

**AUTHOR'S NOTE**

Exports under P.L. 480 became quite popular during the 1950s. Commodities were sold to Third World countries at current world prices, but the buyers were permitted to pay with their own currencies, which were not exchangeable for dollars. The currencies were held in the country of origin. It was a "write us a check but we won't cash it" scheme. Some of the funds were used for developmental projects, and some were used to pay for U.S. costs in the recipient country. The scheme was named "Food for Peace" and had a nice ring to it. An invitation to discuss the competitive position of soybeans provided an opportunity to label P.L. 480 for what it was: export dumping.

## THE COMPETITIVE POSITION OF SOYBEANS

### CHAPTER 14

The soybean is two products rather than one. It is a high-protein food and feedstuff and a relatively high-quality liquid oil, used for food and in industry. Virtually all of the American-produced soybeans are separated into the two component products, either in the United States or abroad. Nearly all of the meal is used as livestock feed, and about 90 percent of the oil is used as human food. The two joint products are generally equal in value.

One of these two products, the protein feed, is in short supply and has a rapidly expanding market. The other, oil, is in abundant supply and has a much more slowly expanding market. In spite of the rapid increases in the size of the soybean crop, it has been very difficult to supply the market for soybean meal. Soybean oil is in burdensome surplus. During the current crop year nearly 40 percent of total U.S. fats and oils exports will be shipped under the P.L. 480 scheme of surplus disposal. This amount equals about 10 percent of the total U.S. production of edible fats and oils.

One product cannot be made without the other, so we are caught on the horns of a dilemma. Differences in market structure for the joint products make it difficult to evaluate the competitive situation. Evaluation is further complicated by the distortion caused by the oil surplus disposal program. The effect of this program has been to obscure the surplus situation.

### THE POSITION OF MEAL

The fundamental strength of the meal situation is worldwide. In the world's food supply, the carbohydrates and fats are moving into a situation of abundance. Cereal grains and oilseeds are the world's basic food sources. An increasing proportion of the world's population is moving away from the specter of famine. An agricultural revolution is in progress that has enabled production to increase at an even faster rate than population. As populations, following the Western pattern of development, are brought under control, the gain will be rapid.

---

T. A. Hieronymus is associate professor of agricultural marketing, University of Illinois. Paper presented at the Commodity Club of Chicago, April 16, 1959.

Much of the world now has an abundant supply of dietary basics and is concerned with upgrading the quality of the diet. The primary element in upgrading diets is the use of more protein, both directly and through animal products. This possibility points to more rapidly expanding markets for proteins than for carbohydrates and fats.

Production and use of soybean meal in the United States have expanded rapidly during the past twenty years. Production of other high-protein concentrates has increased very little, and production per protein-consuming animal unit is at the same level as it was twenty years ago. Use has not increased at the sacrifice of price. Prices of high-protein concentrates have increased in relation to feed grains in recent years. Dramatic examples of market growth have been noted in the past two years. About 12 percent more soybean meal was used in the year beginning October 1, 1957, than during the preceding year, and it was used at 12 percent higher prices. During the first half of the year beginning October 1, 1958, about 20 percent more meal was used at prices moderately higher than the year before.

How large is this potential market? Livestock numbers will increase at about the same rate as feed-grain production increases. During the past ten years, feed-grain production has increased at a rate of about 2.6 percent a year. If this rate of increase is maintained, somewhat more than a 30 percent increase in protein supplement will be required five years from now. Because soybean meal makes up only about half of the protein supplement and production of the other protein supplements is increasing slowly, soybean meal production will need to about double to maintain current rates of protein supplement feeding.

During the past ten years, substantial inventories of feed grains have been accumulated under price-support programs. If these supplies are used in the years immediately ahead, large amounts of proteins will be required to supplement them.

When we combine all three of these market growth factors (current protein deficits, increased feed-grain production, and inventory liquidation), our estimate of the market potential for soybean meal becomes fantastic. It is clear that if meal production continues to increase at the same rate in the decade ahead as it has in the past decade, the shortage of high-protein concentrates will continue. It appears that the need for meal from a billion-bushel soybean crop is less than a decade away.

## **THE POSITION OF OIL**

Supplies of edible fats and oils are in very troublesome abundance in the United States. Fat and oil production is increasing at a much faster rate than use. Pro-

duction of fats and oils other than soybean oil is stable. Therefore, increasing quantities of soybean oil are needed to maintain domestic per-capita disappearance. But these increased requirements are very small in relation to the increase in soybean oil production. Per-capita disappearance of the principal fats and oils is quite stable. Demand is extremely inelastic in current uses.

The limited domestic market for soybean oil, the expanding market for soybean meal, and the fact that one cannot be produced without the other make the export market for edible fats and oils of paramount importance to the further growth and development of the soybean industry.

The fat shortage is in the poor areas of the world. Need does not make a market. It is desire plus the ability to purchase that makes a market. But if world consumption of fats and oils in food uses is to be increased, it must be in the poor areas in the underdeveloped countries.

The poor areas of the world are also the areas that export fats and oils. It is with these areas that the United States competes. Consumption in these poor areas can be increased by reducing their exports. Price is a useful device for decreasing exports and increasing indigenous consumption. The declining world prices of fats and oils since 1951 have caused a high proportion of the increase in production to be absorbed in the areas of production rather than moved into world trade.

## **THE WAY OUT**

The way to solve the dilemma of too little protein and too much fat is to switch from fat to protein.

In the first place, this has some implications for soybean breeding. Historically, soybeans have been bred for high oil content. As the unit value of protein increases in relation to the unit value of fat, and as more attention is paid to fiber in fabricating feeds, the breeding emphasis should be shifted. At \$60 per ton, the protein content of 44 percent meal is worth 6.8 cents a pound. When we take into account the effect of export disposal programs on oil prices, we see that the unit value is nearly as high for protein as for oil at present, and perhaps higher.

But the major shift from fat to protein will be accomplished, by changing the relative production of the various oilseeds. Much of the world's fats and oils are secondary products, like lard and cottonseed oil. But more than half of the world's fats and oils are produced as primary products, from oilseeds. Chief among the oilseeds competing with soybeans are peanuts, sunflower seed, copra, and palm kernels.

Soybeans are in a strong competitive position. The advantage lies in their relatively low yield of oil and high yield of meal. The oilseed crops with which soybeans

compete most directly have a much higher percentage of oil and a lower percentage of meal. Accordingly, reducing the price of oil in relation to the price of meal affects the competing seeds more than it does soybeans. For example, at current prices, reducing the price of oil by 20 percent while holding the price of meal constant would reduce the value of soybeans by 6.5 percent, peanuts by 15 percent, copra by 19 percent, and sunflower seed by 15 percent. By way of further example, a 23-cent-per-bushel reduction in soybean price would cost peanut growers 72 cents for an equal weight. Soybeans can stop further increases in production of competing oilseeds if prices are allowed to seek their own level.

#### **DICTATES FOR PRICE AND TRADE POLICY**

This way out of the dilemma has implications for U.S. price and trade policy. The soybean must be free to exploit the great strength of its competitive position. It is not now free to do so. Our export dumping schemes—specifically P.L. 480—result in an artificially high world price for fats and oils that encourages the continued expansion of production of competing oilseeds and retards the consumption of fats and oils in the poor areas of the world.

The sale of commodities for foreign currencies is a sophisticated dumping scheme. While the prices are nominally the same as dollar sales, the foreign currencies are not worth their nominal value. Hence, the price in reality is reduced. This method differentiates not only between domestic and export prices but also among the prices charged to different countries. In the first place, the price is reduced only for those countries that are ruled eligible for P.L. 480 benefits. Second, the terms of the agreements vary by countries; hence, the effective price varies. Third, the different currencies have different real values, so that, when all are accepted at nominal values, there are actual price differences. That the method is complicated will not permanently obscure the fact that it is export dumping.

In the long run, these measures will fail. First, export dumping invites retaliatory measures that eventually stop its effectiveness. Second, these measures compound an existing problem rather than contribute to its solution. And, third, they are expensive. From 1954 to mid-1958, some \$4 billion worth of commodities were disposed of under P.L. 480. The immediately realized return to the United States was at most \$978 million, or 24 cents on the dollar.

The soybean is in a very strong competitive position. The industry has great expansion potential. This potential cannot be realized under existing governmental policy. It cannot be realized unless P.L. 480 is eliminated.

