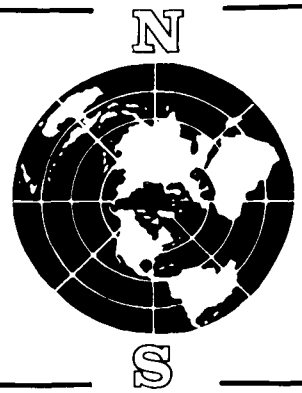
Four Corners



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G. JACINI, A. LETAN, H.K. MANGOLD, L. MASSON, B. OSTRIĆ-MATIJAŠEVIĆ, J. POKORNÝ, A. UZZAN, Corresponding Secretaries

Chile . . . . . L. Masson

Research in Fatty Acid Composition of Vegetable and Animal Fats

Under the direction of Prof. Lilia Masson and Prof. Maria Angelica Mella, Chile has continued the research program in fatty acid composition of vegetable and animal fats at the Department of Food Science and Technology, Faculty of Chemical Science, North Campus, University of Chile, Santiago. The oil content and fatty acid composition of different seeds have been analyzed. Among the seeds studied have been peach seed, *Prunus persica*, raspberry seed, *Rubus idaeus* L., watermelon seed, *Cucumis melo* L., pumpkin seed, *Cucurbita pepo*, cidra cayote, mosqueta rose, and others. The oil content was 16-44%, the highest value being found in pumpkin seed. Palmitic acid, estearic acid, oleic acid, linoleic acid, and linolenic acid comprised the fatty acid composition. The highest value of linoleic acid was found in raspberry seed oil, and cidra cayote seed oil contained ca. 56% linolenic acid. However, linolenic acid was not present in all the seeds analyzed.

A survey to determine the fatty acid composition of commercial butter, margarines, shortenings, and lard found in the market of Santiago, Chile, was conducted during the first semester of 1973. As a result of this survey, the minimum and maximum unsaturation percentage was as follows: margarines 57% (min), 78% (max), shortenings, 48% (min), 87% (max), lard, 56% (min), 61% (max), and butter, 33% (min), 52% (max). The wide range of unsaturation in margarines and shortenings was explained by the difference in raw materials used in the hydrogenation process to prepare them. Through the presence of characteristic fatty acids such as lauric, palmitoleic, linoleic, and erucic acid, it was possible to identify the presence of coconut oil, marine oil, soybean oil, rapeseed oil, and others as the main components of the different commercial margarines.

Czechoslovakia . . . . . J. Pokorný

Meeting on Edible Fats and Oils

Czechoslovak fat and oil chemists met in Dobrichovice, near Prague, on May 6-7, 1975. The papers presented in the Technological Section discussed new developments of the following processes in the Czechoslovak industry: raw materials, e.g., growing of zero erucic acid rapeseed (J. Janecek); extraction (Uhlir); deodorization (Klozar); winterization of sunflower seed oil (Prikryl, et al.); and production of soybean protein (List, Prikryl).

A most interesting paper of the Section of Emulsified Fats was concerned with the rheological properties of soft margarines (Cmolik, Stern). Other papers discussed the manufacture of low energy emulsified fats and microbiology of margarines.

The reviewing paper in the Section of Fat Chemistry discussed a method of evaluation of the importance of various research projects in lipid chemistry (J. Pokorny). A group of papers was presented on phospholipids. Ranny and Cerny reported on their results concerning the production and application of synthetic phosphatides. The mechanism of oxidation of phospholipids and the separation of products were reported by Tai, et al. L. Jiraskova discussed procedures for the gas liquid chromatographic (GLC) analysis of fatty acid composition of phospholipids.

Various methods of carbonyl determination in oxidized lipids were compared by J. Jirousova, and a new modification of the p-anisidine value was compared with the IUPAC procedure. A rapid GLC analysis of distilled monoglycerides was investigated by Svoboda and Mares. Among other interesting papers, the study by Havelka of corrosion of aluminum tanks in the alkaline medium was of practical importance.

Lipids in Food Materials

The annual meeting of Czechoslovak food chemists took place in Churanov, South Bohemia, June 4-6, 1975. Several papers presented in the lipid section dealt with lipid oxidation and with soybean protein. Off flavor compounds produced by autoxidation of the lipid fraction can react with free amino acids, with protein formin sensorically neutral macromolecular compounds, or with low volatile aldolization products (Pokorny, et al.). Hexanal was converted with glycine in model mixtures into a mixture of various higher, mostly carbonyl derivatives (Jirousova, Davidek). In animals fed a diet rich in polyenoic lipids, changes of collagen occurred, probably by interaction with malnodialdehyde produced by lipid oxidation (Davidkova, et al.). Oxirane oxidation products are determined by infrared spectrometry after transformation into chlorohydrines with hydrochloric acid; the spectral method was compared by Parizkova with other method of determination of oxirane compounds. Kopecky reported that wheat flour lipids are extracted best with a mixture of 1-butanol and water (65:35, v/v), followed by purification on Sephadex G-25.

The biological value of soy protein increased during the processing; however, a decrease took place during the alkaline extraction because of destruction of sulfur containing amino acids (Ruzickova, Simova). The quality of soybean protein isolates is characterized by GPC pattern on Sephadex G-200 or Sepharose 4 B (Rottova, Simunek). Simunek, et al., reported that a small amount of lysinoalanyl was detected in protein isolates produced by alkaline extraction.

International Symposium on Household Chemistry

This meeting took place for the fourth time in Piestany, Slovakia, on June 25-27, 1975. There were two sections, Detergents and Cosmetic Chemistry. The section on Detergents consisted of a group of papers on raw materials, alkyl polyethylene glycol ethers, sulfated and ethoxylated fatty alcohols, alkyl polyethylene glycol ether acetates, alkyl

benzene sulfonates, synthetic phosphatides, compexones in detergent formulations, and pyrethroids as detergent additives. A group on methods for the assay and evaluation of detergents, toilet soaps, and effect of detergents on the activity of bactericides also was reported.

France . . . . . A. Uzzan

ITERG 1975 Information Days

More than 250 specialists from 14 European countries attended this international annual meeting organized by ITERG, on May 12-16, 1975, in Paris. The meeting was devoted to Oilseed Flour and Protein in Human Consumption. Scientists and industrial representatives presented 25 papers on raw materials, protein technology, nutritional, physico-chemical and analytical properties, and uses in several food industries, including meat products, bakery products, confectionary, and the fast foods industry. Papers concerning regulation and economic aspects of oilseed flour and protein for human consumption also were presented.

At this meeting, the Groupe d'Etude des Protéines de Soja (GEPS), a new French association responsible for promoting and marketing soy protein, held a press conference for French journalists to release new informations on soy protein for human uses. A buffet with several foods containing soy proteins was served, and allowed the guests to taste soy protein foods.

The proceedings of this meeting will be published by ITERG within a few months.

Association Francaise pour L'Etude des Corps Gras (AFECG)

After its annual Chevreul Day, December 17, 1974, during which the 1974 Chevreul Medals were given to Mr. de Smet, of Extraction de Smet S.A., Antwerp, Belgium, and Dr. Morice, Inra, Versailles, France, the AFECG organized a symposium on Soaps and Detergents. At this symposium 6 lectures were presented which are being printed in Revue Francaise des Corps Gras.

The 1975 Chevreul Day will take place in Paris on December 11, 1975. At these meetings, the 1975 Chevreul Medals will be given to Dr. Cowan from USDA-ARS Laboratories, Peoria, Illinois, and to Dr. Helme, General Manager of ITERG.

A symposium at Ibana, Dijon Laboratories, will be held on October 10, 1975. It will be devoted to the sensorial analysis and evaluation of fats and oils and fat-containing foods.

ISF 1976 World Congress

This Congress will be held in September, 1976, at Marseilles' University under the chairmanship of Professor Naudet, Director of the Laboratoire National des Matières Grasses, ITERG. The steering and program committees are developing the format, which will include plenary lectures, scientific and technical symposia, and sections for free communications. Social events, including a ladies program, also are being planned. Local committees in several countries will be in charge of the preparation of special travels.

For more information, write Professor Naudet, Chairman, ISF 1976 Congres, Laboratoire National des Matières Grasses, ITERG, place Victor Hugo, 13331 Marseille Cedex 3.

1975 Oilseeds French Harvest

The French oilseeds crops for 1975 are expected to reach 750,000 metric tons (mt) with ca. 650,000 mt of rapeseed and ca. 100,000 mt of sunflower. A large part of

the rapeseed crop is the new variety, 'Primor,' which contains a low content of erucic acid. These crops are among the largest obtained during the last decade, and will add large supplies of raw materials to the 1976 oilseed market. This market includes the North and South American soybean and the African peanut.

European Club of Centers for Lipids Research

On an invitation from Professor Niewiadomski, the Polish representative, the members of this European Club of Centers for Lipids Research met at Gdansk, Poland, on June 9, 1975.

In the next issue of Four Corners, details of this meeting will be given.

Germany . . . . . H.K. Mangold

All About Rapeseed

Rapeseed, *Brassica napus*, is the major oilseed crop of the temperate zones of Germany. The seeds obtained from conventional varieties of rapeseed contain glucosinolates and an oil which is rich in erucic acid. Both of these contents are undesirable from a nutritional point of view. Following the example of their Canadian colleagues, German Plant breeders have developed varieties of rapeseed which are virtually free of glucosinolates, erucic acid, or both. One of Germany's leading experts in the field of plant breeding, G. Röbbelen, Professor at the University of Göttingen, has submitted the following report on the cultivation of "zero erucic" rapeseed in Germany.

Change Over to Zero Erucic Rapeseed in Germany

In Germany, varieties of zero erucic quality, have been defined as having less than 2% erucic acid at the breeders seed niveau. After passing the official tests, the following zero erucic varieties now have been licensed for agricultural production.

Variety	Breeder
Winter Type Rapeseed	
'Lesira'	Norddeutsche Pflanzenzucht
'Erra'	Hans Georg Lembke KG 2331 Hohenlieth
'Expander'	Gebr. Dippe Saatzucht GmbH 49 Herford
Spring Type Rapeseed	
'Erglu'	W. von Borries-Eckendorf Pflanzenzucht 4811 Hovedissen
'Kosa'	Institut für Pflanzenbau und
'Gisora'	Pflanzenzüchtung der Universität 63 Giessen

'Erglu' is low also in glucosinolates, having 10% of the content of earlier varieties. 'Gisora' is admitted only for use as fodder crop or green manure. Another 17 winter type and 7 spring type varieties of rapeseed are, at present, still in the official tests; some of them may be licensed in the fall of 1975. It, thus, can be expected that a series of zero varieties will be available very soon to the German farmer, adequate in ecological variance and yield to the past, conventional European winter rapeseed varieties.

Because of their yielding capacity, winter type varieties of rapeseed are grown on ca. 95% of the acreage in Germany. Thus, for the sowing in autumn of 1974, for harvest in 1975, among the zero types, only the zero variety, 'Lesira,' was available. To ensure erucic acid demands of industry for technical, non-nutritional purposes, ca. 10-12,000 ha (25-30,000 metric tons [mt]) of conventional rapeseed was grown in Bavaria, isolated in separate production areas on a contract basis with Henkel & Cie, Düsseldorf, Germany. The remaining acreage was sown with zero rapeseed, predominantly the variety, 'Lesira.' Some of the newer zero varieties also were sown by special permission of the Bundessortenamt (Variety Testing Bureau) in smaller acreages for seed multiplication. In Schleswig-Holstein, the norther most state of Germany, with $>60\%$ of the total rapeseed production of Germany, less than 1% of the fields are estimated to carry off-types, i.e., one of the old, high erucic acid varieties.

Harvest in 1974 was superior to most of the earlier years, with an average yield of 30.5 dt/ha for the Schleswig-Holstein area, compared to a 10-year average of 24-25 dt/ha. The total harvest of rapeseed, 50% erucic acid, was sold easily, most of it before the end of 1974. Similarly, the zero varieties gave excellent yields, not only in plots, but also in field scale. Production communities totaling 1250 ha were established with state support. About the same acreage was planted in multiplication fields of the breeders to supply the necessary 750 mt of certified seed. One of the communities in Holstein was able to harvest a total of 246.5 ha with an average yield of 35.2 dt/ha of 'Lesira' rapeseed. Similarly high yields were reported from various other areas.

Because three competing breeder firms were dividing the seed market in Germany, an effective, total change over to the one zero variety necessitated close cooperation. Therefore, a cooperative, Rapool, was founded by the three companies, Norddeutsche Pflanzenzucht, (Hohenlieth), Gebr. Dippe (Herford), and Deutsche Saatveredelung (Lippstadt), which provided a common marketing policy. These firms agreed to withdraw the total seed of their old varieties from the market within a few months during spring, 1974, and they combined efforts in the disposition of sufficient seed of the variety 'Lesira' for the sowing in August, 1974. This needed more than the full authority of a general staff, not only because of the conservatism of many farmers, but, especially because only a 4 week interval lies between harvest at the end of July and sowing, August 10-20. However, an official decree was not edited by the Federal Ministry of Agriculture; the total change over was carried

out by the private economy. However, support given by the German oil and margarine industry must be mentioned. These companies produced 4000 1-liter bottles of zero erucic rapeseed oil as a present to 4000 households at Christmas, 1973.

Winter conditions badly suited for a healthy growth of rapeseed reoccur in Germany about every 5-10 years. The year 1964-65 was one of those seasons, and the year 1974-75 was as bad. Sowing in August was difficult because of drought, and emergence was very late and patchy. October was unseasonably wet and cold, and the weak stands could not recover. In addition, in some areas such as Eastern Holstein, with continuous high rapeseed acreage for many years, a heavy influx of flea beetles caused drastic damage. The grubs had plenty of time to invade the plants because of unusually mild winter months. These unseasonably high temperatures also induced untimely growth and premature bud initiation in the 'Lesira' fields. Thus, late night frosts in March combined with sunny, warm days and sharp winds injured the crops considerably in some areas. Up to 30% of the fields finally had to be ploughed and resown. In other areas, the damage was less, but an approximate total of 10% of the acreage was lost. For the rest of the crop, a medium harvest may be expected if the weather conditions continue to be as favorable as they were in April.

It must be understood, especially following the excellent harvest of 1974, that some farmers tend to accuse the new variety 'Lesira' for most of the trouble. Therefore, a hot campaign shakes the agricultural community and some of the general newspapers in the rapeseed areas of Northern Germany. It is evident to objective observers that similar damage also would have occurred to the old varieties. In Bavaria, for example, a greater than average loss by winter damage also was reported in the conventional high erucic fields, demonstrated recently by high demand for seed of spring type rapeseed. The present season is one of the worst for a smooth change over. In general, farmers, trade officials, administration, and industry are, nevertheless, aware of the fact that the change over was justified, and that the activities will and must be carried through to a successful end.

International Cooperation

Most countries producing rapeseed are now changing over to new varieties. These efforts are being coordinated by the Groupe Consultatif International de Recherches sur le Colza (GCIRC), which is headed by T. Guilhaumaud of Paris, France. German scientists are participating in the activities of the various GCIRC committees.

Research on the Utilization of Rapeseed

The low erucic acid rapeseed oils generally have a higher level of linolenic acid (ca. 10%) than conventional rapeseed oil. Therefore, experimental conditions for the partial hydrogenation of 'Lesira' and 'Erglu' oils are being studied at the Federal Center for Lipid Research, Munster, Germany. Traditional processing of rapeseed yields oils having a high content of sulfur compounds, which are known to poison the hydrogenation catalyst. Efforts are being made to develop a process for the removal of such sulfur compounds.

Further studies are directed towards removal of glucosinolates during the processing of rapeseed for the recovery of oil and meal. Aqueous mixtures of organic solvents have been found suitable for the extraction of both intact glucosinolates and their toxic degradation products from full-fat ground rapeseed. Thus, more than 90% of the glucosinolates are removed, both from conventional varieties of rapeseed, and the new varieties 'Lesira' and 'Erglu,' at a loss of only 8-10% of meal solids. The detoxified full-fat meal can

be used in high energy feed formulations. Alternatively, the full-fat meal is solvent extracted to yield a detoxified defatted meal which can be used for the production of protein concentrates and protein isolates.

Also at the Federal Center, a method for the isolation of proteins from the new varieties of rapeseed has been developed. By this new procedure, two fractions containing 93% and > 98% protein, can be obtained from defatted 'Lesira' and 'Erglu' meals, respectively. The process is of great significance both to agriculture and to industry, as the production of rapeseed oil can be carried out more profitably if the defatted meal also can be utilized. The nutritional properties of the new rapeseed oils, as well as those of protein isolates derived from seeds of 'Lesira' and 'Erglu' are being investigated.

The cultivation of rapeseed requires tremendous expenses for insecticides. This factor and the increasing danger of insect resistance against sprayed chemicals, as well as environmental considerations, make the development of biological methods for insect control desirable. One of the most serious rapeseed pests is represented by a small coleopteran beetle, *Ceuthorrhynchus assimilis*, whose larvae destroy the seed of the rapeseed plants. Successful control of this beetle would solve the problems caused by the even more dangerous mosquito, *Dasyneura brassicae*, because for oviposition this mosquito uses the plant parts damaged by the coleopteran beetle. The strategy of biological insect pest control on the basis of sex attraction pheromones, as followed at the Federal Center for Lipid Research, is limited to species using this mechanism of chemical communication. It is not known, however, whether *Ceuthorrhynchus assimilis* uses pheromones. Under these circumstances the surface lipids of this beetle, as well as the surface lipids of the host fruit leaves of rapeseed, are being studied as a dark shot approach in the search for potential sex attraction pheromones.

Israel . . . . . A. Letan

Cultivation of Jojoba, *Simmondsia chinesis*, and Utlization of the Seed Wax

In the arid Negev (Southern Israel), at the Ben-Gurion University of the Negev, efforts are being made to promote cultivation of the jojoba shrub, originally, a native of the deserts of Mexico, California, and Arizona, and to find additional uses for its liquid seed wax. Work is being done on, a) selection of the most suitable species, hybridization, and on defining the most suitable ecological conditions for the plants growth, e.g., the maximal salinity of water used for irrigation, b) characterization of the wax and the seeds, determinations in the seeds of the content of nonvolatile lipids, the wax composition of fatty acids and alcohols, and content of various minor components; and c) modifications of the wax's properties, e.g., through hydrogenation, sulfurization, sulfation chlorination, and epoxidation.

Jojoba seeds contain 40-50% liquid wax, mainly esters of eicosenoic, docosenoic, and octadecenoic acids, and esters of eicosenol and docosenol, which may be used as is or after derivation. The jojoba wax is a valuable lubricant. It also can be used in pharmaceutical and cosmetic preparations, for treatment of leather, in production of factice, resins, plasticizers softening agents and varnishes, as a dietetic salad oil, and, last, but not least, as an important source of many intermediates, acids, alcohols, and esters, and it can be used, after hydrogenation, as polishing wax, in fruit coating, and for production of candles.

The work at the Ben-Gurion University should lead to establishment of cultivated plantations of jojoba in Israel, and to the development of production of chemicals based on the wax of jojoba.

A New Method for Fractionation of Palm Oil by Transesterification

In a previous correspondence (JAOCS 49:249A [1972]), a method was described which had been developed by the HLS Industrial Engineering Company, Petah-Tikva, Israel, for continuous fractionation of palm and other edible oils from isopropanol, at temperatures below 10 C. The same company has developed a new method for a chemical fractionation of palm oil by transesterification with fatty acid alkyl esters. The aim is to obtain a relatively large liquid fraction with the characterisitics of a salad oil, namely, good chilled stability to prevent crystallization at lower temperatures when the oil is kept in a moderately cooled refrigerator.

The liquid fraction of palm oil, which is obtained with the new method of fractionation by transesterification, has a better chilling stability than the corresponding fraction, which may be obtained by the previously published method of physical fractionation. The yield of the liquid fraction is ca. 65%, its iodine value ca. 80, and its chilled test stability 8 C. It remains clear when kept at 8 C for at least 72 hours.

The approximate fatty acid composition of the liquid fraction is given below. In brackets are specified the respective values for nonfractionated palm oil: palmitic 13% (45%); stearic 5.5% (3.6%); oleic 66% (41%); linoleic 14% (11%). Its content of triglycerides is approximately as follows: triunsaturated, ca. 60%, diunsaturated-monosaturated, 34%; monounsaturated-disaturated, 7%; and a maximum of 0.4% trisaturated.

The main advantage of this new method for chemical fractionation lies in obtaining of liquid fraction with minimal content of disaturates and trisaturates. The melting point temperature of the palm oil liquid fraction rises steeply with an increase in tripalmitate content; 7, 10, and 12 C when tripalmitate concentration in the oil is 0.2, 0.4, and 0.6%, respectively.

The technological process consists of a) transesterification of palm oil with saturated fatty acid monoesters, a step which gives hard fraction and mostly unsaturated fatty acid monoesters, which are separated from the triglycerides by vacuum distillation and rectified by fractional vacuum distillation; and b) transesterification of palm oil with unsaturated monoesters, followed by distillation of the bulk of saturated fatty acid monoesters, which are subsequently rectified. The transesterifications are carried out (in batch) under nitrogen at temperatures below 60 C and in the presence of 0.2-0.5% sodium methoxylate. The time required for transesterification is usually about 30 min.

In this manner, trisaturated glycerides, mainly tripalmitates, are separated from triunsaturated glycerides, mainly trioleates, through use as a carrier of appropriate fatty acid monoesters, which are regenerated in the process.

Italy . . . . . G. Jacini

Rapeseed Oil Consumption Down in Italy

Rapeseed oil consumption in Italy has been dropping drastically from 1973 to 1974, as evidenced by the following data.

Seeds import		Oil import	
1973	1974	1973	1974
2,614,937	696,736	208,577	74,126

Mostly, the trend should be attributed to the enforcement of an Italian Government act, as reported on a previous occasion, outlawing seed oil blends containing more than 15% erucic acid. Italy's Oil Industries Association (ASSITOL) has established a Protein Group to promote a broader use of vegetable proteins for human nutrition. In point of fact, the Italian Health Department hasn't authorized yet the addition of seed proteins to meat products. As a consequence, sausages and similar preparations containing vegetable proteins are still barred from sale in Italy.

Acapulco Medal Awarded

The Acapulco Medal Prize has been awarded by Instituto de la Grasa y sus Derivados, Seville, Spain, to Prof. Giovanni Jacini, former director of Milan, Italy's Oil & Fat Industries Experimental Station, and now retired. The reward for outstanding contributions to scientific and technical knowledge of fatty substances, has been awarded previously to, amongst others, Prof. W.O. Lundberg, former Director of the Hormel Institute, and to Chairman of Spain's National Research Council, Prof. M. Lora Tamayo.

7th International Mass Spectrometry Conference Florence, Italy, August 30-September 3, 1976

This Conference is being organized by the Commission of the European Communities and by the Italian Chemical Society on behalf of an international scientific committee, comprising representatives from Australia, Belgium, Czechoslovakia, Denmark, France, Germany, Great Britain, Italy, Japan, Netherlands, Norway, Sweden, Switzerland, the Union of Soviet Socialist Republics, the United States of America, and Yogoslavia.

It will be held in the "Palazzo dei Congressi" in Florence from August 30 to September 3, 1976.

The scientific program will be planned around the following topics: theory in mass spectrometry, including QET, MO, basic aspects of ionization, energy distribution and transfer; metastable ion studies; reaction analysis, including kinetics, thermodynamics, ion-molecule reactions; instrumental developments and data processing; ionization techniques; organic analysis, including fragmentation mechanisms and related isotopic analysis; inorganic analysis, including cluster ions; isotopic analysis, including nuclear materials, geochronology, and space; environmental, including GCMS, mass fragmentography; and biochemical and medical.

Leading world authorities in these fields will be invited to present review papers. Contributed papers on these and related topics also will be included, and those wishing to make such contributions are requested to indicate this on the attached form.

Abstracts of contributed papers should be submitted by January 5, 1976, for consideration by the International Scientific Committee, and they will be scrutinized by two referees.

The abstract should be 300-500 words long. It should include an introductory statement concisely indicating the purpose of the work and a closing statement summarizing the significant new results. The decision on paper acceptance will be based on the abstracts.

A few selected references to closely related information should be listed at the end of the abstract. These references are only for the information of the referring committee and should not be quoted in the text of the abstract.

The Scientific Chairman has been granted authority to return papers received after January 5, 1976. Authors of those papers accepted for the conference will be allowed until May 1 to revise and to extend their abstracts to 500 words.

For information contact Dr. S. Facchetti, Joint Research Centre Euratom, 21020 Ispra (Varese), Italy.

Commission Internationale des Industries Agricoles et Alimentaires, CIIA, 15th International Symposium, Bologna, Italy

This Symposium will be held November 12-13, 1975 on the premises of the University's Institute of Agrarian Industries at 7, via San Giacomo, to discuss the subject of

"Applications of Mass Spectrometry and Nuclear Magnetic Resonance in the Food Industry Field." Topics debated will be: a) concrete use of new methods for foodstuff analysis and control; determination of flavors and volatile components, lipidic and pectidic structures, pollutants, pigments, and N-nitrosamines, free and bound water, and pesticides and polyphenols; b) food industry technologies, a technical-economical study and discussion of practical applications; c) equipment description and usage.

In addition to scheduled lectures, reports may be submitted by workers specializing in individual aspects of the Symposium's main subject matter, on which debates may be held.

Summaries in two languages of all scheduled lectures will be handed out at the time the Symposium is opened; symposium proceedings will be published later.

The subscription fee will be 15,000 lire, 100 French francs, 25 US dollars, or 60 German marks.

For additional details, please contact CIIA, 24, rue de Téhéran, 75008 Paris, France, or, in Italy, Prof. U. Pallotta, Direttore, Istituto di Industrie Agrarie dell'Università, 7, Via San Giacomo, 40126 Bologna, Itay, (telephone, 228585-228830).

Yugoslavia . . . . . B. Ostrić-Matijašević

IV Yugoslav Congress on Nutrition

The IV Yugoslav Congress on Nutrition was held April 22-25, 1975, in Ohrid, the cultural and tourist capital of SR Macedonia. Approximately 450 participants, nutrition specialists, doctors, dietitians, technologists, microbiologists, and biochemists attended. In this way the nutrition problem was observed completely and the reported papers dealt with a number of very important, practical problems in the field of food production and quality. Two hundred-fifty papers were presented. Session reports dealt with important fields of nutrition, including development of industrial production of food, food contamination, improvement of control, and new methods for control. Papers also were presented on the problems of oil and fats, including thermooxidative changes of oil, decoloration of corn oil, margarine stability, and the quality and biological value of sunflower meal. It is particularly important to point out that Congress has indicated the greater importance of food production and nutrition in the world and in Yugoslavia, as well as the fact that these problems were treated by an increasing number of specialists. The next Yugoslav Congress on Nutrition will be held in 1978 in Sarjevo, capital of SR Bosina and Hercegowina.

Congress on Food Production in Yugoslavia

This very important congress, devoted to the production of food, will be held in September, 1975. Novi Sad, the capital of the District of Vojvodina, and the greatest food-producing district of Yugoslavia has been chosen for the host of this congress. According to the notified papers, this congress will examine the position of food production in Yugoslavia now. President of SFRY, Josip Broz Tito, is the patron of this congress.

Greater agricultural and industrial food production, based on scientific achievements, is particularly emphasized now in all republics and districts of Yugoslavia. It is intended not only to decrease import, but also to increase export of food products. The production of oil and sugar has obtained an outstanding place in these export programs.

Symposium of Oil Industry Technologists

This symposium, held regularly every year, has gathered, as usual, technologists in the oil industry. It was held in Split on January 9-10, 1975. The presented papers dealt with problems of production of vegetable oil, hydrogenated fats, and margarine. Deodorization of soybean oil, determination of tocopherols in oils, separation of unsaponifiable matters, *trans* fatty acids of fats, and other problems were also the topics of papers presented. Two papers reported on the work of FAO/OMS Commission Codex Alimentarius committee. Participants were informed on the work of the Commission for Additives and the Commission for Oils and Fats. ■

Society of Cosmetic Chemists to Meet

Dr. Jack Mausner, Program Chairman, has announced plans for the forthcoming SCC Annual Meeting to be held December 1-2, 1975, at the Americana Hotel in New York City.

The theme will be "The Role of Cosmetics in the Human Life Cycle," and the program will be divided into 4 sessions covering infancy, adolescence, adulthood, and advanced age. Each of the sessions will deal with the specific dermatological, psychological, formulating, and general marketing aspects of cosmetics. Participation by noted experts in each of these fields is anticipated. The four moderators for the sessions will be B. Foss (J.B. Williams Co.), Infancy; N. Ziskin (Almay Co.), Adolescence; J. Nioche (Elizabeth Arden), Adulthood; and J. Rosenstreich (Estee Lauder), Advanced Age. ■

JAOCS News
Send articles to: Staff Editor, American Oil Chemists' Society, 508 S. Sixth St., Champaign, Ill. 61820.

AOCS Members Appointed by Armak Company

L.J. Dringoli

Leo J. Dringoli has been appointed Product Manager, Esters, for Armak Industrial Chemicals Division. As such he will be responsible for coordinating manufacture and sales of Armak's wide range of fatty acid esters used primarily in the cosmetics, textiles, and plastics industry.

Mr. Dringoli joined Armak in 1972 as Technical Representative in the Boston area. He received his Bachelors Degree in chemistry from the University of Connecticut, and an MBA from Fairleigh Dickinson University.

R.A. Reck

Richard A. Reck has been named Director of Strategic Projects for Armak Industrial Chemicals Division. Formerly Director of Manufacturing, Mr. Reck has served in a variety of technical and management positions during his 30 years of service with the company.

Mr. Reck received his BS in chemistry from the University of Illinois and his MS in chemistry from the University of Indiana.

Armak Industrial Chemicals Division manufactures fatty amines, amine derivatives, and fatty acid esters. Armak Company is a part of Akzona, Incorporated of Asheville, North Carolina. ■