

1978 World Fats and Oils Situation

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ABSTRACT

As expected, world oil and meal production and demand this year have been above trend, but the U.S. share of world markets has been greater than projected because of smaller than anticipated oilseed crops in Brazil, the Soviet Union, India, and Senegal. World 1978 fats and oils supplies should be around 53 million metric tons with export markets absorbing about 17 million metric tons. The U.S. 1978 soybean crop may equal or excel the 1977 crop; Canada's oilseed crops are expected to be up, and Brazil's 1979 soybean crop is expected to rebound from the 1978 level.

INTRODUCTION

Someone once said that there is nothing new under the sun. I guess that is also true in the world fats and oils complex, since we are dealing with the same commodities, produced in the same countries, used for the about same end-products as last year. Yet price patterns, the world barometer of supply/demand shifts, have recently been tilted upward by developments that we did not foresee a few months ago.

In view of these developments, I will try to highlight: unforeseen changes, current supply, current demand, price patterns, and outlook prospects.

Recognizing that my assigned topic related to oils and not the entire oilseed complex, I shall attempt to emphasize these commodities. However, mention will be made of the meal side for key points as they may interrelate and affect oil as well.

UNFORESEEN CHANGES

Last November we correctly anticipated that there would be above-trend growth in world oil and meal production as well as demand. And we did foresee that despite

above-trend growth in the foreign sector there would be above-trend growth in U.S. exports. However, we did not anticipate the huge gain in U.S. exports that is still in process.

The current production and trade estimates, together with 1977 comparisons and original 1978 forecasts, are shown in Table I.

The upward change in U.S. meal production resulted from a somewhat larger than expected 1977 soybean crop.

In the foreign sector the 2.8 million ton cut in the current 1978 meal production estimate largely reflects smaller than expected: 1978 Brazilian soybean crop, 1977 Soviet sunflower seed crop, 1977 Indian peanut crop, and 1977 Senegalese peanut crop.

Less than expected foreign meal production boosted prices above earlier levels and is resulting in larger than expected U.S. exports of soybeans and meal. However, because of somewhat higher prices, the total volume of 1978 world meal trade, at 35 million tons, may fall short of the original estimate. Part of the shortfall also reflects less than expected purchases by the Soviet Union.

On the oil side, there was no change in U.S. production from the November 1977 estimate, reflecting the fact that the upward revision for soybean oil was about offset by a less than expected volume of animal fats.

In the foreign sector, the cut in oil production, at 800,000 tons, amounted to only 2%; much less than the 7% cut in the meal side. Palm oil production in 1977 fell slightly short of the original estimate, and 1978 production will likely do the same.

The downward revisions in 1978 foreign oil production will result in substantially larger U.S. exports of oilseeds and oils. However, because the demand for oil is less price elastic than for meal, the aggregate level of oil exports is not expected to be greatly influenced by higher than expected prices.

The major surprises on the oil demand side have been (a)

TABLE I
Production and Trade Estimates

Item	1977	1978		
		Nov. 1977 estimate	May 1978 estimate	May estimate less Nov. estimate
(millions of metric tons)				
Meal				
Production				
U.S.	28.5	37.3	38.1	+0.8
Foreign	38.0	41.6	38.8	-2.8
World	66.5	78.9	76.9	-2.0
Exports				
U.S.	17.6	18.3	19.2	+0.9
Foreign	16.1	17.5	15.8	-1.7
World	33.7	35.8	35.0	-0.8
Oil				
Production				
U.S.	11.1	13.6	13.6	0
Foreign	36.9	39.8	39.0	-0.8
World	48.0	53.4	52.6	-0.8
Exports				
U.S.	5.9	5.8	6.3	+0.5
Foreign	10.5	11.6	10.9	-0.7
World	16.4	17.4	17.2	-0.2

TABLE II

Production and Exports of Fats and Oils

	U.S.	Foreign	World		Deviation from trend
			Actual	1965-77 trend	
(millions of metric tons)					
Production					
1974	12.36	35.27	47.63	45.71	+1.92
1975	10.13	36.45	46.58	46.92	-.34
1976	12.13	37.65	49.78	48.13	+1.65
1977	11.10	36.85	47.95	49.34	-1.39
1978	13.61	38.98	52.59	50.55	+2.04
1979	-- ^a	--	--	51.76	--
Exports					
1974	5.15	8.50	13.65	14.15	-.50
1975	4.19	9.47	13.66	14.66	-1.00
1976	5.04	10.71	15.75	15.17	+.58
1977	5.89	10.55	16.44	14.67	+.77
1978	6.30	10.93	17.23	16.18	+1.05
1979	--	--	--	16.69	--

^aNot available.

TABLE III

Linear Trend Projections

	1975 Actual	Projected trend		Coefficient of determination	Annual increase	Standard error
		1980	1985			
Production						
U.S.	10.13	12.49	13.72	.719	.246	.625
Foreign	36.45	40.49	45.31	.946	.966	.936
World	46.58	52.98	59.03	.950	1.212	1.125
Soybean						
U.S.	5.51	7.48	8.75	.793	.255	.531
Foreign	2.81	3.75	4.91	.876	.233	.356
Total	8.32	11.22	13.66	.920	.488	.586
Exports						
U.S.	4.19	6.11	7.21	.819	.219	.419
Foreign	9.47	11.08	12.52	.845	.288	.502
World	13.66	17.20	19.73	.937	.507	.536
Soybean						
U.S.	2.57	3.94	4.74	.840	.160	.283
Foreign	.96	1.32	1.81	.770	.097	.216
Total	3.53	5.26	6.55	.934	.257	.279

larger than expected movements of soybean oil to the People's Republic of China and (b) a sharp gain in palm oil movements to India.

CURRENT SUPPLY

Despite the fact that 1978 world production of meal and oil is not likely to attain the levels projected last November, there is no lack of supply.

World 1978 production of vegetable, animal, and marine oils and fats is currently forecast at 52.6 million tons, 4.8 million above the reduced 1977 volume and 2.8 million above the large 1976 volume. Adding in the U.S. carry-in stocks of all fats and oils, including the oil equivalent of oilseeds, at 1.5 million tons, total 1978 supply at 54.1 million tons, would be 3.9 million above reduced 1977 volume and 2.8 million above the large 1976 volume. During the 1965-75 period, world fats and oils supplies trended upward annually by 1.25 million tons.

Production and exports of vegetable, animal, and marine oils and fats for the U.S. and world with linear trend comparisons are shown in Table II.

Key changes in 1978 world fats and oils supply in the foreign sector include: (a) continued expansion in palm oil production in Malaysia, Indonesia, and the Ivory Coast because of increased tree numbers and yields; (b) recovery in Philippine copra production reflecting improved rainfall

and expanded area; (c) increased 1978 crop production of soybeans, sunflower seed, and flaxseed in Argentina; (d) sharp recovery in rapeseed availabilities from Canada, India, Poland, and France; and (e) continued uptrend in animal fat production in a number of countries.

Since 1965 there were a number of changes in the relationships between fats and oils production and exports in the U.S. and foreign sectors including the following: (a) Exports of oilseeds, oils, and fats now account for a larger proportion of world fats and oils production. (b) U.S. fats and oils production and exports now comprise a slightly larger proportion of world production and exports than a decade ago. (c) A larger share of U.S. fats and oils production moves for export than in the foreign sector. (d) There are sharp year-to-year variations in the proportion of U.S. production that move into export. These variations are largely associated with changes in foreign production.

Linear trend projections for U.S. and world production and exports of fats and oils for 1980 and 1985 in million metric tons with actual 1975 comparisons are shown in Table III.

Outside the U.S., the largest single element of growth in world fats and oils trade has been palm oil. And the bulk of the gain in palm oil production has been from West Malaysia. Since 1972 West Malaysia's palm oil production has trended upward at an annual rate of 165,000 tons per

TABLE IV
Cumulative 1977-78 Marketing Year (through March 31)
Exports and Domestic Disappearance of U.S. Soybeans and Products

	1973-74	1974-75	1975-76	1976-77	1977-78 ^a
(thousands of metric tons)					
Soybean exports					
Sept.-March	9,503	7,659	9,643	10,221	11,184
April-August	5,169	3,791	5,464	5,131	6,098
Total	14,672	11,450	15,107	15,352	17,282
Soybean oil exports					
Oct.-March	234	335	184	343	451
April-Sept.	417	131	259	359	388
Total	651	466	443	702	839
Soybean meal exports					
Oct.-March	2,625	2,105	2,253	2,417	2,793
April-Sept.	2,408	1,795	2,415	1,772	1,834
Total	5,033	3,900	4,668	4,189	4,627
Domestic disappearance					
Soybean oil					
Oct.-March	1,789	1,437	1,829	1,736	1,949
April-Sept.	1,514	1,548	1,783	1,673	1,680
Total	3,303	2,985	3,612	3,409	3,629
Soybean meal					
Oct.-March	6,335	5,592	7,172	7,016	7,805
April-Sept.	6,186	5,795	6,991	5,736	7,164
Total	12,521	11,387	14,163	12,752	14,969

^aForecast

year. Production there is expected to continue to trend upward throughout the 1980s.

Virtually all of this expansion is expected to move into export. In recent months export gains have fallen short of production gains, reflecting sharp expansion in refining and processing of palm oil. This has resulted in some refining losses; exports, however, are expected to continue to expand about in line with production gains less refining loss.

It should be pointed out that even during periods of adverse weather, Malaysian palm oil has not failed to expand on an annual basis in more than a decade.

CURRENT DEMAND

Since 1975 there has been phenomenal above-trend growth in world fats and oils trade. Perhaps "Say's Law" would indicate that supply generates its own demand. But specifically we can pinpoint large gains in imports of vegetable oils into India, certain Middle Eastern countries, as well as the People's Republic of China.

Certainly all of the countries now showing growing demand for fats and oils have relatively low levels of per capita consumption. Thus, potential expansion in these markets could continue during the next few years.

Future growth in oil demand from these countries could cause world fats and oils trade to accelerate above the 410,000 ton annual trendline growth of the 1965-75 period.

World fats and oils exports, including the oil equivalent of oilseeds, are forecast to increase to 17.2 million tons, 790,000 tons above the 1977 volume. Exports of soybeans and oil are expected to gain slightly from the large 1977 volume of 4.85 million tons. Increased movements from the U.S. and Argentina will more than offset reduced movements from Brazil.

U.S. exports of fats and oils are now expected to rise to 6.3 million tons, significantly above the early estimate and 410,000 tons above the 1977 volume. The anticipated gain largely reflects increased movements of soybeans as well as sunflower seed.

This season, as a result of increased availabilities at lower

prices, both domestic and foreign demand for soybeans and products are surging forward. Cumulative 1977-78 marketing year data for U.S. exports and domestic disappearance of soybeans and products through March 31 are shown in Table IV.

Changes in the oil equivalent of the monthly flow of exports from selected sources — soybeans and oil from the U.S. and Brazil, cottonseed oil and animal fats from the U.S., and copra and coconut oil from the Philippines — indicate 21% growth during the October-December 1977 period. A large share of this growth reflected pipeline filling following the sharply reduced export flow of U.S. soybeans and oil during the July-September period. Last season these selected sources accounted for about 45% of world exports of all vegetable, animal, and marine oils, including the oil equivalent of oilseeds.

The volume of exports flowing from these selected sources dropped seasonally during the January-March 1978 period but remained 10% above the same months a year ago. Clearly then, the substantial gain in prices since October 1977 is more reflective of strong foreign demand rather than lack of supply.

The largest single element in world exports of fats and oils is U.S. soybeans and oil. Last year U.S. exports of soybeans and oil accounted for 22% of world exports of all oilseeds, oils, and fats. During the October 1977-March 1978 period, combined U.S. exports of soybeans and oil totaled nearly 2.4 million metric tons oil basis — 15% above the same six months in 1975-76.

Key changes in U.S. exports of soybeans and oil to major markets for the cumulative period ending March 1978 in the current marketing year are shown in Table V.

It should be noted that about three-fifths of the growth in U.S. exports of soybeans and oil, in terms of oil, was in the form of beans as such. The sizable growth took place despite sharp declines in movements of soybeans to the Soviet Union and soybean oil to India. Key offsetting factors were expanded movements of soybeans to Western Europe as well as larger movements of soybean oil to the People's Republic of China.

TABLE V

U.S. Exports of Soybeans and Oils to Major Markets^a

Country	Soybeans	Oil	Total as oil
(thousands of metric tons)			
Canada	-115	0	-20
Columbia	0	8	8
Ecuador	0	8	8
Peru	9	11	13
Denmark	128	0	23
Italy	101	0	18
The Netherlands	527	11	104
Romania	70	0	12
Spain	153	0	27
West Germany	11	8	10
United Kingdom	70	2	14
Switzerland	-89	0	-16
USSR	-596	0	-105
Iran	0	7	7
Israel	45	0	8
Indonesia	114	0	20
India	0	-43	-43
Pakistan	0	-6	-6
Bangladesh	0	17	17
People's Republic of China	47	62	70
Republic of Korea	46	0	8
Japan	229	0	41
Egypt	0	5	5
All others	215	18	56
Total	963	108	278

^aChanges for 1977-78 (Oct.-March 31) compared with year earlier figures.

PRICE PATTERNS

Current European prices for soybeans and products as well as most edible oils and fats are significantly above those of a year ago. Although prices have made substantial recoveries from their October 1977 levels, they continue to be significantly below the high levels of May 1977. Peanut oil prices are an exception in that shortfalls in Senegal and Argentina have helped to boost current prices above those of a year ago.

Peanut oil prices now command an extremely heavy premium relative to soybean and other oils. Cottonseed oil, which normally sells at a premium to soybean oil, is now selling at a discount. The price premium for sunflower oil over soybean oil has weakened, reflecting increased movements of U.S. 1977 crop seed for crushing in Europe. Coconut oil prices have not kept pace with prices for other oils and consequently are now at a discount to soybean oil. This reflects a sharp recovery in Philippine exports. This gain is believed to be due in part to stock disposal by the Philippines since oil exports, a storable commodity, sharply exceed the oil equivalent of copra meal exports, a less storable commodity.

Palm oil prices have recently dipped, despite strength shown in soybean oil. This could mean we are about to experience a seasonal pickup in the rate of exports from Malaysia. Despite the larger discount in palm oil prices relative to soybean oil, palm oil is less competitively priced than a year ago and this has resulted in a sharp cut in U.S. imports. Fish oil prices are now heavily discounted relative to soybean oil despite problems in Peru.

The price advance enjoyed by most oils and fats in recent months was not equally shared. The largest gains were made in the high priced oils, and far lesser gains in low priced oils. Among the inedible oils, there were some price declines. Such was the case for castor and tung which slipped from the high levels of last October.

Soybean meal prices have not advanced as much as oil prices in recent months. Consequently, soybean oil now accounts for a larger proportion of the soybean product value (41%), substantially above the 32% level during the third quarter of 1975-76 and the highest since the fourth

quarter of 1974-75.

Since 1960, soybean oil has cycled widely as a proportion of the soybean product value reaching a low of just over 20% in the third quarter of 1972-73 and rebounding to a high of over 56% during the fourth quarter of 1973-74. The down legs of these cyclical movements tend to be longer and more gradual, while uplegs appear to be steep, usually running their course in only four or five quarters.

The current percentage of product value for soybean oil at 41% has been exceeded only about one-fourth of the time since 1960. Although the percentage of soybean product value accounted for by soybean oil could continue upward for the near term, it would be surprising to see this proportion exceed the peak level of 56% achieved during the fourth quarter of 1973-74. However, it would not be surprising to see a reversal of this uptrend sometime in 1978-79. A declining oil product value share below that of the two previous quarters would be a strong signal that the current upleg of the cycle had ended.

Yet another seemingly remote basis for price comparison would be to express vegetable oil prices as a function of grain prices since both are a source of calories for food and feed. For that purpose I have expressed the per unit prices of soybean oil and corn as a ratio. Since 1960 the soybean oil/corn price ratio has fluctuated between a low of 3.55 to 1.0 in the third quarter of 1975-76 to a high of 7.5 to 1.0 in the third quarter of 1976-77. This statistic appears to exhibit no trend, but the amplitude of fluctuation seems to have widened since 1970.

Currently the soybean oil/corn price ratio stands at a relatively high level of 6.8. Since 1960 the current ratio was exceeded in only five quarters. It should be noted that since 1960, the soybean oil/corn price ratio has not been sustained above the 6.0 to 1.0 level for more than four consecutive quarters.

The implication here is that soybean oil prices relative to corn will probably decline from the current level by the third quarter of 1978-79. Understand, of course, that this should in no way be construed as a price prediction but rather simply as relating the future to where we have been in the past. Obviously, any significant change in the yield ratio per hectare of soybeans and corn as well as significant changes in the planted areas of these and other oil crops could tend to tilt future expectations for this indicator. For example, the significant increase in 1978 crop U.S. soybean area, if it materializes, together with indications of sharp gains on Canadian rapeseed plantings, would tend to weaken the ratio. On the other hand, strong gains in U.S. exports influenced by the shortfall in the 1978 Brazilian soybean crop would tend to support the ratio.

OUTLOOK PROSPECTS

In the current season there remain some elements of uncertainty which cannot be definitively assessed. Some of these include the following: (a) U.S. farmers' willingness to sell soybeans as influenced by planting prospects and growing conditions for the 1978 U.S. crop; (b) actual outcome of the 1978 soybean harvests in Brazil and Argentina as well as possible changes in their export sales policy; (c) possible additional purchases of soybeans by the Soviet Union or the People's Republic of China in coming months.

If Brazilian 1978 soybean production falls short of the current 9.7 million ton estimate, it could mean a further boost in U.S. exports of soybeans and products in the remaining months of 1977-78 as well as in the first half of 1978-79.

The deseasonalized U.S. export data through March would indicate somewhat higher levels for domestic disappearance and exports of soybeans and products. However, given current price relationships there is no incentive for customers to build pipelines so exports could tail off later, particularly if some contracts are switched to 1978-79 due

to shipping delays.

Looking forward beyond the current season to 1978-79, everything represents an uncertainty, but there are a few areas worthy of comment.

Given the April U.S. soybean planting intentions at 26 million hectares and a normal range of yield possibilities, the 1978 U.S. soybean crop could be in the magnitude of 42 to 52 million tons compared with 47 million harvested in 1977. Assuming that the U.S. soybean carryout on August 31 will be significantly above that of a year earlier, total U.S. soybean supplies for 1978-79 would be in the range of 48 to 57 million tons against 50 million in 1977-78. If we are further willing to assume that the domestic and foreign demand base for soybean meal register near normal growth and that the domestic demand for soybean oil continues to grow with some downturn in exports of soybean oil, it would appear that supplies would be ample with U.S. carryout stocks on August 31, 1979, substantially above the 2.8 million ton level of August 1977.

Canadian farmers recently indicated that 1978 crop rapeseed and soybean area would be substantially above last year's level. Given normal yields, this would likely result in

a substantial gain in exports – and rapeseed contains more than twice as much oil per ton as soybeans.

In Brazil, we can likely look forward to some real changes next year. Higher prices and further area expansion could mean 1979 soybean production in the magnitude of 13 million tons or more. This gain could take place in spite of the fact that the quality of this year's seed for planting could hold yields below trend. But yields would likely recover substantially from this year's drought affected level. Currently, dry weather could affect wheat plantings there. If it doesn't rain soon enough, a lot of wheat may not get planted, and the soybean yields on that land later should exceed normal double cropped yields.

In Malaysia, palm oil production would likely continue to grow and that growth must be exported. Whether U.S. imports of palm oil expand would, of course, be determined by price relationships relative to competing commodities such as soybean oil.

In the Soviet Union, oilseed production will likely not achieve the planned level. This will probably result in continued imports of oilseeds and products. Future purchases may be more frequent and in smaller chunks although the overall volume could continue to expand.

In India, officials have indicated that there will continue to be a sizable need for vegetable oil imports. Therefore, even if growing conditions there are favorable, large imports of soybean, palm, and rapeseed oils are anticipated. And India has become a cash customer reflecting an improved foreign exchange position.

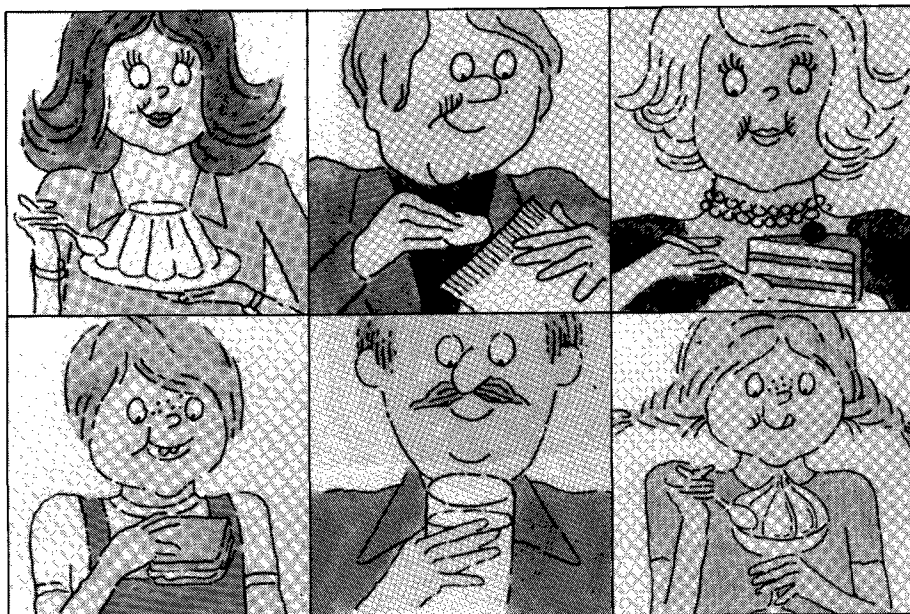
The People's Republic of China remains an enigma. Although there have already been sizable gains in imports by this country and per capita consumption levels are still low, future growth could be irregular based on political considerations and foreign exchange limitations. ●

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