President's Review: International Association of Seed Crushers ¹

J.E.Th.M. Randag, President, International Association of Seed Crushers, No. 1 Watergate, London E.C. 4

In welcoming you all to our 48th Congress I take great comfort in the thought that Denmark has been described as an oasis of tolerant amiability in a troubled world, and I hope that you will be one to me during my first Congress as your President.

We last met here 19 years ago and our industry has changed quite dramatically since then, a change that can be largely summed up in one word, soybeans. In 1952 oilseeds crushed throughout the world amounted to 39 million tons. In 1970 this figure had risen to a little over 84 million tons and of this increase of 45 million tons, soybeans alone accounted for 30 million tons and they now constitute almost half of the world's crush of oilseeds. This predominant position is reflected even more dramati-

¹Presented at the Annual Congress of the International Association of Seed Crushers, Copenhagen, June 1971.

cally on world export markets. In 1952 soybeans formed 20% of all oilseed exports but by 1970 their share was 71% of a total oilseed trade of 17.6 million tons.

This change in the pattern of world oilseed production has been reflected in three aspects. Firstly, our industry is very much larger. Secondly, extraction rather than expelling has become the dominant process and the availability of a single oilseed in large quantities has increasingly allowed our industry to take advantage of the economies of scale. In 1952 we would have thought a reasonably sized mill was one with an annual throughput of about 150,000 tons. Today we have mills approaching an annual capacity of a million tons. Increases in facilities to handle our seeds have been and will continue to be necessary although it is important that our capacities should not move too far ahead of available supplies and

demand if reasonable margins are to be earned over the long term. The third aspect of our industry which

has changed as soybeans have become more dominant is that the oilcake and meal market has assumed a greater importance in our operations. Not only has a high meal yielding seed come to predominate in the throughput of our mills but, because of the dynamic growth in meal demand, the long term tendency has been for meal prices to rise both absolutely and in relation to oil prices. As a result of these factors meal now constitutes some 45% of the value of imported oilseeds crushed compared with only 25% at the time of the last Copenhagen Congress.

The World Protein Situation

This season the world production of all vegetable oilcakes and meals and fish meal will rise to over 65 million tons expressed in terms of soymeal equivalent, an increase of 6%. This is little more than half the rate of increase of last season when demand was particularly good. In both the U.S. and Western Europe 1970 saw rising livestock prices and an increase in profitability in the livestock industries. As a result this provided a spur to the further development of intensive feeding. Indeed meal de-mand was sufficiently buoyant that the additional production of soy meal, some 6 million tons, was not only fully absorbed but prices were also slightly

Lately we have seen the opposite tendency. Demand for protein has lessened with the decline in livestock profitability. In the U.S., for example, rising cereal prices, partly the result of the corn blight, occurred as live-stock prices declined. Hog prices in particular declined with the increase in numbers to reach a level which was little more than a half of the high point reached in February 1970. With protein demand stagnating, sharp falls have occurred in the prices of some oilcakes with soy meal prices also moving down but in a less dramatic manner.

This short term situation should not



however cause us to forget the long term dynamic nature of protein demand which has been evident in the past, and the certainty that future demand for protein will continue to grow rapidly. Over the last eight years world oilcake protein supplies have expanded by no less than 54%, a growth rate averaging about 51/2% per year. During this period it far outpaced the growth in world production of edible type oils which grew at an annual rate of only 3½%. Demand was therefore perceptibly stronger for protein than for oil. Such a divergence in their respective growth rates can only resul tin a sizeable change over time in the mix of oilseeds processed. In this case the major shift lies in the increasing share in world production and trade of soybeans.

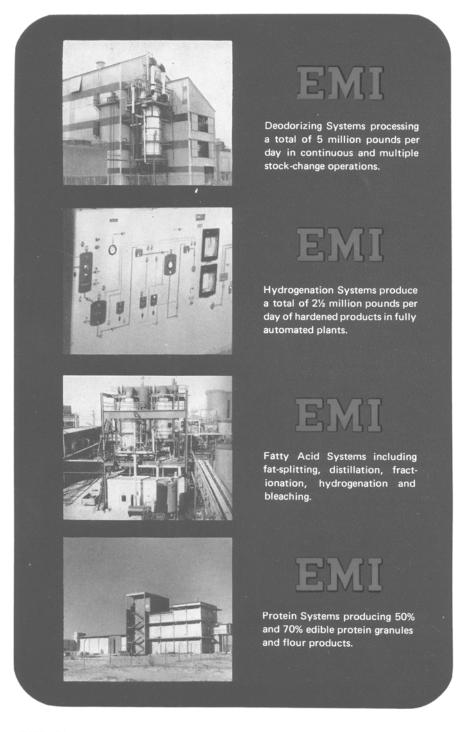
Soy meal is well endowed with amino acids and of the major meals only fish meal and to a lesser extent peanut meal have a higher protein content. Although world production of soy oil, at 7½ million tons, represents the largest single source of edible oils, its position in the world oils and fats economy does not match the pre-eminence now achieved by soy meal in the protein sector. Soybeans are therefore an oilseed highly geared to the needs and conditions of the feedstuffs industry. They are ideally suited to a situation of more rapid growth in demand for protein than fat.

Soybeans represent the only oilseed where increasing protein demand will have a real effect in stimulating a greater future supply of meal from an expansion in the crop. This is not so in the case of fish meal supplies which are becoming increasingly circumscribed by the availability of fish. Certainly world fish meal production grew rapidly in the 1960's; it is now some 75% higher than the level prevailing in 1963. Yet this expansion was concentrated in the earlier years for we have seen very little growth since the 1967-1968 season. This is largely due to an awareness of the danyers of overfishing which would reduce the future potential of the industry.

Cottonseed is a byproduct pure and simple; growth in cottonseed meal has averaged less than 3% per year over the past eight years, and there can hardly be good grounds for anticipating any increase in this growth rate in future given the competition which cotton faces from man-made fibres.

In the case of peanut meal, production has risen only marginally in recent years; the peak of 1967-1968 has not been regained and world exports have declined. This year a 20% increase in the Indian peanut crop has been offset by extremely poor results elsewhere. The failure in West Africa to achieve an increase in production is a serious problem, particularly in Senegal. European dependence on peanut meal has been

(Continued on page 385A)



EMI Plants and Systems are available on a turnkey firm-price basis with full guarantees of capacity and product specifications.

Additional items available from EMI include Solvent Extraction Plants, Fish Protein Concentrate Plants, and Systems for Oil Refining, Bleaching, Winterizing, Solvent Recovery, Flash Desolventizing and Dehulling.



ENGINEERING MANAGEMENT INCORPORATED 3166 DES PLAINES AVENUE DES PLAINES, ILLINOIS 60018

Telephone: 312 - 827-3164

• President's Review: International Association of Seed Crushers . . .

(Continued from page 369A)

reduced significantly in recent years, but groundnuts are not grown primarily for meal but for the oil. It is also the oil demand which is particularly relevant to the growing of rapeseed and sunflowerseed. Meal supplies from these crops expanded greatly through the 1960's although together they still account for little more than 10% of total meal supplies.

In these circumstances it is clear that not only will the impact of the future rising meal demand be reflected largely in a continuing stimulus to further expansion in the soybean crop but also that soy meal will continue to play a crucial role in meeting world protein requirements. Indeed supplies of soy meal will be required to expand more rapidly than total protein demand to compensate for deficits left by other oilseed meals. The alternative would be an acute protein shortage retarding the development of livestock and poultry industries in the world and in the developing countries where protein needs are the greatest. This underlines the enormous importance of continuing increases in soybean production. Given this need it would be unfortunate if developed countries were to impose import levies on soy meal; the constraint this would impose on the size of the market would undoubtedly inhibit expansion in soybean production and with it the scope for satisfying the protein needs of the world.

It is true that considerable attention is being given to the production of synthetic proteins based on petroleum, and pilot plants are in operation in Europe but there still remain technical and economic problems and, as with urea, one of the greatest difficulties will doubtless be consumer resistance. My guess is that the potential growth in world protein demand indicates, for example, that a U.S. soybean crop of not far short of the 2 billion bushel mark will be required by 1980. I personally have little doubt about the long term potential for protein demand and the major contribution to satisfying it which will come from soybeans. Although there will undoubtedly continue to be year to year fluctuations, these long term prospects augur well for the future of the processing industry.

The World Oils and Fats Market

Turning to the oils and fats market, it is perhaps surprising to note that this year is the second in which there has been a substantial increase in the world's production of oils and fats. Indeed the increases this year and last year were each in excess of one million tons. I say surprising because this has also been a year in which prices have moved to even higher levels.

In the Presidential Review of last year it was possible to describe the market situation as one of unusual shortage. By February of this year I think the term 'critical shortage' would probably have been more appropriate. At that time the over-all level of oils and fats prices on world markets was 15% higher than when we last met in London and as much as 63% higher than the low level which coincided with our Congress in Washington in 1968. In two and one half years oils and fats prices moved from a postwar low to a position approximating a postwar high. Given such price fluctuations I find it difficult to envisage how one could determine a level of 'normal' prices for oils and fats or indeed whether such a concept is at all meaningful. This is a concept which has in the past been prominent in Organization for European Economic Cooperation (EEC) circles although it now appears to be viewed with less enthusiasm. I regard this as a desirable shift in opinion. The EEC is an important part of the world oils and fats market and its actions will invariably have wide ranging ramifications.

I feel fairly certain that the reconcilation of high prices and high production increases to which I have referred does

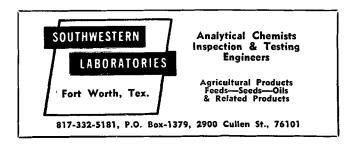
not lie in any unprecedented expansion in world fat consumption nor to any real extent in rising freight rates and the accelerating pace of world inflation. The root cause of the rising prices lies in the failure of world production to increase at all back in the 1968–1969 season. Since world consumption requirements rise from year to year, if only because of larger populations, it is clear that back in 1968–1969 world production must have been well short of actual consumption and that therefore considerable withdrawals from stocks had to take place. Since then even the sizeable increases which have occurred have failed to bring oils and fats production in the world up to prevailing consumption levels. The result has been a continuing and serious depletion of stocks throughout the world and, inevitably, higher prices.

If nothing else these past two years have certainly demonstrated the crucial role of the soybean on world markets from an oil as well as a meal point of view. While it is true that world oils and fats production over these two years showed a substantial increase of 2.5 million tons, we should remember that half of this increase, 1.25 million tons, was entirely attributable to the reduction in U.S. soybean stocks. It seems odd to reflect that no more than two years ago it was not unusual to hear references to the surplus soybean situation. But with U.S. bean stocks now being reduced, the concern is that supplies are barely adequate and this has pointed to the need for a major increase in the acreage for the 1971 crop.

The importance of U.S. soybean supplies lies not only in its predominance on world markets but also because this predominance imposes on the U.S. the position of being the residual and flexible supplier of oil to world markets. The production of other oils varies from year to year largely for reasons outside our control; there may be poor or good fishing seasons, there may or may not be typhoons in the Philippines and there may or may not be widespread bad weather in other producing areas. However the over-all effect tends to be for the adjustment of supplies to requirements to be brought about by a greater or lesser call on U.S. soybeans. The dramatic increase in the utiliza-tion of soy oil of the past two years as supplies of other oils became scare contrasts with the marginal growth in the utilization of soy oil in the earlier years when there were substantial supplies of other oils. Although perhaps an onerous responsibility, this would suggest that over time the smooth operation of the oils and fats market does require an adequate cushion of U.S. soybean stocks. With the wisdom of hindsight we may have been premature in regarding the 1969 stocks of 324 million bushels as being a surplus situation.

In the rest of the world I would highlight three significant events this year. Firstly, the acute shortage of peanut oil—a shortage which resulted from the exceptionally low crops in West Africa. The last time Nigeria harvested a crop as low as this year's 350,000–400,000 tons was some 20 years ago. In Senegal a crop as low as 450,000 tons was last harvested 16 years ago. The result has been exceptionally high peanut oil prices both absolutely and in relation to other oil prices.

In the past attention in many circles has probably been concentrated too much on price levels with some neglect of the importance of changes in volume when considering



the fortunes of producing countries. Such low crops although producing high world prices must have imposed considerable strains on the economies of the peanut regions in Nigeria and Senegal. Moreover there must in particular have been adverse repercussions on their seedcrushing industries given the sharp drop in seed supplies in relation to available capacity. Unlike Western Europe the scope for turning to alternative oilseeds is much more restricted. The measures now being taken in these countries to achieve a recovery in the production of peanuts are clearly very necessary. The great danger in even quite short periods of high prices is that markets become permanently lost because of the introduction of substitute products. For example peanut oil in France accounted for more than 80% of their liquid oil consumption in the past but in 1970 it was hardly more than 50%. In the U.K. the last three years has seen the share of peanut oil fall from 47% to 26%.

The second main feature of the market this year has been the continued and more severe shortage of sunflower oil. World export supplies have now fallen by one third from the level of two or three years ago when supplies from current production were being supplemented by major stock reductions. Added significance is now given in variations in the supplies of sunflower oil because it is the major oil demanded for polyunsaturated fat products which are becoming of more importance in the sophisticated consumer markets. Indeed it is interesting to note that at the last meeting of the Food and Agricultural Organization of United Nations (FAO) Study Group on Oils and Fats, some developing countries expressed on interest in the wider cultivation of sunflowerseed because of its favorable demand prospects. While it has long been recognized that meal demand generates a strong stimulus to the growing of soybeans, it may be that sunflowerseed will provide a first example in which the increased cultivation of an oilseed has been stimulated because of the demand for a particular type of oil.

Finally we should note the remarkable expansion in the Canadian rapeseed crop. To judge from declared planting intentions the crop this year seems likely to exceed 2 million tons. Only three years ago the crop was only 440,000 tons. With the additional growth in rapeseed production in the EEC, rapeseed is now second only in importance to soybeans to the crushing industry of Western Europe.

In broad terms this year has seen a further stage in the long term change in the pattern of seed crushing in which the developed countries in the world increasingly rely on supplies of soybeans and rapeseed while other oilseeds are increasingly processed in the developing countries which produce them. With the processing of oilseeds becoming more important in these countries, we would welcome more developing countries becoming members of our Association and participating in our work. I feel this to be of importance for those countries which must find outlets for their products on world markets.

An interesting corollary of the predominance of soybeans and rapeseed in Western Europe is that it has become a net exporter of soybean and rapeseed oils. Last year the net exports of the Western Continental countries of soy and rape oil totaled 170,000 tons against a net import 10 years ago of 180,000 tons, a swing of 350,000 tons. A further expansion in this trade is currently occurring as more markets are becoming open to non-U.S. oil supplies.

The past year in many countries has not been unsatisfactory from a crushers' point of view although margins, on balance, will have fallen back from the unusually excellent

HAHN LABORATORIES

Consulting and Analytical Chemists

1111 Flora St. P.O. Box 1177 Columbia, S.C. 29202

levels reached in the 1969–1970 season. It was never to be expected that such high margins resulting from a combination in one year of a strong demand for both oil and meal and a lack of sufficient capacity to meet these demands would become an established norm. Undoubtedly, however, there will have been varying experiences between countries and between crushers according to a whole range of factors. I have already mentioned the difficulties of crushers in Nigeria and Senegal because of the very much reduced peanut supplies. Those importers interested in the supply of copra and palm kernels will have found supplies much reduced. For example, compared with the 1966 peak in Philippine copra exports of 920,000 tons, exports in 1970 were only 420,000 tons. This was even some 250,000 tons less than was exported in 1952. The expansion in the domestic crush of copra is one reason for this which has been reflected in a growth in oil exports from the Philippines from 81,000 tons in 1952 to 377,000 tons in 1970.

The development of non-seed oil supplies also has repercussions on our markets. We recall the intensive competitive pressure from fish oil in the years 1962, 1967 and 1968, but this has eased over the past two years as world production of fish oil has stabilized at a somewhat lower level. The awareness of the dangers of overfishing suggests that no real long term increase in fish oil supplies is in prospect. This is in contrast to the substantial increase in competition from palm oil which we foresee in the coming years. Historically world exports of palm oil fluctuated around 550,000 tons; they have already risen to over 700,000 tons and seem certain to exceed 1.5 million tons during the course of the 1970's. We should not forget that olive oil is also relevant to the market for seed oils. Olive oil production often varies quite markedly from year to year and although the producing countries have increasingly smoothed out these fluctuations by varying their stock levels, they nevertheless result in year to year variations in the demand for seed oils.

The Industry's Environment

The developments in the markets for oilseeds, oilcakes and oils are those which are of immediate and direct concern to our industry. However the political and economic environment within which we operate, both at the national and international level, is also of great importance.

Last year it was disturbing to see the dangers increasing of a trade war developing between the major trading nations of the world. Attention in the world became focused on the passage of the Mills Bill through the U.S. Congress. This was first introduced in relation to imports of textiles and footwear from Japan but the form of the Bill was such that it would have had adverse repercussions on the trade of other nations. It induced threats of retaliation from Europe and raised the spectre of an escalating series of trade restrictions on a widening range of products. High on the list of candidates for retaliation were U.S. soybeans and soy products with the suggestion that the EEC might impose levies on these items. These were obvious candidates because of their importance in U.S. trade with shipments of soybeans and products to the EEC and Japan alone being valued at \$924 million or 13% of all U.S. exports of agricultural commodities. It is fortunate from all points of view that ultimately the Bill could not be passed within the constraints set by the Congressional timetable.

It is somewhat ironic that original EEC proposals for levies on oils and fats had to be reappraised in light of strong U.S. opposition and potential retaliation, but later such levies threatened to become the instruments of retaliation against protective measures initiated by the U.S. The dangers still exist that such proposals will be resurrected either on the part of the U.S. or the EEC. It is to be hoped, however, that they remain suitably buried. Now that we can expect with confidence that the U.K. as well as the other candidate countries will become members of

(Continued on page 397A)

Fats and Oils World Summary Metric Tons (000)s (in Terms of Oil or Fat)

(Continued from page 386A)

the EEC in the near future, there is even more reason for these proposals to remain buried. The whole postwar period has seen a gradual liberalization of world trade with some major reductions in tariff barriers. Last year a further step was taken in a complex agreement by the developed countries for a generalized preference system for developing countries which is expected to be introduced in the near future. It would be unfortunate if a retrograde step in this long process of trade liberalization should now occur. We must always welcome measures which contribute to the expansion of the trade of developing countries and to their efforts to achieve a more rapid rate of economic development.

The environmental conditions of our industry were often discussed in the recent past, in both EEC and in international bodies, in terms of various schemes such as those for levies on oils and fats and the establishment of 'normal' prices within international commodity agreements. Some of the political pressure towards these ends has subsided, at least for the time being. Had such proposals come into effect they would have seemed singularly inappropriate in today's market conditions. Permanent and costly distortions to the framework in which our markets operate would have been set up in response to a relatively temporary situation.

Other environmental factors are at present the various outbreaks of labor disputes. Supplies to the United Kingdom and the Continent last year were disturbed for a time by dock strikes and a potentially more disruptive dock strike for our industry is looming in the U.S. The accelerating pace of world inflation has also made its contribution to an upward movement in freight rates.

In the longer term the industrial structure of the EEC will also be influenced in line with the Commissions's ideas on an EEC industrial policy. The report of the European Commission of March 1970 was a 350 page document setting out these ideas for discussion at all levels. At a general level I think it is important that in the development of an industrial policy the emphasis is toward the creation of a competitive climate for industry rather than toward Government interference. Moreover while one would clearly welcome moves aimed at strengthening the industrial structure of the EEC, the aim should be an open policy which does not discriminate against non-EEC enterprises and, in particular, it should not create the impression of developing an anti-U.S. bias. In this direction lie all the dangers of protectionism and retaliatory measures.

In this connection I was particularly interested to read a statement recently made by Professor Dahrendorf, a member of the EEC commission, before the last Congress of the International Chamber of Commerce in Vienna. He pointed out that much effort had been devoted in past years to setting up formal international mechanisms to cope with crises where there were dangers that military conflicts would develop. The experiences of the past 12 months, however, emphasize that international economic relations could be just as important and just as fragile. Professor Dahrendorf suggested that it would therefore be useful to develop as soon as possible an international mechanism of consultation and arbitration in the field of trade which would help to avoid an escalation of disputes in the field of international economic relations. In our own particular sector of industry we are aware of the advantages of such international consultation in trade matters; it is indeed manifest in the existence of this Association.

	1967	1968	1969	1970
World Supply				
Production	39,065	40.095	39,935	41,910
Population (millions)	3,420	3,483	3,549	3,616
Per Caput—Kg.	11.4	11.5	11.3	11.6
World Exports a	10,742	11,179	10,973	11.934
U.S.A.	3,120	3,252	3,307	4,404
U.S. Donations	102	72	66	60
Other America	1,311	1.236	1,242	1,590
Africa	1,611	1,763	1,610	1,476
Asia	1,672	1,930	1,710	1,712
Oceania	594	582	673	646
Europe—West	994	900	993	1,011
East/U.S.S.R.	1,085	1.225	1,161	825
Whale/Sperm Oil	253	219	211	210
World Imports a,b	10,584	10.784	11,135	11,688
Europe—West	5,624	5,676	5,819	6,026
East/U.S.S.R.	473	436	409	502
U.S.A.	$\hat{571}$	595	597	575
Other America	871	999	1,018	1,062
Africa	610	642	678	697
Asia-Middle East	362	389	404	404
Far East	1,996	1.955	$2,\overline{1}2\overline{2}$	2,331
Oceania	77	92	88	2,331

^a Difference between recorded world exports and recorded world imports is due to shipping lags, normal wastage and changes in Rotterdam transit stocks.

^b Includes imports of U.S. donations by recipient countries.

Summary of World Exports Metric Tons (000)s (in Terms of Oil or Fat)

Commodities	1967	1968	1969	1970
Copra and Coconut Oil	1,177	1,250	1,050	1,089
Palm Kernel	296	301	314	322
Palm Oil	500	645	714	726
Groundnut	1,074	1,101	885	821
Soya Bean (a)	1,988	2,013	2,094	2,957
Cottonseed (a)	158	185	239	285
Sunflower	861	943	893	732
Rapeseed	387	416	413	490
Olive	189	140	219	236
Linseed	427	327	407	432
Castor	169	230	259	233
All Other Vegetable Oils	340	355	377	371
Butter (Fat Content) and			٠	0.1
Butter Oil (a)	570	559	548	620
Lard	303	332	356	349
Tallow	1.400	1,428	1.367	1.516
Whale Oil (including Sperm)	253	219	211	210
Fish Oils (including Liver)	650	735	627	545
Grand Total	10,742	11,179	10,973	11,934

Statistics Prepared for Congress

J.E. Th.M. Randag, whose introductory address is printed in this issue, was re-elected president of the International Association of Seed Crushers. The three vice presidents elected were J. Jauffret, J.W. Hogan and Y. Sakaguchi. N.D. Howard was re-elected secretary.

The following statistics on World Fats and Oils for 1967–1970 were prepared by Unilever Ltd. for the 48th Congress of the Association.

The next congress will take place in Kyoto, Japan, from May 24 to 26, 1972.

Chemical Exposition to Show Patterns of Growth in '72

Forecasts of the 33rd Exposition of Chemical Industries indicate that the forthcoming display will outline the prospect for continuing growth in all fields of chemical influence in 1972. A heavier-than-usual ground swell of ideas and innovations is reflected in news of new equipment and improved design to be disclosed at the Exposition in the New York Coliseum November 29 to December 3.

In scope, the Exposition treats of the recovery, refining and application of all sorts of natural materials, as well as the equipment required for various stages of treatment. Included will be equipment for proportioning, grinding, mixing, refining, separating, heat or chemical treatment and many other operations. Instruments for research and development will be shown, also a variety of instruments for production control.