Author's Note

In early 1955 it looked as if a substantial inventory of cottonseed and soybeans might develop from price support programs. The cottonseed and soybean processors proposed a program for CCC purchases of soybean and cottonseed oils. That would help hold oil prices at levels that would permit soybean meal and cottonseed meal to sell at market prices and that would keep soybeans and cottonseed out of the loan structure. It would have been the best of all possible worlds for processors. It did not seem to me to be in the best long-run interest of the soybean industry. This article was prepared for the Commodity Credit Corporation of the U.S. Department Agriculture.

Should CCC Initiate a Buying Program for Cottonseed and Soybean Oils?

CHAPTER 8

A request by cottonseed and soybean crushers for a CCC oil-buying program is being studied by the USDA. I think this request should be denied.

First, an oil-buying program would retard the movement of oil into consumption. We are just now concluding one experience with an oil support program that has been expensive, both in terms of CCC losses and of the loss of markets for U.S. fats.

Second, existing price support programs have not harmed soybean crushers, nor are they likely to harm soybean or cottonseed crushers in the future.

Basic Facts

Certain basic facts about U.S. production and use of edible fats and oils dominate the marketing problem.

1. Production of edible fats is larger than domestic requirements. Four fats comprise some 90 percent of U.S. production of edible fats. The average amounts of these produced in the five crop years beginning October 1, 1949, are as follows: butter, 1,581 million pounds; lard, 2,334 million pounds; cottonseed oil, 1,729 million pounds; and soybean oil, 2,614 million pounds; anaverage total of 8,258 million pounds. The average total edible fats and oils produced in these five years was 9,086 million pounds.

Average domestic disappearance of the four major fats for the above period was about 6,858 million pounds.

The average difference between production and disappearance was 1,400 million pounds. Domestic disappearance was 83 percent of production; production was 20 percent greater than domestic disappearance. Production and disappearance are increasing at about the same rate.

2. Production of edible fats cannot be readily adjusted to market conditions.
   a. Butter production appears to be very slowly declining. Because of the great difference between butter and the other edible fats, its production does not respond to the overall fat supply situation.

T. A. Hieronymus is associate professor of marketing, University of Illinois. Article dated July 14, 1955.

b. Cottonseed oil is a by-product of cotton production. Its volume depends upon cotton production, which, in turn, is not related to fat and oil supplies.
c. Lard is a by-product of hog production. The price of lard has very little effect on hog production.
d. Soybean oil is a joint product with soybean meal. We have a rapidly expanding market for soybean meal in the United States. We apparently need more high-protein concentrates than we now have. So soybean oil production is affected by soybean meal requirements. More recently, it has been affected by price support programs for cotton, wheat, and corn. This is likely a passing influence.

3. Domestic demand for edible fats is inelastic; that is, consumption changes very little in response to changes in price. We require a minimum quantity of fats in our diets and want this minimum very badly. Any more is objectionable. Food use of all fats and oils per capita has remained stable at about 43 pounds for the past 20 years. We can expect that the domestic use of fats and oils for food will increase at about the same rate as the population.

These three facts lead to an inescapable conclusion: we must either export our surplus fats or move them into nonfood uses. It is not at all clear that nonfood uses could absorb them. Certainly, it would take a drastic price reduction to move them.

The key market for U.S. edible fats and oils is the world market. U.S. production is an integral part of world production, and the world production requirement balance is as important to soybean producers as is U.S. production and requirement. We are a part of the world fats and oils market.

World Exports

Total world exports of fats and oils are now approximately the same size as they were before World War II. They were then and are now 6,500 thousand short tons annually. This is now about 35 percent of world production. Prewar about 73 percent of exports were food fats, but in 1954 only 65 percent of total exports were food fats.

There have been major changes within the total world exports. U.S. exports have increased from 111,000 prewar to 1, 579,000 short tons in 1954. Exports from the Philippines have increased from 387,000 to 533,000 tons. Exports from Africa, the most important exporter with 1,628,000 short tons, are 380,000 tons higher than prewar. Exports from all other areas of the world have decreased. The largest decreases have been 450,000 tons from India and Ceylon, 171,000 tons from Indonesia, 644,000 tons from China and Manchuria, and 309,000 tons from ex-U.S. countries.

The increase in Africa is mainly in palm, palm kernel, and peanut oils. Africa has increased in importance as a supplier of European edible oils. The decrease in "other America" is mainly in flax and linseed oil from the Argentine and Uruguay.

The great shift in supplying Europe with food fats and oils has been from Asia to the United States. The decrease in India and Ceylon was mainly in peanut oil and flaxseed. The decrease in China and Manchuria was mainly in soybeans and cottonseed oil. The bulk of the increase in U.S. exports was in soybeans and cottonseed oil. The export of cottonseed oil was unusual, as normally little is exported. The cottonseed oil that was exported in 1954 replaced soybean oil that would have been shipped.

During 1935–39 the United States was a net importer of edible fats and oils. We are now the world's most important supplier. The change in our position, excluding inedible fats and oils, is about as large as the oil produced from 250 million soybeans. *The U.S. soybean crop has replaced Manchurian soybeans and Indian peanuts in world trade.*

Potential Exports

What is the future of our export market? Several things indicate a large and growing export market.

1. World production of edible fats per capita is still below prewar levels.
2. World population appears to be increasing faster than production of edible fats outside the United States.
3. There is a great pressure by many people for better diets.

Two things seem clear: we must export, and the world needs our surplus production. In order to export our surplus fats and oils, four conditions must be met: (1) There must be a need; (2) The importing countries must be able to pay; (3) We must export the kinds of fat the importing countries want; and (4) The price must be right. The first two of these conditions exist. The third does not. We are now exporting refined cottonseed oil, whereas our customers want soybean oil, soybeans, and lard. Germany has been unable to participate in our refined cottonseed oil sales. South Europe appears to prefer soybean oil to cottonseed oil.

We are currently pricing our export fats at the world level. We are approaching the time when our soybean-cottonseed oil price relationships will be such that we can again export soybean oil in volume. Current prices suggest that soybean oil need decline less than a cent a pound to be competitive.

The relationship of our oil price policy and our exports is clear. The surplus of edible fat (lard, soybean oil, and cottonseed oil) over domestic disappearance,

exports, and changes in carryover in millions of pounds in recent crop years (October 1–September 30) was as follows:

Year	Domestic Surplus	Exports	Change in Stocks
1948–49	1,166	1,162	+ 4
1949–50	1,080	1,085	- 5
1950–51	1,487	1,400	+ 87
1951–52	1,545	1,235	+ 310
1952–53	1,453	944	+ 509
1953–54	1,138	1,304	- 166

There will be a stock reduction of about 500 million pounds in 1954–55. There is a close relationship between our price policy and changes in stocks. The package program (basically oil buying) was started in 1951–52. Under it we accumulated fat until our cottonseed oil prices were reduced to world levels in February 1954. CCC got into the oil business with a high-price policy and out of it with a world-price policy.

The original theory behind the package program was that the demand for cottonseed oil was extremely inelastic; and accordingly, any reasonable price could be charged for it. This theory did not work out in practice because it failed to recognize that edible fats and oils are readily substitutable.

The world demand for fats and oils is not so inelastic as the U.S. demand. First, world fats and oils consumption is below saturation levels. As prices are lower or incomes higher, people will use more oil if it is available. Second, world supply is relatively elastic. African peanuts have some growth potential. Palm and palm kernel oil production can be increased rapidly when prices are high enough to cover costs which are mainly for harvest and transportation. The same is true of coconut oil production. The time that whaling ships stay out is a function of the prices of fats.

To hold our export market, we must not interfere with market prices of fats and oils. We must either hold this market or reduce soybean production.

Oil-Purchase Program

This is the factual background against which we must consider an oil-purchase program. What would be the effects of an oil-buying program?

1. If it were effective, we would either build up stocks of oil or take sharp losses on foreign resale. In either event, we would create a situation that would require correction. We have not yet progressed to the point with our price support programs where we are willing to recognize that they are chronic

money losers. The way to correct oversupply of oil if we are not willing to lower prices is to reduce soybean production. This seems to be impossible in view of the acreage reduction programs for other crops.

2. An oil-buying program would disrupt normal trade channels. How can a CCC inventory operation, no matter how skillfully accomplished, do as effective a job as free market prices in getting the right oil to the right place at the right time? To have a workable program, CCC would need to accumulate a stock of refined oils. This involves refining, storage, and administrative costs. No government can be as successful as the forces of competition in getting these jobs done cheaply.
3. An oil-buying program would place the full burden of supporting prices of the seeds on the oils. The three components in the making of soybean prices are the price of oil, the price of meal, and the processing margins. For cotton seed, prices of linters and hulls must be added, making a total of five variables. If the problem is to support the raw material price and the price of oil is put at the level needed to accomplish this, then prices of the other products and services lose their effectiveness in regulating the flow of products onto the market and in forcing maximum prices of the other products.

Oil-Support Program

How would an oil support program work? The simplest way to establish the CCC buying price for oils would be to buy soybean oil whenever soybean prices got below the support price and cottonseed oil whenever cottonseed got below the support price. The buying price for oil would need to be changed as the market prices of the other products and marketing margins changed.

The question of what soybean price to support would be left open. Loan differentials by location are not the same as market differentials. In 1955 soybeans were taken over in Minnesota while the market price was still above the loan price in Illinois. If prices were forced up to the support price in Minnesota, they would be above it in Illinois, etc. The price of soybeans would be supported at more than 70 percent of parity at some points or less than 70 percent at others.

The USDA is not obligated to fix the minimum price of any commodity. It is only obligated to see that farmers have an opportunity to obtain the support price if they meet certain conditions, generally including storage. The prices of wheat and corn in many areas are substantially below support levels, but farmers who are willing to store can get support prices less costs.

The loan rate for 1953 soybeans was $2.60 in east-central Illinois. In October 1953 the Track Country Station Illinois points price averaged $2.57, which meant farmers received about $2.51. Had there been an oil-buying program, it would have

become effective. In April of 1954 the average Track Country Station price was $3.80. The seasons average price was $3.26.

Such a program would result in a badly confused oil price structure. Buyers of edible oils have sufficiently complicated problems now without adding meal, linters, and hulls.

A second method of establishing a CCC buying price for oils would be to establish a "package" value and buy and sell oil to maintain this value. The key problem here would be the choice of the processing margins. The USDA has published studies of the cost of processing. But for soybeans, margins have been much below these published costs in recent years. Inasmuch as this is an *agricultural* price support program, an average of margins for the last three years would be a reasonable way to establish the margins allowed under a package program. The operation of the package program for cottonseed would make the establishment of cottonseed crushers' margins even more difficult.

A third method would be to forecast the minimum price of oil that would be required to hold soybeans and cottonseed at about support levels and use this as the buying price. The relation of the actual support price to the desired support would depend on the accuracy of the forecast. In considering a vegetable oil buying price, it must be kept in mind that this is a soybean and cottonseed support program, not an oil support program.

Loan Programs

What will be the effects of existing loan programs? They will not have any effects except that they may or may not cost CCC some inventory losses. The machinery for loan programs is in existence. No new handling programs need be undertaken.

CCC stands a better chance of recovering cost from soybeans and cottonseed than from the respective oils alone. By owning the seeds, it can make use of strength in meal, oil, or both, in getting rid of any inventories that it might acquire. Losses will be smaller under a loan program than if an oil purchase program were substituted.

I do not think CCC will build up an appreciable inventory of soybeans under the loan program. Our export markets for oil are strong. We have a basic shortage of high proteins in the United States. Soybean meal usage per animal is increasing. There is room for further expansion in per-head use by hogs and cattle. We have very large supplies of feed that will be fed to livestock. We can look forward to increasing livestock numbers.

Soybean growers have initiated reductions in the support prices for soybeans as it has looked as if soybeans might be tied up in the loan program. It is significant that

producers have not waited until the crop got into trouble. The alternative to growing soybeans in the Corn Belt is to grow grass. Many Corn Belt producers can afford to take lower soybean prices rather than switch to grass, and they seem to be perfectly aware of this. Thus far the soybean loan has been mainly a financing device and will remain one.

CCC has offered the soybeans taken over from the 1954 crop at prices lower than existing TCS Illinois points prices. There is no indication that CCC will allow an artificial scarcity to develop.

If the 1955 crop develops, as now looks likely, the 1955–56 crush will be of record size. The large prospective crush is partially the result of cotton, wheat, rice, and corn support programs. Agricultural price support programs have acted to increase rather than decrease soybean-crushing operations.

There is no reason to expect the loan program to decrease processing margins below the level that would otherwise exist. We will have a large supply of soybeans, and it will be crushed. Processing margins depend upon the quantities of soybeans to be crushed and the amount of facilities available to crush them. Except for the small quantities that are consumed as soybeans in the Far East, the only thing that can be done with soybeans is to crush them into oil and meal—either in the United States, in Europe, or the Orient. The factor that establishes the size of margin of any one processor is the price he must pay to get soybeans away from other processors. If agricultural price support programs have any effect on processing margins, it is to increase them by inducing a larger production. The only real complaint that processors can have against loan programs will come if they result in reduced production.

The main reason the package program was developed was that cottonseed was not storable. So the total cottonseed production will be available for crushing each year. CCC cannot sell cottonseed at prices higher than crushers are willing, and therefore presumably able, to pay.

If cottonseed crushing margins are reduced, it will be because (1) there is lower cottonseed production; and (2) the loan program cuts them loose from any build-in margins there may have been in the package program.

In view of the reduced production of cottonseed and the lower support price, the market price of cottonseed will likely be above the support price in 1955–56.