Report on Fats and Oils

Impact of Hog Numbers and Lard Production on the Soybean Industry

THE SOYBEAN PROCESSOR may be thankful that the U.S.D.A. over-estimated the 1957 spring pig crop by such a wide margin as it did. We do not mean to suggest that estimates can alter facts; but if there were any one thing which improved the outlook for the processor as the 1957-58 crop year wore on, it was the growing recognition that there would be fewer hogs slaughtered than the original U.S.D.A. spring pig crop estimate indicated. Each time that it became necessary to reduce official estimates of lard production, the soybean crusher could see a greater need for his oil. From mid-November until recently, guesses about the 1957-58 soybean crush were raised from 325 million bushels to around 340 million bushels. This sort of thing has happened in past years, usually as a result of improvements in the export outlook for soybean oil. This year however the total exports of soybean oil will be just about as expected earlier, and for quite a while even this appeared doubtful. It seems quite clear that the improvement in the outlook for soybean oil demand in recent months is directly related to the failure of lard production to come up to expectations. The increase of 15 million bushels in soybean-crushing estimates is equivalent to 160 million lbs. of oil, just about the amount by which estimates of lard production have been lowered.

A Network of Relationships

This lower-than-expected number of hogs incidentally is a multipronged factor so far as the soybean processor is concerned. Lard production is lower not only because of the fewer animals slaughtered but also because lard yields per animal tend to go down when hog prices are high, apparently because packers leave more fat on meat cuts. High hog prices also result in a demand for soybean meal, which is probably better than it would be if hogs were more numerous and lower-priced. Fewer hogs also mean less production of animal proteins and consequently less competition for soybean meal. We might suggest that if the original U.S.D.A. 1957 spring pig crop report had been correct, the 1957-58 lard production would be considerably higher, the demand for soybean oil poorer, livestock and poultry prices lower, feed business slower, animal proteins more plentiful, demand for soybean meal worse, soybean crushings smaller, processing margins narrower, and processors sadder.

Most of these influences of hog numbers on the soybean industry have subtle counter-influences, and any attempt to pursue all the logical consequences of any one factor inevitably leads to a maze of considerations involving feed grains, livestock, cotton, and what-not. The one aspect of this maze which we want to discuss more fully here is the nature of the competition between lard and soybean oil.

Despite the much discussed interchangeability of most fats and oils, lard and soybean oil do not compete on a broad front. There are many uses for each where the other is not a competitor. In fact, the principal battleground lies in the field of shortening manufacture, where each is an important raw material.

Nature of Domestic Lard Consumption

After the export demand for lard is satisfied, the total domestic demand may be divided into two parts: (a) the direct demand for lard which enters directly into consumption as lard; and (b) the demand for lard consumed in the manufacture of shortening. The former is, for all practical purposes, a fixed demand and is quite insensitive to price. It represents the slowly changing tastes and preferences of many individuals. Over a period of years, of course, this demand does change, and on a *per-capita* basis it appears to be in a long term downtrend. In the last crop year 1,425 million lbs. of lard were consumed directly as lard, about three fourths of the total domestic disappearance.

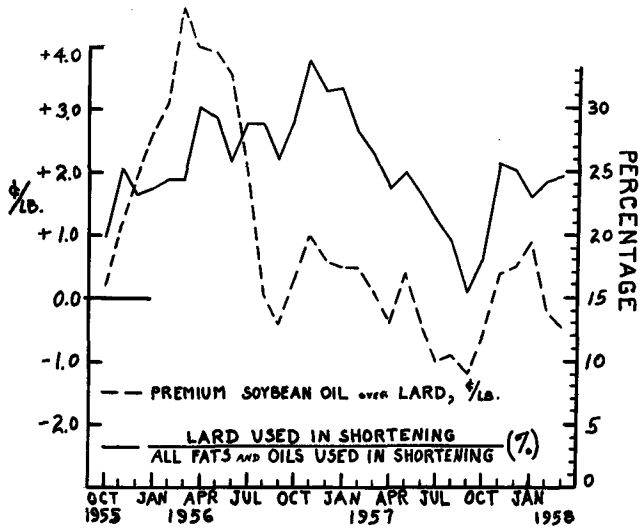

FIG. 1. Premium soybean oil (crude, f.o.b. midwest points) over loose lard (Chicago basis) and consumption of lard in shortening as percentage of total fats and oils so consumed.

It is the second type of domestic demand where the competition with soybean oil exists, and we might call this the competitive demand for lard. It is this demand with which the soybean processor must concern himself. It is a pretty safe bet that over any period of time the quantity of lard (except for temporary changes in stocks) which is left over after the export and fixed domestic demands are met will enter into the manufacture of shortening in direct competition with soybean oil. The behavior of the price of lard with respect to soybean oil is very closely related to the size of this "surplus" of lard which must find its market in blended shortenings. In the chart this relationship appears rather strikingly during the period since the summer of 1956. (Prior to that time the shortening industry was not geared to consume lard in the quantities which it is capable of using today.) The dashed line in the chart is the premium, in cents per pound, of crude soybean oil (f.o.b. midwestern points) over loose lard (Chicago basis). A negative value indicates that soybean oil was at a discount. The solid line represents the percentage of lard in manufactured shortenings. It is arrived at by dividing the amount of lard used in the manufacture of shortening and "other edible" [1] products by the total of all fats and oils used in shortening. [2]

It can be observed that in February and March of this year the use of lard in shortening was not adversely affected by the fact that lard gained a premium over soybean oil, as might have been expected from earlier behavior. We expect that this reflects an increasing desire on the part of the manufacturer to use lard in his products.

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[1] Census Bureau classification. Since the Census Bureau does not consider a product to be "shortening" unless it includes vegetable oils, the consumption of lard in "other edible" products represents principally lard used in the manufacture of shortenings blended entirely from lard and other animal fats.

[2] Includes lard used in "other edible" products.

Publishes German Meeting Report

The November 1957 issue of Fette-Seifen-Anstrichmittel carries a complete report of the 1957 meeting in Berlin of Deutsche Gesellchaft für Fettwissenschaft e. V. as well as abstracts of the 72 technical papers presented.

Among the speakers were W. O. Lundberg, Hormel Institute, University of Minnesota, Austin; H. P. Kauffmann, University of Münster, Münster, Germany; and D. K. Chowdhury, Calcutta University, Calcutta, India. Dates of the meeting were October 13-18.