

SOVIET SUNFLOWERS AND THE WORLD VEGETABLE OIL MARKET

By

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World output of edible vegetable oils (excluding palm oils) is forecast at a record level of about 18 million metric tons in 1968. Production will be at a level about one-third higher than that of the first half of the 1960's. The two major gainers during this period have been soybean oil and sunflowerseed oil, each of which accounted for about one-third of the increase. In the 1960's, sunflowerseed oil jumped from a position ranking fourth in importance among world edible vegetable oils--behind soybean, peanut, and cottonseed oils--to an approximate tie with peanut oil for second place. In 1967, soybean oil accounted for 29 percent of total world edible vegetable oil output, but sunflowerseed oil accounted for 19 percent.

Sunflowerseed oil clearly has been the swiftest gainer, in this decade, among the edible vegetable oils of the world. The major producer is the Soviet Union, which provided about 70 percent of world output in 1967. The increases in total world output during the 1960's have been shared about proportionately by the Soviet Union and other world producers. Argentina is the second largest sunflower producer in the world, although Eastern Europe ranks second among major regions. A rapid expansion of production has occurred in Turkey also, but that country still contributes only about 2 percent of total sunflowerseed output.

Total world output in 1967 of sunflowerseed is estimated at 9.3 million metric tons, including 6.1 million tons in the Soviet Union, 1.1 million tons in Argentina, 1.5 million tons in Eastern Europe (Romania, Bulgaria, Yugoslavia, and Hungary, in that order of importance), and 215,000 tons in Turkey. (I wish to note here that these are the estimates of the Foreign Agricultural Service of the U.S. Department of Agriculture and not necessarily official data of the respective countries.) World output in 1967 was 10 percent higher than in 1966. The average annual rate of increase in the 1960's, through 1967, was 6.6 percent.

Sunflower production has received its greatest development in the Soviet Union and has been relatively neglected on the North American continent, which is ironic in view of the fact that the plant originated in

America. The recent upward trend in Soviet sunflower area lasted almost a decade--from 1957 to 1966--and reached a peak of 5.0 million hectares. Area declined about 5 percent in 1967, but a record output of 6.1 million metric tons was achieved. From an average of 2.8 million tons in 1953-57, sunflowerseed production surged upward by 90 percent to 5.2 million tons during 1963-67. Both area and yields increased during this time, but far the greatest gain occurred in yields. Comparisons show that average yields rose by 61 percent, while area climbed 17 percent. By the way, the USSR national average sunflower yield of slightly more than 1,000 pounds per acre in 1966 was about 13 percent above the average Minnesota-North Dakota yield that year.

The sunflower is well adapted to the often harsh growing conditions of the Soviet Union. It is capable of withstanding drought and will grow in regions where summer temperatures are relatively cool. The heaviest concentration of sunflower growing in the Soviet Union is in the North Caucasus and the eastern Ukraine. The major provinces included in the sunflower area are Krasnodar, Rostov, Lugansk, Donetsk, Kharkov, Dnepropetrovsk, and Zaporozhe. The lower and middle portions of the Volga region, the central Chernozem, and the southern Ukraine also account for significant amounts of the sunflower area. The Siberian regions are relatively unimportant.

Outstanding selection and breeding work has contributed to the success of the sunflower as the major oilseed crop in the Soviet Union. The work at the All-Union Scientific-Research Institute on Oilseed Crops, in Krasnodar, is particularly renowned. The results have included sharp increases in oil content as well as in yields. This is reflected in average extraction rates, which jumped, between 1950 and 1965, from less than 28 percent to almost 40 percent with the press method and from 31 percent to almost 44 percent with the solvent method. The national average extraction rate has continued to climb and was about 44 percent last year. A shift to greater use of the more efficient solvent extraction method has accompanied the development of high oil varieties and accentuated the trend in extraction rates.

The spurt in sunflowerseed production in the Soviet Union primarily is the result of specific government decisions plus the advances in breeding. Plans are established at the national level for governmental purchases of sunflowers--as well as for almost all other commodities--and farms sign contracts which, when aggregated, will fulfill the national plan. Prices are not negotiated in the contracts, but are established by governmental decree. These contracts play an important role in determining the areas planted to various crops in any given year and limit the freedom of choice of individual farms to specialize according to profitability.

On certain commodities, such as sunflowers, however, farms have been encouraged to exceed the established sales quotas. Collective farms receive 100 percent premiums on amounts sold above the previous 3-year average. Thus, there is some flexibility which permits farms to allocate land, above that needed to fulfill government commodity sales requirements, to the most profitable crops. Sunflowers have been one of the most profitable crops. The basic state purchase price in the Ukraine is 165 rubles per ton (\$183 at the official exchange rate); prices are higher in other regions. Prices tend to remain unchanged for periods of several years. The last price change affecting sunflowers occurred in 1965. Using 1958 as a base year, the 1965 sunflowerseed price index was 133.

Total production of vegetable oil in the Soviet Union reached 3.0 million metric tons in 1967, of which, almost three-fourths was sunflowerseed oil. Most of the remainder was cottonseed oil. All but about 3-4 percent consisted of edible vegetable oils. The bulk of the oil is produced from government oilseed holdings, although significant quantities still are crushed by farm, or local, mills or are extracted on a commission basis for farmers. The government purchased almost 4.9 million tons of sunflowerseeds out of the 1967 crop.

Total Soviet vegetable oil output has increased on the average by about 200,000 tons per year since 1960. A gain of 265,000 tons was recorded in 1967. About nine-tenths of this increase has consisted of sunflowerseed oil. Based on per capita consumption data for the 1960-65 period, total food use of vegetable oil has increased by about 100,000 tons annually since 1960. Industrial uses have remained relatively constant. Therefore, since 1960, when net trade was at an approximate break-even point, an additional 100,000 tons of vegetable oil has become available each year for exports or stocks.

Most of the surplus vegetable oil has moved into trade. Exports in 1967 were about 600,000 tons greater than in 1960. Limited data on inventories suggest that 100,000 to 200,000 tons of the additional sunflowerseed oil has gone into stocks. For example, at the start of 1967, vegetable oil reserves equal to 104 days trade turnover had accumulated in retail channels. This was about double the usual level during the first part of the 1960's.

The Soviet Union exported more than 700,000 tons of edible vegetable oil in 1967, of which 670,000 tons was sunflowerseed oil. Sunflowerseed oil exports increased by more than one-half from the previous year. The Soviet Union also exported 304,000 tons of sunflower seeds in 1967--more than doubling the 1966 level. This represents roughly three-fourths of the world's trade in sunflowerseed oil (including oil equivalent of seeds). Exports of sunflowerseeds and oil constituted roughly one-fifth of world trade in edible vegetable oilseeds and oils.

In addition to increases by the Soviet Union, Argentina has strongly expanded production in the past 3 years, leading to increased offerings in world trade. Argentine exports of sunflowerseed oil reached about 80,000 tons in 1966-67, or about four times as much as during the first half of the 1960's. Moreover, expanded production in Eastern Europe has led to some rise in seed exports, primarily by Romania and Bulgaria. Some of the recent successes in sunflower production in Eastern Europe can be attributed to the introduction of improved Soviet varieties of sunflowerseed.

Eastern and Western Europe typically have been the principal importing regions for sunflowerseed oil. Starting in 1965, the flow into Western Europe began to accelerate in relationship to that into Eastern Europe. This developed into a considerable surge in West European imports in 1967. The leading importers have been West and East Germany, Austria, and Czechoslovakia. In 1967, the Netherlands and the United Kingdom also bought large quantities of sunflowerseed oil. Sunflower seed also traditionally have moved into European markets, primarily Italy, West and East Germany, and Czechoslovakia. Japan became a major importer of Soviet sunflowerseeds in 1967.

The greatly increased flow of sunflowerseed oil into West European markets has been felt sharply in prices. Prices of crude sunflowerseed oil, any origin (primarily Soviet), as quoted at Rotterdam, averaged 11.7 cents per pound in 1966, but dropped to 9.6 cents, on the average, in 1967, and by June 1968 were quoted at only 7.3 cents. Until 1966 any-origin sunflowerseed oil was quoted at Rotterdam at premiums over soybean oil, sometimes exceeding one cent per pound. By June 1968, sunflowerseed oil was underselling soybean oil by 0.8 cent per pound.

World production of edible vegetable oils has been increasing considerably faster than population growth. The fastest gainer among the edible vegetable oils has been sunflowerseed oil, for which the major producer is the Soviet Union. What is the outlook for sunflowerseed and oil in the near future?

For the current year, the outlook is for a possible leveling off or actual decline in world production. The major sunflower growing regions of Eastern Europe and the Soviet Union have been affected by drought and a reduction in the Argentine crop also has been indicated. Official estimates are not yet available, however.

Looking beyond 1968, Soviet state plans on vegetable oil production call for an increase of about 800,000 tons in output from state holdings between 1965 and 1970. About half of this apparently was achieved in the two years 1966 and 1967, although total output increased by a smaller amount due to some reduction in the amount of seeds left on farms for

local or commission processing. There are plans for increasing consumption substantially. On the other hand, official oilseed production plans call for an increase of just more than one-half million tons over the 1967 level by 1970. Likewise, sown sunflower area has commenced a downward trend from the peak of 1966. On balance, it appears probable that major additions to the present level of exportable surpluses of vegetable oil and seed are not likely, barring exceptionally favorable weather, but Soviet sunflowerseed production will continue sufficiently high to enable exports at close to the levels of the past couple of years.

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DISCUSSION

Question: Was Africa included in your comments?

Schoonover: No. While there is some production from Africa, it is not significant or included in the figures at this time.

Question: You mentioned the price of \$183 per ton. Would you enlarge on that?

Schoonover: I indicated a price of 165 rubles a ton, which is \$183 per metric ton - official exchange. This is "on-the-farm bulk" price.

Question: The price of \$183 per ton seems high as that comes to over eight cents a pound. Would that be correct?

Panchenko: The price paid depends upon the location. In the good producing area, the price paid is usually somewhat lower. In the far north Siberian area, the price may well be some higher-- depending upon the expenses of production. The price last year on the farm was 150 rubles to 220 rubles per ton. The Soviet government supports those farms located in less favorable areas, therefore the difference in price.

Schoonover: The domestic prices paid for sunflowers on the farms in the Soviet Union are not, in practice, convertible to the "standard exchange rate" of U.S. dollars. I say this so you are not misled in your understanding.

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