

Report on the 57th World Congress  
of the International Association of Seed Crushers

## IASC's Randag steps down

With its 57th World Congress marking the end of a decade with Jan E. Th. M. Randag as president, the International Association of Seed Crushers spent perhaps more time than usual looking backward this June, but still provided a few glimpses of what the world's processors expect in the future.

• Randag noted that while per capita fats and oils consumption in developed nations has peaked, demand in developing nations can be expected to keep rising as incomes rise.

• Frank Ray, president of the American Soybean Association, said U.S. soy producers will produce 75 million tons (MT) of soybeans in 1986, compared to the first 25 million MT crop in 1966 and a 50 MT crop in 1978.

• Robert I. Wilmouth, president of the Chicago Board of Trade, said he expects the CBT will offer sunflower contracts by September 1981.

More than 1,000 persons from approximately 40 nations participated in the Congress, held June 8-11 in San Francisco.

Four of the seven plenary speakers were from the United States and each stressed a need for free markets in the international trade of fats and oils and oil-bearing materials. In addition to Ray and Wilmouth, C. Lockwood Marine, president of the National Soybean Processors Association, and M.C. McVay, president of Cargill Inc., sounded this theme.

Marine opposed any U.S. government activities that would affect soybean acreages or marketing, but supported U.S. government efforts to end protectionist activities in other nations that might adversely affect the market for U.S. soybeans. EEC's agricultural officials have considered a tax on vegetable oil imports as a way to promote consumption of olive oil, soon to be a surplus commodity when Spain becomes a full

member of EEC. Spain also has quotas on soybean oil consumption. Marine also criticized Argentina and Brazil for what he termed "unfair practices" in promoting soy exports.

Wilmouth, in urging free trade, aimed at a proposal to permit government to control, and probably increase, margins in commodity trading. Wilmouth said this could lead to government manipulation of prices.

McVay said developing nations need free trade in order to earn the hard currency needed to improve their citizens' diets. He opposed U.S. embargoes on food exports. McVay urged export of "technology, management and capital to every country where we are welcome and are extended reasonable hospitality."

"If we are blessed with normal weather, we do have the production capacity to meet world food demand through the '80s," he said. "But the '90s promise to be disastrous unless indigenous production, processing and distribution increase enormously in the developing countries during the late '80s and early '90s."

Marine, in his talk, had noted "the world ate more than it produced" during 1980 "and population and food demands are increasing."

H. Frans van den Hoven, chairman of Unilever N.V., discussed "Some Aspects of the World Food Problem." Van den Hoven noted that while anticipated demand for food by 1990 might seem staggering, "no doubt the present figures (of international trade) might have seemed unattainable 10 years ago."

Unilever estimates are that while developing nations' economies are gaining at 4 to 5% a year, population growth is about 2% a year. The problem is that vast tracts of new unused lands are no longer available for agriculture, and capital costs are rising to produce food on marginal lands, van den Hoven said.

Like McVay, he urged transfer of production and processing technology, in effect noting that if you give a man a fish, he can eat for a day, but if you teach him how to fish, he can feed himself for a lifetime. Government and industry have a role to play in technology transfer, he said.

Unilever has developed tissue propagation of oil palm, and genetic manipulation in agriculture may lead to increased yields, to nitrogen-fixing grain crops, a change in the amino acid

Continued on next page.

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## Mergell to head IASC

A. Mergell of Hamburger Oelwerke Brinckman Merg., West Germany, has been elected president of the IASC succeeding J.E. Th. M. Randag. Mergell is a former chairman of the European Processor's organization FEDIOL.

Mergell announced Randag has been designated honorary president in recognition of his decade as IASC president. Nominated and elected as vice-presidents of the organization were C. Lockwood Marine, Central

Soya Co. Inc., representing North America; E. Rohr, Union Deutsche Lebensmittelwerke, West Germany, and G. Vandemoortele, of N.V. Safinco, Belgium, from Europe; A. Diop, Sonacos of Senegal, from Africa; R. Alias, the Federal Land Development Authority, from Malaysia, and Y. Sakaguchi, Nisshin Oil Mills Ltd., from Japan. H. Howard of England continues as the secretariat for the organization. □

profile of crops, or even to removal of antinutritional factors.

In response to a question, van den Hoven said tissue propagation of coconut is still several years away.

P.K. Shunglu, executive director of the State Trading Corporation of India, reviewed India's oilseed production, use and distribution of edible fats and oils, and their products, within India. India, whose imports of edible

fats and oils have topped one million MT in recent years, hopes to become self-sufficient in fats and oils.

"A growth rate (in fats and oils production) of about 5% per annum has been planned against the actual of 1.26% during the period of 1967-79," Shunglu said. The plans are to increase production of oilseeds (including minor oilseeds like niger, safflower, soybean and sunflower) by a third by 1985.

Just as the U.S. hopes new varieties will produce higher yielding soybeans, India is looking for better yielding varieties of its major crops plus development of perennial oil sources such as coconut and oil palm, more use of oilseed of tree origin such as sale, neem and mahua, and improved technological processes to increase yield of oil from cottonseed, rice bran and similar products.

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## President's review

# Randag: Industry will need versatility, efficiency and adaptability

The following text is an abridgement of the talk presented by Jan Randag to the 57th Congress of the International Association of Seed Crushers held June 8-11, 1981, in San Francisco. Randag, stepping down after 10 years as IASC president, used his annual review to look back at the decade of the 1970s. Major developments included a larger share of exports from developed nations and a reduced export from developing nations. Nations that were exporters in the 1960s became importers by the end of the 1970s. Rising energy costs, worldwide inflation and reduced economic growth have hurt industry profits recently, but long-term demand appears strong if the industry can adapt to changing conditions.

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It is now 10 years since I presented my first review to this congress as your president. In 1971, I indicated that dramatic changes in our industry over the 1950s and 1960s could be largely summed up in the one word—soybeans. This has not fundamentally changed. Soybeans remain the focal point of the international industry. I feel, therefore, that it is particularly appropriate I should be presenting this year's review in the soyabean country of the world.

This seems like an appropriate occasion to see recent developments within the perspective of the longer term developments in the international seed crushing industry and how the industry stands as it faces the chal-

lenges and opportunities of the 1980s.

Over the long term, the driving economic force for the seed crushing industry is the growth in the markets for oil and meal as populations expand and living standards rise. This stimulates farmers to expand oilseed production and requires the existence of a seed crushing industry to process them. Sufficient profits must be generated in the long term to expand capacities to match the growth in product markets. Short term volatility in margins occurs as seed supply, capacities and product markets move out of line, but in the long term, these three elements move together. But, within this near truism for the world as a whole, disparate regional developments in markets influence the structure of the international crushing industry.

During the 1970s, world consumption of edible vegetable and marine oils rose by 14.5 million tons to 39 million tons by 1980—a growth rate of 4.7% (a year). In affluent, developed countries, the physiological needs for fats has largely been satisfied; per capita consumption levels are relatively stable and there are low rates of population growth. By contrast, the developing countries have low per capita consumption levels which rise significantly as incomes rise and as populations expand at a fast rate. Through the 1970s, edible oil consumption in the developing countries grew 6.25% per year compared to no more than 2.75% per year in the

affluent countries. In Russia, East Europe and China, the growth rate was 4.5% per year.

There is a second contrast between the developed and developing countries. With the notable exceptions of Malaysia, Brazil and Argentina, developing countries are associated with low levels of agricultural productivity in contrast to the sophisticated high productivity agriculture of the developed world. Thus, in high-income countries, the potential for expanding oilseed production has been high but the growth in domestic oil markets low; in most developing countries, oilseed production could not expand fast enough to satisfy the rapid growth in domestic oil requirements.

The impact of these divergent situations on world trade has been marked. I leave out of this export comparison Malaysia, Brazil and Argentina, where major successes have clearly been achieved in expanding production. But, for all other developing countries, as available production has been increasingly absorbed by domestic markets, exports of oilseeds and oils (in oil terms) have declined over the long term. They were 3.5 million tons in 1962/63 but 2.5 million tons in 1979/80. By contrast, exports from the developed world—with North America dominant—reached 9 million tons compared to 2.3 million tons in 1962/63—at that time, a lower level than exports from developing countries.

In 1979/80, imports into develop-

ing countries were nearly 6 million tons compared to just over a million tons in the early 1960s. At today's level, developing countries as a whole are as significant importers as Western Europe if seed and oil imports are combined together in oil terms. Some countries which were once major exporters, such as Nigeria, are now sizable importers. Since the late 1960s, the Russian/Eastern area has moved from being a net exporter of nearly 900,000 tons into a position where this season's imports could reach 900,000 tons.

The long-term shift in world oil trade, therefore, has been increasing dominance of developed countries as exporters (with an increasing contribution from Malaysia, Brazil and Argentina), but with developing countries now of considerable and growing importance as importers. The rising oil import needs have been met almost entirely from soybeans, rapeseed and sunflower seed—crops of the high-income countries—plus, since the late 1960s, by palm. World exports of all other seeds and oils, combined together in oil terms—coconut, palm kernel, groundnut, cotton and marine oil—are today not greatly different from the pre-war period.

From the point of view of the seed crushing industry in developing countries, there certainly has been a strong economic driving force from expanding markets for oil—particularly appropriate for countries producing mainly high oil content oilseeds. This growth provided the stimulus to expand capacities—often encouraged by governments. Capacities, however, need seed supplies and, given the difficulties of expanding oilseed production, capacities in developing countries have used seed at the expense of exports. Comparing seed exports from developing countries in the early 1960s with 1980, exports of groundnuts fell from 1.4 million tons to only 170,000 tons; cottonseed exports from .5 million to negligible quantities; copra from 1.5 million tons to little more than 400,000 tons; and palm kernels to 200,000 tons from nearly 700,000 tons. The consequences for many crushing industries of inadequate supplies from domestic oilseed crops has become more serious, increasingly characterized by the existence of excess capacity and poor profitability. For West African groundnut producers in particular, the situation has become disastrous.

**I**n essence, strongly growing oil markets in developing countries have not been a base for the profitable expansion of local crushing but, through the rapid expansion of oil imports, have instead supported the crushing industries of the USA and Western Europe, as well as Brazil and palm oil producers. U.S. soy oil exports showed no real upward trend through the 1960s and early 1970s. But, from a range of 500,000 tons to 600,000 tons when the U.S. was virtually the only exporter, exports last season reached 1.25 million tons despite further exports from Brazil and Argentina of over 800,000 tons. Even in the EEC countries where, through the 1970s, soya oil has been gaining an increasing share of the domestic market, oil exports from imported beans increased from negligible quantities to nearly one-half million tons.

For crushers in the developed countries, therefore, the driving force from product markets has been the export markets for oil, but for meal it has been markets largely within the developed world itself. In the USA, however, domestic meal markets stagnated in the 1970s through 1976, reflecting the major cyclic upswing in beef supplies which eroded markets in the main meal-consuming sectors of pigs and poultry. This is reflected in the 22% rise in cattle slaughter, the 14% drop in pigs slaughtered and a 5% fall in total high-protein consuming animal units. Resumed market growth in the late 1970s has been largely associated with the reversal of this cyclic pattern.

Through much of the 1970s, development of export markets for meal as well as for oil has been of considerable importance to U.S. crushers. In the European Community, meal consumption expanded 6% per year through the 1970s and even faster in recent years. The support given to the livestock sectors by the common agricultural policy and high prices fixed for competing cereals have contributed to this growth. Market growth has been satisfied partly by crushing capacity expansions within the European Community and partly by Brazilian meal. Hence, unlike the 1960s, the 1970s were not an expanding market for U.S. meal exports except in the recent period of reduced supplies from Brazil.

There have been two major growth areas elsewhere in the world meal market in the 1970s. First, with the consumption of livestock products associated with high and rising incomes, there has been a marked growth in meal consumption in the higher income developing countries. Not surprisingly, this group largely embraces mineral oil producers and the "miracle" economies of Asia. Moreover, expansion in their livestock sectors have focused on the important meal-consuming sectors of hogs and broilers.

In these countries, U.S. markets are nearly one million tons of meal compared to little more than 100,000 tons 10 years ago. However, in such countries, rapidly expanding meal, as well as oil, markets provide a strong driving force to expand local crushing capacities based on imported oilseeds. These countries, in addition to increasing meal imports, have also expanded imports of U.S. soybeans through the 1970s from 1.1 to 3.7 million tons.

The second major area of expansion in meal markets for U.S. crushers has been Eastern Europe. In this region and in Russia, the political wish is to expand livestock sectors and to improve feed formulations which are protein deficient. The Russian/East European area seems more than likely to remain an important and expanding market for oils and meal. The difficulties faced by their agricultural sectors in expanding domestic supplies seem far from being solved. Moreover, the need to import large quantities of oils and the benefits of maintaining flexibility in types of oil imported could constrain growth in domestic crushing capacities that are dependent on imported oilseeds. Without wishing to judge the political aspects, it is clear that the U.S. embargo on trade with Russia—a large and potentially larger market—was of considerable significance for U.S. crushers.

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**T**hese long-term changes in the structure of the world markets point to longer term shifts taking place within the international seed crushing industry in respect to market environment. First, the industry in the developed world is steadily becoming more export-oriented. For U.S. crushers, export markets absorbed 18% of their output in 1970. Last year, exports

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absorbed 23% of the oil and 30% of the meal. In—the European Community, crushers exported 24% of their soya and rapeseed oil output and, last year, even some small quantities of sunflower oil, whereas exports of soya meal were some 1.25 million tons. Ten years ago, oil and meal exports both were negligible.

Second, I would highlight the growing importance and greater inter-relationship of the developing and developed countries. Developing countries have not merely expanded their own capacities, but they have also provided expanding product markets for crushers elsewhere. Their imports of edible oils undoubtedly will rise further. The rapid growth in meal consumption in the more advanced developing countries points to a large potential as incomes in developing countries move upward.

Third, the competitive environment for seed crushers has intensified through the 1970s. The more that crushers need to move outside national frontiers to market their products, the more they compete for export markets. The competitiveness has been heightened by the emergence in the 1970s of Brazil and then Argentina as major suppliers of soya products and the expansion in Malaysia's palm oil exports from under 400,000 tons in 1970 to 2.3 million tons in 1980. It has become of greater importance to the international industry as a whole that competition is not distorted by national subsidies.

Finally, a major long-term shift in the U.S. and Western European industries has been toward larger scale operations. In Western Europe, economies of scale favor million-ton plants. In the USA since 1970, the number of soybean crushing plants has been reduced from 130 to 94, but total capacity has expanded from 865 million bushels to over 1.4 billion bushels. Moreover, in Western Europe, as supplies of tropical oilseeds have been increasingly absorbed by capacities in producing countries, there has been a concentration on the major

crops of soyabeans, sunflower seed and rapeseed.

As the scale of operations has increased and, in Western Europe, become heavily concentrated on three oilseeds, the problems of adjusting to changes in the international economic and political environment inevitably have become greater. The repercussions, implications and difficulties of closing down large plants, temporarily or permanently, are greater than for small plants. There is less flexibility for switching capacities among different oilseeds. Investment and operating decisions become a different order of magnitude. Yet, the marked improvement in productivity in seed crushing implicit in this structural change has been essential to cope with the impact on crushing costs of the major changes in the international economic environment which occurred in the 1970s.

Foremost has been the dramatic rise in energy costs. These costs were hardly significant in the early 1970s when crude mineral oil was around \$10 per ton. Today, energy costs relate to mineral oil prices not of \$10 but of \$250 per ton and absorbing such costs has become a major challenge, particularly when energy costs have risen rapidly over a short period of time. Unlike some industries, we cannot easily or automatically pass on rising costs to consumers in the short term since our product prices are set by world market forces and not by the industry itself.

The rise in energy costs has been a factor in the slower growth rate for the world economy more in the 1970s than in the 1960s. Hence, there has generally been a less favorable environment than would otherwise have existed for the growth in oil and meal markets. In the USA, for example, the inflation rate in 1970 was 6% and interest rates around 8%. In 1980, interest rates fluctuated up to 20% with an inflation rate of 13-1/2%. The seed crushing industry must now face problems posed by inflating costs and, at present interest rates, the considerable costs of financing working capital.

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Finally, the changing economic environment of the 1970s cannot be reviewed without mentioning the shift from an era of fixed exchange rates between the major currencies to fluctuating exchange rates. Western European crushers have been adversely affected to a marked degree over the past years as the weakening of the U.S. dollar beyond that required by relative inflation rates seriously eroded the competitive position of Western European crushers in their own and world markets. The last twelve months have seen some correction as the U.S. dollar has appreciated. But, so long as exchange rates remain volatile, they will remain a major factor in affecting the different profitability of seed crushing in different countries.

The 1970s has been a period in which the international seed crushing industry has not only operated in a more competitive environment but has had to do so against a background of mounting and serious pressures on costs—particularly for energy. Moreover, the decade has been characterized by a greater volatility in many aspects of the environment and in our profitability, adding inevitably to the uncertainty and risks in the industry's shorter term operations and in its investment decisions for the longer term.

In this difficult economic environment, government policies become of even greater concern. One role of this association must always be to ensure that governments are fully aware of the repercussions on the seed crushing industry of their policies, even if these are motivated by wider considerations. This need has certainly been increasing in evidence in the 1970s. The U.S. government, for example, may see strong reasons for subsidizing maize processing to produce gasohol. But, to the seed crushing industry, the effect is to subsidize—as byproducts—the production of maize oil to compete with the crushers' output of soya and sunflower oil,

and more importantly, the production of corn gluten feed. U.S. exports of corn gluten to the EEC have already reached two million tons. On present gasohol plans, this is only a beginning, and future supply increases will undoubtedly also erode U.S. meal markets. In the EEC, surpluses induced by the common agricultural policy confronted the industry with the skimmed milk powder scheme and the continuing threat of levies on oils and fats. While surpluses of skimmed milk powder and butter have disappeared, this is likely to be only temporary in the absence of effective measures to curtail milk production in the long term. But, proposals for levies on oils and fats have not disappeared.

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**M**any of the aspects which increased the difficulties of the international seed crushing industry through the 1970s are operating with particular force at this time—interest rates are near peak levels, inflation has yet to be brought under proper control, an economic recession exists and mineral oil prices have doubled over the last 12 months. At the same time, gross crushing margins have deteriorated sharply. Not surprisingly, profit levels in the industry at this time are far from satisfactory. Crushing margins are in marked contrast to the excellent margins being earned at the time of our Dakar congress last year.

Gross crushing margins are essentially determined by whether excess crushing capacity exists. This is true of industry generally, but for seed crushing it is a complex concept. For example, we can simultaneously have excess capacity compared with available seed supply, a shortage of capacity in relation to the meal market and perhaps a surplus of capacity in relation to the needs of the oil market. The gross margins which finally emerge are the net result.

All these relationships over the last 12 months have been adverse for gross crushing margins. In the 1979/80 season, record North American oilseed crops contributed to a surplus of seed supplies reflected in soyabean prices at one point below \$6 per bushel and a sizable carryover into 1980/81 of soybeans, sunflower seed and rapeseed. The pattern was of excess seed supplies rather than excess crushing capacity. For the 1980/81 season,

however, these surplus conditions induced U.S. farmers to take 1.25 million acres out of soybeans, to cut the sunflower seed average by 28% whereas in Canada, rapeseed plantings were reduced by 14%. Severe drought conditions then caused a sharp reduction in yields per acre leading to the substantial reduction in these oilseed crops of vital importance to the international seed crushing industry. With new capacities coming on-stream—particularly for sunflower seed—there was clearly a major adverse swing in the relationship between capacities and seed supplies. Only in the European Community was there some alleviation from the much higher domestic rapeseed crops.

This effect on gross crushing margins has been compounded by less dynamic product markets. For meal, economic recession has been a factor in weakening the underlying demand for livestock products. To maintain consumption levels in such an environment requires lower product prices, yet the past year has been a period in which producers have required higher prices to cover higher feed costs. Maize and soya meal prices in the USA have been running some 30% higher than last year. Inevitably, the profitability of livestock producers had increasingly been squeezed, leading to a reduced intensity of feeding and lower animal numbers. Even in Western Europe—despite support for livestock product prices from the common agricultural policy—the expansion in animal numbers has come to a halt.

From the point of view of U.S. and Western European crushers, meal demand also weakens if competing supplies of meal increase sharply. Brazil provides the most significant competition and in October/March of this season, soya meal exports from Brazil doubled compared with last year to reach 2.8 million tons. In Western Europe, meal demand has further weakened significantly since its price has been pushed well above the institutional prices for maize fixed under the common agricultural policy. In more normal years, soya meal prices are below the high fixed cereal prices and meal is used in animal diets more

as an energy source in place of cereal than for protein. But, at the price relationships which have ruled, demand for meal has been severely curtailed. While, in one sense, this is part of the market adjustment mechanism to lower meal supplies, its effect has been exacerbated by the strengthening of the U.S. dollar on foreign exchange markets. Thus, compared to a low point of meal prices a year ago, European soya meal prices have risen by over 20% when expressed in U.S. dollars, but by over 40% in Deutschmarks.

This overall pattern of weak meal demand and was alleviated to some extent by the sizable Russian purchases and margins would have been poorer without them. But, the benefit in the circumstances of the past 12 months was probably less than would have been derived in other circumstances. To the U.S. crushers, the benefit (because of the embargo) could only be indirect, that is, from Russia absorbing competing supplies. For Western European crushers, to the extent that extra Russian demand in the shortage conditions of this year contributed to expensive meal relative to cereals, it would have been a factor in the weakening of demand in the EEC.

World demand for oil is less affected than meal by economic recession, but recession is clearly not a favorable environment for strong demand. Again, however, U.S. and Western European crushers now face competition in export markets from Brazilian oil whereas in the six months to March 1980, Brazil has been a sizable importer of soya oil. Perhaps the most significant factor has been the depressant effect on margins of high oil stocks, since these are alternative supplies competing in markets for the current flow of oil supplies from crushing plants. Essentially, higher crush rates in the earlier part of this season supported then by meal are now reflected in higher U.S. oil stocks and adequate oil stocks elsewhere at a time of weakening meal demand—a highly unfavorable product market combination for margins.

The scenario I have reviewed for the 1970s was one of increasing difficulties and challenges for the industry with, at this time, the industry in a phase of poor profitability. I have no crystal ball which enables me to predict the challenges this industry might face in the 1980s. But, there

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must be some grounds for believing that energy conservation measures and exploitation of alternative sources will avoid a repetition of the dramatic cost increases of the 1970s. It must be overly pessimistic to consider that world economic growth has come to a permanent halt to act as a permanent constraint on the growth in product markets. I have personal difficulty in believing that the inflation and interest rate levels now reached can remain permanent features of the world economy.

My optimism for the profitability of the international seed crushing industry in the 1980s is, however, not based on any predictions of the environment. It is based on the fact that we play a crucial role in supplying the basic oil and meal needs of the world and those needs—especially in the developing countries—are very far from being satisfied. Even more important, the industry, in coping with the traumas of the 1970s, has demonstrated its dynamic versatility, its high degree of efficiency and its great adaptability, such that there is no reason to doubt that it will successfully and profitably meet any challenges of the 1980s.

## **London to trade soy oil futures**

Soy oil futures contracts are scheduled to resume trading in London on Oct. 1. Trading units will be 20 MT for crude degummed soy oil produced in the EEC. Delivery months will be February, April, June, August, October and December. Prices will be carried on the London Commodity Exchange; the market will operate under the auspices of the London Vegetable Oil Terminal Market Association, Cereal House, 58 Mark Lane, London EC3R 7NE. Details are available from that association.

## **Unilever fats and oils statistics**

Unilever's Economics Department in London provided a statistical brochure on *World Oils and Fats Statistics 1977/1980* that anticipates higher production of fats and oils than projected by U.S. Department of Agriculture economists.

Unilever expects world production of fats and oils for the crop year ending September 1981 to be about 60.2 million MT, compared to the USDA's 56.9 million MT estimate. Unilever says that amounts to 13.5 kilos per capital compared to the previous year's 13.8 kilos per capita.

Unilever's provisional figures are lower than USDA estimates (shown in parentheses) in the following commodities: cottonseed, 3.1 million MT (3.2); peanuts, 2.8 million MT (3.1); sunflower, 4.6 million MT (4.7); rapeseed, 3.7 million MT (3.8); safflower, 245,000 MT (265,000); coconut, 3.0 million MT (3.2); palm kernel, 600,000 MT (690,000); palm oil, 4.6 million MT (5.0); and castor bean 350,000 (382,000).

Unilever's provision estimates are higher in the following commodities: soybean 14.5 million MT (12.4); olive, 1.9 million MT (1.7); sesame, 715,000 MT (622,000); corn, 670,000 MT (518,000); linseed, 740,000 MT (704,000); tung 95,000 MT (90,000); butter, 5.6 million MT (5.0); lard 4.7 million MT (4.0); and fish oil 1.24 million MT (1.23).

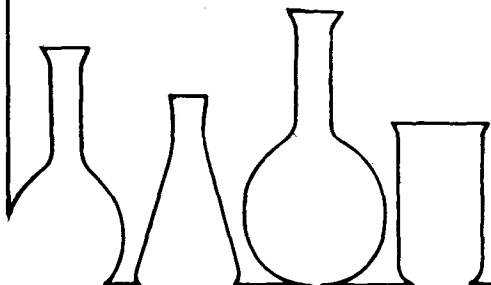
World exports in terms of fats and oils are estimated by Unilever at a record 20.5 million MT for 1980. Largest trading commodities are soybean (6.7 million MT), palm oil (2.8 million MT), tallow (2.2 million MT), sunflower (1.5 million MT), copra and coconut oils (1.4 million MT) and rapeseed (1.1 million MT).

By producing areas, the largest nations in export include: United States (8.3 million MT); West Malaysia (2.4 million MT), Western Europe (1.8 million MT); Argentina and Uruguay (1.4 million MT); Brazil (1.3 million MT), and the Philippines (1.0 million MT).

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# World produces 163.2 million MT of oilseeds

World oilseed production for 1980/81 is now estimated at 163.2 million metric tons (MT), about 11 million MT below 1979/80's record, according to the USDA *Foreign Agricultural Circular* (FOP 10-81) of May 1981, devoted to oilseeds and products.

Total fats and oils production is estimated at 56.9 million MT, about 1.4 million MT below 1979/80. The 56.9 million MT total includes about 40 million MT of edible vegetable oils, 14.5 million MT of animal fats, 1.4 million MT of industrial oils, and 1.3 million MT of marine oils.

Oilseed production is expected to rise in 1981/82. The lower production in 1980/81 was attributed in large part to reduced U.S. production caused by dry, hot weather, particularly in soybean-producing areas. A return to more normal weather should mean higher production. U.S. oilseed production in 1980 was 22% less than 1979. Oilseed production in the rest of the world was 5% above 1979/80.

The following reports on commodities are based on the USDA publication identified above.

## Soybeans

World production for 1980/81 is now estimated at 82.5 million MT with about 26.6 million MT being exported. Major exporting nations are the United States, 20.7 million MT; Argentina, 3.1 million MT; Brazil, 1.6 million MT; and the European Community, 266,000 MT; other nations exported a total of about one million MT.

Major importing nations include the European Community, which absorbs 11.5 million MT; Japan, 4.1 million MT; Spain, 3 million MT; the Soviet Union, 1.5 million MT; Mexico, 1.3 million MT; Taiwan, about one million MT; Eastern Europe, 750,000 MT; mainland China, about 500,000 MT; and other nations, about 4 million MT.

Total soybean crush for 1980/81 is estimated at 73.6 million MT. The United States, Brazil and the European Community crushed approximately 28.6 million MT, 13.5 million MT, and 11 million MT, respectively. Japan, with a crush of 3.4 million MT, and Spain at 3.1 million MT, are the only other nations above two million MT.

Total estimated soy oil production for 1980/81 is 13.1 million MT with the U.S. producing 5.2 million MT, Brazil 2.5 million MT, the European Community 2.0 million MT, with Japan and Spain having output at 617,000 MT and 540,000 MT, respectively. Brazil is the world's largest exporter of soybean oil, with shipments estimated at 932,000 MT; the E.C. is second at 880,000 MT and the U.S. is third with 794,000 MT. This will be the first year Brazilian soy oil exports have exceeded those of the

United States. The European Community will import about 600,000 MT of soy oil, the Mideast and North Africa approximately 528,000 MT; and Latin America 418,000 MT. India has the single largest anticipated volume of a single nation with anticipated imports of 500,000 MT.

## Palm oil

World palm oil production is expected to be above five million MT for the first time during 1980/81.

Malaysia is the world's largest producer, with about 2.88 million MT in 1980 and an anticipated 2.9 million MT in 1981. Indonesia, which produced 650,000 MT in 1980, is expected to produce 700,000 MT in 1981, all for export. Papua-New Guinea production is expected to rise to 46,000 MT in 1981 from 40,000 MT in 1980. Nigeria's 1981 produc-

World production of oilseeds, fats and oils, in thousands of metric tons

	Oilseed		Oil	
	1979/80	1980/81	1979/80	1980/81
Soybeans	93,519	82,477	14,379	12,484
Cottonseed	25,063	29,096	3,200	3,275
Peanuts	17,770	17,710	3,171	3,181
Sunflower	15,371	13,200	5,562	4,766
Rapeseed	10,104	11,343	3,438	3,852
Sesame	1,767	1,723	641	622
Safflower	1,103	858	342	265
Flaxseed	2,649	2,294	811	701
Castor beans	926	894	396	382
Copra	4,722	5,077	3,022	3,249
Palm kernel	1,403	1,484	659	697
Olive			1,382	1,724
Corn			512	518
Palm			4,606	5,026
Babassu			128	130
Olive residue			135	169
Oiticica			14	14
Tung			100	90
Fish			1,247	1,231
Whale			10	10
Sperm whale			58	58
Butter (fat content)			4,957	4,957
Lard			4,012	3,956
Tallow & grease			5,550	5,550

Source: USDA *Foreign Agricultural Circular* FOP 10-81, May 1981.

Split year indicates Northern Hemisphere crop harvested in final months of first year shown; Southern Hemisphere and some Northern Hemisphere harvested in first months of second year shown. 1979/80 figures are preliminary; 1980/81 figures are forecasts.

tion is forecast at 535,000 MT compared to 1980's 520,000 MT.

Exports in world trade were about 2.4 million MT in 1980, with Malaysia accounting for about 2.0 million MT. Largest single importer was India with 555,000 MT, followed by Pakistan, 233,000 MT; The Netherlands, 214,000 MT; United Kingdom at 183,000 MT; and East Germany, 177,000 MT. United States imports for 1980 were about 117,000 MT, less than half of what they had been three years

previously.

### Sunflower

Sunflower seed production for 1980/81 is estimated at 13.2 million tons, down about 14% from the 1979/80 crop of 15.4 million MT. There were declines in the three major producing nations, USSR, down 14% to 4.6 million MT; the United States, down 48% to 1.8 million MT, and Argentina, down 12% to 1.5 million MT.

The Soviet decline was due to poorer yield with the 1980/81 crop being the smallest since 1963's 4.3 million MT. U.S. producers had cut acreage because of lower prices resulting from 1979's record production, then bad weather reduced yield. Argentina's acreage for the 1980/81 crop is 33% lower, but increased yield is expected to moderate the production decline.

### Major oilseeds by main producers, in thousands of metric tons

	Soybeans		Cottonseed		Peanuts		Sunflower seed		Rapeseed		Flaxseed		Palm	
	1979/80	1980/81	1979/80	1980/81	1979/80	1980/81	1979/80	1980/81	1979/80	1980/81	1979/80	1980/81	1979/80	1980/81
United States	61,722	49,453	5,242	4,060	1,800	1,047	3,484	1,816			305	206		
Brazil	15,140	15,750			545	335							15	15
China (mainland)	7,460	7,880	4,414	5,540	2,822	3,600			2,402	2,384				
Argentina	3,650	3,900					1,650	1,450			743	620		
Paraguay	600	800											5	5
Soviet Union			4,510	5,300			5,414	4,650			250	250		
India			2,450	2,700	5,772	6,000		1,433	2,150		270	525		
Pakistan			1,436	1,422										
Senegal					600	450								2
Sudan					850	800								2
South Africa					340	315								
Romania							889	817						
Bulgaria							415	378						
Canada									3,411	2,506	815	465		
Poland									233	567				
France									510	1,100				
Nigeria													520	535
Malaysia													2,396	2,697
Indonesia													650	700
Ivory Coast													170	180

The following articles are based on reports filed by USDA agricultural attaches during the late spring. They do not reflect developments that have occurred since then.

### Mexico

Domestic crush of oilseeds during 1981/82 is expected to reach 3.5 million MT, about 21% above the 2.9

million MT crush of the 1979/80 season, up about 6% over 1980/81's crush.

Rising imports of oilseed, primarily from the U.S., have made possible the increases as Mexican oilseed production has fallen from 2.2 million MT in 1979/80 to 2.0 million MT in 1981/82.

"The consumption of oilseed products in Mexico continued to demonstrate a strong expansionary trend during 1980-81 based on the rapid growth of the population, improvement in the disposable income position of Mexico's middle and lower income groups and therefore an increased consumption of meat and dairy products, and the enhanced financial ability of Mexico to import those quantities of oilseeds and products required to cover the deficit in domestic production," David Rosenbloom, assistant U.S. agricultural attache, said in a report earlier this year.

Mexico's crushing industry is con-

### Mexico

	Area harvested (1,000 ha)	Estimated production (1,000 MT)	Imports (1,000 MT)	Crush & domestic consumption (1,000 MT)	Oil		
					Domestic production (1,000 MT)	Imports (1,000 MT)	Domestic consumption (food) (1,000 MT)
Soybeans							
1980/81	150	280	1,300	1,500	270	25	290
1981/82	300	500	1,100	1,595	287	20	307
Sunflower							
1980/81	30	25	300	333	133	9	137
1981/82	32	28	250	296	118	5	125
Cottonseed							
1980/81	365	570	120	647	110		110
1981/82	385	600	150	698	119		117
Safflower							
1980/81	330	420	10	405	152		162
1981/82	400	500	0	464	174		174
Sesame <sup>a</sup>							
1980/81	220	140		113	51		50
1981/82	200	120		83	37		38
Peanut							
1980/81	40	60	1	56	1		1
1981/82	43	70	0	61	1		1
Rapeseed							
1980/81	2	2	60	57	23		21
1981/82	2	2	100	97	39		38
Copra							
1980/81	105	130		130	82		4
1981/82	105	130		130	82		4

<sup>a</sup>Mexican exports of sesame seed are estimated at 40,000 MT for 1980/81 and 1981/82.



tinuing to expand. By 1982, crushing capacity will be about 4.6 million tons annually, Rosenbloom estimated, noting that total anticipated crush that year is forecast at only 3.5 million MT. Four plants expected to open during 1981 or 1982 will have a total capacity of 500,000 MT. Rosenbloom said the surplus capacity may increase demand for imports of oilseeds, rather than oilseed products, in the future.

Mexico's new agricultural program includes a goal of making Mexico self-sufficient in oilseeds by 1985, with soybeans, sesame and safflower specifically designated as the crops to be expanded by 1985 to production levels of 1 million MT, 159,000 MT and 666,000 MT, respectively. A prime incentive to producers will be higher support prices for oilseed crops. A new program aimed at bringing idle land into production could mean livestock grazing lands in Tabasco, Chiapas, Oaxaca and Campeche will be opened up to soybeans, Rosenbloom said.

## Argentina

Production of Argentina's four main oilseeds is expected to drop to 6.1 million MT in 1981/82, nearly 10% below last season, but oilseed exports will remain the same (2.2 million MT).

Soybean production for 1981/82 is forecast at 3.8 million MT compared to 3.65 million MT the previous year. About 2.75 million MT are expected to be exported, a slight increase over the 2.72 million MT in 1980/81. Based on an anticipated crush of 800,000 MT, soy oil exports are estimated at 95,000 MT and domestic consumption at 45,000 MT.

Sunflower production for 1981/82 is forecast at 1.3 million MT, down from last year due to heavy rains with exports increasing to 20,000 MT from 1,000 MT. Of the 487,000 MT of sunflower oil anticipated, about 190,000 MT will be exported, the rest consumed domestically.

Peanut production will also be down in 1981 to 185,000 MT from 206,000 MT, due to damage from excessive rains, and exports are expected to be 40,000 MT compared to 64,000 MT in 1980. Domestic crush is expected to decrease 130,000 MT (135,000 MT for 1980/81) with all 50,000 MT of peanut oil exported.

Cottonseed production will be off significantly, forecast at 170,000 MT for 1981/82, compared to 315,000 MT the previous year. Almost all

cottonseed will be crushed domestically to produce about 23,000 MT of oil, with 10,000 MT exported. The previous year, Argentina's exports of peanut oil were estimated at 20,000 MT.

## Brazil

Brazil's 1981 oilseed production is expected to show about a 3% increase over 1980, with most of the increase, to 17.65 million MT from 17.09 million MT, accounted for by a 600,000 MT increase in soybean production.

Government policies still appear aimed at stabilizing and satisfying domestic markets rather than being primarily aimed at maximizing exports, according to USDA agricultural officer Lyle Sebranek in Sao Paulo. Total supply of 1981/82 soybeans will be about 16.6 million MT compared to 15.7 million MT in 1980/81. Exports will remain about 1.5 million MT, with domestic crush rising to 13.8 million MT from 13 million MT. Soybean oil production for 1981/82 is forecast at 2.9 million MT with 1.6 million MT consumed domestically and 1 million MT exported. Comparable figures for 1980/81 are estimates of 2.6 million MT production, 1.5 million MT domestic consumption and 800,000 MT exports.

Cottonseed production for 1981 is forecast at 1,075,000 MT compared to 1,057,000 MT for 1980. About 1 million MT is expected to be crushed, yielding 166,000 MT of oil, 114,000 MT being consumed domestically and the rest exported.

Peanut production declined in 1981 because of reduced plantings and poor growing conditions. Production for 1981 is estimated at 335,000 MT compared to 545,000 MT the previous year. About 225,000 MT will be crushed and 35,000 MT exported if forecasts prove accurate. About 55,000 of peanut oil will be exported and 8,000 MT consumed domestically.

Rapeseed has been tested experimentally in Brazil since 1974, and in 1980 total plantings reached about 3,000 hectares producing roughly 3,000 MT. Seed reportedly is available to plant 25,000 to 30,000 hectares in 1981 that could produce a crop of 30,000 to 40,000 MT. The search continues for suitable varieties for human consumption that produce good yields in Brazil. Better harvesting practices also are needed, as initial reports indicate farmers leave 10 to 20% of the crop in the field.

Castor bean harvest and crush for 1981 will be slightly above the 1980 figure, permitting potential export of up to 105,000 MT of castor oil in 1981 compared to 93,000 MT the previous year.

Sunflower, like rapeseed, is viewed as an oilseed crop of the future. Production in 1979 was about 5,000 MT, for 1980 it is estimated at 20,000 MT and for 1981 is forecast at 90,000 MT. Most production goes into domestic edible oils and margarine. Sunflower apparently is viewed as an alternative to wheat or as an adjunct winter crop.

Proposals to use vegetable oil and diesel oil blends as a fuel are not expected to affect 1981 prospects, but Sebranek says it could have an effect on some oilseeds sometime in the next two to five years.

## Uruguay

Uruguay's domestic edible oil production is expected to be about 10% higher in 1981 than in 1980, but Uruguay still is expected to import sunflower oil to accommodate local preference.

Uruguay's sunflower oil production will be about 16,200 MT, or about double the 1980 production. Good growing conditions and benefits of leftover fertilizer on sunflower seedlings following wheat helped produce the large increase, according to USDA reports.

Soybean oil production is forecast at 5,000 MT, about 20% below the previous year. Uruguay may have about 15,000 MT of soybean from its 45,000 MT crop for export, since local preference is for sunflower oil.

Flaxseed exports are expected to be lower because the 25,000 MT crop will be about 60% below the previous year. Farmers, dissatisfied with prices from the 1979/80 crop, cut flax acreage by 70%. Linseed oil exports were estimated at 16,000 MT in 1980, but are forecast at less than 7,000 MT for 1981.

Estimated 1981 production for minor edible oils are: olive oil, 75 tons; corn oil, 180 tons, and grape seed oil, 250 tons.

## Chile

Chile's oilseed and vegetable oil production in 1981 will be significantly below 1980 levels because farmers were disappointed with prices in 1980. Oilseed production (rapeseed and sunflower) that totaled 111,000 MT in

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1980 will be only about 34,000 MT in 1981.

The government is not expected to resume subsidies for agricultural products and Chile's oilseed production is not expected to increase significantly, Lawrence R. Fouchs, U.S. agricultural attache in Santiago, reported this spring.

The net result is that Chile will import about 85,000 MT of vegetable oil, primarily from Brazil and Argentina, during 1981, compared to 57,000 MT during 1980. The U.S. share of the market dropped from 50% in 1979 (about 31,000 MT) to 7% (about 4,000 MT) in 1980.

Chile has modernized its fishing fleet and while the record 1980 catch is not expected to be repeated in 1981, Fouchs says "the fishing sector is one of the most dynamic growth sectors in the Chilean economy. As a result, fish meal and fish oil production is estimated to continue expanding." Fish meal production is estimated at 570,000 MT for 1980 and 500,000 MT for 1981; fish oil at 101,000 MT for 1980 and 90,000 MT for 1981. Almost all the fish meal is

exported, and about 75% of the fish oil is exported.

### Colombia

Colombia's oilseed production in 1981 is expected to show a decline from 1980 levels primarily because (1) soybean producers are cutting back acreage due to better returns from other crops, (2) production costs for soybeans are rising and (3) government support payments are late.

Cottonseed production, estimated at 186,200 MT in 1980, is forecast at 177,800 MT in 1981. During 1980, about 173,000 MT of cottonseed was crushed yielding 27,700 MT of refined oil and 4,700 MT of soapstocks.

Palm oil production is expected to rise in 1981 as the forecast of 405,000 MT of palm fruits compared to an estimated 375,000 MT during 1980. Crushings in 1980 totaled about 372,000 MT, yielding 74,200 tons of palm oil, 8,500 tons of palm kernel oil and 9,400 tons of palm kernel meal. Palm oil provides about 46% of domestic fats and oils production, followed by cottonseed oil at 15% and soybean oil at 12%.

Colombian soybean producers harvested an estimated 155,000 MT from 78,600 hectares in 1980, but the 1981 forecast is for a harvest of 100,000 MT from 50,000 hectares. About 80,000 MT of crude soybean oil is expected to be imported, mainly from the United States, during 1981.

Colombia will produce about 140,000 MT of fats and oils in 1981 and consume about 264,000 MT of fats and oils in food products. Besides soybean oil, Colombia also imports fish oil.

### Ecuador

Production and consumption of fats and oils are expected to continue to rise in 1981, but the nation remains a net importer of fats and oils materials.

For 1981, Ecuador's oilseed production is forecast at 180,000 MT compared to a 1980 estimated production of 157,500 MT. Palm oil, with a 1981 estimate of 93,000 MT, soybeans (39,000 MT) and cottonseed (25,000 MT) are the main oilseed crops. About 40% of the expected increase will be in palm oil.

Fats and oils consumption during

1980 was approximately 136,000 MT, up about 10% over 1979. The 1981 forecast is a 3% increase, in line with population growth. Soybean oil is the dominant imported oil, comprising about 40,000 MT of 42,000 MT imported.

Two projects in the Oriente region are under way to increase palm oil production. The first is expected to reach plantings on 3,600 hectares by 1985 with an extraction plant in operation by late 1982. The second project expects to have 600 hectares planted by 1982, an extraction plant operational sometime in 1984, and a total of 3,500 hectares planted by 1984.

### Paraguay

Paraguay's rising soybean production is estimated at 800,000 MT for 1981, mainly because of better-than-anticipated yields, compared to approximately 600,000 MT in 1980.

Paraguay's soybean exports are expected to be at least 600,000 MT for 1981.

### Dominican Republic

The Dominican Republic is expected to have a third consecutive year of reduced production of oil-bearing materials, with total production estimated at 51,500 MT compared to 55,500 MT in 1980, 56,200 MT in 1979, and 58,000 MT in 1978.

The reductions are almost all in the island nation's primary oilseed crop, peanuts. Robert Anlauf, agricultural attache in Santo Domingo, reports marginal ground is used for peanuts, poor financial return has reduced use of fertilizer, and, from 1974 through 1980, the government support price had remained at US \$15 per 50 kilo bag. It is now US \$20.

Peanut production for 1981 is estimated at 27,000 MT, compared to 35,000 MT during 1978. Copra production has remained virtually constant at 21,000 MT, while cottonseed production is rising and is estimated at 3,500 MT in 1981 compared to 2,000 MT in 1978.

Vegetable oil production will total about 27,000 MT, meaning about 63,000 MT will need to be imported. Almost all imports are from the United States.

During 1980, the government did create a commission of producers, millers and importers to promote oilseed crops and research programs on them. A national soybean commission

## Canada

	Area planted (1,000 ha)	Estimated production (1,000 MT)	Exports (1,000 MT)	Oil production (1,000 MT)	Oil exports (1,000 MT)
Rapeseed	2,080	2,506	1,300	415	175
Soybeans <sup>a</sup>	283	713	75	175	20
Sunflower	136	166	80	15	—
Flaxseed	575	465	500	20	4

<sup>a</sup>1981 Soybean imports estimated at 475,000 MT.

also has been created to promote the consumption and production of soybeans. A solvent oil mill with a capacity of 150 MT of soybean per day is expected to be completed sometime late this fall.

### Canada

Canada's oilseed production and exports are expected to be lower because of reduced acreages, reflecting high stocks and sluggish demand.

Rapeseed production for the year ending July 1980 was about 3,411,000 MT with exports of 1,743,000 MT. For 1981, the initial forecasts are for production of about 2,506,000 MT and exports of 1,300,000 MT.

Sunflower production is expected to be about 166,000 MT in 1981 compared to 218,000 MT in 1980, with 1981 exports of 80,000 tons compared to 124,000 a year ago.

Exports were sluggish the first part of the marketing year—off about a third through the eight-month period ending in March. Exports were expected to improve the last quarter of the year as European crushers completed work on the European crop and began importing more Canadian crop.

### Spain

While Spain's soybean crush has risen dramatically during the past few years, most of the soybean oil produced is exported, and domestically produced olive oil remains the most widely used food oil.

For 1981, olive oil stocks are estimated at 187,000 MT and production at 300,000 MT. Exports are expected to be about 70,000 MT with 350,000 MT consumed domestically. End stocks thus will be about 67,000 MT. Production in 1982 is forecast to rise to about 425,000 MT, exports are forecast at 80,000 MT, and domestic usage at 355,000 MT.

Soybean imports for 1981 are estimated at 2.85 million MT, compared to 3.2 million MT for 1980. The crush is expected to yield about

507,000 MT of oil, with 440,000 MT exported and 90,000 MT used domestically. For 1982, imports are forecast at 3.2 million MT and oil producing at 560,000 MT (480,000 MT for export, 90,000 MT for domestic use). Almost all the meal produced is used for domestic livestock feed, with 150,000 MT exported.

Spain's soybean acreage remains at less than 10,000 hectares with a 1981 estimated crop of 12,000 MT and a 1982 crop forecast at 15,000 MT.

### Portugal

Portugal's 1981 estimated oilseed crush is 628,000 MT, with about 95% of that total being imported oilseeds. Soybean crush is estimated at 290,000 MT and sunflower at 250,000 MT.

During 1980, sunflower temporarily displaced soybeans as the largest volume imported oilseed. Sunflower imports totaled 287,000 MT to soybean's 223,000 MT. Sunflower imports rose to offset reduced availability of peanut and safflower.

Portugal's annual capacity to produce refined vegetable oils is estimated at 250,000 MT. For 1980, refined edible oil production totaled about 117,000 MT and for 1981 is forecast at 125,000 MT.

Portugal's 1981 sunflower production is estimated at 30,000 MT and safflower at 3,000 MT.

### Italy

Olive oil is Italy's dominant food oil, but the rapid increases being made by rapeseed and sunflower are perhaps keeping soybean oil, the no. 2 food oil in Italy, from showing significant increases.

Out of a total of 1.35 million MT of food oil used in Italy during 1980/81, about 45%, or 600,000 MT, was olive oil. Soybean oil was second with 22% share, or about 300,000 MT. Rapeseed oil use totaled 113,000 MT, compared to 69,000 MT the previous year and only 36,000 MT in 1978. The rapid increase represents primarily imports from France, which is now

producing low-erucic content rapeseed. In 1980, the volume of rapeseed oil imported exceeded that of any other oilseed oil; increased importation of rapeseed for crushing is expected to reduce the total rapeseed oil imports for 1981. Sunflower oil usage has risen from 37,000 MT in 1977/78 to 95,000 MT in 1980/81.

The net result is that, for 1981, Italian imports of rapeseed (from France) and sunflower (from the U.S.) are expected to rise whereas imports of soybeans (from the U.S.) may decline slightly. The sunflower increase was partially attributable to the world shortage of peanuts last year.

In 1980, Italian crushers processed about 2.1 million MT of oilseeds, with domestic oilseed representing less than 10% of that total. Total oil production was about a half million MT. Imports of rapeseed, 60,000 MT in 1980, are forecast at 200,000 MT in 1981; sunflower imports are expected to rise to 225,000 MT from 209,000 MT.

## France

France's rapeseed production for 1981/82 is expected to be about 1.4 million MT based on 500,000 hectares. If that occurs, it will be about a 25% increase over 1980/81, when rapeseed production is estimated to be 1.1 million MT.

For the 1980/81 season, France probably will crush about 650,000 MT of rapeseed and export another 325,000 MT. The 1980/81 crop was about 50,000 MT lower than originally forecast.

Production of France's no. 2 oilseed crop, sunflower, is estimated at 220,000 MT for 1980/81, with another 130,000 MT imported. France will export about 100,000 MT of sunflower seed and crush about 235,000 MT.

Soybean imports for 1980/81 are estimated at 868,000 MT and domestic production at 17,000 MT. Most of the soybean meal from crushing and imports is used for domestic livestock. Slightly more than half of 250,000 MT of soy oil produced is exported.

Sunflower oil is the major domestic food oil at 175,000 MT, followed by soybean at 110,000 MT and rapeseed at 70,000 MT.

## Belgium

Belgium's soybean crushing capacity has increased by about 40% to 1.6 million tons annually during the past

12 months, but the increased strength of the U.S. dollar internationally and narrowing profit margins have meant the industry has operated below capacity.

Despite the economic conditions, total soybean imports for the year ending September 1981 are estimated at 1,150,000 MT compared to 949,000 MT the previous 12 months. Total crush for the year ending 1981 is estimated at 1,117,000 MT compared to 971,000 the previous year. About 75% of the imported soybeans are from the U.S.

Most of the increase in domestically crushed soy meal and soy oil will move into export trade, primarily to France. Soy oil exports are forecast at 120,000 MT of 200,000 MT produced; soy meal exports are forecast at 550,000 MT from a total production of 900,000 MT.

## Denmark

Denmark's rising rapeseed acreage has led to a suggestion that a rapeseed crushing facility be started in that nation. Estimated 1981 rapeseed acreage is 130,000 hectares compared to 65,000 hectares in 1979 and 100,000 hectares in 1980.

Domestic fats and oils consumption is primarily soybean oil and fish oil. About 210,000 MT of soybeans are expected to be imported during 1981 and crushed to yield 34,000 MT of oil. Another 31,000 MT of soy oil is expected to be imported to satisfy anticipated domestic consumption of 55,000 MT and exports of 10,000 MT. Fish oil production is expected to total about 110,000 MT with 20,000 MT consumed domestically and 90,000 MT exported.

Danish rapeseed at present is shipped to West Germany for crushing. Rapeseed farmers apparently have asked feedstuff companies to consider a crushing plant as a joint venture.

## Switzerland

Switzerland is increasing its oilseed processing to produce animal feed for its livestock industry. During 1980, about 105,000 MT of oilcake was produced, about two-thirds of that soybean, and another 15% being rapeseed.

Rapeseed cake production was 16,934 MT for 1980, compared to 12,780 MT in 1979. The increase represented the larger rapeseed crop in 1980. Import duties on oilseeds and oilseed products were raised Jan. 1,

1981, and are considered a way of raising funds to support milk producers.

## Finland

Only spring oilseed—turnip rape and spring rape—is grown in Finland, due to climate. Production of rapeseed has increased in recent years since the government is attempting to reduce dependence on imported seed—largely soybeans—for crushing. The 1980 production area was 55,000 hectares, yielding 80,000 MT of rapeseed. The official goal for 1981 is 65,000 hectares, although crushers do not believe the goal will be met, according to William Huth, agricultural attache.

However, rapeseed oil does not meet the food industry's fatty acid composition requirements and thus, other vegetable oils are imported, specifically for the margarine industry. Imports of soy and sunflower oils totaled 10,168 MT in 1980, lower than the 11,163 MT for 1979. Two oilseed crushing plants in Finland crush soybeans and sunflower seed, the majority of which is imported from the U.S.

## German Democratic Republic

East Germany's 1981 oilseed production is estimated to be about 320,000 MT with 325,000 MT considered the top estimate. The 320,000 MT estimate is about the same as 1980's estimated 321,000 MT harvest. GDR officials had planned on a 1980 production of 340,000 to 350,000 MT.

From 1977 through 1979, East Germany annually has imported about 1.2 million MT of fats and oils, oilseeds, and oilseed meal and cake, with the meal and cake accounting for about 80% of the imports.

## Yugoslavia

Soybean production and imports are expected to be larger in Yugoslavia during 1981, with soybean production rising to 100,000 MT in 1981 compared to 55,000 MT during 1980. Soybean imports are expected to be about 280,000 MT for 1981, compared to 205,000 MT in 1980.

The increased soybean imports reflect a 40% drop in sunflower seed for 1981.

Most of the domestically produced soybeans are expected to be processed at the new crushing plant at Becej, scheduled for opening sometime dur-

ing the second half of 1981.

The domestic soybean crush is expected to produce 54,000 MT, which, with stocks of 45,000 MT and imports of 80,000 MT, will produce a total supply of about 179,000 MT. About 150,000 MT will be used in food products, compared to an estimated 100,000 MT of soy oil used during 1980.

Government plans had called for seeding of 61,000 hectares in soybeans for 1981, but USDA observers say seedings actually were about 50,000 hectares. The 1980 acreage was estimated at 30,000 hectares.

## Nigeria

Nigeria's imports of oilseed materials are expected to rise approximately 8.5% to 380,000 tons for 1982 compared to about 350,000 tons for 1981.

Oilseed production for 1981 will be slightly higher than 1980, primarily because of expected increases in Nigeria's two largest oilseed crops, peanuts and palm kernel. Peanut production is estimated at 400,000 tons for the year ending October 1981 and palm kernel at 350,000 tons for the year ending December 1981. About 215,000 tons of palm kernel is expected to be exported. Palm kernel is the nation's only significant oilseed export.

Soybean oil imports for the year ending September 1981 are expected to be 250,000 tons, compared to 150,000 tons the preceding year.

Recent increases in oil imports have led several peanut crushers to propose building a vegetable oil refinery and importing crude oil, rather than refined oil. Most of the refined oil has been imported from Europe, according to a USDA report from Lagos, but if a switch is made to crude oil, this could come primarily from the United States, Brazil or Argentina. Market analysis also is under way to assess the potential for textured soy protein products in Nigeria.

## Senegal

Senegal's peanut crop for 1981 is estimated to be a 20-year low of 450,000 MT, about 150,000 MT below the preceding year, according to USDA reports from Africa.

An average peanut crop in Senegal should be 850,000 MT, but poor weather has cut production in recent years. Of the 1981 supply, about 180,000 MT will be crushed commer-

cially, 150,000 tons will go for seed and feed, and domestic consumption will be about 70,000 tons. Another 70,000 tons will be exported illegally.

Senegal crushers reportedly are seeking to purchase U.S. sunflower to supplement the low volume of peanuts available domestically. Vegetable oil refineries reportedly are operating at 10% capacity.

## Morocco

Morocco continues to see a widening gap between oilseed use and oilseed production, Forrest K. Geerken, agricultural attache at Rabat, reports.

Rising trade deficits may force Morocco to set import priorities in the future, Geerken said. Oilseed imports for 1980 were lower than for 1979, for example. In 1979, oil from domestic seed totaled 8,100 tons and from imported seed, 13,700 tons; totals for 1980 in those categories were 4,200 tons and 10,500 tons, respectively. Crude seed oil imports for 1979 were 173,000 tons; for 1980, 155,000 tons.

Moroccan farmers can realize larger profits from crops other than oilseeds. Sunflower production declined in 1980 because of an end to government production supports, which will be reinstated for the 1981 crop and is expected to boost sunflower seed production. Cottonseed acreage is increasing, but availability of irrigation water is a limiting factor.

Total oil consumption, for all purposes, was 170,000 tons in 1979; 180,000 for 1980. The larger 1980 consumption was possible mainly because of larger beginning stocks.

## Zimbabwe

Consumption of edible oils in Zimbabwe has been increasing over the last 15 years, due to an influx of refugees and a high rate of population growth. Total domestic consumption reached an estimated 35,600 MT in 1980/81.

Soybean production for 1981/82 was down to 69,000 MT from 97,000 MT in 1980/81, says agricultural attache John Williams, since farmers increased their plantings of corn, although peanut production has been on the increase since the beginning of the 1980s. The peanut crop in 1980/81 was 83,000 MT and is expected to reach 130,000 MT for 1981/82, with an estimated 145,000 MT for the following season.

Cottonseed production dropped to an estimated 106,000 MT in 1981/82

from 119,000 MT in 1980/81.

## South Africa

The favorable 1980 rainy season has had a beneficial effect on South Africa's oilseeds production, reports John Williams, agricultural attache in Pretoria.

Sunflower plantings increased due to a growing demand and the price incentives paid to producers, while good weather conditions helped the more than proportional growth in production. The 1980/81 crop is estimated at 329,083 MT, (compared to 311,988 in 1979/80) with an expected 48% increase for the 1981/82 season. When local sunflower oil supplies are adequate, quantities are allocated for exports, according to Williams, who estimates that sunflower will be available for export in 1981/82.

The late start of the rainy season contributed to the decrease in peanut plantings, although yields were good. Production reached 240,771 MT in 1980/81 and a figure of 244,000 MT is estimated for 1981/82. Sufficient peanuts will again be available to supply the edible export market.

After a record soybean crop in 1980/81 (39,884 MT), production for 1981/82 was down to 30,000 MT due to the competitive prices of other crops and to heavy rainfall which adversely affected a crop grown mainly under irrigation.

Oilseed supplies will be sufficient for the local market and no imports are foreseen.

## Egypt

Approximately 80% of Egypt's oilseed production is from cottonseed, which produced yields of 678 kilograms per feddan (20% above normal) in 1980, says Clyde Gumbmann, acting agricultural counselor in Cairo. Together with increased area planted to cotton, the result was a total of 843,730 MT of cottonseed produced in 1980—6% more than the record 792,000 MT produced in 1979. A smaller area is expected to be planted in 1981 and, with a return to less-than-record yields, cottonseed production is estimated at 744,000 MT.

Soybean, the only other major oilseed crop in Egypt, is relatively new to the country; commercial production only began in 1974. Soybean production in 1980 was 92,380 MT, 13% less than in 1979, as a result of a

smaller area planted (34,763 hectares, compared to 42,000 hectares in 1979). Crop area is expected to remain static, between 33,000 and 42,000 hectares until soybean processing capacity can be expanded, Gumbmann reports. The 1981 soybean crop is forecast at 42,000 hectares.

About 90% of domestic oil production is from cottonseed; the remainder is from soybeans. Gumbmann gives the figure for vegetable oil production in 1980 at 132,000 MT, with an estimated 145,000 MT in 1981, an increase of 13% and 24% over 1979, largely due to exceptionally good cottonseed and soybean crops. If the 1981 cottonseed and soybean crops are normal, vegetable oil production in 1982 should be about 132,000 MT.

The large cotton crops in recent years have temporarily reduced Egypt's need for vegetable oil imports, which declined from 286,000 MT in 1979 to 274,000 MT in 1980. Imports, of which the U.S. is the major supplier, are projected at 280,000 MT in 1982.

## Turkey

Turkey should import about 10,000 to 50,000 MT of seed oils for the next several years to meet domestic demand as the government continues to encourage oilseed production to reduce the need for imports.

Soybean production is being encouraged not only for more oil, but also for meal in a nation whose expanding livestock industry has changed it from an oil meal exporter to an oil meal importer.

Oilseed production for 1980/81 (with 1979/80 estimates in parentheses) are forecast as follows: cottonseed, 700,000 MT (700,000); sunflower, 586,000 (520,000); rapeseed, 28,000 (25,000); sesame, 18,000 (21,000); peanuts, 15,000 (15,000); poppy seed, 15,000 (9,000); and soybeans, 8,000 (3,000).

Sunflower crushing plants, have a combined capacity of about 4,000 MT per day, with only 12 plants still using presses (and these are being converted to solvent extraction). Approximately 35 cottonseed crushing plants can handle 4,605 MT per day, with two-thirds of the plants using presses.

Eight new margarine and shortening production plants are under construction. When these are completed, Turkey will have 19 plants capable of producing 195,000 tons of margarine and about 275,000 tons of shortening.

## Jordan

Olive is Jordan's primary oil crop and the source of its favorite cooking oil. For 1981, Jordan is expected to crush its 30,000 MT olive crop to produce 9,000 MT of oil which will be supplemented by about 6,000 MT of imported oil.

The nation does import other fats and oils material, however, and in 1979 these totaled about 11,000 MT of fats and oils worth approximately \$10 million.

U.S. agricultural attache Pitamer Devgon reports a private firm is considering construction of a soybean processing plant. Jordan's per capita annual income has climbed from \$560 in 1975 to approximately \$1,200 for 1980. This is expected to increase demand for improved diets.

## Israel

The production of cottonseed, the only major oilseed produced in Israel, is estimated to reach 129,000 MT in 1980 and 130,000 MT in 1981. The 1979 cottonseed crop yielded 124,500 MT. About half the cottonseed produced in 1980 was fed directly to cattle, while only 3 of the existing 7 oil mills crushed cottonseed. Figures for cottonseed oil production are 10,400 MT for 1980 and 11,200 MT

for 1981, according to agricultural attache Alfred Persi in Tel Aviv.

The major source for vegetable oil and protein meal is soybeans, which are entirely imported from the U.S. 1980 soybean imports reached 420,000 MT, although, due to a large stock increase, the 1981 imports are expected to fall to 350,000 MT. Quantities of soybean oil produced in Israel are steadily increasing, reaching 67,700 MT in 1980, with a projected 69,000 MT for 1981. Thirty-five percent of the locally used soy oil was processed into margarine, which, in Israel, is almost totally based on soybean oil. Israel also imported about 8,700 MT of soybean oil and exported 2,000 MT in 1980.

Persi reports a 42,800-MT olive harvest in 1980 (including 27,000 MT suitable for oil production) which followed an extremely low crop (8,200 MT) in 1979. Most of the olive oil is sold unrefined.

Peanuts and sunflowers are cultivated only for direct human consumption, in-shell peanut production reaching 20,500 MT in 1980, and sunflower 6,300 MT. No oil production was reported for either oilseed.

## India

India's imports of edible oils is expected to continue above one million

## India

	Area harvested (1,000 ha)	Estimated production (1,000 MT)	Exports (1,000 MT)	Crush & domestic consumption (1,000 MT)	Oil			
					Domestic production (1,000 MT)	Imports (1,000 MT)	Domestic food consumption (1,000 MT)	Exports (1,000 MT)
<b>Peanut<sup>a</sup></b>								
1980-81	7,250	5,800	71	5,729	1,333		1,266	
1981-82	7,300	6,000	60	6,040	1,412		1,342	
<b>Cottonseed<sup>a</sup></b>								
1980-81	8,150	2,700		2,700	224	25	219	
1981-82	8,100	2,700		2,700	230		195	
<b>Rapeseed/ mustard<sup>b</sup></b>								
1981-82	3,600	2,150		2,150	645	150	753	
1982-83	3,500	2,000		2,000	600	150	720	
<b>Sesame<sup>a</sup></b>								
1980-81	2,390	500	10	490	149		141	
1981-82	2,390	500	10	490	149		139	
<b>Flaxseed<sup>b</sup></b>								
1981-82	2,100	525		522	152		46	
1982-83	2,000	400		400	116		36	
<b>Castor<sup>b</sup></b>								
1981-82	500	275		260	96			60
1982-83	450	250		250	93			60
<b>Safflower<sup>b</sup></b>								
1981-82	710	225		225	48		43	
1982-83	705	220		220	47		42	
<b>Copra</b>								
1981	1,080	337	5	342	212		82	
1982	1,040	340	5	345	214		84	
<b>Soybean<sup>a</sup></b>								
1980-81	500	450		450	70	500	570	
1981-82	550	500		500	78	500	578	
<b>Sunflower<sup>a</sup></b>								
1980-81	390	170		170	57		57	
1981-82	380	160		160	54		54	
<b>Palm oil<sup>c</sup></b>								
1980-81						400	400	
1981-82						400	400	

<sup>a</sup>Crop year Oct-Sept.

<sup>b</sup>Crop year Feb-Jan.

<sup>c</sup>Crop year Nov-Oct.

MT annually, with the government seeking ways to become self-sufficient in fats and oils, a USDA report from New Delhi says.

India imports about \$600 million to \$800 million of edible vegetable oils annually, ranking behind only petroleum and fertilizers on India's import bill. For 1981, USDA estimates domestic production of vegetable oils is 3,026,000 MT with additional imports of 1,075,000 MT. For 1982, the forecast is for 3,033,000 MT of domestic production and 1,050,000 MT imports.

USDA estimates of oilseed production are higher than official government figures, which put current production at 9.32 million MT. USDA estimates production at 13.2 million tons. Production would need to rise about one third to eliminate the need for most imports. For 1982, production could vary, depending on weather, from 11.5 to 14 million MT (USDA estimates), which means vegetable oil import needs may range from 1.0 to 1.5 million MT.

Per capita consumption of vegetable oils in India during 1981 is estimated at 6.0 kilos, compared to USDA's estimate of 5.6 kilos per capita during 1980.

### **Pakistan**

Pakistan is expected to use about 728,000 MT of edible oils during 1982, with about 240,000 MT produced from domestic oil crops and the rest imported.

Pakistan's primary oilseed crop is cottonseed, with production in the marketing year ending in 1982 expected to be about 1,500,000 MT, resulting in about 150,000 MT of oil. Those figures are roughly comparable to those for the preceding two years, but considerably above 1979's 920,000-MT crop that produced 90,000 MT of oil.

Rapeseed and mustard production for 1982 is forecast at 250,000 MT, yielding 67,000 tons of oils; peanut at 50,000 MT yielding 8,000 tons of oil; and sesame at 18,000 tons, yielding 2,000 MT of oil.

Of the 460,000 MT of edible oil imports anticipated for 1981/82, the preliminary forecast is that 100,000 to 150,000 MT will be from the United States. Other major sources include soybean oil from Brazil and palm oil from Malaysia.

Pakistan's government has begun a two-year pilot project to grow non-

traditional oilseed crops, specifically soybean, sunflower and safflower. In the first year, target acreage was 32,000 acres, but only 17,564 was planted.

### **Bangladesh**

A USDA report from Dacca estimates edible oil imports for 1980/81 at about 79,000 MT, up 39% from 1979/80 imports of 57,000 MT.

Excellent oilseed growing conditions have still only brought Bangladesh's oilseed production to a level which will cover half of estimated domestic need. Total production for 1980/81 is expected to be 68,000 MT, two thirds of which is mustard seed.

Bangladesh is extremely dependent on imports of edible oils. While the United States is the usual source for most soybean oil imports, palm oil began to be imported in sizable quantities during 1979/80 and of the total 1980/81 imports, 55,000 MT was palm oil whereas soy oil imports were 22,000 MT. Rapeseed and mustard seed, traditionally the second largest source of edible oil in the area, come mainly from Canada and France, with some imports reported earlier this year as originating in Germany and Poland.

### **Sri Lanka**

Sri Lanka, the fourth largest producer of coconuts after the Philippines, Indonesia and India, expects to increase production in 1981, following drought-reduced harvest the two preceding years.

About 2,330 million nuts are expected to be harvested, about 15% above the previous year. Copra production is forecast at 138,000 tons, all being crushed domestically to produce 85,000 tons of oil and 43,000 tons of coconut meal. In 1980, about 93,000 tons of copra was available for crushing to produce 58,000 tons of oils and 29,000 tons of meal.

Oil exports during 1981 should be about 20,000 tons maximum as well as 40,000 tons of desiccated coconut. Exports during 1980 included approximately 2,400 tons of oil, 32,500 tons of desiccated coconut, and 275 tons of copra.

Slightly more than one-third of the domestic coconut oil usage is for processed foods, such as margarine, and nonedible uses, such as soap. The balance is used in liquid form for edible purposes.

Coconut production in Sri Lanka is

still below production of previous decades of 2,600 million nuts a year or more. A land reform program in the early 1970s was followed by a rapid fall in coconut production and a 1978 cyclone devastated the eastern coconut-producing regions. The Ministry of Coconut Industry, formed in 1978, is now responsible for coconut industry development.

Peanuts, sesame and palm oils are also produced in Sri Lanka. Peanut acreage in 1979 was 12,023 hectares with a production of 6,050 MT. Sesame plantings in 1979 totaled 26,248 hectares with a 10,251 ton production. Palm oil production, which totaled 583 tons in 1980, is expected to rise to 1,929 MT by 1990.

### **Thailand**

Oilseed and oilseed product statistics are hard to come by, but USDA officials estimate total use of fats and oils in food during 1981 will be about 100,000 MT compared to 64,000 MT as recently as 1978.

Vegetable oils are gaining popularity as government educational campaigns discourage use of hog-lard for cooking. About 73% of edible oils is used in cooking in Thailand, with 7% used by the soap industry, 5% in margarine and shortening and another 12% to other food uses (dairy, pasta, baking products).

Imports of vegetable oils, particularly palm oil, are expected to continue to rise as consumption rises. Per capita consumption of vegetable oils was estimated at 2.1 kilos in 1980 and is expected to be at least 2.3 kilos in 1981. Available edible oils, in decreasing order of use, include palm oil (25% of total), soybean oil (20%), rice bran oil (17%), coconut oil (14%), peanut oil, kapok oil and cottonseed oil.

### **People's Republic of China**

Oilseed production on mainland China continued to rise for a fourth consecutive year, according to USDA reports, with production estimated at nearly 21 million MT for 1980/81.

Crop estimates were 7.8 million MT of soybeans; 5.4 million MT cottonseed; 3.6 million MT peanuts; 2.4 million MT rapeseed; 259,000 MT sesame, 900,000 MT sunflower and 548,000 MT of other oilseeds.

Initial USDA estimates are that oilseed and vegetable oil imports during 1981 will be less than 1980. Expansion of the 1981 winter rape-