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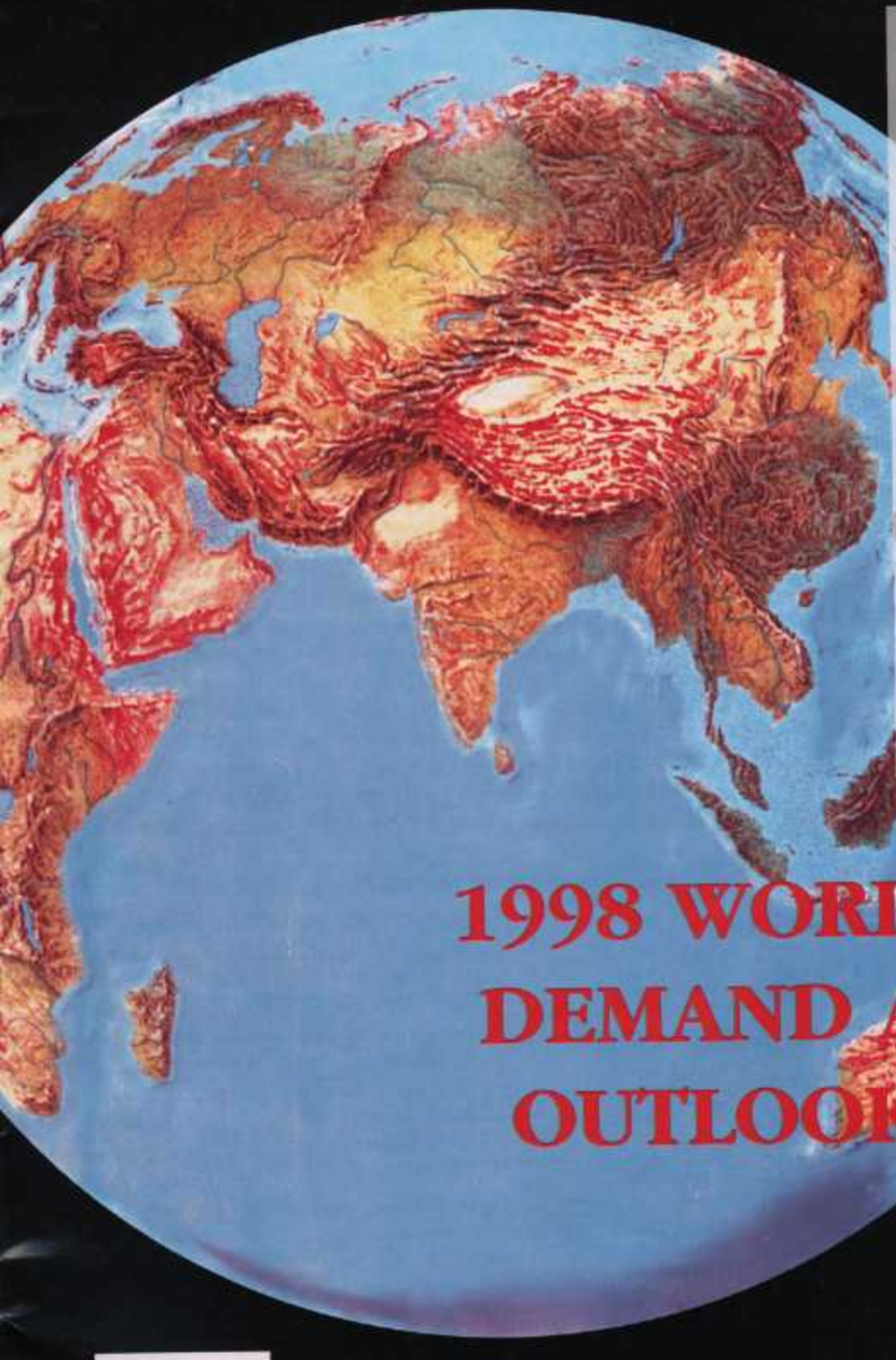

In This Issue...

1998 WORLD SUPPLY, DEMAND AND PRICE OUTLOOK FOR OILS AND FATS

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1998 World Supply, Demand and Price Outlook for Oils and Fats

The severe *El Nino*-caused drought in many parts of Indonesia, Malaysia and the Philippines from early 1997 until April 1998 will be sharply reducing yields and production of palm and lauric oils in 1998 and 1999.

Vegetable Oil Prices Supported by Global Oil Production Deficit and Low Stocks

Markets are rarely in a perfect equilibrium and this is true particularly for oilseed complexes, in which two products (oil and meal) are derived from one raw material. But as we discussed in detail in the 600 pages of the *OIL WORLD ANNUAL 1998*, an unusual disequilibrium has developed this season among the various sectors of our field as well as between supply and demand.

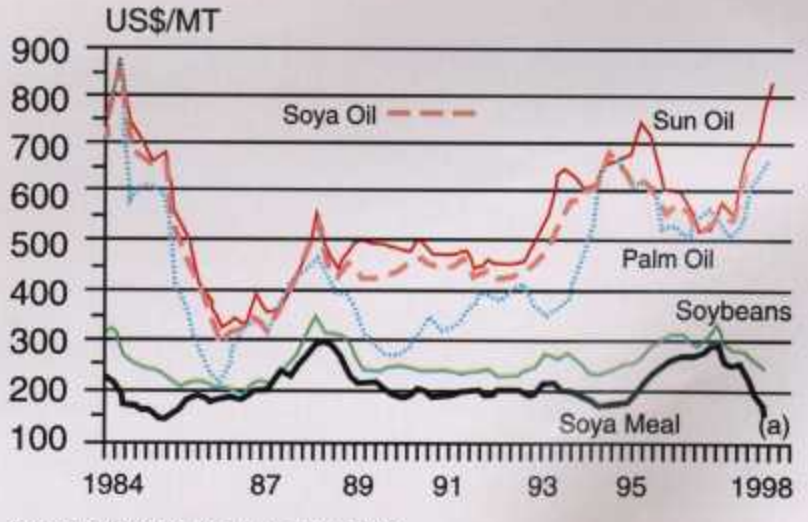
On the one hand, this season's world supplies of soyabeans have become ample thanks to the record crop harvested in the USA in the autumn of 1997 and a sharp increase in the productions of Argentina and Brazil in March/May 1998. According to the latest *OIL WORLD* estimates, this is likely to boost world output of soyabeans to 154.7 million tonnes (Mn T) in 97/98 (up by 22.6 Mn T from last season) and provide ample supplies for crushing into oil and meal.

On the other hand, the world production of most other oilseeds has fallen short of expectations, due partly to reduced plantings and partly to detrimental weather conditions. The combined production of all the nine oilseeds, other than soyabean, is estimated at 127 Mn T for the 97/98 season, almost unchanged from last season and down sharply by 4.7 Mn T from two years earlier.

The biggest decline occurred in sunflowerseed which is now at a four-year low of 23.9 Mn T vis-a-vis 24.6 Mn T in 96/97 and 26.1 Mn T in 95/96. Too much moisture, wind damage and outbreaks of diseases have cut the Argentinian sunflowerseed production to a three-year low of only about 5.1 Mn T, representing a decline of about one million tonnes from earlier expectations. Also in Russia, the Ukraine, Hungary and Romania, as well as in India and Australia, sunseed output has fallen below earlier expectations. This has led to a rapid drawdown of supplies, tightened availabilities earlier than expected and a shortfall of sun oil output. Consequently, sun oil prices rallied to a 10-year high of US$855 per tonne on average in May 1998 in Rotterdam.

Also, world supplies of rapeseed and oil tightened in recent months, partly due to significant crop losses of a combined two million tonnes in China and India. This will reduce world availabilities of rape oil in April/September 1998, thus enforcing a switch

Figure 1. **Quarterly World Market Prices in Rotterdam**



Source: Oil World, Hamburg, June 1998.

By Thomas Mielke, Editor, OIL WORLD, Hamburg, Germany

to other oils and supporting vegetable oil prices on the world market.

Palm oil production in Southeast Asia, as well as in Central America, will be affected in 1998 by the severe drought that was experienced in 1997 and in early 1998 as a result of *El Nino*. Although this phenomenon has recently diminished rapidly and beneficial, widespread rains have been received in Malaysia and Indonesia during May and early June, the lagged effects of the drought stress has only recently started to show up. It will continue to be seen in below-trend palm yields, not only in June/December 1998, but also in 1999. The outlook for palm oil will be discussed below (see *Figure 1*).

As shown in the first figure, prices of the oil sector have been firm since September 1997, sharply contrasting with the sizeable price declines in soyameal and grains and also with the generally weakening trend of soyabeans. The price break experienced for oils and fats on the world market in the second half of May and in the month of June 1998, was in my opinion not due to a change of fundamentals, but mainly a technical, temporary reaction resulting from:

- heavy fund liquidation of longs as well as
- the reserved buying policies of many importing countries, and
- concern about the repercussions of the Asian crisis on the imports and consumption of agricultural products.

It is my opinion that we have not yet seen the price peaks for oils in the current cycle. New fundamental analyses at *OIL WORLD* in Hamburg for the 17 oils and fats confirm our previous projections that the global oil supply tightness will persist for the rest of 1998 and most of 1999. After the recent price break from mid-May to mid-June 1998, vegetable oils are now undervalued and apparently becoming ready for a price recovery.

Weather conditions will be the most important price-determining factor in the next few weeks. Of particular importance will be rainfall distribution, temperature and crop prospects in the USA and Canada as well as in Europe, Russia, the Ukraine, India, China and Southeast Asia. Any major weather problems and yield losses in the oilseed growing areas of the northern hemisphere in the coming months will further complicate the already dim vegetable oil supply outlook.

Outlook for Soyabean Oil

The sharply increasing production of soyabean oil can moderate but not overcome the global supply tightness in all the oils and fats in 97/98. Soyabean supplies are ample this season at almost 172 Mn T, up by 17.5 Mn T from 96/97. The exceptional boost in production by 22.6 Mn T more than offset the very low oil-crop stocks carried over into this season in the autumn of 1997.

Booming soyabean crushings worldwide and, correspondingly, the rising soyaoil output will bring welcome relief on the supply side; Brazil and Argentina have been boosting their processing since March. This, plus increases in the USA and other countries, will raise world crushings of soyabeans to a new high of 65.4 Mn T in April/September 1998 according to current *OIL WORLD* estimates. This is up by as much as 7.0 Mn T from a year earlier and compares with a growth of 2.5 Mn T in Oct/March 97/98. World production of soyabean oil will be accelerating correspondingly.

But owing to the low oil content of just 18-19 percent, soyabeans are not the right crop to lead the market out of the oil supply tightness. In our revised forecast, we estimate the world supplies of soyabean oil to rise steeply by 1.3 Mn T from last year during April/September 1998. Although this is a record expansion, it will not be enough to offset the supply losses of other oils and fats and remove the overall global oil tightness.

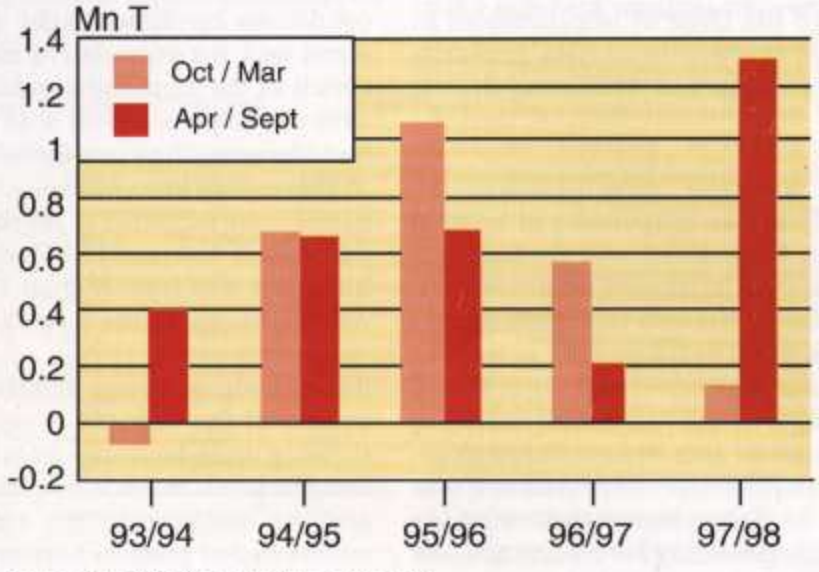
Within the soyabean complex, soyaoil prices are, in my opinion, likely to appreciate and remain the firmest member in the medium term and soyabean meal the weakest. Soyabean will be torn between the bullish oil and the bearish meal outlook. The soyaoil share of the combined product value is likely to escalate to 50-60 percent as compared to the 44 percent in mid-June 1998 (see *Figure 2*).

El Nino on a Rapid Demise

The severe *El Nino* phenomenon – which this time created unprecedented dryness and severe crop stress in many areas in Indonesia, Malaysia and the Philippines – has declined rapidly in the past few weeks.

Australia has declared the end of *El Nino*. The Southern Oscillation Index (measuring the difference in air pressure between Haiti and Port Darwin) turned from sharply negative into positive, confirming that *El Nino* is

Figure 2. **Soya Oil: Half-Yearly World Supply (Change from Year Ago)**



Source: OIL WORLD, Hamburg, June 1998.

Table 1. **Indonesia (b): Average Precipitation in % of Normal (a)**

	Indonesia (b)			Sumatra		
	1998	1997	1996	1998	1997	1996
Jan	61p	60p	87	95p	40p	117
Feb	69p	77p	103	74p	67p	77
March	68p	64p	78	80p	77p	83
April	60p	84p	99	62p	88p	105
May	100p	56p	90	101p	68p	135
June		47p	113		60p	106
July		56p	109		58p	95
Aug		34p	145		57p	154
Sept		24p	71		29p	114
Oct		33p	122		30p	69
Nov		64p	74p		61p	66p
Dec		75p	95p		73p	73p
J/Dec		59p	94p		59p	97p

(a) Average of selected stations.
(b) Includes Sumatra, Kalimantan, Java, Sulawesi and Moluccas.
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Table 2. **Malaysia: Average Precipitation (in % of normal)**

	West Malaysia			Sabah		
	1998	1997	1996	1998	1997	1996
January	96	37	115	18	69	151
February	56	132	78	15	168	161
March	52	75	115	18	49	63
April	44	112	114	25	82	144
May		49	89		75	84
June		103	118		47	117
July		75	88		133	85
August		90	148		53	86
September		57	80		52	128
October		91	108		91	106
November		93	71		84	127
December		113	109		46	145

over in the Pacific area. This is also seen behind the clearcut improvement in rainfall over Southeast Asia, primarily in Indonesia and Malaysia, during May.

The average precipitation in Sumatra was 101percent of normal during May, which was the best performance in 20 months. Moisture deficiencies in Sumatra had been unusually large, at as much as 41 percent in calendar year 1997, resulting in severe damage to the oil palm. Also, in Kalimantan and other Indonesian areas, rainfall clearly improved and was close to or above normal during May after the preceding severe drought (see *Table 1*).

In Indonesia and Malaysia, drought conditions continued right through April and the cumulative moisture deficit in the 12 months ended April 1998 was unprecedented at 46 percent for Indonesia, 43 percent for Sabah and 21 percent for West Malaysia. The oil palms were subjected to severe stress, particularly from early 1997 onward in Indonesia and from August 1997 onward in Malaysia (see *Table 2*).

It is not without irony that the major impact of the drought is only now showing up in declining yields of palm and lauric oils in Malaysia, Indonesia and the Philippines. The arrival of much-needed rains in May and June 1998 was welcome in the drought-stricken areas of Malaysia and Indonesia, benefitting palm fitness and preventing a further deterioration. It will also favour the growth and development of FFB (fresh fruit bunches) in the coming months. However, the unprecedented drought stress in many Southeast Asian palm growing areas from early 1997 until April 1998 will, with a time lag, have major repercussions and pronouncedly reduce yields per palm in 1998 and 1999.

Outlook for Palm Oil

There have been some comments in the market recently indicating that due to the end of *El Nino* and the improved rainfall in Southeast Asia since May, palm oil yields would start increasing again in five or six months from now. Such projections ignore the biological life of oil palm and the long time lags involved in the reaction of the palm to stress like the severe drought, which started in early 1997 in Malaysia and Indonesia and intensified from July 1997 until April 1998.

This is, first of all, true for the sex differentiation process, which is probably most important in the development of the oil palm, since high yields demand the differentiation of a high proportion of female inflorescences, from which the fruit bunches are developed. The drought had a negative effect on sex differentiation (viz, it caused the development of more male inflorescences) and the delayed effects of this will continue to be seen in calendar year 1999 in the smaller numbers of fruit bunches on the palms.

Secondly, the drought has increased the number of aborted female inflorescences, consequently reducing the number of fruit bunches available for harvesting in 1998.

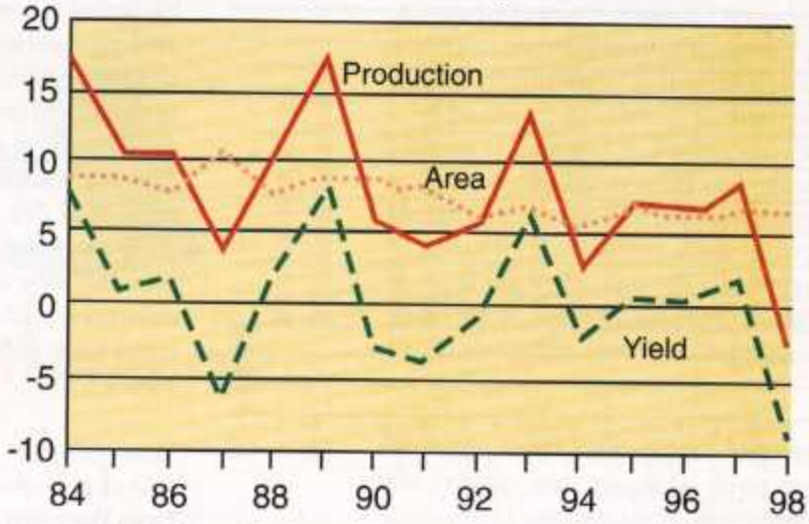
Due to the lagged expression of the severe damage by detrimental weather conditions, the world production of palm oil will turn out an estimated 1.2-1.3 Mn T below trend in Jan/December 1998. Here are the key data of the revised *OIL WORLD* projections for 1998.

In our current projection, we anticipate average palm oil yields in January/December 1998 to decline by 10 per-

cent from the most recent five-year average (1993 to 1997) in Malaysia and by 12 percent in Indonesia. Also for calendar year 1999 we continue to expect below-average yields in the two countries as a consequence of the larger proportion of male inflorescences that developed in the preceding stress period.

Unfavourably dry conditions have also damaged the productivity of oil palm in Thailand, Papua New Guinea and in Latin America (mainly Costa Rica, Ecuador and Colombia). This will result in declining yields per palm. The average world yield for palm oil is likely to fall to 3.0 T per hectare in calendar year 1998, down 9 percent from last year and down 7 percent from the five-year average 1993 to 1997, according to the *OIL WORLD* forecast of mid-June 1998 (see *Figure 3*).

Figure 3. **Palm Oil: World Area, Yield & Output (Change from Year Ago in %)**



Source: OIL WORLD, Hamburg, June 1998.

Continued area expansion will, however, cushion the decline in world production. Oil palms on about 350 thousand hectares previously planted will become mature and begin to be harvested in 1998. Out of that growth, about 53 percent will be in Indonesia, 39 percent in Malaysia (mainly Sabah) and 8 percent in the rest of the world. This brings the world mature area to an estimated 5.76 Mn hectares on average in 1998 (against 5.40 in 1997 and 5.07 in 1996), of which 2.55 Mn hectares are in Malaysia (vs. 2.52 and 2.30) and 1.74 Mn hectares in Indonesia (vs. 1.55 and 1.35).

World production of palm oil in calendar year 1998 is forecast to decline to 17.1 Mn T (according to projections made by *OIL WORLD*), a setback by 0.5 Mn T from last year. Year-to-year declines in world palm oil output have so far been very rare. During the past 30 years, yield reductions had always been offset by a rapidly rising area, with the one exception of 1983. That was the year when the oil palms in Malaysia reacted to overproduction in 1982 after the introduction of the pollinating weevil.

The year 1998 will only be the second time in more than 30 years that global production of palm oil is declining. The anticipated shortfall of 0.5 Mn T compares with an average annual growth of 0.96 Mn T in the past ten years. Production in Malaysia is likely to show an unprecedented reduction by 0.7 Mn T from last year to only 8.3 Mn T in 1998. In Indonesia, production is likely to continue to rise in 1998 due to the rapidly expanding areas. But at 5.4 Mn T it will sharply trail its potential (see *Table 3*).

Table 3. **PALM OIL: World Production (thousand tonnes)**

	1998F	1997	1996	1995	1994	1993
Africa	1348*	1337	1349	1354	1378	1380
C.&S. America	1080*	1093	1027	966	899	810
Indonesia	5400*	5150*	4540*	4220	3860	3421
Malaysia	8330*	9057	8386	7811	7222	7403
Thailand	370*	390*	375*	354	316	297
Papua/NG	278*	279*	272	223	225	223
Oth. countries	314*	300*	285*	275	266	260
World	17120	17606	16234	15203	14166	13794

Source: OIL WORLD – Hamburg, Germany. *F forecast*

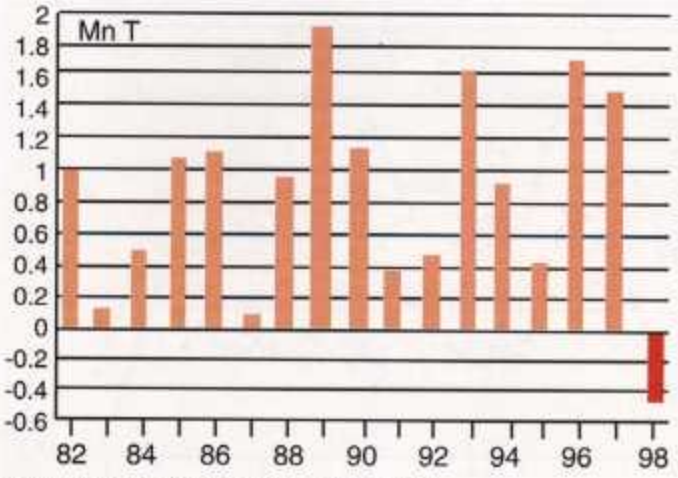
In Malaysia, palm oil yields per hectare declined very sharply in March, April and May 1998. In May they were unusually low at only an average 233 kilos in East Malaysia (down 28 percent from a year ago and 21 percent from the trend yield) and 262 kilos in West Malaysia (down 21 percent and 11 percent). Although production and yields are likely to recover in June as well as in July/September 1998, they will remain pronouncedly below last year's as well as trend yields for the rest of 1998.

For January/June 1998, we currently expect total Malaysian production of crude palm oil to drop by 0.4 Mn T or 10 percent from last year. This will keep stocks sharply below last year's level.

In the July/September 1998 quarter, there will be a seasonal recovery. Production, however, will continue to be down considerably from last year's level. This, coupled with the low stocks, will be sharply reducing total Malaysian palm oil export availabilities in the July/September 1998 quarter.

World supplies of palm oil are forecast to decline by 0.6 Mn T from last year in calendar year 1998, according to revised *OIL WORLD* forecasts (published in the *OW Weekly* dated June 19). This will be the first year ever in which they will be declining, in clear contrast to an average annual growth of 1.2 Mn T achieved in the five years ended 1997 (see *Figure 4*).

Figure 4. **Palm Oil: World Supply (Annual Change)**



Source: OIL WORLD, Hamburg, June 1998.

Outlook for 17 Oils and Fats

The tightness shaping up worldwide for the 17 major vegetable and animal oils and fats is due to shortfall in production, primarily in palm oil but also in lauric, sunflower, groundnut and olive oils. After a stagnation in January/March 1998, we at *OIL WORLD* now forecast world palm oil output to decline by 0.5 Mn T from a year earlier in April/September 1998. Also world production of rape oil will remain below earlier expectations in that period due to severe losses in India and China. World fish oil output, too, is falling sharply below previous years as Peru and Chile continue to suffer from the lack of fish caused by *El Nino*.

The steep increase in world production of soyabean oil by approximately 1.3 Mn T during April/September 1998 is almost the only bright spot shaping up for the second half of this season. But this boost will not be sufficient to prevent a sharp decline of world stocks of oils and fats this season.

World production of 17 oils and fats will rise by around 0.2 Mn T from last year during April/September 1998, according to our latest estimates. The growth in production was still quite comfortable during October/March. But in the second half of this season the reductions in palm oil, sun oil and several other oils and fats will aggravate the supply tightness.

Although there have been demand losses recently in Southeast Asia due to the economic and financial crisis, the world balance for 17 oils and fats will still be facing a considerable production deficit during April/September, enforcing a drawdown of stocks. During October/March 97/98 world consumption of all oils and fats still increased by 1.5 Mn T from last year (see *Figure 5*).

Due to the lower offtake resulting from the crisis in several Southeast Asian countries as well as a slow-down in demand of India and Pakistan, we expect the rise in world disappearance of all oils and fats to slow to 1.1 Mn T from a year earlier during April/September 1998. This is considerably less than during the past two years.

Nevertheless, it will be necessary to reduce world stocks of oils and fats by approximately 1.1-1.2 Mn T in the second half of this season.

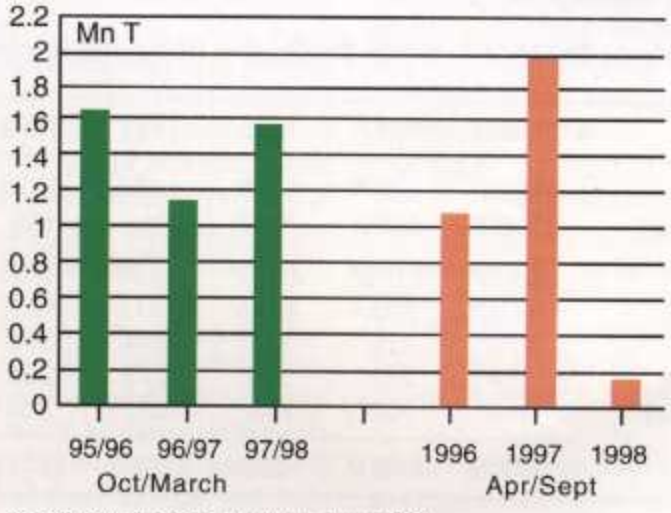
Palm oil is the most important bullish element for the outlook of oils and fats prices in the medium term. The shortfall in world palm oil supplies by 0.5 Mn T in calendar year 1998 is unprecedented. This brings the world balance of all oils and fats into a disequilibrium and enforces a significant decline of stocks. Oilseeds have difficulties in compensating the supply losses of palm oil. This is particularly true for soyabeans, due to their low oil yield.

Also for 1999 the outlook is for below-trend palm oil yields in Malaysia and Indonesia, as the palms will still produce a smaller number of fruit bunches owing to the lagged effects of the severe drought during 1997 and the first four months of 1998, which have changed the sex differentiation in favour of male inflorescences. This, in turn, will create a smaller number of fruit bunches on the palms, although there will be less abortion than a year ago, if the rainfall remains near normal in June/February 98/99. Palm oil production will therefore stay below potential throughout calendar year 1999.

The world supplies of all oils and fats will remain tight and oil stocks are unlikely to recover to more comfortable levels, before oil palm yields return to normal and world palm oil production shows the previous comfortable increases of 0.9-1.1 T per annum again. It is unlikely that this will occur in 1999.

But if moisture conditions remain favourable in the months ahead, a scenario is likely to be created which allows Malaysian, Indonesian and world palm oil production to show bumper increases in the year 2000. They could well be above average and probably increase sharply by as much as 1.3-1.6 Mn T in the year 2000, as the palms should have recovered by then.

Figure 5. **World Production of 17 Oils and Fats (Change from a Year Ago)**



Source: OIL WORLD, Hamburg, June 1998.

Research Highlights

Industrial Applications of Biosurfactants

by J. J. Thambirajah

Surfactants are amphiphilic compounds consisting of a hydrophobic and a hydrophilic domain. The presence of these two moieties within a molecule causes it to partition preferentially at the interface between fluids of different polarity and hydrogen bonding. The formation of a micellar film at the interface lowers the interfacial energy. This unique effect of surfactants finds it applications in a variety of industries using emulsifiers, detergents, wetting agents, dispensers and solubilisers (*Table 1*).

With 7.5 million tonnes of surfactants consumed worldwide in 1990, there is clearly a potential for growth in the industry. The application of biotechnology offers a new dimension for commercial development while knowledge and experience from the fermentation industry may be useful in producing specific formulations which are non toxic and environmentally friendly.

Biosurfactants

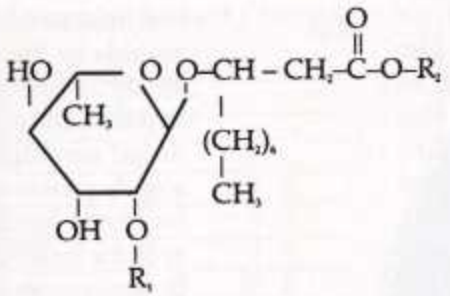
Microbial compounds which exhibit high surface activity are classified as biosurfactants. Many of these are comparable to the synthetic ones in their ability to lower interfacial tension. In addition, the diversity of naturally produced amphiphilic compounds offers a wide choice of surface active agents for use in specific applications. However, for technical or economic reasons, biosurfactants are not used extensively in industry at present. This situation is expected to change with the increasing use of biosurfactants in bioremediation and the dispersion of oil spills.

Biosurfactants are produced by bacteria, yeasts and moulds. Five major classes of biosurfactants identified are glycolipids, lipopeptides, lipopolysaccharides, substituted fatty acids and phospholipids. The most studied are two groups of glycolipids: the rhamnolipids of *Pseudomonas aeruginosa* (*Figure 1*) and the trehalose lipids of *Rhodococcus erythropolis*.

Depending on the species of microorganism, the synthesis of a biosurfactant may be growth associated, or enhanced by growth-limiting conditions or by the addition of precursors. The wide variety of biosurfactant structures indicates an equally diverse range of biosynthetic pathways. For simplicity, four main pathways are dis-

Table 1. **Industrial Applications of Biosurfactants**

Functions	Agriculture	Building and construction	Elastomers and plastics	Foods and beverages	Industrial cleaning	Leather	Metals	Paper	Paint and protective coatings	Petroleum and petrochemicals	Textiles
	Industrial users										
Emulsification	X		X	X		X	X		X	X	X
De-emulsification										X	
Wetting, spreading, penetration	X	X	X	X	X	X	X	X	X	X	X
Solubilization, solid dispersal	X		X	X						X	X
Air entrainment, foaming		X	X	X			X			X	
Defoaming				X				X			
Detergency				X	X	X		X		X	X
Antistatic			X						X		X
Corrosion inhibition					X					X	



RL 1: R_1 = L–α–Rhamnopyranosyl– R_2 = β–Hydroxydecanoic acid
RL 2: R_1 = H R_2 = β–Hydroxydecanoic acid
RL 3: R_1 = L–α–Rhamnopyranosyl– R_2 = H
RL 4: R_1 = H R_2 = H

Figure 1. **Four rhamnose lipids from *Pseudomonas* species**

tinguished based on the synthesis of the hydrophobic, the hydrophilic and a combination of these depending on chain lengths.

Physiology of Biosurfactants

The main physiological role of biosurfactants is to permit microorganisms to grow on water-immiscible substrates. By reducing the surface tension at the phase boundary, they make the substrate more readily available for uptake and metabolism. The molecular mechanisms related to the uptake of these substrates are still not clear.

The effect of biosurfactants on alkane assimilation is similar. A synergistic effect of rhamnolipids from *P. aeruginosa* and a protein-like activator on the growth of the organism and the oxidation of alkanes has been described. A peptido-glycolipid produced by a strain of *Pseudomonas* enabled the organism to grow on media containing alkanes.

Another physiological role of biosurfactants is their antimicrobial activity towards various microorganisms. As a rule, different surfactants inhibit different taxonomy. The antibiotic activity of biosurfactants produced by *Bacillus licheniformis* against yeasts, bacteria and fungi has been described. The inhibition of the growth of alkane utilising yeasts such as *Candida* and *Pichia*, by safflower lipid and lactonic sophoroside has also been reported.

Properties of Biosurfactants

The properties of biosurfactants are similar to those of synthetic surfactants. They can be described in terms of physico-chemical data such as critical micelle concentration (CMC), surface tension, interfacial tension, stability, and the type of emulsion formed. Several biosurfactants show low CMC values and reduce the surface tension of the fermentation broth to less than 30mNm^{-1}. Lipopeptides and sophorose lipids also exhibit good thermal and chemical stability. In general, the non polar glycolipids such as dicorynomycolates are soluble in hydrophobic solvents while the more polar glycolipids such as anionic trehalose tetraesters are soluble in chloroform/methanol mixtures.

Application of Biosurfactants

Increasing interest in the application of biosurfactants arises from their broad range of functional properties which include emulsification, de-emulsification, corrosion-inhibition and viscosity reduction. Industrial applications where chemical surfactants can be replaced by biosurfactants include agriculture, food and beverage, industrial cleaning, textile, cosmetic, pharmaceutical and petroleum industries.

Surfactants from renewable feedstock may have a role to play in supplying industry with its needs in the future.

Biosurfactants are technically important as they expand the range of available surfactants and exhibit surface-active properties differing from those of synthetic surfactants. As petroleum resources are being constantly depleted, surfactants from renewable feedstock may have a role to play in supplying industry with its needs in the future. Biosurfactants may be produced from carbohydrates, fatty acids and agricultural by-products. Being biodegradable, biosurfactants also reduce the potential for toxicity and pollution of the environment.

In the food industry, surface active compounds are used as emulsifiers in food additives for the processing of raw materials such as flavour oils. Emulsification plays an important role in producing the right consistency and texture as well as in phase dispersion, particularly in dairy products.

In agriculture, surface active compounds are used for hydrophilisation of heavy soils to obtain good wettability and to achieve even distribution of fertilisers in the soil. They also prevent the caking of certain fertilisers during storage and promote wetting, spreading and penetration of the toxicants in pesticides.

Surface active agents, used widely in household cleaning products and detergents, form one of the most important constituents. Thus, the optimum choice of surfactants is important to ensure satisfactory performance, cost-effectiveness and environment safety.

The most widely used anionic surfactant in detergents consists of linear alkylbenzene sulphonates (LAS). Recently, sulphonated methyl esters (SME), a new class of anionic surfactants derived from palm oil have received attention as active ingredients for the production of washing and cleaning products.

While the production of surface active agents by microorganisms has been recognised for a long time, a systematic characterisation of such products has been slow to emerge. Interest in microbial surfactants has increased considerably in recent years, especially because of their potential application in enhanced oil recovery. The palm oil industry is in a position to make a significant contribution to the production of surfactants which would ultimately be high value-added materials.

Egypt - Scope for Expanding Utilisation of Palm Oil in Specific Areas

The prospects for sustaining the market for palm oil in Egypt are bright. Scope also exists for expanding palm oil's utilisation in specific areas. Market consolidation and development will be facilitated by ensuring the quality of palm products delivered to Egyptian importers and users.

Egypt's production of oils and fats, comprising mainly cottonseed oil and butter, is estimated at 186,000 tonnes per year. With a population of 59 million consuming one million tonnes of oils and fats per year, Egypt only meets about 17 percent of its requirements. To meet the shortfall, the bulk of its requirements has to be met by imports varying between 700,000-900,000 tonnes per year.

Palm oil is the largest oil imported into the country. In 1997, Egypt imported about 347,000 tonnes of palm oil and palm oil-based products. Egypt also ranks as the largest importer of palm oil among the African and Middle Eastern countries. *Table 1* shows the import of the major oils and fats into Egypt.

Prior to 1985, the dominant player in Egypt's oils and fats industry was the public sector-based Food Industries Holding Co. (FIHC). The emergence of Misr Gulf Oil Processing Company (MIGOP) in the mid-1980s and other companies in the private sector changed the structure of the market. Although FIHC still plays a major role, the private sector's market share has expanded. While FIHC has a 60 percent share of total oils and fats imports, the private sector has a 61 percent share of palm product imports.

The main palm products imported into Egypt are palm oil, palm stearin, palm olein and some palm kernel oil and products. Palm stearin and palm oil, the main palm products imported by the public sector go into soap production and ghee manufacture respectively. More recently, palm kernel oil and its fractions are utilised in the production of cocoa butter substitute.

Palm oil products have gained wide acceptance in Egypt. Besides ghee and shortening, some quantities of palm olein are also marketed as liquid cooking oil in blends with corn oil or sunflower oil. Palm olein is also used in industrial scale frying of potato chips. Palm shortening is used by Kentucky Fried Chicken for frying purposes.

Palm oil is the largest oil imported into Egypt. The country also ranks as the largest importer of palm oil among the African and Middle Eastern countries.

The prospects for sustaining the market for palm oil in Egypt are bright. Scope also exists for expanding palm oil's utilisation in specific areas such as institutional frying. Market consolidation and development will be facilitated by ensuring the quality of palm products delivered to Egyptian importers and users.

PORIM will continue to provide technical advisory service to the Egyptian oils and fats industry and keep it updated through regular contact and distribution of publications.

Table 1
Imports of Major Oils and Fats into Egypt (thousand tonnes)

Oils/Fats	1992	1994	1996
Palm	339	390	380
Sunflowerseed	220	135	234
Soyabean	0.1	65	106
Cottonseed	119	73	10
Palm kernel	8	13	29
Coconut	7	11	3
Butter	41	46	43
Tallow	58	36	32

This article is based on a PORIM report by Iftikhar Ahmad

In Brief

Date palm under siege from weevil

Saudi Arabia is under attack from the red palm weevil or *Rhynchophorus ferrugineus*. According to a report in *The Economist*, the infestation has already reached 10,000 farms and is now threatening to devastate 25 million date palms, one of the country's greatest treasures. Chemical pesticides have failed to control the spread of the weevil.

The date palm, often referred to as the fruit of life, is one of few trees that can thrive in the hot, arid climate of the Gulf. The impending catastrophe has prompted governments of the region to launch a five-year international programme, financed by the Jeddah-based Islamic Development Bank, to fight the disease. The programme aims to attack the weevil with its natural enemy, a parasite nematode.

The weevils attack the palm trees by laying eggs in wounded parts, like where they have been pruned recently. When the larvae hatch they bore a vast system of tunnels inside the trunk where they are protected from outside attack. As the tree dies after weakening gradually, the weevils move onto another tree.

The parasite on which hopes now lie is a minute nematode worm of great virulence. Injected into infested palms they will search out the weevils, enter their bodies and release a deadly bacterium which will kill them within a few days. As the strategy to date has only been tested in laboratories, the weevils continue unhindered.

This is unfortunate. With the region's rapid population growth, many farmers have felt encouraged to start recultivation of old abandoned farms which are full of weevils.

Contributed by T.P. Pantzaris and B.A. Elias

The end of the bushel

While just about the whole world has gone metric, units such as the pound and bushel remain supreme in the USA. But for how long?

The Chicago Board of Trade (CBOT) has announced that with effect from 1998, prices for soyabeans, wheat and corn will be quoted in dollars per contract rather than in bushels. The announcement brings to an end a practice which goes back more than 100 years. Its implementation followed overwhelming approval by CBOT members who voted on it last July.

A CBOT contract is for 5,000 bushels and this remains unchanged.

Contributed by T.P. Pantzaris and B.A. Elias

Producing animal feed with palm fronds

The Malaysian Agricultural and Research Development Institute (MARDI) expects to start commercial production of animal feed using oil palm fronds by June 1998.

MARDI director general Datuk Dr Md Sharif Ahmad said he was confident of the feed fetching a high price in the export market. MARDI had already received orders from several countries including Japan and South Korea following its involvement in the venture in February. MARDI expects to focus on the Middle East market.

EU Oilseeds in Doubt

A debate is raging in the European Union (EU) on whether its oilseeds' production will survive if proposals known as "Agenda 2000 CAP Reforms" are implemented. Advocated by the United Kingdom, the reforms would gradually reduce "area aid" payments to farmers to only 30 percent of their present level.

Some economists predict the complete demise of oilseeds' production in the EU. Others anticipate little effect as prices of oilseeds are expected to rise with increasing demand from developing countries. Also, with the anticipated fall in cereal prices, farmers will be forced to stay with oilseeds. Agenda 2000 proposals also face a strong possibility of being diluted at the next round of GATT meetings.

Contributed by T.P. Pantzaris and B.A. Elias

Malaysian company to develop oil palm plantation in India

Malaysian company Kumpulan Emas Bhd (KEB) will enter into a joint-venture with an Indian firm to develop an oil palm plantation in the southern Indian State of Andhra Pradesh. KEB will have a 60.75 percent equity in the venture amounting to RM21 million. The joint-venture company is Palm Tech India Ltd of Secundarabad.

For more information, please contact:

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Announcement

During the last 150 years, the world has witnessed the transformation of palm oil from a virtual unknown to the number one traded oils and fats. Palm oil is now recognised as the most reliable and cost effective solution to meet the growing global need for oils and fats. Much efforts are being taken to continuously improve and enhance the competitive performance of palm oil. The Congress has, since its inception in 1984, developed into a major world forum for the oil palm/palm oil industry to meet and discuss developments in the palm oil business.

The 1999 PIPOC will highlight the various achievements in palm oil research and development and other facets of the industry in the South East Asia region and around the world. This Congress will promote a greater awareness in new emerging technologies and opportunities they offer in the world's oil and fats industry. Held in conjunction with the 20th anniversary of PORIM and 150 years of oil palm in South East Asia, 1999 PIPOC promises to be the world's biggest palm oil meeting ever.

Objectives

- To discuss demand driven and strategic research and development (R&D) in all facets of the palm oil industry,
- To enhance technology promotion and commercialisation,
- To explore and assess emerging technologies and business opportunities.

Target Audience

1999 PIPOC is designed for those involved in oils and fats including R&D personnel, scientists, planters, millers, traders, processors, manufacturers, economists, policy makers, academicians, etc. The Congress will be especially useful for networking with your peers in the oil palm industry while exchanging views and sharing new ideas.

Call For Papers

Papers are invited for presentation at the Congress. Please note the following deadlines:

Submission of abstracts	:	1 July 1998
Notification of acceptance	:	1 August 1998
Submission of manuscripts	:	1 October 1998

Field Tour

Tours to selected plantations, mills, refineries and other establishments would be organised for participants on Monday, 1 February 1999, with a nominal fee.

Enquiries

Write, fax or e-mail your enquiries to:

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