Oilseeds Industries in the British Empire

Review of Recent Progress in Development of Production, Refining and Utilization of Fats throughout the Empire

THE British seed-crushing, vegetable oil refining, margarine, soap-making and allied industries, though sufferers during the past year or two in common with other basic industries, have been sufferers only of a minor character. One noteworthy reason for this is that the trade and commerce in oilseed cake, technical and edible fatty oils, margarine, soap and candles are in commodities which are in the nature of necessities to an increasing part of the world's population.

The British Empire furnishes rather more than half the world supplies of oilseeds, oil-bearing nuts and kernels, produces considerable supplies of such animal fats as tallow, and plays a controlling influence in the whale oil industry, providing not insignificant amounts of fish oils. Every oilseed of importance, with the exception of the olive, soybean, hempseed, and sunflower seed, is grown in some part of the Empire, and every fatty oil is produced within Imperial territory except such oils as corn oil and tung oil.

Research Stations

IN RECENT years the attempt has been made not only to cultivate within the borders of the Empire oilseeds hitherto not indigenous, but to extend to other parts of the Empire oil-bearing crops already grown with success somewhere within its confines. In connection with this work, there has grown up a chain of Imperial agricultural research stations, which during the past year have arranged to work in close cooperation with the central Botanical Gardens at Kew, London. Among the endeavors of these stations may be cited efforts to acclimatize the Manchurian soybean to Northern India, South Africa, Australia and Great Britain.

In 1917 the Imperial Institute sponsored the first attempts to cultivate the tung tree within the Empire. Spurred by the success of the American Tung Oil Corporation in the cultivation of the tree in Florida, the Research Association of British Paint, Colour and Varnish Manufacturers has distributed quantities of seed to various parts of the British Empire, and reports from Central India, Madras and Assam appear very promising. Last year the New Zealand Tung Oil Corporation was formed and plans to devote 40,000 acres to the cultivation of tung oil trees are being formulated. The scheme is an ambitious one, including the provisions of seed-crushing and refining plant.

Considerable headway has been made in recent years in the cultivation of the peanut in Australia and experiments are also taking place in Nigeria and Southern Rhodesia. Experimental crops of sunflower have been grown in New Zealand, Australia, Rhodesia and other parts of the Empire. Though West Africa continues to furnish the bulk of the world's needs of palm oil and palm kernels, the commercial exploitations of the oil palm continues to make headway, not only in the Netherlands East Indies, where plantations were first established, but in British Malaya also.

Margarine Industry

THE reason of the relatively greater importance in commerce today of copra, palm kernels, peanuts and other rich oil-bearing seeds is the growth of the margarine industry, which received a great stimulus during the war. During the past year 300,000 tons of margarine were manufactured in Great Britain. This quantity is one-fourth of the world supply, making Britain rank second only to Germany in margarine production. The application of modern hydrogenation methods, particularly a continuous method of recent development, has worked wonders in the refining and preparation of various fats for margarine uses.

Whale Oil

THE great developments which have taken place during the past few years in the production of whale oil have resulted in the

introduction of a serious competitor to vegetable oils, since the great bulk of the whale oil can be used in the soap-making industry and an increasing amount is used in the manufacture of margarine, compound lards and confectionery fats.

As evidence of the improved technique in the production of whale oil, it may be mentioned that today the average yield of oil is 75 barrels from each whale, as against a yield of only 25 barrels fifteen years ago. Furthermore fifteen years ago only 60% of the cargo consisted of Number 1 oil, whereas today as much as 95% of some cargoes is of grade 0/1, which commands the highest price. *The Manchester Guardian Commercial, courtesy of U. S. Trade Commissioner Messenger at London.*

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Lovibond Red Glasses

PRESIDENT RICHARDSON of the American Oil Chemists' Society has received the following communication from the Director of the Bureau of Standards, in reference to the calibration of red Lovibond glasses:

July 21, 1931

Mr. A. S. Richardson, *President,*
American Oil Chemists' Society,
% Procter and Gamble,
Ivorydale, Ohio.

Subject: Calibration of Red Lovibond Glasses.

Dear Sir:

In view of the fact that there has recently arisen a demand for the calibration of red Lovibond glasses of very low numerals (less than unity) to be used in combination with yellow glasses of very low numerals (about 0.8 to about 1.6), it seems expedient to emphasize that all of the values which have been certified by this Bureau for red glasses since January 1, 1928 have been those "effective when the red glasses are used in combination with 35-yellow" (as has been stated in the reports on calibration of glasses). It should not be assumed that these values are the correct ones to be used when the red glasses are used alone or in combination with only very small amounts of yellow. It may be assumed that they are valid for use of red glasses in combination with 20-yellow, and perhaps lesser amounts; but it should not be assumed that they may be accepted as the correct values when the red glasses are being used with yellow amounting to only about 1 or 2 or less.

If red glasses are to be used alone or in combination with only very small amounts of yellow, they should be calibrated with this specific purpose in view, although we cannot say definitely in advance just what difference may develop between calibrations for use with small amounts of yellow and calibrations for use with large amounts of yellow.

We are planning a standardization of the red glasses alone without respect to their use in combination with 35-yellow but are not yet prepared to accept glasses for test in these circumstances.

Respectfully,
George K. Burgess, *Director.*

Frank Hemingway

Frank Hemingway, president of Robinson, Butler, Hemingway Co., Bound Brook, N. J., and for many years a manufacturer of disinfectants, insecticides, and allied coal-tar products, died June 27 at the Montague Hospital, New York, after a protracted illness. Born in England on Christmas Day, 1876, he came to the United States in 1897. He was at first in the margarine business, but in 1913 established a plant at Bound Brook to manufacture coal-tar products. He later became associated with the Sherwin-Williams Co. in Cleveland, with a world-wide reputation as an authority on coal-tar products. He organized his present company in 1925.

Mr. Hemingway was a member of many technical societies and clubs. He is survived by his mother, Mrs. Catherine Hemingway, two sons, Henry and Richard, and one daughter, Miss Virginia Hemingway.

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A cable from Commercial Attache Cunningham at Lima, reports that with the protection afforded by the Government local producers of cottonseed oil are gradually replacing lard with their products. The duty on imported cottonseed oil is about $0.06 a pound while that on lard is about $0.035 a pound.

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Only two factories in Sweden are engaged in the production of vegetable oils for the soap and margarine industries. These are: the Nya Margarin Aktiebolaget Svea at Kalmar and the Reymersholms Gamla Industri Aktiebolag of Helsingborg, whose factory is located at Karlsham. The first of these firms, originally established in 1905 for the manufacture of margarine, added a few years ago a plant for the production of peanut oil, coconut oil, and palm kernel oil, using a portion of the production in its own margarine plant, and selling the remainder to other manufacturers. The second named firm, which owns a variety of industries in the metals and heavy chemicals lines, has among other undertaking the factory at Karlsham, established in 1916, and producing crude and refined peanut oil, cottonseed oil, coconut oil, and soya bean oil.

Whereas until comparatively recently prices of vegetable oils were such as to give a safe margin of profit to these two factories, quotations have recently dropped to such an extent that a serious depression exists in the industry. This decline has been especially marked during the past six months, in coconut oil, peanut oil, soya bean oil, and cottonseed oil.