

# Present Oil Milling Conditions in Germany

*After Having Touched Low Ebb, Industry Is Now Rapidly  
Recovering Through Improvement in Margarine Demand*

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**T**HE business situation in the German oil milling industry is normally influenced by two factors; firstly, the total quantity of domestic oil cake and oil meal stocks on hand and, secondly, the relation between the fluctuating world market prices of oil seeds and oil fruits and the prices realized through the sales of crude and refined oils and fats. In regard to both factors, the German oil millers have recently passed through a crisis, but it seems that at present the industry has safely passed through the deepest depression.

### *Increase of Stocks on Hand*

**T**HE large existing rye stocks in Germany, the poor purchasing power of the German farmers this spring when an abundant green fodder crop seemed likely and the heavy drop in grain and butter prices, have all resulted in a tremendous increase of the stocks of linseed, peanut and palm kernel oil cake, copra, and soya meal on hand at the plants of the few large oil mills at Harburg, Stettin, Bremen and Mannheim. In fact, these stocks only very recently are said to have reached a total of 100,000 tons. When one considers that quite a few German oil mills are so large as to have an annual capacity for working oil seeds exceeding several hundred thousand tons, (Therl at Harburg even 650,000 tons, Brinkmann & Mergell, 300,000 tons, Noble & Thorl 275,000 tons, the Stettiner Oelwerke 200,000 tons, Bremen-Besigheim 250,000 tons, Hansanuhle 120,000 tons, etc.), it is easy to understand that these mills, in their purchases of oil seeds, must look well to the future.

Since the beginning of this calendar year, prices of soya beans and other raw materials for the oil mills have decreased a third. The profitable operation of oil mills under such conditions is extremely difficult, particularly when one considers that last year Germany imported

a total of about 2,600,000 tons of oil seeds, valued at over a billion Reichamarks. On a falling market, this amount of oil seed can only be profitably worked if there is a very rapid turnover and if credit conditions are favorable.

About one half of the manufacturing operations in the oil milling fields are controlled by the Dutch-English Jurgens Van der Bergh concern, the German mills of which are heavily engaged in crushing for the concern's margarine and soap plants abroad. However, in spite of all measures recently taken by this concern, that part of its oil cake output destined for the German market proved too large. Soya meal constitutes almost exactly one half of the total annual German output of oil cake and related products, totalling 1,700,000 tons, and the production of oil cake thus proved most disastrous to the independent oil millers, who have taken up soya bean extraction chiefly for the soya meal obtained. It may be mentioned in passing that soya beans contain only 15 to 16 per cent of the oil, as against 63 per cent in copra, and 42 per cent in peanuts. This oversupply of oil cake proved most unprofitable to the mills as during the first five months of 1929 Germany imported 1,130,136 tons of oil seeds which rose in 1930 to 1,137,695. The total value, however, decreased 30,000,000 Marks, which, however, was not as great as might have been expected, considering the decrease in other similar commodities. The price was kept up to an extent by favorable speculative transactions. Under the pressure of the poor market for oil cake and meal, many plants have during the last few months been partly shut down; hardly any mill worked at more than 70 per cent of its capacity and several large plants have been completely idle while at the end of last year the mills had still planned large extensions and the construction of new plants for hardening oil and so forth.

\* Report to Department of Commerce dated August 18, 1930.

*Bad Times Good for Margarine*

IT IS characteristic of the German oil milling industry, however, that it takes a new impetus just in times of poor general conditions. The large unemployment prevailing at present in Germany has tended to increase margarine consumption, which is now approaching 500,000 tons per year. Over 50 per cent of the solid and semi-solid oils and fats made in Germany is used for making margarine. Many Germans of the poorer middle classes and the majority of the unemployed working classes have of late taken to margarine, and this growing consumption, coupled with the demand for oil cake caused by the protracted drought in Germany, has rendered the situation of the German oil millers much more favorable than it was a short time ago.

*New Combinations*

AN important fusion of interests in the German oil milling industry is rumored to take place soon. As is well known, the Dutch-English Jurgens-Van der Bergh concern controls approximately 50 per cent of the German oil milling industry. In December, 1929, the Harburg oil mill of Brinkmann & Mergell and three other independent margarine plants of the Hamburg district established an association of the independent German oil and margarine companies, called "Margoel," in order principally to make themselves independent of the raw material deliveries on the part of the Jurgens-Van den Bergh concern. This new association has in the meantime been joined by two large oil mills and twenty-four additional margarine plants, now having a total membership of thirty. The new combine has made special efforts to produce hardened oils which have heretofore been practically controlled by the Jurgens people. While the thirty members of the new combine have thus been materially benefitted by their fusion, the numerous smaller German oil mills, which belonged neither to the Margoel nor to the Dutch concern, felt that their market had been still more restricted. They have of necessity had to devote their works to the production of technical fats and oils, as the margarine making plants are now bound by the two combinations to buy their margarine oils. In order to extend and assure the existence of these independent German oil mills, of which a large number are located in the Hamburg district, ten large mills are now reported to be negotiating the establishment of a buying co-operative organization which may lead to further combination. Through concentrated purchases of raw material in the

world markets, which has lately become somewhat difficult for Germany through the weakening of the financial power of the Hamburg oil seed brokers, it is expected that a noticeable saving in freights, banking charges and the like will be achieved. It is also expected that the present excessive competition of the mills will be lessened and that ultimately production will be regulated. It is also hoped that it will be possible to obtain large collective credit guaranties for the oil mills from the large German banks and that Germany, being by far the largest consumer of oil seeds in the world, will eventually become independent of the contracts and terms of the London and Rotterdam oil seed markets.

**Color Reactions of Oils**

By W. H. DICKHART

WHILE experimenting to prove the following text book quotation, "Vegetable Colors can be extracted from acid solutions by amyl alcohol<sup>1</sup>," these results were obtained when the test was applied to vegetable oils.

*Reactions:* Ten cc. of oil in a test tube was acidulated with 1 cc. of concentrated hydrochloric acid and to this mixture was added 10 cc. of amyl alcohol. The test tube was shaken for a minute or two and then allowed to stand until the amyl alcohol separated. Olive, cottonseed,<sup>2</sup> sunflower, peanut, rapeseed and tung oils showed no color to the amyl alcohol solution, while soy, linseed and perilla oils gave a blue color to the alcohol. After allowing all these oil solutions to remain over night, the linseed oil sample in amyl alcohol solution had turned a yellow and the rapeseed was the same as the linseed oil. The perilla oil solution had become a pale blue while the deep blue of the soy oil solution did not change. All the other samples were colorless.

A mixture of 10% soy and 90% tung oils was made up and tested. At the same time a blank was tested using tung oil. The blue color was produced by the mixed oil sample while there was no color with the blank.

These color reactions might be of some importance to those manufacturers who process any of these oils which produce the color, in the same equipment used for processing oils that do not give the color reaction.

<sup>1</sup> "Quantitative Analysis" by Frank X. Moerk, P. 119.

<sup>2</sup> Crude cottonseed and palm oils give red colors.