Report on Fats and Oils

Cottonseed Production Declines, Cottonseed Oil Gains Independent Strength

THE ONLY DEVELOPMENT of major importance to the fats and oils markets since our last writing (mid-November) has been the sharp reduction in the prospects for cottonseed production. Badgered by persistent untimely rainfall, farmers in principal producing areas were unable to pick their cotton, and severe deterioration took place in the fields. By the time it was harvested both yields and grades of cottonseed had been adversely affected. The December crop report issued by the U.S.D.A. estimated the 1957 cotton crop at 11.0 million bales compared with the estimate the month before of 11.8 million bales and actual production last year of 13.3 million bales. The same report placed cottonseed production at 4,527,000 tons *versus* 5,423,000 tons last year, a decrease of 16½%.

Since about three million bales of cotton remained to be picked on December 1, there have been widespread doubts that even the reduced estimate would be attained. Aggravating the situation was the fact that much of the cottonseed being produced was running very high in FFA content, with the result that unusually large refining losses were being realized on the oil. (It has been conservatively estimated that the national average refining loss on cottonseed oil this year will be 10% compared with a normal of 6¼-6½%.) On top of all this was the fact that carry-over stocks of cottonseed oil on October 1 this year were 108 million lbs. below last year. Taking all of the above into consideration, it appeared the total supplies of cottonseed oil in 1956–57 will be about 20% below last year's (refined basis).

This pinch in supplies thrusts into the foreground once more the oft-pondered question of the fixed demand for cottonseed oil in this country. It is generally considered that there are certain uses of cottonseed oil (principally salad oil), for which soybean oil is not an entirely satisfactory substitute. Furthermore, even in shortening where cottonseed oil and soybean oil are largely interchangeable, this interchangeability is not 100%, and there is in some cases a strong reluctance to reduce the cottonseed oil content of shortening below a certain level. In recent years the supply of cottonseed oil has been well above its fixed demand, and this "excess" has kept the price of cottonseed oil competitive with that of soybean oil. This year however this excess will certainly be very small. It may be of some interest to examine the domestic consumption of cottonseed oil in the past in the hope of uncovering some clues for the present year.

Domestic Consumption of Cottonseed Oil

In recent years the biggest single type of consumption of cottonseed oil in this country has been in winterizing, for the production of salad oils. Some of this winterized oil is exported, but if we subtract our estimates of this amount from the total amount of cottonseed oil consumed in winterizing, we arrive at a figure for the domestic demand for cottonseed oil in winterizing of about 630 million lbs. per year.[1] This demand seems to be increasing with the population and is largely unaffected by price. It constitutes the biggest part of the fixed demand for cottonseed oil. The remaining consumption of cottonseed oil has been in margarine, shortening, and "other edible" products, principally the first two. Except for the unknown minimum of cottonseed oil which can be used in these products, the consumption of cottonseed oil in shortening and margarine is sensitive to price. It is this consumption which will have to be reduced this year to keep

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[1] This demand for winterized oil is less than this since cottonseed oil, when winterized, yields only slightly over 75% winterized oil and the balance is stearine.

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the total demand in line with the supplies. In order to obtain some idea of the effect which changing prices have on the consumption of cottonseed oil in margarine and shortening, a chart has been constructed (Figure 1). Using the above figures but restricting the data to the 1956–57 crop year (to eliminate the effect of long-term trends), scatter diagrams can be constructed (Figure 2). (At present cottonseed oil is at a greater premium over soybean oil—about 5½¢ per lb.—than it has been in recent years so that only later figures will show us what effect that will have.)

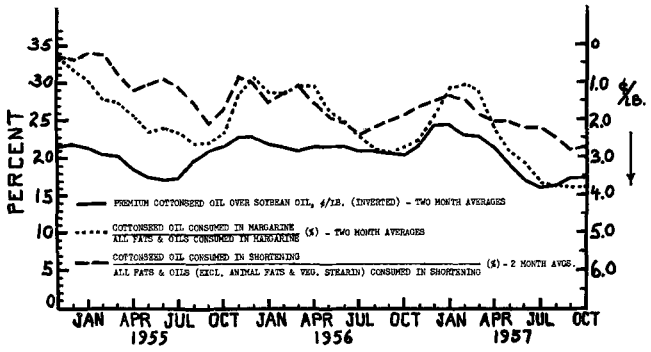

FIG. 1. Cottonseed oil[a] premium over soybean oil[b] and consumption of cottonseed oil in margarine and shortening as percentage of total fats and oils[c] so consumed, November 1954 to October 1957 (two-month averages centered on second month).

[a] Nearby futures prices.

[b] Prices crude, f.o.b. midwest.

[c] Excludes lard, tallow, and vegetable stearine in case of shortening.

The Squeeze on Cottonseed Oil Supplies

Turning to the supply side again, if we optimistically assume that production of new crop cottonseed oil next August and September will not be reduced by adverse weather, as it was this year, we can estimate that production of crude cottonseed oil in October 1957 to September 1958 will be 1,400 million lbs. Of this we estimate that 350 million lbs. will be exported and 115 million lbs. will be lost in the refining process. Since we cannot expect stocks next October 1 to be any lower than they were when this crop year began, we will have only about 935 million lbs. of refined cottonseed oil available for domestic consumption. If we estimate the "fixed" domestic demand for cottonseed oil in winterizing at 640 million lbs. and that for "other edible" uses at 45 million lbs., making a total fixed demand of 685 million lbs., there will be 250 million lbs. of cottonseed oil left for consumption in shortening and margarine, compared with a total of 547 million lbs. so used last year.

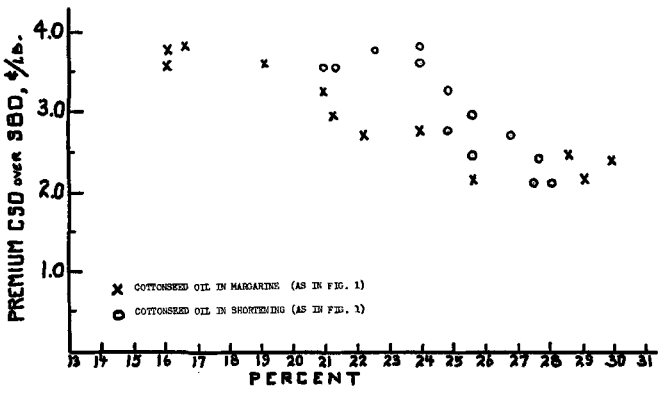

FIG. 2. Percentages of cottonseed oil in margarine and shortening (from Fig. 1) *versus* premium of cottonsed oil over soybean oil, based on October 1956–October 1957 statistics (two-month averages).

Present indications are that about 1,200 million lbs. of fats and oils will be consumed in the manufacture of margarine this year and about 1,000 million lbs. (excluding animal fats and vegetable stearine) in shortening. If the price of cottonseed oil relative to soybean oil should reduce its share of the former figure to about 7½% (90 million lbs.) and its share of the latter to 16% (160 million lbs.), things would come out even. What price will accomplish this remains to be seen. One advantage in having cottonseed oil at its present large premium over soybean oil is that we can learn from the November, December, and January consumption figures (when they become available) what effect it had on the variable percentage of cottonseed oil consumed in margarine and shortening.

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Where on Earth Are We?

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side the U. S. as well as to those not generally acquainted with such data in the U. S. The Book Review section provides a critique of most new books in the field.

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Let's make 1958 an IGY (intensely good year) for the Journal. We know "where" it is now. With all our suggestions as a guide we will know where it will be in 1960. The challenge is for all of us.

A. R. BALDWIN, editor

"The Acceleration of Change" is the theme of the convention of the Association of American Soap and Glycerine Producers Inc. to be held January 22–24, 1958, at the Waldorf-Astoria, New York, N. Y.

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The national symposium on progress and trends in chemical and petroleum instrumentation, sponsored by the Instrument Society of America, will be held February 3–4, 1958, at the Hotel Du Pont, Wilmington, Del. The Society's analysis instrumentation division will hold its annual symposium May 12–14, 1958, at the Shamrock Hilton hotel, Houston, Tex.