

The Oil Mill Industry In Modern Germany

A Current Review of the Vegetable Oil Industry of the Republic, Including Comparison with Prewar Conditions

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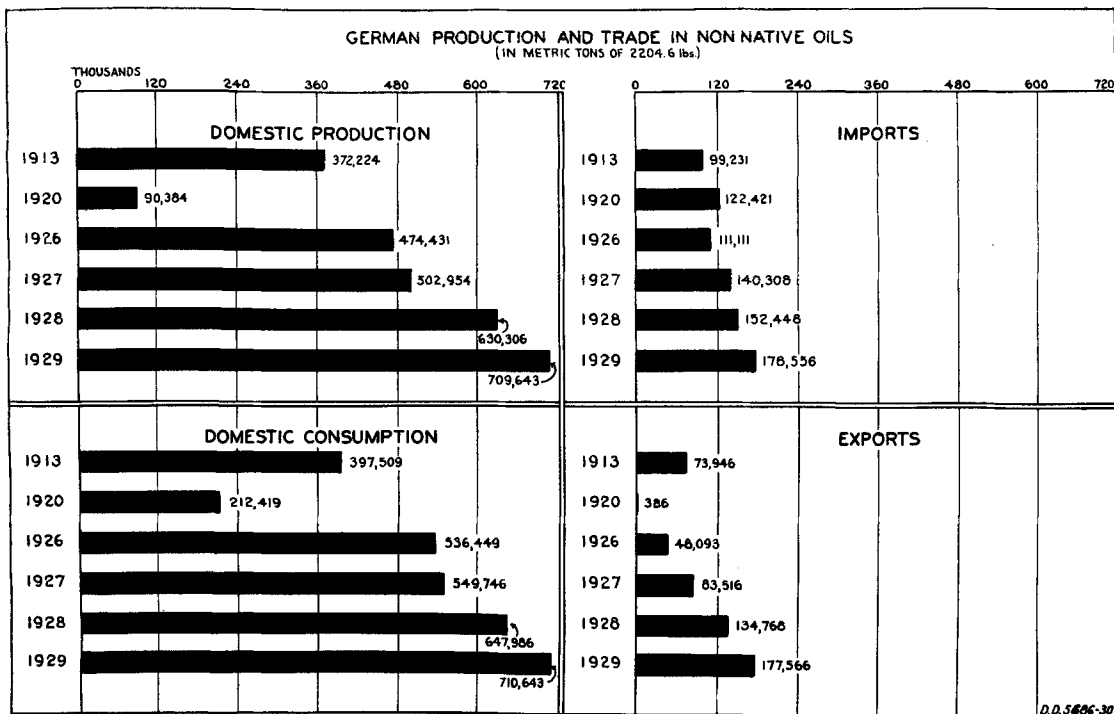
Part III

THE supply of wood or tung oil for Germany comes from China. It is used as a substitute for linseed in varnish manufacturing. The following table shows the imports of this oil for the years 1926 to 1929, inclusive. There is no duty on this oil in barrels. No detailed figures are given for exports, as the imports are for domestic consumption, a small amount being exported annually, mainly to Czechoslovakia.

WOOD OIL (Metric tons)		1926	1927	1928	1929
Imports from:					
China		4,704	6,082	6,662	6,684
Total exports:		317	296	282	260

Domestic Production

PRE-WAR production of the oil milling industry is estimated at 644,200 tons, of which 372,244 tons were from foreign raw materials. In 1928 this ratio had changed. In that year production was estimated at 844,000 tons of which 702,643 were from foreign raw materials. In keeping with the rise in the imports of raw products, peanut oil leads in increased production, with soy bean oil second. This is due to the higher oil content of the peanut. Likewise, cottonseed oil and sesame oil show the greatest decreases.



The following table lists the estimated domestic production of the German mills for 1913, 1920, and 1926 to 1929, inclusive, all figures being in metric tons.

EXOTIC OILS PRODUCED						
	1913	1920	1926	1927	1928	1929
	Tons	Tons	Tons	Tons	Tons	Tons
Domestic Production:						
Coconut oil	119,539	59,125	123,203	116,231	124,471	151,619
Cottonseed oil	36,586	87	5,461	5,942	1,262	1,327
Palm kernel oil	104,345	12,061	107,367	123,173	133,815	137,014
Peanut oil	38,417	3,917	179,293	168,883	239,416	259,484
Sesame oil	54,524	11,804	3,601	2,310	4,184	6,621
Soy bean oil	18,543	3,390	55,506	86,415	127,158	153,578
Total	372,224	90,384	474,431	502,954	630,306	709,643

In the following table are listed the total imports of foreign oils for 1913, 1920, and 1926 to 1929, inclusive. The increases from year to year are due almost entirely to the in-

creases in the import of whale oil. Norway, furnishing whale oil, leads as the country of supply, with Great Britain and Newfoundland following.

IMPORTS OF OILS						
	1913	1920	1926	1927	1928	1929
Coconut oil	594	50,631	1,877	1,068	6,255	10,512
Cottonseed oil	16,280	12,455	6,031	11,746	5,889	6,191
Palm kernel oil	49	11,241	1,471	983	1,847	990
Peanut oil	506	1,767	1,889	2,658	1,455	1,818
Sesame oil	700	434	436	174	74	16
Soya bean oil	3,140	22,010	20,000	11,472	1,118	1,985
Castor oil	9,527	1,047	5,454	8,287	8,292	8,954
Olive oil	2,285	2,894	833	1,106	1,324	1,179
Palm oil	15,072	3,040	14,119	17,254	20,267	20,068
Fish, seal, and whale oil	51,078	16,902	54,297	79,478	99,265	120,171
Wood oil	—	—	4,704	6,082	6,662	6,684
Total imports:	99,231	122,421	111,111	140,308	152,448	178,568
Imports from:						
British West Africa			7,456	11,998	15,614	15,327
British South Africa			980	4,389	7,968	10,550
Angola			1,138	—	—	—
Arctic Regions			—	—	—	24,308
Belgium			2,362	3,516	3,700	3,656
Great Britain			12,513	12,527	15,407	11,076
China			20,779	16,321	7,347	6,684
Congo			4,122	1,017	626	1,754
Denmark			1,668	3,940	3,499	3,562
Egypt			366	3,196	—	1,473
Netherland Indies			183	1,988	3,734	7,086
Japan			932	4,604	8,971	2,924
Mexico			—	—	—	1,420
Netherlands			8,761	11,518	11,043	6,294
Newfoundland			8,001	12,513	16,708	11,019
Norway			23,875	38,302	4,798	61,861
Russia			—	3,217	—	1,398
United States			547	1,003	309	294
Other countries			16,928	10,259	52,724	7,882

Export Trade

SINCE 1913, the exports of foreign oleaginous products have increased over 250 percent. Of the total increase of 106,725 metric tons, 105,464 metric tons were exports of soy bean, peanut, and palm kernel oils. Comparing the exports of the oils produced in Germany with the local production of the same oils, shows that exports in 1913 were equal to 18.97 percent of the production, 1920,

16/100 of 1 percent; 1926, 8.9 percent; 1927, 15.4 percent; 1928, 20.4 percent; 1929, 24.2 percent, indicating the trend of the industry to a point where it will be able to take care of the local demand and at the same time increase the exports. The Netherlands lead in purchases, followed by the United States and Great Britain. Other important purchasers are: Danzig, Czechoslovakia, Austria, and Poland.

Home Consumption

THE primary cause for the rapid increase in the oil industry is increased home consumption, particularly human consumption. Economic conditions have made it necessary to find substitutes for butter and meat. Lower prices of vegetable fats have also been responsible for their increased use in the margarine industry. In 1913 animal fats constituted 53

percent of the fats worked by the margarine industry. In 1929 vegetable fats constituted 78 percent, whale oil 16 percent and animal fats only 5 percent. In 1913 technical industries consumed two-thirds of the vegetable oils sold locally, whereas by 1929 this relation was reversed.

The following table shows the estimated home consumption.

OILS CONSUMED						
	1913	1920	1926	1927	1928	1929
	Tons	Tons	Tons	Tons	Tons	Tons
Production	372,224	90,384	474,431	502,954	630,306	709,643
Imports	99,231	122,421	111,111	140,308	152,448	178,566
Total	471,455	212,805	585,542	643,262	782,754	888,209
Exports	73,946	386	48,093	83,516	134,768	177,566
Net consumption	397,509	212,419	536,449	549,746	647,986	710,643

It will be seen from the above that in 1929 the domestic consumption of foreign oils had increased more than 78 percent over 1913. In considering local consumption no attention is given to the raw products consumed in their natural state or used in the confectionery trades, as these quantities are of minor importance, and in addition, there are no detailed statistics available.

Oilcake and Meal

INASMUCH as oil cakes play an important part in fixing the prices of oils, it is inter-

esting to note the amount fed to cattle in Germany. The latest estimates place the quantity at 80 kilos (176 pounds) per head annually. Oil cakes and meals are fed to cattle primarily to fatten them and to increase productions of milk and butter, 60 percent of the butter imported coming from Denmark and the Netherlands, the largest users of cattle feeds.

The following table shows the production of all oil cakes and meal for the years 1913 and 1925 to 1929, inclusive:

PRODUCTION OF OIL CAKE AND MEAL						
(Stated in 1000 metric tons of 2,204.6 lbs.)						
	1913	1920	1926	1927	1928	1929
Rapeseed cake	112	35	14	18	25	15
Linseed cake	385	171	218	273	303	214
Peanut cake	56	183	251	239	337	365
Soya meal	102	274	301	469	690	833
Cottonseed cake	181	38	22	27	5	6
Sesame cake	59	11	4	2	4	7
Palm kernel cake (meal)	125	120	127	145	158	162
Copra cake and meal	70	62	71	67	72	87
Other oil cakes	27	64	36	18	17	14
Total	1,117	958	1,044	1,258	1,611	1,703

Of the total oil cakes and meal produced during these years, the production from foreign raw materials was: 1913, 593,000 metric tons (53 percent); 1925, 688,000 metric tons; 1926, 776,000 metric tons; 1927, 949,000 metric tons; 1928, 1,266,000 metric tons; and 1929 1,460,000 metric tons (85 percent). This increase in production from foreign raw materials is due to the increase in the use of soy beans and peanuts. The production from soy beans in 1929 was nearly half the total production.

In 1928, 2,428,000 tons of oil bearing vegetable products and 6,000 tons of oil cake from

which not all the oil had been extracted, were worked. From this raw material, 802,900 metric tons of raw oil and fats were 1,594,000 tons of oil cake and meal were gained. The loss by treatment amounted to 36,000 tons or approximately 1.5 percent.

In 1913, imports constituted approximately 50 percent of the total quantity consumed, whereas in 1929 this figure had dropped to approximately 32 percent. In comparison with 1913, imports in 1929 show a reduction of about 33 percent. With the exception of 1927, there has been a steady increase in exports,

1929 showing a gain of approximately 62 percent over 1913. Whereas in 1913 exports were equal to 35 percent of the imports, in 1929 this figure had increased to 84 percent. Of the total exports, the Netherlands, Denmark, and Finland take the principal shares. Holland and Denmark supply Germany with 60 percent of the butter imported.

In comparison with the increases in production and exports, the increase in home consumption is small. Compared with 1913, home consumption in 1929 shows an increase of 7 percent. While the gain over 1913 is slight, that over 1926 is favorable, a result of a campaign by millers and cattle raising associations despite unfavorable grain prices. In 1913 domestic production equalled little over 67 percent of domestic consumption, whereas in 1929 this figure rose to 95 percent.

Conclusion

GRANTED normal conditions, the oleaginous product industries should continue to show satisfactory expansion with the possibility that outside influences may also contribute to this increased expansion. Most important among these possible influences is the present situation in the frozen meat industries. In April, 1930, there was enacted a law, so drastic in its regulations and requirements, as to practically prohibit the importation of frozen meats. This law was finally effective on September 30, 1930. As frozen meats command a lower price than fresh meat, such a restriction would undoubtedly cause a rise in the price of fresh meats, which might be reflected in the demand for margarine products.

Although this law has been put into effect, there is a possibility that some change may be made in the requirements, permitting the future importation of frozen meats in limited quantities. Whatever changes are made will reflect for or against the margarine industries. In addition, this restriction should cause an increased expansion in cattle raising. Germany is not a cattle raising country on a large scale. An expansion in this field would necessitate the use of lands now devoted to grain cultivation. This curtailment in the acreage under cultivation will diminish the local supply of grain, causing an increase in the demand for oil cakes and meal. As a matter of fact, this curtailment has been advocated owing to the unfavorable grain prices.

On the other hand, investigating committees have been at work, with a view to determining the practicability of placing an import tariff on raw oleaginous products. At present all oil

seeds and crude fish, seal and whale oils are admitted free of duty. A tariff placed on these imports would increase the price of margarine products, which would unquestionably cause a slowing down in the demand.

The growth of the industry as far as local consumption is concerned, has been purely economic. The gain in the export trade has been a natural result of increased production, as the margin of cost and the margin of production approached the same level. The oil mills in Germany still have capacity for heavier production, without further expansion. As far as the individual industries are concerned, the condition of the copra, soy bean, and peanut trade depends mainly on favorable or unfavorable crops. In the palm kernel industry there should continue to be an increase as it is gradually being reestablished in Germany, at the expense of England.

Taking the industry as a whole, a normal level is being reached and, without some outside influence at work, it should soon reach a point of normal production and growth.

The Archer-Daniels-Midland Company reported net profit of \$457,820 for the six months ended February 28, 1931, after depreciation, Federal taxes and other charges. This was equal to 59 cents per share on 549,546 common shares after preferred dividends and compared with \$806,160, or \$1.22 per common share, for the corresponding period of 1930.

Hearings in the Federal Trade Commission's investigation of cottonseed prices will be resumed at Houston, Texas, April 22, following adjournment at New Orleans where hearings were opened April 15. The Houston hearings will be held in the Rice Hotel.

Production of mayonnaise and similar articles increased 18.7 percent in 1930, compared with 1929, according to information collected by the Foodstuffs Division of the Department of Commerce. Data were collected for 1930 from 114 manufacturers, but the yearly comparison was confined to seventy-three manufacturers who had reported also in 1928 and 1929. This group represented about two-thirds of the production.

The physical properties of fats, fatty oils or fatty acids may be modified by heating and dispersing in the fat, greatly modified iso-colloids, which term includes fatty oils, natural resins and waxes. Brit. Pat. No. 337,734.