Copra and Coconut Oil in the Netherlands East Indies

Plantations and Local Crushing Plants Growing in Importance Despite Present Slackening of Demand

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THE Netherlands East Indies is one of the leading countries producing copra for local consumption and for export. For many years it has been supreme in copra production, being seconded by the Philippine Islands. The available comparative statistics for 1930 indicate that the Netherlands East Indies is maintaining this premier position.

The cultivation of coconut palm trees in the Netherlands East Indies is primarily in the hands of the natives of the Outer Possessions, principally in Celebes, Borneo and Sumatra. Scattered throughout the vast archipelago, however, there are European estates concerning which production data are available. According to the official "Landbouwexport Gewassen van Nederlandsch Indie in 1929), (The Export Crops of the Netherlands Indies in 1929), published by the N. E. I. Central Bureau of Statistics, the estate production was as follows during the years 1925 to 1929. No figures are available for 1930.

Copra Estate Production, N.E.I.
(In metric tons)

	Java and Madura	Outer Possessions	Total N.E.I.
1925	2,547	14,405	16,951
1926	2,077	15,505	17,582
1927	2,018	15,951	17,969
1928	3,534	19,805	23,339
1929	4,171	20,306	24,477

The total acreage under cultivation to the coconut palm in the Netherlands East Indies at the end of 1929 was 51,655 hectares. Only 50% of this acreage is in production however, as estate cultivation is just getting under way and no rapid expansion is expected. During 1929, the estates produced 8,520,224 coconuts (equal to 1,982 metric tons of copra), while 38,735 piculs (2,392 tons) of copra were bought from the natives by the estates.

According to the N. E. I. Department of Agriculture, Commerce & Industry, it is impossible to give any accurate figures regarding the native production of copra. The probable exports of native copra from the Outer Possessions to foreign countries were as follows during the years 1927 to 1929. For comparative purposes, the total exports are also given.

Probable Exports, Native Copra, N.E.I.
(Estimate in metric tons)

Year	Estimated Native Exports	Total Copra Exports
1927	309,819	309,467
1928	395,405	439,299
1929	396,781	445,895
1930	(not available)	375,522

The probable native export figures include the exports of coconut oil and fresh coconuts, calculated into tons of copra. This does not give any insight, however, into the entire native copra production since the native consumption has not been taken into consideration. The only reliable figures obtainable regarding native copra production are given in "De Landbouwexport Gewassen van Nederlandsch Indie in 1929." According to this publication, from the figures covering the exported copra and the copra which has been worked into coconut oil and copra cake, it is possible to estimate the Java and Madura native copra production.

Estimate, Native Copra Production, Java & Madura

1929	241,200	metric tons
1928	222,600	" "
1927	107,400	" "
1926	131,200	" "
1925	136,500	" "

The quantity of coconuts consumed in the homes of the natives in Java and Madura is unknown. It has been estimated at about 9.7 kilograms per person annually. According to the 1930 census, Java and Madura have a population of 41,719,524 (total N. E. I. population—60,731,025) and if 9.7 kilograms per person annually is taken as a correct estimate, it may be said that the home consumption of coconuts in Java and Madura approximates 404,679,383 kilograms annually. The local consumption of coconuts does not keep steady. Agricultural experts state that a favorable rice crop causes a greater consumption while a poor rice crop causes a decreased consumption of coconuts. This is undoubtedly due to the fact

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Theoretical Total Exports, Copra, N.E.I.
(in copra equivalent of m. tons)

	Coconut Oil	Coconuts	Copra*	Theoretical Total
1929	51,860	66	456,869	508,795
1928	55,199	13	440,851	496,063
1927	14,555	32	305,277	319,864
1926	24,936	48	376,882†	401,866
1925	15,660	36	351,010	366,706

* Actual N.E.I. Exports.
† Gross weight—all others net weight.

that coconut meat is used in many forms as a dressing for the rice.

The Netherlands East Indian Department of Agriculture, Industry and Commerce estimates (in "De Landbouwexport Gewassen) the consumption of coconut products in Java and Madura to have been as follows during the years 1924 to 1928. The figures are given in terms of copra equivalents.

Estimate, Consumption Coconut Products, Java and Madura

1928	362,000	metric	tons
1927	362,000	"	"
1926	350,000	"	"
1925	347,000	"	"
1924	344,000	"	"

The theoretical total export of copra from the N. E. I. is another figure which is estimated by the Netherlands East Indian Department of Agriculture, Commerce and Industry. The exports of oil and nuts are converted into the copra equivalents.

Exports of Copra 1st Quarter 1931

SHIPMENTS of copra from Java and Madura were 969 metric tons (first quarter 1930—5,126 metric tons). The Outer Possessions exported 105,286 metric tons during the first three months of this year (corresponding quarter 1930—89,142 metric tons) making a total for the N. E. I. of 106,255 metric tons (first quarter 1930—94,538 metric tons).

53% of the exports were from the Celebes Islands and their dependencies while 16% were from western Borneo showing that the bulk of the copra is produced in the eastern section of the N. E. I. Essentially the same precentages ruled for export movements in the first quarter of 1930. Macassar (Celebes) handled approximately 23% of the exports (first quarter 1931) and has been far in the lead of all other parts of the N. E. I. in recent years. Other ports in order of importance with percentages of export movement during first quarter of 1931 were Gorontalo (Celebes) 13½% and Pontianak (Borneo) 10%. A number of other ports were of lesser importance as shipping centers.

During the first quarter of 1931, Holland (with 21%) continued to take more copra than any other foreign country. France took 17% of the total exports, this percentage being unchanged compared with the same quarter in 1930; Germany dropped from 18% to 14%; while British Malaya rose from 12% to 15% and the United States from 9% of the total exports to 10%.

Export Duty

AN EXPORT duty is levied on every 100 kg. of copra exported. This duty amounts to 8% of the difference between the average market price and the average cost price increased by 10%. By decree of the Director of Finance, the average market price and cost price are fixed at regular intervals and upon these figures the export duty is based. On January 19, 1931 the Director of Finance decreed the average cost price of copra to be Fl. 12.50 (U. S. $5.00) per 100 kg. effective during the second quarter of 1931 and until further notice. The average market price during the second quarter has been decreed to be Fl. 13.35 (U. S. $5.34) per 100 kg. There is no export duty during the first, second, and third quarters of 1931 due to the low market prices. During the fourth quarter of 1930, the export duty amounted to U. S. $0.112 per 100 kg. of 220 pounds, against U. S. $0.12 during the third quarter of the same year.

Average prices on the Batavia market were as follows for F. M. S. (Fair Merchantable Sundried) copra during the first quarters of 1931 and 1930, respectively:

	Per 100 kg. excluding gunny bags 1931	1930
January	US$5.55	US$8.48
February	5.28	8.42
March	5.35	7.87

In this connection it may be noted that the average price for the F. M. S. copra on the Batavia market was U. S. $10.79 in 1926; U. S. $10.09 in 1927; U. S. $9.61 in 1928; U. S. $8.44 in 1929; and U. S. $7.21 in 1930. Copra prices were lower in 1930 than at any time since 1913.

Prevailing Market Trends

IN THE face of decreased foreign demand; there is noted at the present time, as well as during the first quarter, an appreciable increase in native copra production brought about to a

very large extent by the low rubber prices. This trend is particularly true in Sumatra and Borneo. In Celebes, on the other hand, the increased production is very likely due to the coming into bearing of new plantings. The consumption of copra in Java is undoubtedly likely to increase, the copra being used to an increasing extent by the copra crushing mills. It is reported that during 1930 great advance was made in distributing factory made coconut oil not only in Java but in most parts of the Outer Possessions.

According to the N.E.I. Statistical Abstract for 1929, there were at the end of 1929 a total number of 85 copra mills in the entire country. The bulk of the coconut oil mills are located in Java and Madura, only 37 small plants being located in the Outer Possessions.

According to an apparently reliable source (Dr. W. L. Wolff writing in his magazine entitled "Olien, Vettem & Oliesaden" and reprinted in the "Algemeen Landbouwweekblad van Nederlandsch Indie" on May 23, 1931) more than 90% of the coconut oil production in the Netherlands East Indies is in the hands of Europeans and 10% in the hands of Chinese. The European share is controlled by not more than six concerns. There are other smaller European companies but they take but a small share of the copra which is crushed into oil.

The official Government publication "De Landbouwexport Gewassen van Nederlandsch Indie in 1929" contains the following table showing the amount of factory coconut oil produced in Java during the years 1924 to 1929 inclusive. It also shows the exports to foreign countries and to other parts of the Netherland East Indies and the amount remaining for local consumption. No 1930 figures are available.

In connection with the Outer Possessions, exports of coconut oil from Java to these regions have steadily increased. In addition to the Java product, coconut oil is imported into the Outer Possessions (mostly into Sumatra) from British Malaya, principally from Singapore and Penang. The only part of the Outer Possessions to have any appreciable amount of coconut oil available for export are the two islands Bali and Lombok, which in 1929 shipped 1,367,618 liters to foreign countries. Exports to foreign countries for the first quarter of 1931 were 1,115,000 liters (corresponding period 1930—7,093,000 liters).

During the first quarter of 1931, exports of copra cake totaled 11,922 metric tons of which 10,987 tons were shipped from Java. These figures indicate that the Netherlands East Indian coconut oil production was fairly well maintained during the first quarter even though the exports of coconut oil fell heavily during the period under review. Exports to Belgium constituted about 50% of the total movement to foreign countries during the first quarter of 1931. Holland was a buyer of 27% and Germany 17%.

Java Production, Exports and Consumption, Coconut Oil
(all figures in 1000 liters)

Year	Production	Exports			Consumption Java	
		Abroad	Other N.E.I.	Total	Total	Per Capita Liters
1929	138,156	34,433	7,689	42,122	96,034	†
1928	136,049	36,624	4,860	41,484	94,565	2.53
1927	96,444	9,649	2,347	11,996	84,448	2.26
1926	87,266	16,502	2,483	18,985	68,281	1.89
1925	78,548	10,387	2,919	13,306	65,242	1.83
1924	54,354	7,935	1,845	9,780	44,574	1.26

† Not estimated.

"Trichlorethylene, Its Properties and Uses," is the title of a booklet recently issued by The Roessler & Hasslacher Chemical Co., Inc., of Niagara Falls, New York. The booklet discusses in detail the extraction of oils and fats by means of this non-inflammable solvent. It is stated that the solvent is non-corrosive to iron, steel, copper, lead, aluminum and tin at elevated temperatures and in the presence of water. Its physiological action is claimed to be milder than that of gasoline or chloroform and to be non-cumulative in its effect on the human system from inhalation of fumes.

The use of trichlorethylene for the extraction of fats is said to be growing rapidly, it having been applied successfully to the extraction of olive oil, cacao butter, corn oil, linseed oil, soybean oil, cottonseed oil and other oils, as well as to the recovery of greases from leather, bones, tankage, etc.

A preservative bath for wood is prepared by mixing a drying oil such as linseed oil, with 7.5% of linoleic acid or other drying-oil acid, and incorporating 1% of a glycerol solution of boric or salicylic acid, calculated on the oil, into the mixture. Austrian Pat. No. 122,507.