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Analysis of the statistics for vegetable oils used in the United States indicates an expanding market for edible peanut oil that is not being filled by present production. Indications are that as a result of manufacturing interest in peanut protein, the total production of peanut oil may increase as much as thirty-three per cent for 1948, possibly by fifty per cent. This is pointed out in a statement released by Dr. Gerald A. Rosselot, director of the Georgia Tech Engineering Experiment Station, and prepared by Joseph B. Hosmer, industrial economist on the staff of the station, who suggests that such increases in peanut oil production and protein extraction would imply need for an addition to the peanut crop of from fifteen to twenty-five per cent in 1948.

Four edible oils--cottonseed, soybean, peanut, and corn germ are produced from United States crops. These four oils supply the American consumer with almost all the vegetable oils required for food--oil, margarine, salad oil,

cooking oil, vegetable shortening and three other products which the census lumps together as "other" edible uses: (1) frying and roasting oils, (2) baker's and confectioner's oils, (3) canned food ingredients.

These four domestic oils make up 2.7 billion pounds of the total of 3.9 billion pounds of vegetable oils in the American market. Nearly all of the 2.7 billion pounds is refined--2,684,482 thousand pounds out of a total for refined vegetable oils of 2,894,814 thousand pounds in 1946. So far as quantity goes these four domestic oils--cottonseed, soybean, peanut, and corn--are the edible oils, since only small quantities of the imported coconut and palm oils are now going into edible use.

Most of the oils used for food are refined oils and conversely most of the refined oils produced are used for food. Table I summarizes the quantities processed for the principal food uses in 1946 compared with 1943.

Table I  
Principal Foods from Vegetable Oils  
in 1943 and 1946  
(in millions of pounds)

Use	Total	Corn Germ	Soybean	Cottonseed	Peanut
1. Shortening:					
1946	1,396	3	744	502	42
1943	1,370	6	568	572	51
2. Oleomargarine:					
1946	465	7	201	223	14
1943	498	6	198	252	5
3. Winterized for Salad Oil:					
1946	374	14	56	290	4
4. Salad Dressing:					
1943	203	76	29	96	-
5. Cooking and Salad Oil:					
1943	497	18	82	378	16
6. Use Unreported: *					
1946	478	166	271	-	41
1943	353	120	179	4	50

\* Apparently most of the unreported quantities were used for salad and cooking oils in both years. The quantities directly reported for these uses (items 4 and 5) in 1943 are presumably in addition to this item.

The importance of these four oils in the American food picture is emphasized by Tables II and III which show for 1946 and 1943, for all uses for which figures are reported, the per cent supplied by each of the four oils. It will be observed that for the food uses these percentages for the four oils total from 99.80 per cent (salad dressing, 1946) to 77.81 per cent (other food, 1943), while for the non-food uses they are much smaller. The statistics on which these percentages are based are shown in Table III. These two tables cover all the food uses shown in Table I except item 6 which represents calculated residues for unreported uses.

The pattern of supply and demand which is reflected in the three tables represents a very tight oil and fat situation. The total quantities of each oil available and the total supply of all oils and fats was in each year well below the demand. In consequence the demand tended to operate selectively with regard to the intrinsic qualities of each oil and competitively only **with** regard to the intensity of relative demand for particular products. These characteristics of the pattern permit the drawing of conclusions with regard to the demand functions related to the intrinsic qualities of particular oils.

Thus the competition between uses will attract edible oils, first to shortening, second to cooking and salad oils and third to oleomargarine, but the selection by intrinsic quality will direct cottonseed oil more toward shortening and less toward highly specialized "other" uses, while the peanut oil will be attracted toward uses as salad and cooking oil and "other" food uses, and less toward salad oil where winterizing is desirable.

Two of the oils involved are of southern origin, cottonseed and peanut. Conclusions drawn will relate to these two, and principally to peanut oil, since the problem of whether or not peanut planting should be further in-

creased is highly important to Georgia farmers.

Cottonseed oil appears to have definite favor for three uses: (1) for salad oil, (2) oleomargarine, and (3) shortening. These three uses absorbed 98.60 per cent of the refined cottonseed oil in the short supply year of 1946; in 1943 the figure was 97.91 per cent, although the classifications with respect to cooking and salad oils were not exactly comparable.

Peanut oil, on the other hand, was used to the extent of 78.04 per cent in these uses in 1946, but 10.43 per cent of the reported peanut oil went into what the census describes as "other" food uses. In 1943, 78.42 per cent of a larger peanut oil press went into the three uses and 12.10 per cent into "other" food uses. In addition, the "unreported" peanut oil in both years amounted to over half the "reported refined" uses.

The fluctuations in the soybean oil uses appear to reflect the extent to which cottonseed failed to meet its natural demand. While in 1943, 93.20 per cent of a smaller volume of soybean went into the three major food uses in 1946, this fell to 79.89 per cent of a larger amount.

The big item for corn germ oil was the "unreported" which in 1946 was five times the reported uses. The bulk of this unreported corn oil was used as salad and cooking oil without further processing.

The major difficulty in getting a firm determination of demand for peanut oil is the relatively small amount produced. In 1946, 4.06 per cent of the refined oil total was peanut, in 1943, it was 4.67 per cent.

If more peanut oil were available it appears from a study of the tables that the increase would flow into these uses:

1. Plain salad and cooking oil
2. Shortening
3. Other food oil uses
4. Sulfonation

The two "other" items under which the census has grouped those uses for which detailed figures are omitted to avoid disclosure of figures for individual firms, include the following uses:

Other food uses: frying and roasting oils; baker's and confectioner's oils; and oils used in canned foods.

Other non-edible uses: rubber; insulation; tin and terne plate; core oil; metal working and treating; hydraulic brake fluid; linings and leather; glue and adhesives; pharmaceuticals; toilet articles; disinfectants; detergents; candles; intermediate preparations; feeding oils and other miscellaneous industrial uses.

The probability of an increase in the quantity of peanut oil available is indicated by the interest of three or four firms in the erection of plants for the processing of peanut protein on a fairly large scale. One of these plants, located in Alabama, should be in operation in the fall of 1947 with an annual crushing capacity of about thirty thousand tons of shelled nuts. Other projected peanut operations in Georgia represent a possible added demand for nuts in 1948 of 240 million pounds, over two thirds as many peanuts as were crushed in 1946. Adding this quantity of peanuts to the demand will increase the crop needed to satisfy it by from 15 to 25 per cent.

It should be noted that most of these firms are primarily interested in protein products so they will very likely be unable to secure the quality required from regular oil meal and in consequence will be forced to crush peanuts of higher quality than is the case where oil is the major product.

Table II

Per Cent of Reported Product  
Use Totals Supplied by Soybean,  
Corn, Cottonseed, and Peanut Oil  
for 1946 and 1943

Use <sup>1</sup>	Total	Corn Germ	Soybean	Cottonseed	Peanut
Salad Dressing					
1946	not reported				
1943	99.80	38.51	14.07	47.20	0.02
Cooking and Salad Oils					
1946	not reported				
1943	99.67	3.67	16.58	76.09	3.33
Winterized for Salad Oils					
1946	97.53	3.84	15.02	77.60	1.07
1943	not reported				
Oleomargarine					
1946	95.45	1.42	43.15	47.91	2.97
1943	92.54	1.17	39.79	50.66	0.92
Shortening					
1946	92.22	0.02	53.25	35.92	3.03
1943	87.39	0.46	41.47	41.75	3.71
Other Food					
1946	78.69	5.44	51.43	11.52	10.30
1943	77.81	9.78	20.63	33.79	13.61
Other Inedible					
1946	28.68	4.77	7.78	5.84	10.29
1943	7.89	0.41	5.11	1.37	1.00
Sulphonation					
1946	15.92	1.76	2.47	2.31	9.38
1943	10.70	1.14	2.74	0.78	6.04
Lubricants and Grease					
1946	8.91	0.05	2.63	6.23	-
1943	2.12	0.26	1.18	0.68	0.00
Soap					
1946	0.14	0.00	0.09	0.03	0.02
1943	8.53	0.20	8.17	0.11	0.05
Linoleum and Oilcloth					
1946	7.78	-	7.78	-	-
1943	0.03	-	0.03	-	-
Paint and Varnish					
1946	5.04	0.00	5.02	0.02	-
1943	4.17	0.00	4.13	0.04	-
Printing Ink					
1946	0.30	0.00	0.28	0.02	-
1943	0.48	0.00	0.20	0.28	0.00
Fat Splitting					
1946	0.50	-	0.50	-	-
1943	0.08	-	0.06	0.02	-

Source: U. S. Census, Facts for Industry, Animal and Vegetable Fats and Oils, 1942-46, Table 9, page 22.

<sup>1</sup> Arranged in descending order of the highest figure in total per cent column.

Table III

Analysis of Reported Manufacturing Uses of Refined Cottonseed,  
Soybean, Corn, and Peanut Oils for 1946 and 1943, in Thousands  
of Pounds

Total Oil for Use	Corn Germ		Soybean		Cottonseed		Peanut		
	Pounds (000)	Per Cent	Pounds (000)	Per Cent	Pounds (000)	Per Cent	Pounds (000)	Per Cent	
Refined Oil, Reported Use									
1946	31,687	100.0	1,113,096	100.0	1,029,172	100.0	76,633	100.0	
1943	117,200	100.0	941,424	100.0	1,325,929	100.0	86,300	100.0	
Salad Dressing									
1946	*	*	*	*	*	*	*	*	*
1943	202,760	78,083	66.63	28,527	3.03	95,711	7.23	32	0.04
Cooking and Salad Oils									
1946	*	*	*	*	*	*	*	*	*
1943	496,854	18,247	15.57	82,402	8.76	378,074	28.51	16,562	19.19
Winterized for Salad Oil									
1946	374,190	14,370	45.35	56,189	5.05	290,388	28.22	3,999	5.22
1943	*	*	*	*	*	*	*	*	*
Oleomargarine									
1946	465,093	6,590	20.80	200,681	18.03	222,814	21.55	13,794	18.0
1943	497,690	5,827	4.97	198,020	21.03	252,109	19.01	4,562	5.29
Shortening									
1946	1,396,338	3,341	10.54	743,527	66.80	501,588	48.74	42,302	55.20
1943	1,370,625	6,356	5.42	568,405	60.38	572,208	43.16	50,886	58.96
Other Food									
1946	89,996	4,896	15.45	46,289	4.16	10,370	1.01	9,269	12.10
1943	66,098	6,462	5.51	13,633	1.45	22,335	1.69	8,997	10.43
Other Inedibles									
1946	390,304	1,863	5.88	30,367	2.72	2,280	0.21	4,016	5.24
1943	308,359	1,267	1.08	15,745	1.67	4,215	0.32	3,075	3.56
Sulphonation									
1946	31,848	560	1.77	786	0.07	737	0.07	2,986	3.89
1943	34,775	397	0.34	954	0.10	272	0.02	2,100	2.43
Lubricants and Grease									
1946	75,421	26	0.08	198	0.02	470	0.05	-	-
1943	80,459	210	0.18	948	0.10	549	0.04	2	0.00
Soap									
1946	1,522,325	32	0.10	1,323	0.12	413	0.04	267	0.35
1943	1,715,421	335	0.29	14,016	1.49	186	0.01	83	0.10
Linoleum and Oilcloth									
1946	83,625	-	-	6,508	0.58	-	-	-	-
1943	74,466	-	-	192	0.02	-	-	-	-
Paint and Vernish									
1946	502,840	4	0.01	25,236	2.27	104	0.01	-	-
1943	444,342	13	0.01	18,363	1.95	159	0.01	-	-
Printing Ink									
1946	33,095	5	0.02	94	0.01	8	0.00	-	-
1943	22,498	3	0.00	44	0.00	64	0.00	1	0.0
Fat Splitting									
1946	381,971	-	-	1,894	0.17	-	-	-	-
1943	280,664	-	-	175	0.02	47	0.00	-	-

Source: U. S. Census, Facts for Industry, Animal and Vegetable Fats and Oils,  
1942-46, Table 9, page 22.

\*Not Reported. Estimated quantities included in "unreported" item in Table IV.

Table IV

Use of Refined Oils Not Reported and  
Total United States Production of  
Cottonseed, Soybean, Peanut And Corn Oils  
for 1946 and 1943 In Thousands of Pounds

	Total 4 Oils	Cotton- seed	Soy- bean	Peanut	Corn
Total Crude					
1946	2,722,621	986,003	1,412,160	125,179	199,279
1943	2,848,227	1,331,642	1,139,470	136,713	240,402
Total Refined from Crude					
1946	2,684,482	985,379	1,383,653	118,049	197,401
1943	2,824,013	1,329,801	1,120,621	136,386	237,205
Total Crude Used as Crude					
1946	38,139	624	28,507	7,130	1,878
1943	24,214	1,841	18,849	327	3,197
Reported Uses of Refined Oil					
1946	2,250,584	1,029,172	1,113,092	76,633	31,687
1943	2,470,853	1,325,929	941,424	86,300	117,200
Refined Oil Use Not Reported					
1946	477,691	-	270,561	41,416	165,714
1943	353,160	3,872	179,197	50,086	120,005

Source: U. S. Census, Facts for Industry, Animal and Vegetable Fats and Oils, 1943-46, Table 9, page 22.