,000 tons a year in the post-war period under review compared with 3,000 tons in the immediate pre-war period. There was a heavy fall in the imports from this source from 22,500 tons in 1931 to 7,500 tons in 1932, in which year India supplied about 11,000 tons for home consumption, but in 1933 French West Africa again supplied over 20,000 tons. Belgium imported comparatively little from the other producing areas; imports from

TABLE 103.—Foreign Trade of Belgium in Ground Nuts

	1909- 12 (Average).	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933. (Provi- sional)
Imports—	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
(i) <i>Special Trade—</i>										
French West Africa	3,358	12,737	36,293	21,649	20,798	22,252	19,986	20,743	7,470	22,780
India	15,962	239	(a)	(a)	2,539	3,676	1,659	883	10,888	6,275
British West Africa	(a)	189	(a)	(a)	(a)	678	(a)	3,144	1,372	2,226
Netherlands ..	487	895	2,257	2,547	2,590	2,397	1,275	1,417	1,070	1,242
China	1,447	431	(a)	(a)	68	(a)	145	199	390	235
Other Countries ..	3,831	166	1,096	1,040	430	1,958	339	382	351	807
Total ..	25,085	14,657	39,646	25,236	26,425	30,961	23,404	26,768	21,541	33,565
(ii) <i>Transit Trade—</i>										
India	399	16,933	16,363	14,391	16,603	6,483	7,759	5,913	} (b)	(b)
French West Africa	(a)	(a)	3,145	(a)	(a)	(a)	(a)	1,882		
Netherlands ..	48	2,707	(a)	1,529	(a)	400	286	(a)		
China	233	1,042	1,111	770	(a)	(a)	(a)	(a)		
Other Countries ..	282	4,024	4,344	3,053	6,285	1,988	1,949	3,424		
Total ..	962	24,706	24,963	19,743	22,888	8,871	9,994	11,219	(b)	(b)
Exports—										
(i) <i>Special Trade—</i>										
Total ..	16,316	183	53	107	119	84	63	244	717	286
(ii) <i>Transit Trade—</i>										
Netherlands ..	667	5,218	2,122	2,442	1,911	839	2,109	5,681	} (b)	(b)
France	—	2,212	15,099	4,121	6,738	4,237	4,853	4,345		
Germany	267	14,468	5,986	10,348	12,504	2,062	746	933		
Switzerland ..	—	1,883	1,737	2,562	1,672	1,674	2,163	194		
Other Countries ..	28	925	19	270	63	59	123	66		
Total ..	962	24,706	24,963	19,743	22,888	8,871	9,994	11,219	(b)	(b)
Import Balance ..	8,769	14,474	39,593	25,129	26,306	30,877	23,341	26,524	20,824	33,279
<i>Estimated composition of Import Balance.</i>										
(In thousands of tons.)										
Decorticated	7	1	2	2	4	4	2	1	12	7
Undecorticated ..	2	14	38	23	22	27	21	26	9	26
Total (decorticated basis)	8	12	30	19	21	24	18	21	19	27

(a) Included in "Other Countries."

(b) Not available.

British West Africa showed an upward trend and averaged over 2,000 tons per annum in the years 1931-33, but imports from China have not exceeded 1,000 tons since 1926. The Netherlands is the only other important consignor, but less than 2,000 tons have been received from that country in each year since 1929.

Germany and France are usually the most important consignees of the re-exports. In the period 1925-29 they took together nearly 80 per cent. of the total re-exports, but in the period 1929-31 the proportion fell to less than 60 per cent. as a result of a marked decline in re-exports to Germany, which averaged less than 1,300 tons per annum as compared with over 10,000 tons per annum in the period 1925-28. In the immediate pre-war period Germany took the bulk of the re-exports which averaged 17,000 tons per annum, while re-exports to France were negligible; but re-exports to France averaged 7,000 tons per annum in the period 1925-28 and over 4,000 tons per annum or three times the re-exports to Germany in the period 1929-31. Re-exports to the Netherlands have shown an upward trend and in 1931 reached 5,700 tons or more than the aggregate taken by France and Germany.

The import balance, actual weight, varied appreciably in the post-war period under review between about 15,000 and 40,000 tons as against 5,000 to 12,000 tons in the immediate pre-war period. From 1929 to 1932 the trend was downwards, the import balance in 1932 amounting to 21,000 tons as against about 31,000 tons in 1929, but an import balance of 33,000 tons was recorded in 1933. The estimates of the decorticated equivalent of the import balance show a slightly less pronounced fluctuation and a less marked downward trend in recent years when the average retentions (decorticated basis) were equivalent to about 20,000 tons per annum.

Belgium does an appreciable foreign trade in ground nut oil, but the transit trade is considerably less important both absolutely and relatively than in the case of ground nuts. The Netherlands supplied the bulk of the imports for the transit trade which averaged about 1,200 tons per annum in the period 1924-31, and France was the principal market for the exports. In the post-war period under review the greater part of the ground nut oil exported from Belgium was domestic produce averaging 1,800 tons in the years 1924-32 but falling to less than half that amount in 1933. The import balance

assumed some importance after 1927, and averaged over 6,000 tons per annum in the period 1928-33. Details of the general foreign trade of Belgium in ground nut oil during the pre-war quinquennium and annually from 1924 are shown in Table 104; these figures do not include hardened ground nut oil of which substantial quantities are imported from the Netherlands.

TABLE 104.—*Foreign Trade of Belgium in Ground Nut Oil*
(In tons)

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933. (a)
Imports—											
<i>(i) Special Trade—</i>											
Netherlands	270	796	2,909	2,045	2,437	4,020	6,055	7,428	7,686	5,397	4,180
France	611	601	675	779	279	283	775	1,349	1,436	1,182	789
Other Countries	116	245	515	218	197	197	298	1,436	1,103	634	1,406
Total.. ..	997	1,642	4,099	3,042	2,913	4,500	7,128	10,213	10,225	7,213	6,375
<i>(ii) Transit Trade—</i>											
Netherlands	124	316	188	589	1,149	1,475	559	264	908	} (b)	(b)
Other Countries	44	229	293	182	952	543	385	253	951		
Total.. ..	168	545	481	771	2,101	2,018	944	517	1,859	(b)	(b)
Exports—											
<i>(i) Special Trade—</i>											
Switzerland	35	768	430	1,086	873	555	375	662	965	781	510
Germany	196	141	687	52	555	174	233	64	107	123	32
France	7	40	—	97	379	350	209	64	95	161	24
Netherlands	79	374	191	122	250	122	107	36	58	72	9
Other Countries	605	872	937	821	512	376	300	205	374	583	309
Total.. ..	922	2,195	2,245	2,178	2,569	1,577	1,224	1,031	1,599	1,720	884
<i>(ii) Transit Trade—</i>											
Total.. ..	168	545	481	771	2,101	2,018	944	517	1,859	(b)	(b)
Import balance	75	(c)553	1,854	864	344	2,923	5,904	9,182	8,626	5,493	5,491

(a) Provisional.

(b) Not available.

(c) Export balance.

The Netherlands and France together provided over 80 per cent. of the imports of ground nut oil in both the pre-war and post-war periods. In the pre-war quinquennium France was the more important, but the Netherlands held the lead in every year from 1924. Imports for

consumption from France averaged 600 tons per annum in the pre-war quinquennium and 800 tons per annum in the period 1924-33, the comparable figures for the Netherlands being about 300 and 4,300 tons.

Germany was the principal market for ground nut oil exported from Belgium in the pre-war quinquennium, but Switzerland held the lead in every year after 1925. France and the Netherlands are the only other important markets for these exports, which averaged 900 tons per annum in the pre-war quinquennium and 1,700 tons in the period 1924-33, excluding the transit trade.

As a result of the increased import balances of ground nuts and ground nut oil, the estimated supplies of ground nut oil available for consumption in Belgium increased from about 3,000 tons per annum in the pre-war quinquennium to an average of about 10,000 tons per annum in the period 1925-28 and to 16,000 tons per annum in the period 1929-33. In addition, there is an import of hardened ground nut oil, mainly from the Netherlands, which in recent years is estimated to have increased the available supplies by about 6,000 tons.

Table 105 shows the estimated available supplies in the pre-war quinquennium and annually from 1925, ignoring stocks, particulars of which are not available, and assuming that all the available supplies of ground nuts are used for oil.

TABLE 105.—*Estimated Amount of Ground Nut Oil available for Consumption in Belgium*
(In thousands of tons)

	1909-12 (Average).	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
Estimated oil equivalent of import balance of ground nuts.. .. .	3	5	12	8	8	10	7	8	8	11
Import balance of ground nut oil (b) ..	(a)	2	1	(a)	3	6	9	9	6	5
Estimated amount of ground nut oil available for consumption	3	7	13	8	11	16	16	17	14	16

(a) Less than 500 tons.

(b) Excluding hardened ground nut oil, estimated in recent years at about 6,000 tons per annum.

TABLE 106.—*Foreign Trade of Belgium in Ground Nut Cake, and the Estimated Available Supplies*

	1927.	1928.	1929.	1930.	1931.	1932.	1933. (a)
Imports—	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
(i) <i>Special Trade—</i>							
France	11,530	11,005	8,248	12,968	17,166	13,601	23,128
India	5,202	10,310	10,365	6,955	14,735	14,268	10,871
Netherlands	1,809	971	641	2,956	11,320	5,498	2,844
Other Countries	2,279	948	562	1,060	1,258	395	6,207
Total	20,820	23,234	19,816	23,939	44,479	33,762	43,050
(ii) <i>Transit Trade—</i>							
France	7,759	7,533	9,673	15,013	12,994	} (b)	(b)
Other Countries	1,102	5,756	2,251	1,880	938		
Total	8,861	13,289	11,924	16,893	13,932	(b)	(b)
Exports—							
(i) <i>Special Trade—</i>							
Netherlands	212	452	890	195	1,695	1,444	5,034
Other Countries	177	885	577	1,538	2,238	558	904
Total	389	1,337	1,467	1,733	3,933	2,002	5,938
(ii) <i>Transit Trade—</i>							
Netherlands	8,368	10,459	7,757	10,581	5,089	} (b)	(b)
Germany	(c)	1,954	3,596	5,859	8,670		
Other Countries	493	876	571	453	173		
Total	8,861	13,289	11,924	16,893	13,932	(b)	(b)
Import Balance.. .. .	20,431	21,897	18,349	22,206	40,546	31,760	37,112
Estimated oilcake equivalent of import balance of ground nuts	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.
	17	18	21	16	19	13	22
Estimated supplies of ground nut cake available for consumption	37	40	39	38	60	45	59

(a) Provisional.

(b) Not available.

(c) Included in "Other Countries."

Details of the foreign trade in ground nut cake are shown in Table 106 annually from 1927, the first year in which this commodity was separately classified in the Belgian trade returns. The table also shows the estimated amounts of ground nut cake available for consumption in Belgium during the period mentioned, ignoring stocks particulars of which are not available and assuming that all the available supplies of ground nuts were crushed.

Imports of ground nut cake for consumption (special trade) rose from over 20,000 tons in 1927 to 43,000 tons in 1933, while the transit trade increased from 9,000 tons in 1927 to 16,000 tons in 1931, the latest year for which information is available. In the years 1927-33 about one-half of the imports for consumption were received from France, the largest imports being 23,000 tons in 1933. Imports from India, which rose from 5,000 tons in 1927 to nearly 15,000 tons in 1931, but fell to 11,000 tons in 1933, constituted most of the other imported supplies except in 1931, when imports from the Netherlands were exceptionally large amounting to 11,000 tons. Exports of domestic produce show a rapid though irregular expansion from less than 400 tons in 1927 to nearly 6,000 tons in 1933, the Netherlands taking the largest quantities in most years. In the transit trade from 1927 to 1931, France again supplied most of the imports, which went principally to the Netherlands and Germany. Transit trade accounted for nearly 90 per cent. of the ground nut cake exported from Belgium in those years.

The import balance of ground nut cake rose from about 20,000 tons per annum in the period 1927-29 to over 30,000 tons per annum in the period 1930-33, but counterbalancing variations in the estimated domestic production kept the estimated available supplies at about 40,000 tons in each year except 1931 and 1933, when they were about 60,000 tons.

CHAPTER 26

DENMARK

Imports of ground nuts into Denmark, almost the whole of which are for the manufacture of oil, have shown a steady expansion, the annual average rising from 3,000 tons in the pre-war quinquennium to about 12,000 tons in the years 1924-27 and about 30,000 tons in the years 1928-33. Re-exports are negligible.

The trade returns do not distinguish between decorticated and undecorticated ground nuts, except for the small quantities imported for purposes other than the manufacture of oil. The estimated amounts of decorticated and undecorticated ground nuts shown in the following table of imports for the periods 1909-13 and 1924-30 are based on the proportions of each category exported to Denmark from the principal sources of supply ; for the years 1931-33 the figures were officially supplied by the Danish Authorities. The proportion of decorticated nuts in the imports has apparently increased in recent years with the result that the imports computed on a decorticated basis have shown a more marked increase since 1929 than the aggregate imports on an actual weight basis.

In the immediate pre-war period, French West and Equatorial Africa supplied more than two-thirds of the imports, but only one-third in the period 1924-27 and just over one-quarter in the period 1928-33. But the Danish trade returns indicate not the country of origin but the country of purchase and the considerable quantities which in recent years are recorded as entering Denmark from the United Kingdom and France, no doubt originated in large measure from French West Africa. In this connection it is noteworthy that neither the United Kingdom nor the French trade returns show appreciable exports of ground nuts to Denmark.

Denmark now produces a not inconsiderable amount of ground nut oil surplus to its requirements and the export balance has grown from under 500 tons per annum in the period 1924-27 to over 4,000 tons per annum in 1931-32, and in 1933 it exceeded 7,000 tons. In the immediate pre-war period there was an *import* balance of 1,500 tons per annum. It would appear from this that part of the increased imports of ground nuts in recent years has been effected primarily for the production of ground nut cake.

TABLE 107.—Imports of Ground Nuts into Denmark
(Special Trade)

Countries.	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>For oil—</i>	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
United Kingdom	(a) 297	—	—	—	1,568	7,257	3,369	10,723	9,691	9,315	5,876
French West and Equatorial Africa	2,290	1,390	4,588	4,912	4,927	4,221	4,485	2,279	14,917	(b) 4,300	(b) 16,068
China	243	2,811	2,303	2,664	2,375	—	1,119	2,407	7,772	4,244	2,693
France	(a) 1,567	292	—	—	—	4,235	16,867	10,974	4,527	1,408	1,691
Germany	211	1,705	2,029	295	1,250	1,615	1,096	387	200	—	14
Other Countries	253	926	(c) 2,969	(c) 6,108	1,723	(c) 5,127	196	(d) 3,751	(e) 3,973	(d) 4,189	(d) 6,405
Total	2,997	8,696	12,181	13,979	11,843	22,455	27,132	30,521	41,080	23,454	32,747
<i>Other than for oil—</i>											
Decorticated ..	(f) 15	200	168	304	306	220	263	340	254	335	329
Undecorticated ..	(g) 15	13	—	21	—	17	27	15	36	31	45
Total	(h) 15	213	168	325	306	237	290	355	290	366	374
<i>Estimated Composition of Imports of Ground Nuts for Oil.</i>											
	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.
Decorticated ..	1	4	2	4	2	1	4	6	8	7	12
Undecorticated ..	2	5	10	10	10	21	23	25	33	16	21
Total (decorticated basis)	3	8	9	11	10	17	21	25	33	19	27

- (a) Included, if any, in "Other Countries."
 (b) From "West Africa," details not available.
 (c) Mostly from British West and South Africa.
 (d) Almost all India.
 (e) Mostly from India and Portuguese Colonies in Africa.
 (f) Not available.
 (g) Average 1910-13.
 (h) Incomplete.

TABLE 108.—*Foreign Trade of Denmark in Ground Nut Oil*
(Special Trade)
(In tons)

	1910-13 (Average). (a)	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Exports—</i>											
Sweden	41	436	480	291	308	473	1,194	1,969	2,442	1,800	1,500
Germany	1	(b)	(b)	(b)	(b)	3	3	11	114	620	1,500
United Kingdom	—	(b)	(b)	(b)	(b)	27	205	452	795	490	1,500
Finland	1	232	197	197	310	535	703	813	372	362	300
Norway	65	195	82	163	76	307	472	435	396	59	1,500
Other Countries	39	38	19	165	530	948	1,342	767	1,005	981	4,200
Total	147	901	778	816	1,224	2,293	3,919	4,447	5,124	4,312	7,700
<i>Imports</i>	1,662	370	844	485	627	375	357	824	566	159	400
Export balance	1,515 (c)	531	(c)66	331	597	1,918	3,562	3,623	4,558	4,153	7,300

(a) Ground nut oil was not separately classified in the trade returns for 1909.

(b) Included, if any, in "Other countries."

(c) Import balance.

Most of the Danish exports of ground nut oil are sent to other Scandinavian countries, Sweden taking 35 per cent. in the period 1924-33.

Table 109 shows the estimated available supplies of ground nut oil in Denmark during the pre-war quinquennium and annually from 1924, ignoring stocks particulars of which are not available.

TABLE 109.—*Estimated Amount of Ground Nut Oil available for Consumption in Denmark*
(In thousands of tons)

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
Estimated oil equivalent of imports of ground nuts	1	3	4	4	4	7	8	10	13	8	1
Export balance of ground nut oil	(a) 2	1	—	—	1	2	4	4	5	4	
Estimated amount of ground nut oil available for consumption	3	2	4	4	3	5	4	6	8	4	

(a) Average 1910-13. Import balance.

As already mentioned, the increased exports of ground nut oil in recent years absorbed much of the oil produced from the larger imports of nuts, and up to 1930 there was little change from year to year in the estimated available supplies of ground nut oil. In 1930 and 1931 the available supplies increased to 6,000 and 8,000 tons respectively, but in 1932 they reverted to the average level of the post-war period under review, namely about 4,000 tons.

About three-quarters of the available supplies of ground nut oil are used for the manufacture of margarine, although, as Table 110 shows, ground nut oil forms only about 5 per cent. of the oils and fats used in that industry.

TABLE 110.—*Fats and Oils used in the Manufacture of Margarine in Denmark*(a)
(In tons)

	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Vegetable fats and oils—</i>										
Coconut oil	36,704	36,211	33,466	30,451	28,141	27,555	24,638	23,085	19,601	21,204
Palm fat (b)	267	689	295	894	3,488	3,734	4,396	3,454	2,627	1,059
Ground nut oil	2,761	3,090	3,168	3,283	3,536	3,017	4,194	5,245	2,067	1,570
Cottonseed oil	2,190	2,608	4,330	4,621	4,299	5,332	4,121	3,542	2,086	840
Sesame oil	4,074	4,595	3,552	3,531	3,682	3,480	3,713	3,838	3,523	3,513
Soya oil	3,796	2,686	2,716	3,072	4,208	4,360	4,292	4,556	6,219	7,811
Sunflower seed oil ..	1,794	2,175	1,033	1,702	1,300	925	1,838	797	1,830	721
Prepared vegetable oils ..	1,004	1,023	1,279	2,713	3,109	3,790	5,115	6,120	6,872	4,579
Other vegetable fats and oils	—	—	—	132	238	236	252	305	344	252
Total	52,590	53,077	49,839	50,399	52,001	52,429	52,559	50,942	44,969	41,549
<i>Animal fats and oils—</i>										
Oleomargarine	1,301	1,279	1,289	1,073	804	815	1,041	984	817	675
Premier jus	2,479	2,509	2,647	2,880	2,842	3,106	2,952	3,011	2,755	2,808
Neutral lard and other pork fat	501	403	413	448	555	588	689	728	669	726
Prepared animal oils (c) ..	856	1,643	3,159	4,619	6,667	7,466	10,126	9,151	10,795	15,108
Animal stearin	124	—	—	30	59	240	92	113	} 49	54
Other animal fats and oils	—	59	30	7	1	2	5	5		
Total	5,261	5,893	7,538	9,057	10,928	12,217	14,905	13,992	15,085	19,368
Grand Total	57,851	58,970	57,377	59,456	62,929	64,646	67,464	64,934	60,054	60,917

(a) Source: 1924-32 "Statistiske Efterretninger" (Danish official statistics of industrial production). 1933: Supplied through the Agricultural Adviser to the Danish Government in London.

(b) Presumably almost entirely palm kernel oil.

(c) Presumably almost entirely whale oil.

After increasing steadily from 1924 to 1931, the weight of ground nut oil used for margarine fell from 5,000 tons in the latter year to 1,600 tons in 1933. In 1932 foreign outlets for Danish butter were curtailed and a rise in the local consumption of butter from 15 lb. *per capita* in 1931 to 19 lb. in 1932 was accompanied by a smaller production of margarine and a decline in the *per capita* consumption from 48.7 lb. to 45.2 lb. Furthermore the fall in butter prices made it necessary to produce cheaper margarine and so encouraged the greater substitution of cheaper oils than ground nut oil, for example, soya bean oil and whale oil. The use of pork fat and tallow may be expected to increase as a result of the excise and import duties* recently announced, and changes in the relative importance of the other constituents may ensue from the system of import licenses introduced for ground nuts and other oilseeds.

The live stock industries of Denmark are based on a very high consumption of oil cake. The domestic production of ground nut cake, which rose from about 2,000 tons per annum in the immediate pre-war period to about 20,000 tons per annum in recent years, is supplemented by an import balance which, until 1932, increased very considerably in the post-war period under review, and Denmark, up to 1931, was the largest importer of any country in the world. In the years 1910-13, the import balance averaged 27,000 tons a year, and this rose to an average of 75,000 tons per annum between 1924 and 1927 and to 135,000 tons per annum in the period 1928-31. In 1932-33, the import balance fell to 31,000 tons or slightly more than the pre-war figure, partly as a result of the loss of foreign markets for Denmark's live stock products, and partly because of a greater use of home-grown cereals and cheaper oil cakes. Details of Denmark's foreign trade in ground nut cake during the period 1910-13 and annually from 1924 are shown in Table 111, together with the estimated amounts of ground nut cake available for consumption in Denmark.

France supplied 97 per cent. of the total imports during the pre-war period but only about 50 per cent. in the period 1924-33. Germany was the principal source of supply in each of the years 1928-30.

* The excise and import duties at present are 30 ore per kilogramme on animal and vegetable oils and fats (except pork fat and tallow) used in the manufacture of margarine and competitive products.

TABLE 111.—*Foreign Trade of Denmark in Ground Nut Cake, and the Estimated Available Supplies*

(Special Trade)

	1910-13 (Average). (a)	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Imports—</i>											
France	27,706	59,748	37,380	27,924	41,715	49,318	51,510	60,782	71,679	17,853	20,979
Germany	491	22,996	23,953	28,787	26,434	62,572	66,403	84,706	46,957	4,697	5,275
Other Countries	359	10,176	7,713	7,546	7,280	8,536	8,138	13,911	21,867	8,003	13,568
Total	28,556	92,920	69,046	64,257	75,429	120,426	126,051	159,399	140,503	30,553	39,822
<i>Exports—</i>											
Germany	281	—	5	434	734	2	350	71	522	3,071	2,200
Sweden	905	256	1,004	548	190	643	521	1,260	2,439	1,197	1,306
Other Countries	1	—	29	443	1	10	348	1	1,052	49	566
Total	1,187	256	1,038	1,425	925	655	1,219	1,332	4,013	4,317	4,072
Import balance	27,369	92,664	68,008	62,832	74,504	119,771	124,832	158,067	136,490	26,236	35,750
	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.
Estimated oil cake equivalent of imports of ground nuts for oil	2	6	8	10	8	15	19	21	28	15	21
Estimated amount of ground nut cake available for consumption in Denmark..	29	99	76	73	83	135	144	179	164	41	57

(a) Ground nut cake was not separately classified in the trade returns for 1909.

Exports are small, but exceeded 4,000 tons in 1931 and 1932, and further increased to 7,000 tons in 1933 ; Germany and Sweden are the principal markets. Whereas the export was practically all of foreign produce in the pre-war period, one-fifth of the exports in 1924 were of domestic origin and in the years 1930-32 over 90 per cent. came under this category.

The estimated available supplies of ground nut cake rose from about 30,000 tons per annum in the pre-war years to about 160,000 tons per annum in the period 1929-31 when Denmark ranked fourth among the consumers of ground nut cake outside the ground nut producing areas. Available supplies in 1932 and 1933 were about one-third of those in the years 1929-31.

CHAPTER 27

SWEDEN

The importance of Sweden as a market for ground nut products is mainly due to its imports of ground nut cake, which in recent years averaged about 60,000 tons per annum or ten times the weight of ground nuts and twenty times the weight of ground nut oil imported.

Imports of ground nuts were negligible in the pre-war quinquennium, but rose gradually from about 1,000 tons in 1924 to a peak of 10,500 tons in 1928. During the next three years imports averaged about 7,000 tons per annum, but in 1932 and 1933 they fell again to the 1924 level. Details of the trade during the pre-war quinquennium and annually from 1924 are shown in Table 112.

The trade returns allocate the bulk of the trade to Germany, Denmark and the United Kingdom during the period 1924-28 and to the Netherlands in the subsequent years to 1932, but the Swedish trade returns indicate the country of purchase and not the country of origin. The trade returns of the ground nut producing areas show that French West Africa, India and China are the principal sources from which these supplies originate.

**TABLE 112.—Imports of Ground Nuts into Sweden
(Special Trade)**

Countries.	1909- 13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Netherlands ..	—	—	323	371	164	2,180	3,280	6,499	7,794	991	—
Germany ..	(a) 6	690	1,906	3,039	2,466	4,331	167	147	137	86	97
Denmark ..		200	205	1,323	3,233	589	10	16	20	39	938
United Kingdom ..		249	1,802	505	3,255	3,426	1,609	(b)	(b)	16	203
Other Countries ..		—	256	88	3	—	1,387	7	8	—	—
		(c)									
Total ..	6	1,139	4,492	5,326	9,121	10,526	6,453	6,669	7,959	1,132	1,238
Estimated weight (decorticated basis). ..	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.
	—	1	4	5	8	9	6	6	7	1	1

(a) Details not available.

(b) Included, if any, in "Other Countries."

(c) All from France.

The trade returns of Sweden do not separate decorticated from undecorticated ground nuts, but the total is small and in estimating the total weights (decorticated basis) shown in Table 112 it has been assumed that one-half of the imports were decorticated and one-half undecorticated. All the ground nuts imported were retained in Sweden.

The supplies of ground nut oil obtained from imported ground nuts are about doubled by the import balances of ground nut oil which averaged about 3,000 tons per annum in the post-war period under review as compared with about 1,000 tons per annum in the pre-war quinquennium. Details of the foreign trade in ground nut oil during the pre-war quinquennium and annually from 1924 are shown in Table 113, together with estimates of the supplies of ground nut oil available for consumption in Sweden assuming that the whole of the ground nuts imported were used for the manufacture of oil.

A slight decline in imports during 1930 and 1931 was followed by a heavy fall in 1932 to about one-half of the peak import of 4,500 tons in 1929. Some improvement was shown in 1933 when imports

TABLE 113.—*Foreign Trade of Sweden in Ground Nut Oil, and the Estimated Available Supplies*
(Special Trade)

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Imports—</i>	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Denmark ..	120	487	532	335	234	293	1,022	1,310	1,736	1,336	1,134
Netherlands ..	334	528	838	1,807	1,057	986	2,388	1,811	1,503	759	1,401
Germany ..	439	818	1,123	1,076	723	1,660	1,000	1,019	778	9	36
Other Countries	205	957	522	433	80	64	57	34	36	139	134
Total ..	1,098	2,790	3,015	3,651	2,099	3,003	4,467	4,174	4,053	2,243	2,706
<i>Exports</i> ..	—	149	298	509	1,919	1,259	875	756	619	80	16
Import balance	1,098	2,641	2,717	3,142	180	1,744	3,592	3,418	3,434	2,163	2,690
Estimated oil equivalent of imports of ground nuts	Thous. tons. (a)	Thous. tons. (a)	Thous. tons. 2	Thous. tons. 2	Thous. tons. 3	Thous. tons. 4	Thous. tons. 2	Thous. tons. 2	Thous. tons. 3	Thous. tons. (a)	Thous. tons. (a)
Estimated ground nut oil available	1	3	5	5	3	6	6	5	6	2	

(a) Less than 500 tons.

totalled 2,700 tons. Exports reached a peak of 1,900 tons in 1927 but declined steadily to 16 tons in 1933. Denmark, the Netherlands and Germany provided the bulk of the imports ; almost all the exports were consigned to the United Kingdom.

Imports of ground nut cake averaged 79,000 tons per annum in the pre-war quinquennium, 56,000 tons per annum in the quinquennium 1924-28 and 70,000 tons per annum in the period 1929-31. In 1932 imports fell to 27,000 tons, or about one-third of the weight imported in 1931, and rose to about 38,000 tons in 1933. Exports are small, averaging little more than 50 tons per annum, almost all of which goes to Denmark. Details of the foreign trade of Sweden in ground nut cake during the pre-war quinquennium and annually from 1924 are shown in Table 114 together with estimates of the supplies available for consumption, ignoring stocks particulars of which are not available and assuming that all the available ground nuts were used for the manufacture of oil and cake.

Over 90 per cent. of the ground nut cake imported into Sweden during the pre-war quinquennium was purchased from France, the only other important consignees being Denmark and Germany. During the post-war period under review, imports from France averaged about 38,000 tons per annum as compared with about 75,000 tons per annum during the pre-war quinquennium, whilst the average annual import from Denmark remained at about 2,000 tons. Imports from Germany steadily increased from 4,000 tons in 1924 to 14,000 tons in 1931 but fell to about 700 tons in 1932 and 1933 when Argentina became the second largest source of supply.

Little or no ground nut cake was manufactured in Sweden in the pre-war quinquennium, but it is estimated that domestic production averaged about 3,000 tons per annum in the period 1924-33 and accounted for about 6 per cent. of the available supplies which averaged about 59,000 tons per annum. In the period 1929-33 Sweden ranked sixth in order of importance as a consumer of ground nut cake outside the ground nut producing areas, ranking after France, Germany, Denmark, the United Kingdom, and the Netherlands ; but France and Germany produce the bulk of their supplies, while Denmark, the United Kingdom and the Netherlands, like Sweden, rely on imports for a large part of their requirements of this concentrated feed.

TABLE 114.—*Foreign Trade of Sweden in Ground Nut Cake and the Estimated Available Supplies*

(Special Trade)

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Imports—</i>	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
France ..	74,531	28,495	30,478	54,675	30,041	40,816	33,807	58,804	52,533	21,834	26,248
Germany ..	1,252	3,963	6,695	6,519	7,244	9,452	8,922	10,041	14,205	636	787
Argentina ..	254	3,844	4,753	8,326	3,714	1,441	1,687	1,327	5,134	1,543	2,896
Italy ..	(a)	1,203	—	7,108	2,750	1,764	982	148	5,151	(a)	668
Denmark ..	2,018	522	2,194	1,326	408	2,243	3,029	1,799	4,304	1,357	2,304
Spain ..	946	4,553	1,954	9,251	3,808	380	49	196	(a)	(a)	—
Other Countries	149	206	640	197	199	533	1,533	818	3,501	1,923	4,752
Total ..	79,150	42,786	46,714	87,402	48,164	56,629	50,009	73,133	84,828	27,293	37,655
<i>Exports</i> ..	50	59	(b)	64	54	(b)	207	44	10	85	(b)
Import balance	79,100	42,727	46,655	87,338	48,110	56,575	49,802	73,089	84,818	27,208	37,570
Estimated oilcake equivalent of imports of ground nuts	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.	Thous. tons.
	—	1	2	3	6	6	4	5	5	1	1
Estimated supplies available for consumption	79	44	49	90	54	63	54	78	90	28	39

(a) Included, if any, in "Other Countries."

(b) Not available; assumed same as previous year in import balance. Exports of ground nut cake were not separately classified in these years.

CHAPTER 28

ALGERIA

Imports of ground nuts and ground nut oil into Algeria increased slowly until 1927 and then rapidly. Imports of ground nuts rose from 2,500 tons (decorticated basis) in 1913 to an annual average of 3,000 tons in the period 1924-27 and an annual average of about 5,000 tons in the period 1928-32. About two-thirds of the imported nuts are crushed for oil, the balance being eaten as nuts. Imports of ground nut oil, which represent over 90 per cent. of the total imports of vegetable oils, rose from 8,000 tons in 1913 to an annual average of 11,000 tons in the period 1924-27 and 21,000 tons in the period 1928-32.

The supplies of ground nut oil available for consumption in Algeria were slightly greater than the imports of ground nut oil; the maximum addition from imported ground nuts crushed for oil being less than 2,000 tons in the peak year, and exports of ground nuts and ground nut oil averaging less than 500 tons per annum, oil equivalent, during the pre-war and post-war periods under review.

TABLE 115.—Foreign Trade of Algeria in Ground Nuts

D. = Decorticated. U. = Undecorticated. T. = Estimated Total (decorticated basis).

	1913. (a)	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
<i>Imports from—</i>										
China D. (tons) ..	1	33	61	76	83	62	50	125	245	378
U. (tons) ..	—	2,025	2,605	2,468	3,710	3,981	2,512	2,967	5,044	4,061
India D. (tons) ..	—	(b)	—	(b)	(b)	15	104	27	74	19
U. (tons) ..	1	11	146	(b)	(b)	476	1,473	1,386	1,568	829
France D. (tons) ..	94	38	20	5	5	12	10	13	109	116
U. (tons) ..	2,552	1,018	519	414	238	366	317	201	404	226
Other Countries :										
D. (tons) ..	—	5	4	6	32	81	13	22	6	1
U. (tons) ..	531	361	203	285	108	157	1,568	55	20	72
<i>Total—</i>										
D. (tons) ..	95	76	85	87	120	170	177	187	434	514
U. (tons) ..	3,084	3,415	3,473	3,167	4,056	4,980	5,870	4,609	7,036	5,188
<i>Re-exports—</i>										
D. (tons) ..	—	—	12	1	—	—	—	—	—	—
U. (tons) ..	115	115	155	146	185	112	79	60	58	16
<i>Import balance—</i>										
D. (tons) ..	95	76	73	86	120	170	177	187	434	514
U. (tons) ..	2,969	3,300	3,318	3,021	3,871	4,868	5,791	4,549	6,978	5,172
T. (thous. tons) ..	2	3	3	2	3	4	5	4	6	4

(a) Figures for the pre-war quinquennium are not available.

(b) Included, if any, in "Other Countries."

(c) Including 1,457 tons from Japan.

The large increase in the supplies of ground nut oil available for consumption in Algeria after 1927 appears to be due to smaller retentions of olive oil. Algeria has about a million olive trees, and, on the average, produced about 20,000 tons of olive oil per annum during each of the periods 1924-27 and 1928-31. During the earlier of these periods about one-half of this production was retained in Algeria, but in the latter period only about one-quarter was retained.

Table 115 shows details of the foreign trade of Algeria in ground nut oil in 1913 and annually from 1924.

The ground nuts imported are almost all undecorticated. China is the principal source of supply for both decorticated and undecorticated nuts. About 1,500 tons or approximately one-quarter of the whole were received from India in each year from 1929 to 1931, but in 1932 imports declined to about 800 tons. Almost all of the small exports go to French Morocco.

Table 116 shows the foreign trade of Algeria in ground nut oil in 1913, and annually from 1924, together with the estimated available supplies, ignoring stocks particulars of which are not available.

TABLE 116.—*Foreign Trade of Algeria in Ground Nut Oil*

	1913.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
Imports (a)	Tons. 8,263	Tons. 13,501	Tons. 10,508	Tons. 9,731	Tons. 10,479	Tons. 15,570	Tons. 19,152	Tons. 20,140	Tons. 25,706	Tons. 25,200
Exports (b)	195	241	205	179	112	85	230	626	367	500
Import balance ..	8,068	13,260	10,303	9,552	10,367	15,485	18,922	19,514	25,339	24,660
Estimated oil equivalent of import balance of ground nuts	Thous. tons. 1	Thous. tons. 1	Thous. tons. 1	Thous. tons. 1	Thous. tons. 1	Thous. tons. 2	Thous. tons. 2	Thous. tons. 2	Thous. tons. 2	Thous. tons. 2
Estimated amount of ground nut oil available for consumption	9	14	11	11	11	17	21	22	27	27

(a) Virtually all from France. (b) Virtually all to French Morocco.

France supplied virtually all the ground nut oil imported into Algeria, small quantities being received in some years from French West Africa, the only other source of supply. French Morocco takes almost all the ground nut oil exported from Algeria.

The foreign trade in ground nut cake is not separately classified in the trade returns of Algeria, and may be assumed to be small. Judging by the retentions of ground nuts, the amount of cake available averaged about 2,000 tons per annum in the post-war period under review.

CHAPTER 29

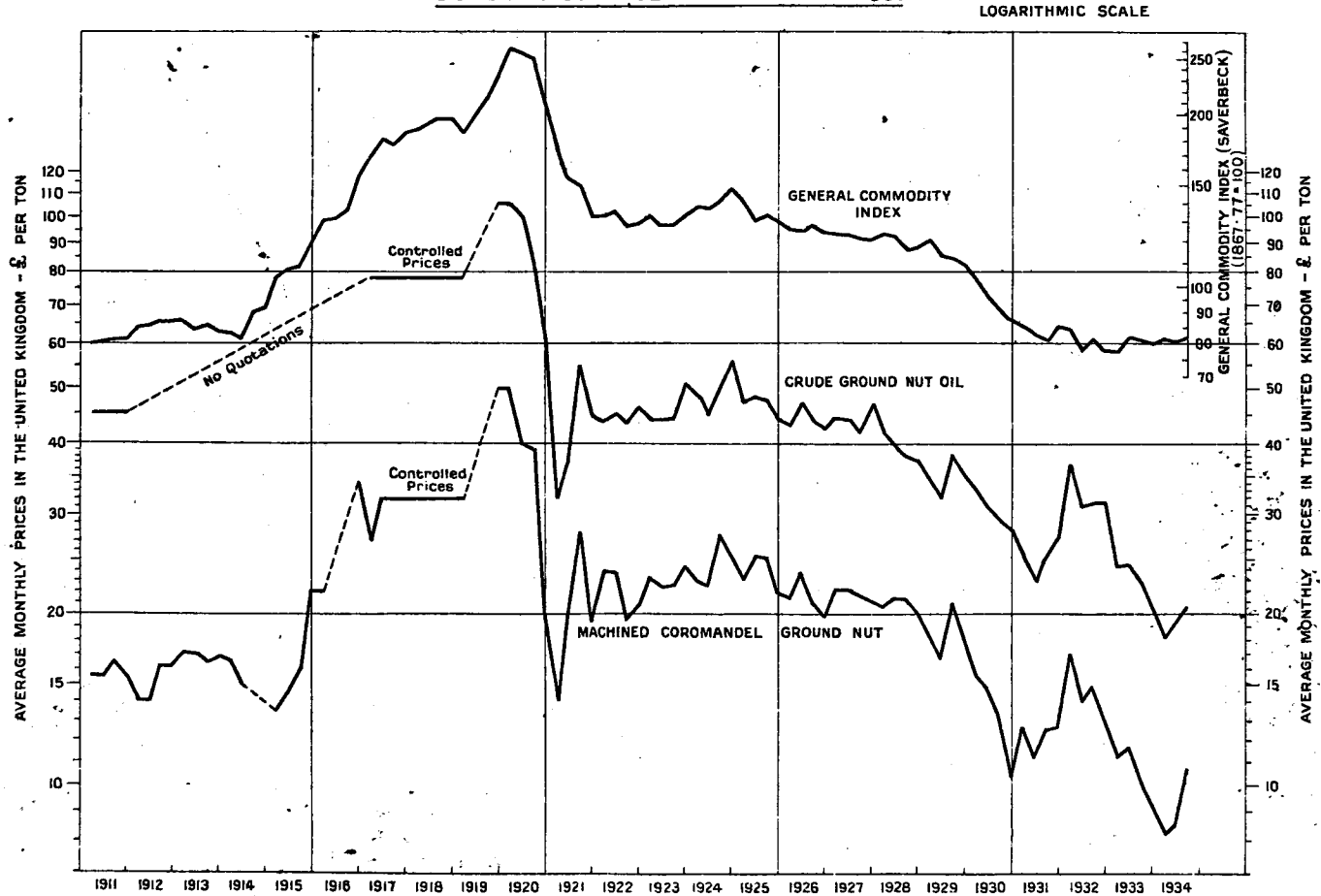
OTHER FOREIGN COUNTRIES

Ground nuts and ground nut oil are imported into a large number of other countries, but their individual importance is small. During the period 1929-33, Norway showed import balances of ground nuts and ground nut oil equivalent to an annual average of under 5,000 tons of ground nut oil, and Finland, Tunis and French Morocco imported somewhat smaller amounts. The import balances recorded by other countries such as Czechoslovakia, Turkey and Yugoslavia are of even less importance.

PART III

PRICES

**DIAGRAM II - PRICES OF COROMANDEL GROUND NUTS AND CRUDE GROUND NUT OIL AND THE
GENERAL COMMODITY INDEX 1911 - 33.**



CHAPTER 30

THE COURSE OF PRICES OF GROUND NUT PRODUCTS

The average monthly prices of ground nuts, ground nut oil and ground nut cake shown in Tables 117 to 119 at the end of this chapter have been furnished by Messrs. Frank Fehr & Company and are sterling prices ruling in the United Kingdom. The course of the prices of the nuts and oil is illustrated in Diagram II, which, for purposes of comparison, also indicates the movement of the general commodity price index.

I. Ground Nuts

The prices quoted below refer to decorticated Coromandel ground nuts, but, allowing for the weight of shells where necessary, they differ little from the prices of most other ground nuts intended for the manufacture of oil whether marketed decorticated or undecorticated. Rufisque ground nuts, exported from French West Africa in the shell, command a small premium as they are particularly suited to the manufacture of the best grades of edible oil, whereas Chinese ground nuts are slightly cheaper than Coromandel nuts.

Coromandel ground nuts, which varied between £14 and £17 per ton in the years 1911-13, rose from £13 10s. per ton in March, 1915, to £22 in December, 1915. The rate of increase accelerated in 1916 and in December of that year the price averaged £34 per ton. From May, 1917, to April, 1919, the maximum price was controlled at £32 per ton. A considerable rise followed the lifting of control and the average quarter-month price reached a peak of £50 per ton in December, 1919, or nearly three times the highest price in the immediate pre-war period. The first post-war slump witnessed a drastic fall in the price of ground nuts which touched £14 per ton in March, 1921, a fall of 70 per cent. in 15 months. In 1921 prices were very unsteady, but in subsequent years until 1928 they showed greater stability with a slight downward trend. Thereafter, the decline became more substantial and, with an interruption in the latter part of 1931 and the early part of 1932, due to the suspension of the gold standard, continued down to the early part of 1934. The fall, which was particularly marked in 1933, continued until March, 1934, when prices fell to an average of £8 5s. per ton, this being about one-half the average price in March, 1932, and the lowest price realised until then

for ground nuts in the United Kingdom since ground nut prices were recorded. The fall in gold prices was even more severe, the average prices in March, 1934, representing only 40 per cent. of the March, 1932, level. There was some recovery after March, 1934 and by September sterling prices reached £10 15s. per ton, or slightly more than in September, 1933.

II. Ground Nut Oil

The consumption of ground nut oil in the United Kingdom was small before the War and the only London prices available before 1917 refer to 1911 when the average was £45 per ton. Judging by the ground nut prices, ground nut oil prices in the immediate pre-war years were fairly steady but tended slightly downwards in the first year of the War. From May, 1917, to April, 1919, the maximum price of ground nut oil was fixed at £78 per ton or about $1\frac{1}{2}$ times the 1911 price and nearly $2\frac{1}{2}$ times the maximum control price of decorticated ground nuts. With the lifting of control, the price of ground nut oil rose appreciably, although relatively less than ground nuts, and by December, 1919, reached their quarter-month peak of £105 per ton or about double the price of decorticated ground nuts, but, as in the case of the nuts, the price fell by 70 per cent. in the succeeding 15 months. The wide fluctuations in ground nut prices witnessed in 1921 was also reflected in the oil, the price varying between £32 and £55 per ton, but thereafter until the early part of 1928, prices were steadier at between £42 and £50 per ton with no marked trend apparent. Thereafter prices declined and although they rose following the suspension of the gold standard in September, 1931, and attained £36 17s. 6d. in March, 1932, the fall was then resumed and continued to March, 1934, when the price averaged £18 5s. per ton or considerably less than one-half of the average price in 1911. The fall in 1933 and the early months of 1934 was particularly heavy and the sterling price in March, 1934, was about 60 per cent. of the average price in December, 1932; while gold prices declined over the same period by about 45 per cent. Subsequently prices improved somewhat, averaging £20 15s. a ton in September, 1934, as against £22 17s. 6d. in September, 1933.

II. Ground Nut Cake

Only small quantities of ground nut cake entered world trade before the War when the nominal quotation for decorticated ground nut cake in the United Kingdom was about £7 per ton. Demand increased very considerably during the War and maximum prices of £17 5s. and

£21 per ton were fixed for undecorticated ground nut cake in 1917 and 1919 respectively; the corresponding prices for decorticated ground nut cake were £19 and £24 per ton. By March, 1928, the London price of decorticated ground nut cake (light coloured Bombay Expeller, 54 per cent.) had fallen to about £10 per ton, but a rising trend which took the price to £11 5s. in September, 1929, was followed by a steady fall to £5 8s. in September, 1931. The rise that then followed the suspension of the gold standard in the United Kingdom gave place twelve months later to a steady decline which brought the price of decorticated ground nut cake to £4 15s. per ton in March, 1934, or over £2 per ton less than the nominal pre-war quotations or the average price in December, 1932. Compared with the fall of 32 per cent. in the sterling price of ground nut cake between December, 1932, and March, 1934, the gold price showed a decline of about 37 per cent. After touching these low levels, an improvement carried the average price of cake to £6 a ton in September, 1934.

IV. *General*

Between December, 1919, and March, 1921, the prices of ground nuts and oil fell by 70 per cent. as compared with a fall of only 25 per cent. in the general commodity index, but during the next 6 years there was a marked parallelism in the movement of the general index and in that of ground nut products. The upward movement in the prices of ground nuts and oil in 1921 and the downward movement after 1927 were also much more marked than the movements in the general commodity index. Broken by a rising trend following the suspension of the gold standard in the United Kingdom—which also had a greater effect on the prices of ground nut products than on the general commodity index—the prices of these products declined between March, 1928, and March, 1934, by nearly 60 per cent. whereas the general commodity index fell by less than 35 per cent.

The price of ground nuts is directly determined by the prices of ground nut oil and ground nut cake, particularly the former. The price of ground nut oil is, in turn, determined partly by the price of other vegetable oils, and partly by the price of commodities, such as butter, substitutable for products in which ground nut oil is used. The price of ground nut cake is determined partly by the price of animal products, such as meat, milk and butter, and partly by competing cattle foods such as grain, hay and other oilcakes, the demand for which, and therefore the price, is partly dependent upon the state of the pasture.

The heavy decline in the prices of ground nut products since 1928 may be attributed to the following factors apart from the general causes which have affected the price level of all commodities.

- (i) The heavy production and stocks of whale oil which reduced the prices of oilseeds generally.
- (ii) The increased production of ground nuts, palm kernels and other oilseeds.

TABLE 117.—*Course of Prices of Ground Nuts*

Average monthly price per ton—Machined Coromandel Ground Nuts to United Kingdom and N. Continent (Shipment current and/or following month).

Year.	March.	June.	September.	December.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1911	15 10 0	15 10 0	16 10 0	15 10 0
1912	14 0 0	14 0 0	16 5 0	16 5 0
1913	17 0 0	17 0 0	16 10 0	16 15 0
1914	16 10 0	15 0 0	(a)	(a)
1915	13 10 0	14 10 0	16 0 0	22 0 0
1916	22 0 0	(a)	(a)	34 0 0
1917	27 0 0	32 0 0(b)	32 0 0(b)	32 0 0(b)
1918	32 0 0(b)	32 0 0(b)	32 0 0(b)	32 0 0(b)
1919	32 0 0(b)	(a)	(a)	50 0 0
1920	50 0 0	40 0 0	39 0 0	19 0 0
1921	14 0 0	20 0 0	28 0 0	19 10 0
1922	23 8 0	23 6 5	19 11 6	20 13 0
1923	23 6 0	22 7 6	22 10 0	24 7 6
1924	23 0 0	22 11 3	27 11 3	25 5 6
1925	23 2 6	25 5 0	25 2 6	21 16 3
1926	21 7 6	23 15 0	20 18 9	19 17 6
1927	22 5 0	22 5 0	21 17 6	21 3 9
1928	20 11 3	21 7 6	21 3 9	19 18 9
1929	18 6 3	17 15 0	20 18 9	18 0 0
1930	15 11 3	14 12 6	13 0 0	10 7 6
1931	12 16 3	11 6 3	12 11 3	12 15 0
1932	17 2 6	14 0 0	15 0 0	13 0 0
1933	11 5 0	11 15 0	10 5 0	9 3 9
1934	8 5 0	8 10 0	10 15 0	

(a) Not available.

(b) Controlled maximum price ; in force from May, 1917, to April, 1919.

- (iii) The increased production and low price of butter which limited the market for margarine and particularly the better grades of margarine for which ground nut oil is most suited.
- (iv) The increased production and low price of lard which competes with ground nut oil for frying.
- (v) The reduced demand in Europe for oil cake as cattle feed owing to the abundance of pasturage and fodder crops and the very low prices ruling for cereals.

The cumulative effect of these factors was not fully felt until 1933 as the disequilibrium between supply and demand was previously less marked in the case of fluid oils such as ground nut oil, soya bean oil and cotton oil, all of them the produce of an annual crop, than in the case of hardened oils such as palm kernel oil, coconut oil—the product of arboreal fruits—and whale oil (which cannot be used in margarine until it has been hardened). The alternative use of ground nut oil as an edible oil also assisted to moderate the fall in its price.

TABLE 118.—*Course of Prices of Crude Ground Nut Oil*
Average monthly price per ton in Hull

Year.	March.	June.	September.	December.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1911	45 0 0	45 0 0	45 0 0	45 0 0
1917	78 0 0(a)	78 0 0(a)	78 0 0(a)	78 0 0(a)
1918	78 0 0(a)	78 0 0(a)	78 0 0(a)	78 0 0(a)
1919	78 0 0(a)	(b)	(b)	105 0 0
1920	105 0 0	100 0 0	83 0 0	60 0 0
1921	32 0 0	38 0 0	55 0 0	45 0 0
1922	43 13 0	45 0 0	43 5 6	46 5 0
1923	44 5 0	44 0 0	44 10 0	51 0 0
1924	48 2 6	45 0 0	50 0 0	55 17 6
1925	47 5 0	48 5 0	47 12 6	43 17 6
1926	43 0 0	47 0 0	43 10 0	42 10 0
1927	44 12 6	44 0 0	42 0 0	46 10 0
1928	42 0 0	39 0 0	37 15 0	37 7 6
1929	34 7 6	32 5 0	38 5 0	34 17 6
1930	33 0 0	30 10 0	29 2 6	28 2 6
1931	25 7 6	22 18 9	25 7 6	27 5 0
1932	36 17 6	31 0 0	31 7 6	31 10 0
1933	24 7 6	24 12 6	22 17 6	20 5 0
1934	18 5 0	19 5 0	20 15 0	

(a) Controlled maximum price.

(b) Not available.

TABLE 119.—*Course of Prices of Ground Nut Cake*

Average monthly price per ton—Light coloured, Bombay Expeller, 54 per cent. ; c.i.f. Continental Ports, shipment within two months.

Year.	March.	June.	September.	December.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1928	10 4 6	10 15 0	10 19 6	11 8 9
1929	10 7 6	10 1 3	11 5 0	9 2 6
1930	7 2 6	5 15 0	5 13 0	5 6 9
1931	5 14 6	5 11 3	5 8 0	7 8 9
1932	7 8 0	6 9 6	7 12 0	6 19 6
1933	6 0 0	5 17 6	5 12 6	5 0 0
1934	4 15 0	5 0 0	6 0 0	

PART IV

SUMMARY AND CONCLUSIONS

CHAPTER 31

SUMMARY

Annual statistics of acreage and production of ground nuts, though obviously desirable for the produce of an annual plant, are not available for all the principal producing areas. Annual figures are published for India, the largest producer, parts of French West and Equatorial Africa, including Senegal (which is the most important producer of ground nuts in Africa), the United States of America, Java and Madura and Argentina. These areas comprise about two-thirds of the world's ground nut acreage, but annual figures of acreage and production are not available for China, the second largest producer, British West Africa and certain parts of French West and Equatorial Africa. Figures for all countries are, however, available from the returns rendered in connection with the World Agricultural Census, 1930, and these and other available data of acreage and production for the period 1924-32 are shown in Table 120. Comparable statistics relating to a pre-war period are lacking, but, judging by exports, the acreage and production were probably about one-third of their post-war maxima.

The acreage under ground nuts in those countries for which annual figures are available—and these as already stated, comprise about two-thirds of the world's acreage under the crop—rose from an average of 6.6 million acres in the period 1924-26 to an average of 9.8 million acres in the period 1930-32, the production rising by about the same proportion from 2.7 to 3.8 million tons. Complete figures are not yet available for 1933, but the indications are that an appreciable increase in both acreage and output occurred in that year as compared with the average of the preceding three-year period, owing to the larger area devoted to ground nuts in India. By far the largest increase during the period under review occurred in India where the acreage and production in the period 1930-32 increased as compared with the period 1924-26 by about 60 per cent. to an average of 6.2 million acres and 2.6 million tons. The next largest increase among the areas for which annual figures are available occurred in the United States of America where a rise of about 40 per cent. brought the average acreage in the period 1930-32 to 1.4 million acres and the *harvested* production to 0.4 million tons. Acreage and production were relatively stable in the rest of these areas, none of which, however, showed a net decline.

Of the principal ground nut producing areas whose production in the absence of fuller information must be judged by exports, only British West Africa showed an important change; there the average exports of decorticated and undecorticated nuts during the post-war periods in question increased by about one-third to the equivalent of about 280,000 tons of undecorticated nuts. All the smaller producing areas, on the same basis of comparison, produced more ground nuts in the post-war than in the pre-war periods under review, but only Australia and Mozambique showed well marked and sustained expansion since 1924. Australian production is still very small and probably less than 5,000 tons per annum, but Mozambique judged by exports—production statistics are not available—is one of the largest producers not included in Table 120. The annual exports of ground nuts averaged 15,000 tons (undecorticated basis) in the period 1910-13, 20,000 tons in 1924-26 and about 40,000 tons in 1931-3 but the combined exports of ground nuts and ground nut oil from Mozambique account for less than 5 per cent. of the world's exports of these commodities.

It is estimated on the basis of the available information regarding acreage, production and export that the world acreage and production increased by about 40 per cent. between the periods 1924-26 and 1930-32 to about 15 million acres and 6 million tons of nuts in the shell, the average yield remaining at about 0.4 tons of nuts in the shell per acre.

British Empire countries produce about two-thirds of the world ground nut crop. India, with about 7 million acres, produces about 3 million tons of ground nuts per annum or about one-half of the world output and accounts for more than double the estimated acreage and production of China, its largest competitor. China and French West and Equatorial Africa each produce an annual average of about 1 million tons of ground nuts or rather more than double the estimated production of British West Africa or the United States of America. Senegal provides more than one-half of the production of French West and Equatorial Africa, and Nigeria accounts for three-quarters of the production of British West Africa.

Although the volume of production of an annual crop is influenced by considerations of price, their effect is not so marked or speedy as a crop such as ground nuts where the unit of cultivation is small; it is in the case of crops grown on large estates where the overhead

TABLE 120.—*Estimated Acreage and Production of Ground Nuts in the Principal Producing Countries*

A = Area in millions of acres.

P = Production (undecorticated) in millions of tons.

		1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
<i>British Empire Countries—</i>										
India (a)	.. .. A	2.9	4.0	4.3	5.4	6.4	5.7	6.4	5.3	6.8
	P	1.4	1.8	1.8	2.4	2.8	2.4	2.8	2.2	2.9
Nigeria	.. .. A	(b)	(b)	(b)	(b)	(b)	(b)	1.0	(b)	(b)
	P	(b)	(b)	(b)	(b)	(b)	(b)	0.3	(b)	(b)
The Gambia	.. A	(b)	(b)	(b)	(b)	(b)	(b)	0.3	(b)	(b)
	P	(b)	(b)	(b)	(b)	(b)	(b)	(c)	(b)	(b)
								0.1		
								(c)		
<i>Foreign Countries—</i>										
China..	.. .. A	(b)	(b)	(b)	(b)	(b)	(b)	2.3	(b)	(b)
	P	(b)	(b)	(b)	(b)	(b)	(b)	1.0	(b)	(b)
<i>French West and Equatorial Africa :—</i>										
Senegal ..	.. A	1.2	1.2	1.5	1.2	1.3	1.6	1.7	1.5	1.6
	P	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.2	0.5
Other Colonies..	A	(b)	(b)	(b)	(b)	1.1	1.0	1.3	1.4	1.3
	P	(b)	(b)	(b)	(b)	0.3	0.3	0.4	0.5	(b)
United States of America	.. .. A	1.2	1.0	0.8	1.1	1.2	1.4	1.1	1.4	1.6
	P	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.5	0.5
Netherlands	A	0.5	0.5	0.5	0.5	0.6	0.5	0.6	0.5	0.5
East Indies (d)	.. P	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Argentina ..	.. A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	P	(e)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

(a) Four Provinces and States only, but comprising more than 90 per cent. of the total acreage in India.

(b) Not available.

(c) Based on comparison of Gambian exports with Nigerian exports and acreage.

(d) Java and Madura only.

(e) Less than 50,000 tons.

expenses are considerable. Experience suggests that an unfavourable price for ground nuts has the effect of increasing domestic consumption rather than of decreasing production. In India, for example, the production of ground nuts was greater in the period 1931-33 than in the period 1927-29 when the price was much higher, but the proportion of the crop retained for domestic consumption increased from under 53 per cent. in the earlier period to 67 per cent. in the later period.

A large proportion of the crop of the ground nut producing areas is consumed locally—as edible nuts or as oil—whilst in the United States of America and Argentina the whole crop is retained for domestic consumption and is supplemented by imports. In 1933 the only year for which production statistics are available for all the principal ground nut producing areas, India retained about two-thirds of its production, China and French West and Equatorial Africa about one-half and British West Africa about one-quarter, whilst as already stated, the United States of America and Argentina retain the whole of the production. In the aggregate about two-thirds of the production of the principal ground nut producing areas was retained for local consumption, and the ability of the ground nut producing areas to absorb such a large proportion of the crop is decided advantage to the producers.

Some of the producing areas decorticate their ground nuts before export, some export them in the shell, and others export considerable quantities in both states. The proportion of decorticated ground nuts in the total exports (decorticated basis) from the principal producing areas rose from 57 per cent. in the pre-war quinquennium to about 70 per cent. in recent years. Almost all the ground nuts exported from India, Nigeria, Tanganyika and Mozambique are decorticated before shipment, but those from French West and Equatorial Africa, the Gambia, Portuguese Guinea and the Anglo-Egyptian Sudan are exported in the shell. The state in which the nuts are shipped is largely determined by the distance from the market. Apart from the Anglo-Egyptian Sudan which is mainly dependent upon the Egyptian market, all these countries find their principal markets in Europe. The producing areas of French West and Equatorial Africa, the Gambia, Portuguese Guinea, and the Anglo-Egyptian Sudan, all of which export their nuts mainly in the shell, are, therefore, much nearer their markets than are India, Tanganyika and Mozambique, whilst 80 per cent. of the production of Nigeria is grown over 700 miles from the port of shipment. It is to minimize

the heavy freight costs from these more distant producing areas that the ground nuts exported therefrom are decorticated before shipment. The slight increase in the proportion of the exports leaving in the decorticated condition coincides with a greater proportion of the exports coming from the more distant producing areas. China exports considerable quantities of both decorticated and undecorticated ground nuts; in the pre-war quinquennium the bulk of the exports was undecorticated, but in the post-war period under review China exported more decorticated than undecorticated nuts and this change coincided with a growth in the importance of the European markets.

World exports of ground nuts increased from an annual average of about 600,000 tons (decorticated basis) in the pre-war quinquennium to about 1,150,000 tons per annum in the period 1924-26 and about 1,370,000 tons per annum in the period 1930-32. Thus after nearly doubling between the pre-war quinquennium and 1924-26, exports subsequently increased by about 20 per cent. as compared with an increase in production estimated at about 40 per cent. The difference is accounted for by the increased proportion of production retained for local consumption to which reference has already been made. In 1933 exports were about 1,340,000 tons, an increase of one-third as compared with 1932, when exports fell to the 1924 level.

The growth in the post-war volume of world exports resulted mainly from increased consumption of margarine and a greater use of ground nut oil as a salad oil and for other culinary purposes. To a smaller extent it has been assisted by the increased manufacture of soap and the larger consumption of ground nuts as edible nuts. The heavy decline in exports in 1932 was probably due in large part to the smaller consumption of high-grade margarine in Europe resulting from the low price of butter and to larger retentions in the producing areas owing to the low price obtainable for ground nuts on the world's markets. Table 121 shows the export balances of ground nuts from the principal producing countries during the pre-war quinquennium and annually from 1924. The figures for India are incomplete by a substantial amount since they do not include exports through the ports of Portuguese India or the Kathiawar States. Information regarding these exports is not available for all the years shown in Table 121, but from the available figures, it appears that in recent years these exports represented an addition of at least 15 per cent. to the estimated total (decorticated basis) for the British Empire countries and about 10 per cent. to the world total.

TABLE 121.—*Export Balances of Ground Nuts from the Principal Producing Countries*

(In thousands of tons)

D. = Decorticated. U. = Undecorticated. T. = Estimated Total (decorticated basis).

		1909- 13 or nearest (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>British Empire Countries—</i>												
India (a)	D.	304	437	507	433	694	868	811	672	708	(b) 458	(b) 577
	T.	304	437	507	433	694	868	811	672	708	(b) 458	(b) 577
British West Africa (f) ..	D.	5	78	127	127	91	103	147	146	160	188	205
	U.	58	61	49	61	69	77	58	79	73	(b) 40	(b) 70
	T.	49	123	164	173	143	161	191	205	215	(b) 218	(b) 258
Tanganyika	D.	3	19	9	16	14	11	8	17	3	16	19
	T.	3	19	9	16	14	11	8	17	3	16	19
Anglo-Egyptian Sudan ..	U.	1	10	12	10	2	2	4	5	3	1	3
	T.	1	8	9	7	1	1	3	4	2	1	2
Total	D.	312	534	643	576	799	982	966	835	871	(b) 662	(b) 801
	U.	59	71	61	71	71	79	62	84	76	(b) 41	(b) 73
	T.	357	587	689	629	862	1,041	1,013	898	928	(b) 693	(b) 856

Foreign Countries—

China (c)	D.	(b) 5	(b) 153	117	119	87	15	36	131	153	135	88
	U.	(b) 42	(b) 53	50	57	53	52	43	56	94	49	43
	T.	37	193	165	162	127	64	68	173	223	172	120
French West and Equatorial Africa	D.	(d)	5	(d)	(d)	(d)	(d)	1	1	2	3	(b) 3
	U.	209	310	447	487	414	423	415	507	448	194	(b) 390
	T.	157	238	335	365	311	318	312	381	338	149	(b) 295
Mozambique (g)	D.	11	13	11	21	33	34	22	24	26	33	} (e)
	U.	8	20	21	14	21	24	21	22	25	17	
	T.	11	13	11	21	33	34	22	24	26	33	
Portuguese Guinea	U.	8	20	21	14	21	24	21	22	25	17	} (e)
	T.	6	15	15	11	15	18	16	16	18	13	
	D.	8	9	10	10	14	26	16	12	10	13	
Netherlands East Indies .. .	D.	8	9	10	10	14	26	16	12	10	13	18
	U.	13	6	5	2	4	6	3	2	2	2	1
	T.	18	13	13	12	17	31	18	13	12	14	19
Total	D.	24	180	138	150	134	75	75	168	191	184	(b) 142
	U.	272	389	523	560	492	505	482	587	569	262	(b) 451
	T.	229	472	629	571	503	455	436	607	617	331	(b) 480
Grand Total	D.	336	714	781	726	933	1,057	1,041	1,003	1,062	(b) 846	(b) 943
	U.	331	460	584	631	563	584	544	671	645	(b) 303	(b) 524
	T.	588	1,059	1,218	1,200	1,355	1,496	1,449	1,505	1,645	(b) 1,074	(b) 1,336
Percentage of decorticated nuts in total export balances (decorticated basis)		57	67	64	60	69	71	72	67	69	79	71

(a) Exports through British and French ports in India only, during the twelve months ending 31st March of years following those indicated. The figures which include small but unknown weights of undecorticated ground nuts, do not take account of trade through Portuguese and Kathiawar ports, particulars of which are not available over the whole period under review. The available details are shown on page 27.

(b) Partly estimated.

(c) Excluding exports from Manchukuo after 30th June, 1932. (See footnote to Table 23.)

(d) Less than 500 tons.

(e) Not yet available: assumed the same as previous year in totals.

(f) Including relatively small quantities of transit exports through the Gambia.

(g) The figures for 1929 exclude about 2,500 tons per annum, exported from the territories administered by the Mozambique and Nyasa Companies, details of which are not available.

Table 122 shows the share of each of the principal ground nut producing countries in the exports of ground nuts during the pre-war quinquennium and annually from 1924.

TABLE 122.—*Shares of the Principal Producing Countries in the Supplies of Ground Nuts (decorticated basis) entering World Trade.*

(In per cent.)

	1909-13 or nearest (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933 (a)
<i>British Empire Countries—</i>											
India (b)	51.8	41.2	41.6	36.1	51.2	58.0	56.0	44.7	45.9	(c) 42.6	(c) 43
British West Africa	8.4	11.6	13.6	14.4	10.6	10.8	13.1	13.6	13.9	(c) 20.3	(c) 19
Tanganyika	0.5	1.8	0.7	1.3	1.0	0.7	0.6	1.1	0.2	1.5	1
<i>Anglo-Egyptian</i>											
Sudan	0.2	0.8	0.7	0.6	0.1	0.1	0.2	0.3	0.1	0.1	0
Total	60.9	55.4	56.6	52.4	62.9	69.6	69.9	59.7	60.1	(c) 64.5	(c) 64
<i>Foreign Countries—</i>											
China (d)	6.3	18.3	12.7	13.5	9.4	3.6	4.7	11.5	14.4	16.0	9
French West and Equatorial Africa	26.8	22.5	27.5	30.4	23.0	21.2	21.6	25.3	21.9	13.9	(c) 22
Mozambique	1.9	1.2	0.9	1.7	2.4	2.3	1.5	1.6	1.7	3.1	(e) 2
Portuguese Guinea..	1.0	1.4	1.2	1.0	1.1	1.2	1.1	1.0	1.1	1.2	(e) 1
Netherlands East Indies ..	3.1	1.2	1.1	1.0	1.2	2.1	1.2	0.9	0.8	1.3	1
Total	39.1	44.6	43.4	47.6	37.1	30.4	30.1	40.3	39.9	35.5	(c) 35
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100

(a) Provisional.

(b) Exports through British and French ports in India only, during twelve months ending 31st March of years following those indicated. Particulars of the trade through Portuguese and Kathiawar ports are not available for the whole period under review.

(c) Partly estimated.

(d) Excluding exports from Manchukuo after 30th June, 1932.

(e) Estimated.

The above table shows that British Empire countries supplied about 60 per cent. of the total exports during the pre-war and post war periods under review; but since the War there has been a rising trend and a peak of 70 per cent. was reached in 1929. Since however these figures take no account of exports of Indian nut through Portuguese and Kathiawar ports in India, the importance of India and the Empire countries as a whole is understated. Thu-

in 1933 its exports through these ports are included the shares of India and the British Empire become 49·9 and 68·3 per cent. respectively in place of 43·2 and 64·1 per cent. respectively, while the aggregate share of the foreign countries is reduced from 35·9 to 31·7 per cent.

India, French West and Equatorial Africa, British West Africa, and China, in that order, were the principal sources of supply in the pre-war and post-war periods under review, furnishing together about 90 per cent. of the total exports of ground nuts (decorticated basis) in each of these periods. Their order of importance remained the same in every year under review except that in 1924 and 1931 China's share slightly exceeded that of British West Africa and in 1932 both British West Africa and China exported more than French West and Equatorial Africa. In the pre-war quinquennium India supplied 52 per cent., French West and Equatorial Africa 27 per cent., British West Africa 8 per cent., and China 6 per cent.; in the post-war period under review the shares of India and French West and Equatorial Africa were each about 5 per cent. less and the shares of British West Africa and China each about 5 per cent. more. The shares of India and French West and Equatorial Africa in 1924 and in 1933 were smaller than in the pre-war quinquennium, but during the intervening years their shares reached peaks of about 58 per cent. in the case of India and about 30 per cent. in the case of French West and Equatorial Africa. On the whole, the shares of China and British West Africa were appreciably larger in the post-war period under review than they were in the pre-war quinquennium, the peak for the former of these areas being about 18 per cent., and for the latter about 20 per cent.

No other country supplied more than 4 per cent. of the total exports in any of the years under review, and none consistently exported more than 30,000 tons (decorticated basis) per annum. The source of supply next in order after China—whose annual exports during the period 1924–33 averaged nearly 145,000 tons (decorticated basis)—was Mozambique with an annual average of 24,000 tons (decorticated basis) or under 2 per cent. of the average total exports. The annual exports of ground nuts from the Netherlands East Indies and Portuguese Guinea averaged about 15,000 tons (decorticated basis) in each case, and exports from Tanganyika about 12,000 tons. The Anglo-Egyptian Sudan is the only other country with an important export balance, but its average annual export was less than 5,000 tons (decorticated basis), whilst British Malaya, the Union of South Africa, Australia and the United States of America all had import balances in

every year under review. Japan had an export balance averaging about 4,000 tons per annum in the pre-war quinquennium, but an import balance in every year from 1924. Spain, on the other hand, had an import balance up to 1927 and an export balance in some subsequent years, but the export balances were less than 1,000 tons per annum and have, therefore, been omitted from the preceding tables.

The exports of ground nut oil from the ground nut producing areas, which are confined largely to China, have in the aggregate, averaged 37,000 tons per annum during the post-war period under review. The relatively small export trade from all areas other than China is due to the fact that the residual cake, which is a valuable by-product equivalent to about one-half of the value of the oil produced from a given quantity of kernels, would be largely wasted in most of the producing areas outside China. Thus despite lower labour costs and freight advantages, the ground nut producing areas are not likely to offer any serious challenge in the European markets for ground nut oil. The methods generally adopted for the production of oil in the ground nut producing areas give a lower yield of oil than is obtained in Europe, but the use of modern plant

TABLE 123.—*Export Balances of Ground Nut Oil from Ground Nut Producing Countries*
(In thousands of tons)

Countries.	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
China (a)	16	40	35	49	35	20	18	49	48	19	18
India (f)	1	(c)	1	(c)	(c)	2	1	1	2	4	3
Netherlands East Indies	(b)	(b)	(c)	(b)	(c)	4	2	1	1	3	(d) 4
Mozambique (g) ..	—	(c)	(c)	(c)	(c)	(c)	1	1	1	1	(c)
French West and Equatorial Africa ..	(b)	(b)	(b)	(b)	(b)	(b)	2	4	2	(b)	(b)
Total	17	40	36	49	35	26	24	56	54	27	(d) 26

(a) Excludes exports from Manchukuo after 30th June, 1932. The amounts exported were negligible.

(b) Import balance.

(c) Less than 500 tons.

(d) Partly estimated.

(e) Not yet available: assumed the same as previous year in total.

(f) Twelve months ending 31st March of the year following that shown.

(g) Export balance of state territories only. Information regarding the trade (if any) of the territories administered by the Mozambique and Nyasa Companies is not available.

is increasing, especially in those few areas where the oil is intended for export. Table 123 shows the export balances of ground nut oil from the ground nut producing areas during the pre-war quinquennium and annually from 1924. By exception, the United States of America had an export balance of ground nut oil in 1932, but it amounted to less than 300 tons, and has not been included in the foregoing table.

TABLE 124.—*Export Balances of Ground Nuts and Ground Nut Oil from the Principal Ground Nut Producing Countries in Terms of Decorticated Ground Nuts*

(In thousands of tons)

	1909-13 or nearest (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932. (a)	1933. (a)
<i>British Empire Countries—</i>											
Ground nuts (c) ..	357	587	689	629	852	1,041	1,013	898	928	693	856
Ground nut oil in terms of decorticated ground nuts ..	2	(b)	2	(b)	1	4	2	2	5	9	7
Total	359	587	691	629	853	1,045	1,015	900	933	702	863
<i>Foreign Countries—</i>											
Ground nuts	229	472	529	571	503	455	436	607	617	381	480
Ground nut oil in terms of decorticated ground nuts ..	40	100	88	123	88	60	58	137	130	58	58
Total	269	572	617	694	591	515	494	744	747	439	538
<i>Total—</i>											
Ground nuts	586	1,059	1,218	1,200	1,355	1,496	1,449	1,505	1,545	1,074	1,336
Ground nut oil in terms of decorticated ground nuts ..	42	100	90	123	89	64	60	139	135	67	65
Grand Total	628	1,159	1,308	1,323	1,444	1,560	1,509	1,644	1,680	1,141	1,401
Share of ground nut oil in aggregate exports (in per cent.)	7	9	7	9	6	4	4	8	8	6	5

(a) Partly estimated.

(b) Less than 500 tons.

(c) Excluding exports through Portuguese and Kathiawar ports in India, for which the available information covers only part of the period under review.

Exports of ground nut oil from China have doubled since the pre-war quinquennium when they averaged 16,000 tons per annum, but whereas in the pre-war quinquennium ground nut oil formed about one-half of China's export balance of nuts and oil, expressed in terms of nuts, the share of ground nut oil in the period 1930-33 was only one-third. Small quantities of ground nut oil are also exported from India, the Netherlands East Indies, Mozambique and French West and Equatorial Africa, but none of them exports as much as 5,000 tons per annum and the last-named area had an import balance in 1932 and 1933 and most of the other years under review. The small importance of ground nut oil relative to ground nuts in the exports from the ground nut producing areas is clearly shown in Table 124 which gives, in terms of decorticated ground nuts, the total export balances of ground nuts and of ground nut oil from British and foreign ground nut producing areas in the pre-war quinquennium and each year from 1924.

In British Empire countries, exports of ground nut oil and their importance relative to exports of ground nuts have been increasing but in 1932, the peak year, the share of ground nut oil was only about 1½ per cent. of the total weight expressed in terms of decorticated ground nuts. Exports from China make the share of ground nut oil much larger in the totals for foreign countries where it averaged about 15 per cent. in the pre-war quinquennium and the post-war period under review, but ground nut oil formed less than 10 per cent. of the aggregate exports of ground nuts and ground nut oil from the world's principal ground nut producing areas in any of the years under review.

Table 125 shows, by countries, the aggregate exports of ground nut oil and ground nuts expressed in terms of ground nut oil during the pre-war quinquennium and annually from 1924, and Diagram II illustrates the movement since 1927, including the exports through Portuguese Indian ports.

The inclusion of ground nut oil does not materially alter the rates of increase already mentioned as occurring in the exports of ground nuts alone. The pre-war average was equivalent to about 250,000 tons of ground nut oil, the 1924-28 average to about 540,000 tons and the 1929-33 average to about 590,000 tons. In the last period exports of ground nuts from the Portuguese and Kathiawar ports in India represented an additional 60,000 tons of oil per annum.

**DIAGRAM III - EXPORTS OF GROUND NUTS AND GROUND NUT OIL
FROM THE PRINCIPAL GROUND NUT PRODUCING AREAS.**

(OIL EQUIVALENT IN THOUSANDS OF TONS.)

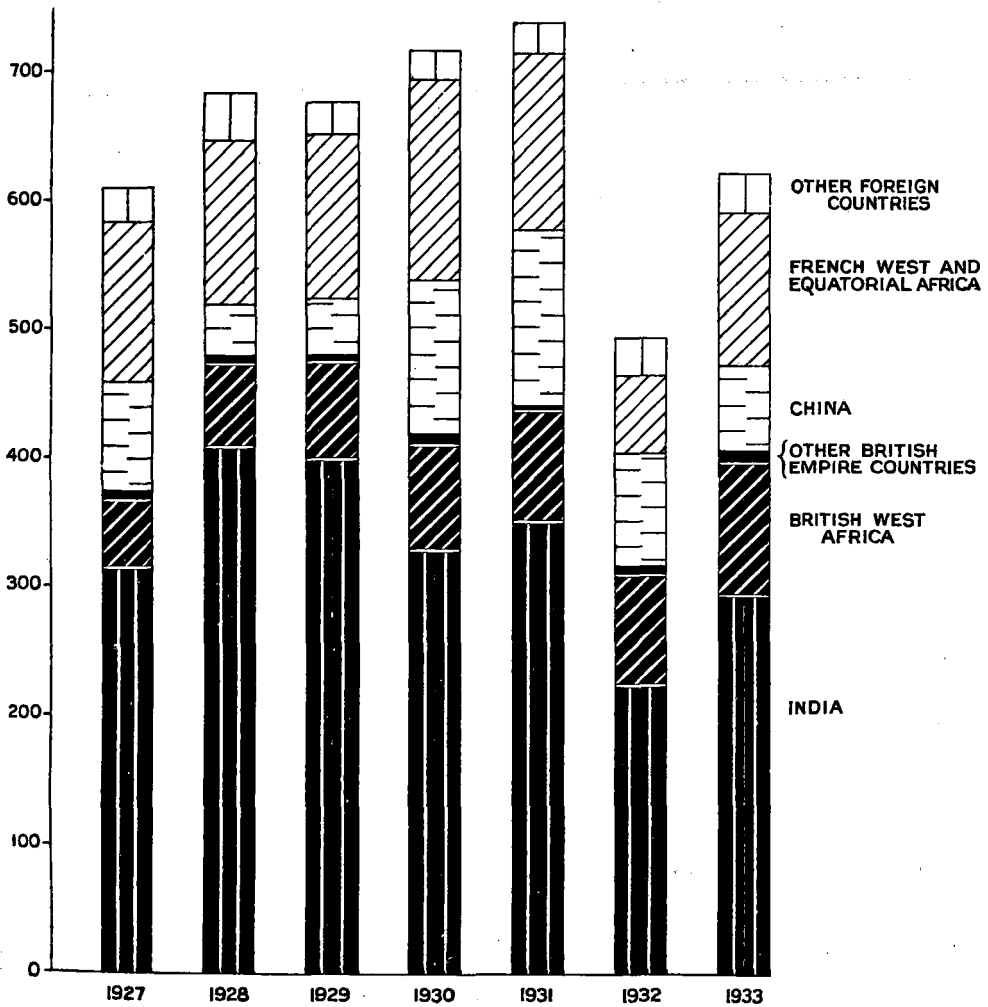


TABLE 125.—*Export Balances of Ground Nut Oil and Ground Nuts in Oil Equivalent from the Principal Ground Nut Producing Countries*

(In thousands of tons)

Countries.	1909-13 or nearest (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
										(e)	(e)
<i>British Empire Countries—</i>											
India (a)	123	175	204	173	278	349	325	270	285	187	234
British West Africa (f)	20	49	66	69	57	64	76	82	86	87	103
Tanganyika	1	7	4	6	6	4	3	7	1	6	8
Anglo-Egyptian Sudan	(b)	3	4	3	(b)	1	1	2	1	(b)	1
Total	144	234	278	251	341	418	405	361	373	280	346
<i>Foreign Countries—</i>											
China (c)	32	117	97	114	86	42	45	118	137	88	66
French West and Equatorial Africa ..	63	95	134	145	124	127	127	156	137	60	118
Mozambique	4	5	4	8	13	14	10	11	11	14	(d)
Netherlands											
East Indies	7	5	5	5	7	16	9	6	6	9	12
Portuguese Guinea ..	2	6	6	4	6	7	6	6	7	5	(d)
Total	108	228	246	276	236	206	197	297	298	176	215
Grand Total	252	462	524	527	577	624	602	658	671	456	561

(a) Exports of ground nuts from British and French ports in India and of ground nut oil from British ports only, during the twelve months ending 31st March of the years following those indicated. The figures do not take account of exports through Portuguese and Kathiawar ports; the oil equivalent of these exports, in the years for which information is available, is shown on page 31.

(b) Less than 500 tons.

(c) Excluding exports from Manchukuo after 30th June, 1932.

(d) Not yet available: assumed the same as previous year in total.

(e) Partly estimated.

(f) Includes relatively small quantities of ground nuts exported in transit through the Gambia.

Table 126 shows the shares of the individual areas.

TABLE 126.—*Shares of the Principal Ground Nut Producing Countries in the Supply of Ground Nuts and Ground Nut Oil entering World Trade*

(In per cent.)

	1909-13 or nearest (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933
<i>British Empire Countries—</i>											
India (a)	48.8	37.9	38.9	32.8	48.2	55.9	54.0	41.0	42.5	41.0	41.7
British West Africa ..	7.9	10.6	12.6	13.0	9.8	10.3	12.6	12.5	12.8	19.1	18.4
Tanganyika	0.4	1.5	0.8	1.1	1.0	0.6	0.5	1.1	0.2	1.3	1.4
Anglo-Egyptian Sudan	—	0.6	0.8	0.6	0.1	0.2	0.2	0.3	0.1	—	0.2
Total	57.1	50.6	53.1	47.5	59.1	67.0	67.3	54.9	55.6	61.4	61.7
<i>Foreign Countries—</i>											
China (b)	12.7	25.3	18.5	21.6	14.9	6.7	7.5	17.9	20.4	19.3	11.8
French West and Equatorial Africa ..	25.0	20.6	25.6	27.7	21.5	20.4	21.1	23.7	20.4	13.1	21.0
Mozambique	1.6	1.1	0.8	1.5	2.3	2.2	1.6	1.7	1.6	3.1	2.5
Netherlands East Indies	2.8	1.1	0.9	0.9	1.2	2.6	1.5	0.9	0.9	2.0	2.1
Portuguese Guinea ..	0.8	1.3	1.1	0.8	1.0	1.1	1.0	0.9	1.1	1.1	0.9
Total	42.9	49.4	46.9	52.5	40.9	33.0	32.7	45.1	44.4	38.6	38.3
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Exports of ground nuts through British and French ports in India and ground nut oil through British ports only, during the twelve months ending 31st March of the years following those indicated. If account is taken of the trade in Indian nuts through Portuguese and Kathiawar ports, the importance of India and the British Empire countries is greater than is indicated above; thus in 1933 the shares of India and the Empire countries become 48.3 and 66 per cent. respectively in place of 41.7 and 61.7 respectively, while the aggregate share of the foreign countries is reduced from 38.3 to 34 per cent.

(b) Excluding exports from Manchukuo after 30th June, 1932.

Although India, the largest exporter of ground nuts, exported but little ground nut oil, it was still by far the largest exporter of ground nuts and ground nut oil combined, its share averaging 49 per cent. of the whole in the pre-war quinquennium and 43 per cent. in the post-war period under review. Exports of ground nut oil from French West and Equatorial Africa, usually the second largest exporter of ground nuts, are also small, and in some years this caused it to occupy third or fourth place in the aggregate exports of nuts and oil. In those years—1924 and 1933—China took second place by virtue of its pre-eminence among ground nut producing areas as an exporter of ground nut oil. British West Africa, with no appreciable exports of ground nut oil, occupied fourth place in most of the post-war years under review although it exported more ground nuts than China. During the period 1924–33, the exports of French West and Equatorial Africa were about one-half those of India and represented about 22 per cent. of the total as compared with 16 per cent. from China and 13 per cent. from British West Africa. The shares of India and French West and Equatorial Africa were slightly less than in the pre-war quinquennium whereas the shares of China and British West Africa were slightly greater, but in no case was the difference as great as 6 per cent. of the total exports. The combined shares of the British Empire countries averaged about 57 per cent. both in the pre-war and the post-war periods under review. A low point of about 48 per cent. was reached in 1926 and a high point of 67 per cent. three years later.

Table 127 shows the import balances of ground nuts in the principal importing countries in the pre-war quinquennium and annually from 1924. Neither this Table nor Table 121 covers the whole of the countries engaged in the import or export of ground nuts and the omission of a different number of relatively unimportant countries largely accounts for the different totals in the tables. A further factor is the margin of error arising from the estimation of the decorticated weight of the nuts where the decorticated and undecorticated nuts are not separately distinguished in the trade returns. The aggregate import balances shown for recent years in Table 127 exceed the aggregate export balances shown in Table 121, but for the earlier years the position is reversed. As already stated the export balances for recent years shown in Table 121 are understated by about 10 per cent. If account were taken of the exports from India through ports in Portuguese India and the Kathiawar States, the export balances would exceed the import balances shown in Table 127 in almost all years. On the average, the aggregate export balances shown in Table 121 exceed the import balances in Table 127 by about 50,000 tons per annum or less than 5 per cent. of the higher figure.

TABLE 127.—*Import Balances of Ground Nuts of the Principal Importing Countries*

(In thousands of tons)

D. = Decorticated. U. = Undecorticated. T. = Estimated Total (decorticated basis).

Countries.	1909-13 or nearest (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933
<i>British Empire Countries—</i>											
United Kingdom ..	D. (a) 3	25	51	32	25	49	83	82	109	81	9
	U. (a) 5	63	73	65	22	70	49	32	27	15	3
	T. (a) 7	73	106	81	41	103	120	106	130	91	12
Canada ..	D. (a) 2	5	6	7	7	7	8	(b) 8	(b) 9	(b) 7	(b) 1
	U. (a) 1	3	3	3	3	4	4	(b) 4	(b) 4	(b) 3	(b) 1
	T. (a) 3	7	8	9	9	10	11	11	12	9	1
British Malaya (b) ..	D. (c) 4	4	6	5	6	7	7	6	4	4	4
	U. (b) 2	2	2	2	3	1	1	2	3	3	3
	T. (c) 5	5	7	6	8	8	8	7	6	6	1
Union of South Africa (b) ..	D. (d) 1	1	1	1	1	2	1	1	3	3	3
	U. (d) 1	(d)	(d)	1	1	1	1	(d)	1	1	1
	T. (d) 1	1	1	2	2	3	2	1	4	4	4
Australia (b) (e) ..	D. (d) 1	(d)	(d)	1	(d)	(d)	(d)	(d)	(d)	(d)	(h)
	U. (d) 1	1	2	2	1	1	1	(d)	(d)	1	(h)
	T. (d) 1	1	2	2	1	1	1	(d)	(d)	1	(h)
Total ..	D. (c) 10	35	64	46	39	65	99	97	125	95	11
	U. (c) 8	69	80	73	30	77	56	38	35	23	4
	T. (c) 16	87	124	100	61	125	142	125	152	111	15
<i>Foreign Countries—</i>											
France ..	D. 190	211	227	237	210	324	359	336	339	445	45
	U. 212	282	323	315	330	282	301	367	350	219	32
	T. 349	423	470	473	457	536	584	612	601	610	70
Germany ..	D. (b) 36	(b) 59	(b) 262	(b) 330	(b) 323	511	563	539	491	214	25
	U. (b) 34	(b) 15	(b) 56	(b) 106	(b) 92	75	71	95	84	24	5
	T. 62	70	304	409	392	567	616	610	554	232	29
Netherlands (b) ..	D. 4	23	74	49	35	42	49	60	77	62	8
	U. 35	41	28	55	46	30	40	47	50	13	2
	T. 30	54	95	90	70	65	79	95	115	72	10
Italy (b) ..	D. (a) 6	22	38	83	118	123	159	49	110	52	6
	U. (a) 4	4	5	3	10	8	9	11	10	10	1
	T. (a) 9	25	42	85	126	134	166	57	118	60	7
Belgium (b) ..	D. 7	(f)	1	2	2	4	4	2	1	12	2
	U. 2	(f)	14	38	23	22	27	21	26	9	2
	T. 8	(f)	12	30	19	21	24	18	21	19	2
Denmark (b) ..	D. 1	4	2	4	2	1	4	6	8	7	1
	U. 2	5	10	10	10	21	23	25	33	16	2
	T. 3	8	9	11	10	17	21	25	33	19	2

TABLE 127—continued.

D. = Decorticated. U. = Undecorticated. T. = Estimated Total (decorticated basis).

Countries.	1909-13 or nearest (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>Foreign Countries—continued.</i>											
Japan (b) .. D.	(g)	11	7	8	8	8	9	12	15	10	9
U.	(g)	3	2	3	3	4	5	4	10	4	3
T.	(g)	13	9	10	10	11	13	15	22	13	11
Algeria .. D.	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(h)
U.	3	3	3	3	4	5	6	5	7	5	(h)
T.	2	3	3	2	3	4	5	4	6	4	(h)
United States of America (b) D.	2	23	29	15	12	21	9	(d)	1	(g)	(g)
U.	6	2	5	2	2	6	2	1	2	(d)	(g)
T.	7	24	32	16	13	25	10	1	2	(g)	(g)
Spain (b) .. D.	3	45	47	13	10	(g)	(g)	(g)	(g)	(g)	(g)
U.	(d)	(d)	(d)	3	1	(g)	(g)	(g)	(g)	(g)	(g)
T.	3	45	47	15	11	(g)	(g)	(g)	(g)	(g)	(g)
Sweden .. D.	—	1	2	3	4	5	4	4	4	—	—
U.	—	—	2	2	5	6	3	3	4	1	1
T.	—	1	4	5	8	9	6	6	7	1	1
Argentina .. D.	1	(g)	1	1	(g)	(g)	2	2	3	(d)	(h)
U.	1	(g)	1	1	(g)	(g)	2	1	3	(d)	(h)
T.	2	(g)	2	2	(g)	(g)	4	3	5	(d)	(h)
Total .. D.	250	400	690	745	724	1,044	1,162	1,010	1,049	803	892
U.	299	369	449	541	526	459	489	580	579	301	472
T.	475	678	1,029	1,148	1,119	1,389	1,528	1,446	1,484	1,030	1,247
Grand Total D.	(c) 260	435	754	791	763	1,109	1,261	1,107	1,174	898	1,009
U.	(c) 307	438	529	614	556	536	545	618	614	324	517
T.	(c) 491	765	1,153	1,248	1,180	1,514	1,670	1,571	1,636	1,141	1,398
Proportion (in per cent.) of decorticated nuts to total import balance (decorticated basis) ..	53	57	65	63	65	73	76	70	72	79	72

(a) Estimated ; ground nuts not separately classified in the trade returns.*

(b) The weights of decorticated and undecorticated ground nuts are estimates (separate figures not being available from the trade returns), but they agree in the aggregate with the trade returns.

(c) Incomplete : only approximately comparable with later years.

(d) Less than 500 tons.

(e) Twelve months ending 30th June of the years following those indicated.

(f) Not available, assumed the same as 1925 in total.

(g) Exports exceed imports.

(h) Not yet available : assumed same as 1932 in total.

The three-fold expansion from an average annual import of 500,000 tons, decorticated basis, in the pre-war quinquennium to an annual average of 1,500,000 tons in the quinquennium 1929-33 was accompanied by a marked change in the proportions of the whole taken by the principal importing countries. In the pre-war quinquennium the average annual import balance of France was 350,000 tons (decorticated basis) or about 70 per cent. of the total, but in the quinquennium 1929-33 the import balance although averaging about 620,000 tons per annum accounted for only about 42 per cent. of the total. Germany on the other hand took about 60,000 tons (decorticated basis) annually in the pre-war quinquennium or 13 per cent. of the whole as compared with 460,000 tons per annum in the period 1929-33 or 31 per cent. of the whole. Germany, indeed, had the largest import balance of any country in 1928 and 1929. France and Germany together thus took 83 per cent. of the total import balances shown in Table 127 for the pre-war quinquennium and 73 per cent. of the total for the quinquennium 1929-33. The United Kingdom and Italy are next in order of importance, taking annual averages of 114,000 tons (decorticated basis) and 96,000 tons respectively in the quinquennium 1929-33 or about 8 per cent. and 7 per cent. of the total import balance as compared with less than 2 per cent. in the pre-war quinquennium. In some years the Netherlands took more than Italy but on the average it took less and its share of the trade was approximately 6 per cent. of the whole in both the pre-war quinquennium and the period 1929-33. Denmark was the only other country that had a greater share of the trade in the quinquennium 1929-33 than in the pre-war quinquennium, but its import balance in the later period averaged only 25,000 tons (decorticated basis), and Belgium was the only other country to average more than 20,000 tons (decorticated basis) in those years.

France is by far the largest market for undecorticated ground nuts taking about 200,000 tons per annum or 70 per cent. of the total in the pre-war quinquennium and over 300,000 tons per annum or about 60 per cent. of the total in the quinquennium 1929-33. In France, the manufacture of edible oil absorbs the bulk of the available supplies of ground nuts, and for this purpose undecorticated nuts are preferred to the decorticated.

Many countries importing ground nuts for crushing also import ground nut oil both from the ground nut producing areas and from

countries manufacturing ground nut oil from imported nuts. Table 128 shows the volume of ground nut oil entering world trade annually from 1924 together with the available figures for the pre-war quinquennium, and it will be seen that only about one-third of the oil or an average of about 40,000 tons per annum is obtained from the ground nut producing areas. France, the Netherlands and Germany were the principal exporters of ground nut oil and over 90 per cent. of the aggregate amount was supplied by foreign countries. There is in addition an export from the Netherlands of hardened ground nut oil which is not separately classified in the trade returns and which amounted in recent years to about 6,000 tons per annum.

TABLE 128.—*The Volume of Ground Nut Oil entering World Trade from the Principal Producing Countries*
(In thousand of tons)

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>From Ground Nut producing Countries (a)—</i>											
British Empire Countries ..	1	(b)	1	(b)	(b)	2	1	1	2	4	3
Foreign Countries ..	16	40	35	49	35	24	23	55	52	23	23
Total ..	17	40	36	49	35	26	24	56	54	27	(c) 26
<i>Domestic Produce of Other Countries—</i>											
United Kingdom ..	(d)	10	11	10	4	11	11	3	5	2	3
<i>Foreign Countries—</i>											
France ..	21	30	24	30	28	34	38	31	44	37	(c) 40
Netherlands (h) ..	(e)	11	12	12	16	16	16	16	16	15	19
Germany ..	(d)	(f) 3	(f) 6	11	23	37	51	39	21	8	10
Denmark ..	(b)	1	1	1	1	2	4	4	5	4	8
Total ..	(d)	(g) 55	(g) 54	64	72	100	120	93	91	66	(c) 80
Grand Total ..	(d)	(g) 95	(g) 90	113	107	126	144	149	145	92	(c) 106

(a) For details see Table 123.

(b) Less than 500 tons.

(c) Provisional.

(d) Not available.

(e) Comparable figures not available.

(f) Estimated.

(g) Partly estimated.

(h) Excluding exports of hardened ground nut oil.

Table 129 shows the estimated amounts of ground nut oil available for consumption in the principal consuming countries outside the ground nut producing areas. On account of the relatively small number of countries covered in this table, a strict comparison between the totals and those in previous tables in this chapter is not possible. From the information available, it appears that the supplies in the Netherlands are overstated in Table 129 by about 6,000 tons per annum and understated in the case of Belgium by a similar amount. As details of the exports from the Netherlands and the imports in Belgium of hardened ground nut oil are not available. Diagram I illustrates the movement of consumption of ground nut oil, palm or palm kernel oil and coconut oil in the United States of America, Germany, France and the United Kingdom.

TABLE 129.—*Estimated Amount of Ground Nut Oil available for Consumption in the Principal Consuming Countries outside the Ground Nut Producing Areas*

(In thousands of tons)

	1909-13 (Average).	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
<i>British Empire Countries—</i>											
United Kingdom	(a)	24	42	35	33	46	59	61	66	40	
Canada (b)	(a)	12	7	17	2	6	14	25	20	2	
Total	(a)	36	49	52	35	52	73	86	86	42	
<i>Foreign Countries—</i>											
France	119	141	166	163	161	186	201	220	199	210	2
Germany	(c) 25	31	126	155	136	191	197	207	202	86	1
Italy	8	14	21	41	57	62	70	23	47	24	
Netherlands	5	20	44	51	40	42	44	38	34	15	
Algeria	9	14	11	11	11	17	21	22	27	27	(
Belgium	3	(d) 7	13	8	11	16	16	17	14	4	
Denmark	3	2	4	4	3	5	4	6	8	4	
Total	172	229	379	438	416	514	553	532	534	380	4
Grand Total of above countries ..	(a)	265	428	490	451	566	626	618	620	422	5
Share of British Empire countries (in per cent.)	(a)	14	11	11	8	9	12	14	14	10	

(a) Not available.

(b) Imports of crude ground nut oil for refining for edible purposes.

(c) Oil equivalent of import balance of ground nuts; particulars of exports of ground nut not available.

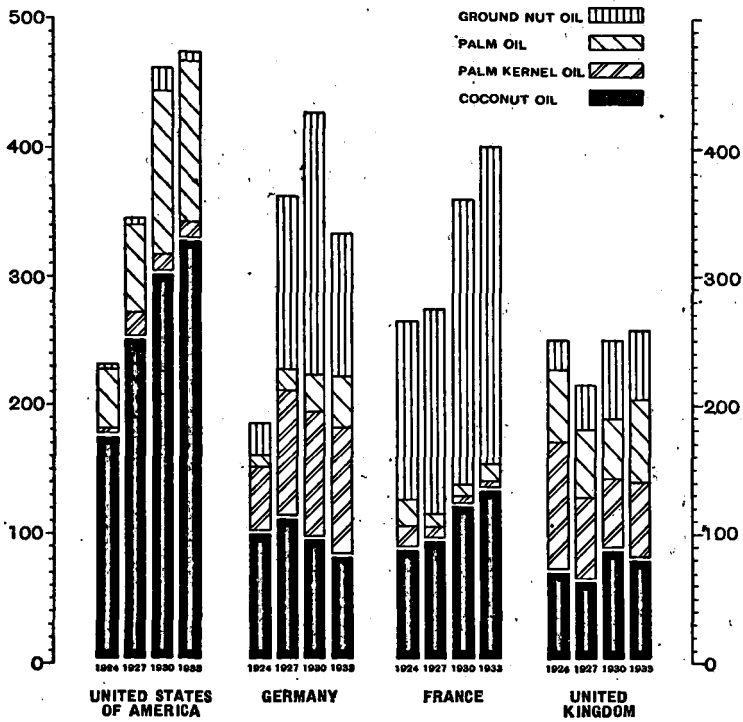
(d) Not available; assumed same as 1925 in total.

(e) Not available; assumed same as 1932 in total.

DIAGRAM IV.—ESTIMATED AMOUNT OF GROUND NUT OIL, PALM OIL, PALM KERNEL OIL AND COCONUT OIL

AVAILABLE FOR CONSUMPTION IN THE FOUR CHIEF CONSUMING AREAS

(IN THOUSANDS OF TONS)



The apparent consumption of ground nut oil in the principal consuming centres outside the ground nut producing areas rose steadily from 265,000 tons in 1924 to 630,000 tons in 1929, but fell to an average of 465,000 tons in 1932 and 1933. On the average, France and Germany together consumed two-thirds of these supplies. The combined shares of the United Kingdom and Canada, the only British Empire countries in the list, accounted for 14 per cent. of the whole in 1924 but fell gradually to 8 per cent. in 1927 ; after rising again to 14 per cent. in 1930 and 1931 their share fell to 10 per cent. in 1932 and 13 per cent. in 1933. The annual consumption in the United Kingdom averaged 46,000 tons in the period 1924-33 as compared with 190,000 tons in France and 144,000 tons in Germany. On the average, Italy and the Netherlands consumed between 30,000 and 40,000 tons and no other country had an average exceeding 20,000 tons. Complete figures are not available for the pre-war quinquennium, but it is almost certain that France consumed more than one-half of the total supplies then available and six times as much as Germany. By the period 1928-31 the share of France had fallen to one-third, and her available supplies of about 200,000 tons per annum were only slightly greater than those for Germany. In 1932 and 1933 consumption in France increased, but consumption in Germany declined by about one-half.

The largest increases in available supplies of ground nut oil since 1924 occurred in Germany, Italy and the United Kingdom, but France remained the principal consumer. In France and Italy ground nut oil is mostly used as a salad and cooking oil, whilst in the United Kingdom and Germany it is largely used for the manufacture of margarine. The increased total supplies of ground nut oil thus indicate a greater use of ground nut oil as a salad and cooking oil and at the same time reflect both the growth in the production of margarine and the greater part played by ground nut oil in that industry. Comparative figures of the use of ground nut oil for salad and cooking oils are not available, nor are there complete statistics showing the production of margarine or the consumption of ground nut oil in that industry. But the statistics of the consumption of margarine and other compound fats in Germany and the share of ground nut oil in margarine production in the United Kingdom serve as pointers. Germany and the United Kingdom used the same proportion of ground nut oil in the manufacture of margarine during 1928, the only year for which details of the constituents used in Germany are

available. The *per capita* consumption of margarine and compound fats in Germany rose from 6·6 lb. in 1913, to 17·5 lb. in 1930, and the share of ground nut oil in the total oils and fats used in the manufacture of margarine in the United Kingdom rose from 11 per cent. in 1927, the earliest year for which this information is available, to 19 per cent. in 1930. By 1931 the *per capita* consumption of margarine and compound fats in Germany had fallen to 16·2 lb. and the share of ground nut oil in the production of margarine in the United Kingdom to 18 per cent. the low prices of butter having resulted both in a lessened demand for margarine and in the substitution of cheaper oils than ground nut oil in the smaller supplies of margarine produced. In the United Kingdom in 1932 and 1933, the share of ground nut oil in the production of margarine fell further to 8 and 9 per cent. respectively. More recently a general policy of raising the prices of live stock and live stock products has been adopted and it may reasonably be expected that this will result in an increase in the price of animal fats. Should a wider price-margin between butter and margarine be restored, the demand for the better grades of margarine may be expected to rise and the use of ground nut oil in that industry to increase. Moreover, an increase in the price of animal fats should also assist ground nut oil in its competition with lard for culinary use. The tariffs on oilseeds and their products imposed by the United Kingdom and France are directed towards fostering trade within the British Empire and between France and her Colonies respectively, rather than towards reductions of such imports. Nor have the operations of the fat monopoly in Germany which commenced in April, 1933, resulted in any further contraction of the market there for ground nut products excepting cake; on the contrary the imports of ground nuts in 1933 and the first nine months of 1934 were on a much higher level than in 1932.

The great bulk of exported ground nuts is used for the manufacture of oil and cake, the weight of cake being about double the weight of oil obtained. The price of ground nut cake averages about one quarter of the price of ground nut oil, so that the value of the cake obtained from a given weight of nuts is approximately one-half of the value of the oil obtained. Therefore, the demand for ground nuts is dependent to an important degree upon the demand for the cake, and the increased use of ground nut cake in the live stock industry particularly in Germany, Denmark and the Netherlands, has no doubt played a considerable part in the heavier world trade of ground nuts.

Large quantities of ground nut cake are used in the ground nut producing areas both as cattle food and as fertiliser, but a considerable proportion of their ground nut retentions is not crushed and these areas probably use less ground nut cake than European countries. Their exports of ground nut cake are comparatively small but are increasing both absolutely and in relation to the exports of ground nuts. In the pre-war quinquennium they exported less than 50,000 tons of cake, but shipped sufficient ground nuts to produce more than eight times this weight of cake, whilst in the period 1929-33 exports of ground nut cake averaged about 200,000 tons per annum or one-fifth of the quantity that could be obtained from their exports of ground nuts. Exports of ground nut cake from both India and China increased eight-fold between these periods, shipments from India, by far the largest exporter of ground nut cake among ground nut producing areas, averaging about 175,000 tons per annum in the period 1929-33 as compared with about 19,000 tons per annum from Argentina and 15,000 tons from China, the only other ground nut producing areas important as exporters of ground nut cake.

Assuming that all the exported ground nuts were crushed for oil, the available supplies of ground nut cake outside the ground nut producing areas trebled between the pre-war quinquennium, when they averaged 450,000 tons per annum, and the period 1929-33, when they averaged 1,200,000 tons per annum. The United Kingdom and Germany are the only consumers of ground nut cake whose imports come mainly from the ground nut producing areas; they take the bulk of the exports of ground nut cake from India, which is their principal source of supply. The other chief consuming centres outside the ground nut producing areas obtain most of their imports from France, which is exceptional among the principal importers of ground nuts in having an annual export balance of ground nut cake. Nevertheless it is estimated that France consumes over 300,000 tons of ground nut cake per annum, a consumption only exceeded up to 1932 by Germany outside the ground nut producing areas. Table 130 shows the import balances, estimated domestic production, and estimated consumption of ground nut cake in the principal consuming centres outside the ground nut producing areas, annually from 1929, the first year in which ground nut cake was separately classified in the trade returns of Germany.

TABLE 130.—*Import Balances, Estimated Domestic Production, and Estimated Amounts of Ground Nut Cake Available for Consumption in the Principal Consuming Centres outside the Ground Nut Producing Areas*

(In thousands of tons)

	Germany.	France. (a)	United Kingdom.	Netherlands.	Sweden.	Belgium.	Denmark.	Total
<i>1929.</i>								
Import balance.. ..	10	(b) 126	82	78	50	18	125	(c) 236
Estimated domestic production	388	426	84	57	4	21	19	999
Estimated amount available for consumption	398	300	166	135	54	39	144	1,236
<i>1930.</i>								
Import balance.. ..	(b) 28	(b) 158	97	57	73	22	158	(c) 226
Estimated domestic production	390	458	72	69	5	16	21	1,031
Estimated amount available for consumption	362	300	169	126	78	38	179	1,252
<i>1931.</i>								
Import balance.. ..	63	(b) 149	100	42	85	41	136	(c) 316
Estimated domestic production	353	449	84	81	5	19	28	1,019
Estimated amount available for consumption	416	300	184	123	90	60	164	1,337
<i>1932.</i>								
Import balance.. ..	176	(b) 70	46	30	27	32	26	(c) 267
Estimated domestic production	146	420	59	46	1	13	15	706
Estimated amount available for consumption	322	350	105	76	28	45	41	967
<i>1933.</i>								
Import balance.. ..	124	(b) 102	108	55	38	37	36	(c) 296
Estimated domestic production	192	502	80	67	1	22	21	885
Estimated amount available for consumption	316	400	188	122	39	59	57	(c) 1,181

(a) The export balances are based on the foreign trade in oilcakes as shown in the French trade returns, where ground nut cake is not separately classified, and the imports of ground nut cake from France recorded by other countries.

(b) Export balance.
(c) Partly estimated.

Germany until 1932 was the largest consumer of ground nut cake in Europe closely followed by France, and together they consumed about 700,000 tons of ground nut cake per annum or about two-thirds of the total supplies available for consumption in the principal consuming areas outside the ground nut producing areas. It is estimated that Germany's consumption has quadrupled since the pre-war quinquennium* and that French consumption has doubled, but since 1932 the French consumption has been greater than the German. The United Kingdom, Denmark and the Netherlands followed Germany and France in that order as consumers of ground nut cake during the period 1929-33; in each of these countries the average annual consumption exceeded 100,000 tons and the estimated increase since the pre-war quinquennium was more than four-fold. The estimated consumption in Sweden declined from an annual average of 80,000 tons in the pre-war quinquennium to about 70,000 tons per annum in the period 1929-31, but fell to about 35,000 tons in 1932 and 1933. Consumption declined heavily in almost all countries in 1932, particularly in Denmark where imports fell to 26,000 tons from an annual average of 140,000 tons in the period 1929-31. In 1933, consumption increased in all these countries except Germany, where there was a slight decline.

As already mentioned, France produces more ground nut cake than it consumes. Germany also had an export balance of ground nut cake in 1930, but in 1931 and 1932 its import balance was rising and in 1932 Germany only produced about 45 per cent. of the supplies made available in that country. The import balance declined in 1933 and as mentioned on page 167, in the first nine months of 1934 was negligible. In the other countries named in Table 130, domestic production represented about one-third of the total available supplies in each of the years 1929-31, but in 1932 and 1933 the proportion exceeded 40 per cent.

Taking account of all ground nut products—the nuts themselves, ground nut oil, and ground nut cake—India is of outstanding importance among exporting countries, and France and Germany are by far the largest consumers.

* The available supplies in 1913 have been estimated at 80,000 tons; see "Die Deutsche Oelmuehlenindustrie," page 285. (E. S. Mittler & Sohn, Berlin, 1930.)

CHAPTER 32

CONCLUSIONS

The production of and trade in ground nuts which had received powerful impetus from the war-time and post-war demand for fat generally, continued to grow until 1931, but in 1932 the volume of foreign trade declined, only partially recovering in 1933, and a large proportion of the still increasing ground nut crop was left to be consumed in the producing areas where a considerable part of the crop is eaten as nuts. The export of ground nuts from the producing areas is mainly to Europe and is dependent upon the demand there for ground nut oil and ground nut cake, particularly the oil. The use of the oil as a salad oil has steadily increased, but the demand in its other principal uses—for cooking and the manufacture of margarine and soap—has declined heavily in recent years. Cheap and plentiful supplies of livestock products, notably lard and butter, have reduced the use of ground nut oil for cooking and considerably lessened the consumption of margarine, especially the better grades for which the oil is mainly utilised. Furthermore the demand for ground nuts in Europe has diminished as a result of the substitution of cheaper vegetable and marine oils for ground nut oil in the production of margarine and soap, and a further depressing factor down to 1933 has been the smaller demand for ground nut cake resulting from the cheap and plentiful supplies of grain and fodder consequent upon good harvests and low prices. The unfavourable grain harvests and pasturage in 1934 may, however, be expected to counteract this adverse factor and the supplies in the principal European consuming countries in 1934 to date have shown an upward trend as compared with 1933 except in Germany where special conditions obtain.

The failure to restrict the production of ground nuts to meet the smaller demand for ground nut products in Europe has been partly responsible for the lower prices realised for these and competing products. The fall was particularly heavy in 1933 and the early months of 1934 when the level was below that recorded during the past 24 years. These abnormally low prices may be expected sooner or later to result in a reduced production of ground nuts or at least in a cessation of the increase recorded during and since the War. Signs of a decrease in world production are at present lacking, but India, the Gambia and French West Africa have shown significant decreases in certain recent

but not co-incident, years and, should these become more general, prices may be expected to react even more than they have done in the current year.

The prospects for ground nuts may also be favourably influenced indirectly by the agricultural policies, adopted in many European countries, designed *inter alia* to raise the price of live stock and live stock products. An increase in the price of animal fats such as butter, lard and tallow should have the effect of increasing the price of margarine and thus improving the prospects of ground nut oil. In this connection it is of importance to note that the recently imposed measures to control the fat industry in Germany have not further reduced the imports of ground nuts into that country and that the tariffs and import licences of France and the tariffs of the United Kingdom are directed to fostering Colonial and Imperial trade rather than to reducing imports. Indeed the consumption of ground nuts in the principal European countries showed some increase in 1933 and the first nine months of 1934.

In some countries however, efforts to secure greater self sufficiency in the supply of fats and oils and to increase the consumption and prices of domestic live stock products have led to the adoption of legislation restricting the import or use of competing fats and oils. Certain other countries in Europe, owing to the reduction in the available export markets for their surplus butter, have adopted means to stimulate the internal market for butter by restrictions and duties on margarine. In so far as these policies are successful or more widely adopted, the *per capita* consumption of imported fats and oils in these countries may be reduced, and the prospects for ground nut oil damaged.

The future prospects of the ground nut industry will depend also upon the maintenance of the increased use of ground nut oil as a salad oil, and as a constituent of salad creams. A further field where demand may be stimulated is the consumption of ground nuts as edible nuts ; as yet this is very small outside the ground nut producing areas, but their wide use in this form in the United States of America suggests possibilities of expansion elsewhere.

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