

Conference to open October 1

Maastricht—The Netherlands' oldest city—will be host next month to the World Conference on Edible Oils and Fats Processing—Basic Principles and Modern Practices.

The conference is designed to provide a thorough study of modern edible oils and fats processing from raw material to finished product, including detailed analysis of state-of-the-art unit processes, as well as the unique physical and chemical characteristics of major raw materials and how those properties may affect processing choices.

In addition to the approximately 48 plenary lectures, there will be about 31 volunteered poster presentations. Abstracts for plenary and poster presentations are printed in this issue of *JAACS*. Plenary talks will be presented in English with simultaneous translation to French and Spanish. Organizers have provided ample time for discussion sessions and informal breaks to permit informal conversation. Lunch every day is included in the registration fee. This gives participants the opportunity to meet with each other and to see the exhibit during the lunch period. There also will be a series of social events to further promote informal discussion. These events will include an opening reception from 1600 to 1800 hours on Oct. 1 in the exhibit hall at the recently built Maastricht Exhibition and Convention Centre; a reception the evening of Oct. 2 at Fort St. Peter, one of numerous historic sites in Maastricht; a luncheon cruise on the River Maas the afternoon of Oct. 4; and an optional gala party on the evening of Oct. 5. The two receptions and excursion trip are included in the technical registration fee; tickets for the international party must be purchased separately and are not included in the registration fee.

Meeting registration will be open 1500 hr to 1800 hr Sunday, Oct. 1; 0800 hr to 1700 hr Monday, Oct. 2; 0800 hr to 1700 hr Tuesday, Oct. 3; 0800 hr to 1200 hr Wednesday, Oct. 4; 0800 hr to 1700 hr Thursday, Oct. 5; and 0830 hr to 1400 hr on Friday, Oct. 6.

The accompanying industrial exposition will be open 1600 - 1800 hr Sunday, Oct. 1; 0900 - 1700 hr Monday, Oct. 2; 0900 - 1700 hr Tuesday, Oct. 3; 0900 - 1100 hr Wednesday, Oct. 4; and 0900 - 1400 hr Thursday, Oct. 5. The exhibit will be closed Wednesday afternoon, Oct. 4, because of the all-conference river excursion that afternoon. The exhibit will not be open Friday, Oct. 6.

Anticipated attendance made it necessary to use numerous hotels throughout Maastricht and in nearby Valkenberg to house registrants. A shuttle service will operate on Sunday to take people from the convention center at the end of the reception only. During the rest of the week, the shuttle will operate in the morning and the late afternoon/evening from the MECC to the Maastricht hotels and throughout the day from the MECC to the hotels in Valkenberg.

The spouse program will feature the city of Maastricht and the surrounding area. The activities on Monday will begin with coffee at the convention hall. From there, participants will take a guided walking tour of the old city of Maastricht. Lunch is included. A bus trip of the area around Maastricht, with stops for coffee and lunch, is scheduled for Tuesday. On Wednesday, spouse/guest program participants will join technical registrants for a luncheon cruise on the River Maas. The spouse/guest registration fee includes attendance at the opening reception on Sunday and the city-sponsored reception on Monday.

Exposition

Following is a description of commercial exhibits in the exposition held as part of the world conference. Inquiries concerning products or services should be directed to the companies, whose addresses are listed, and not to the American Oil Chemists' Society.

ACI Industries, Ltd., 6055 Tain Dr., Dublin, OH 43017 USA (Booth 55A). ACI Industries, headquartered in Dublin, Ohio, along with its office in Brussels, Belgium, is primarily involved in the purchasing of secondary materials for reclamation purposes. The company is one of the largest buyers of spent nickel catalyst on a worldwide basis. At their booth, they will further introduce their company and services to the edible oil industry.

Alfa-Laval Food Engineering AB, P.O. Box 500, S-147 00 Tumba, Sweden (45 & 46). Alfa-Laval will display its hermetic oil refining separator, SRPX 714, complete with the micro-processor-based control unit, ALSEC. Scale model deodorization plants featuring highly-efficient packed column technology for low operating cost deodorization will also be exhibited.

Amafilter B.V., P.O. Box 396, 1800 AJ Alkmaar, The Netherlands (50 & 51). Featured will be a presentation of Amafilter's range of filters for the vegetable oil industry.

Amandus Kahl Nachf., Dieselstrasse 5-9, Reinbek 2057, West Germany (61). On display will be posters of Amandus Kahl's expander in the oil milling industry, hydrothermal reactor and pelleting plants. Samples of products will also be available.

American Colloid Co., 1500 W. Shure Dr., Arlington Heights, IL 60004 USA (72). The American Colloid Co. will feature its state-of-the-art adsorbent systems including specialty bleaching earths and nickel scavengers. Technical support will be available to assist with specific applications and questions. *(Continued)*

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American Soybean Association, Centre International Rogier, Bte 521, 1210 Brussels, Belgium (62). The American Soybean Association coordinates a series of market development activities for soybeans and its derived products all over the world. Services offered will be described and literature will be available reviewing traditional and innovative processes and utilization of soybeans, soy oil, soybean meal and soy proteins.

Applikon Dependable Instruments B.V., P.O. Box 149, 3100 AC Schiedam, The Netherlands (32).

Atlas Industries A/S, Baltorpvej 160, DK-2750 Ballerup (Copenhagen), Denmark (10). Atlas Industries supplies dry condensing systems, used for creating vacuums in edible oil deodorization, fatty acid fractionation and other processes taking place at pressures below 10 torr. Designed to reduce energy, water consumption and pollution problems, the DC plant is an alternative to steam ejector systems.

Bruker Spectrospin N.V., P.O. Box 88, 1531 HN Wormer, The Netherlands (43). Bruker Spectrospin

will exhibit its minispec-NMR-spectrometer for analysis of oils and fats. The analysis is automatic with consistent results. The instrument performs in minutes or seconds while some methods require hours or days to complete.

C.M.B. Bernardini S.p.A., Via dei Castelli Romani, 2L, 00040 Pomezia, Italy (48 & 49). C.M.B. can supply complete plants for producing edible oils and oleochemicals. Examples are plants for mechanical and solvent extraction of oilseeds, crude oil refining and production of fatty acids, glycerine and various derivatives. Scale models will be exhibited and information on specializations will be made available.

Caffaro S.p.A., Via Privata Vasto No. 1, 20121 Milano, Italy (36). Caffaro will display its various types of "PROLIT" bleaching earth, including PROLIT PN, PROLIT RF, PROLIT 5 and PROLIT AE. PROLIT is used in the process of refining fatty substances of any origin and is designed to be the most varied for industrial and commercial uses.

Callanish Limited, Breasclete, Isle of Lewis PA86 9ED, Scotland (44). A full product range will be on display. Samples of Callanish's retail range of nutritional supplements will be available under the slogan "Health from the Heart of Hebrides."

Carl Aug. Picard GmbH & Co. KG, P.O. Box 14 04 40, 5630 Remscheid-Hasten, West Germany (34 & 35). Carl Aug. Picard GmbH and Egon Keller GmbH (Anton-Küppers-Weg 17, 5630 Remscheid-Hasten, West Germany) are manufacturers of space parts for screw presses. Information will be displayed at their booth.

Crown Iron Works Company and Wurster & Sanger Division, P.O. Box 1364, Minneapolis, MN 55440 USA (38). Crown Iron Works Company designs and supplies solvent extraction equipment. Wurster & Sanger Division designs and supplies processing equipment for fats and oils. Information and representatives of both areas will be available at their stand.

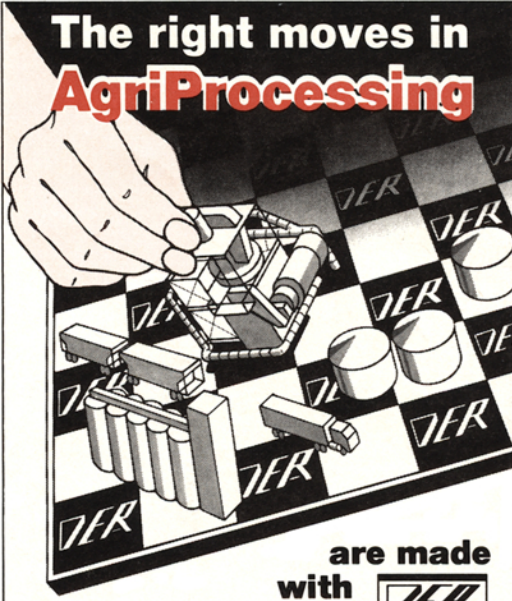
Damman-Croes S.A., 51 Spanjestrassé, 8800 Roeselare, Belgium (8).


De Smet Rosedowns Ltd., Cannon Street, Hull, HU2 0AD, England (15, 16, 17, 22, 23 & 24).

Eberhard Hoesch & Söhne, Hüttenstrasse 31, D-5160 Düren, West Germany (9). Eberhard Hoesch & Söhne specializes in filtration and separation for the fats and oils industry. On display will be membrane filter presses to separate stearin from olein with an increased yield of olein, agitators for crystallizers, and side entry mixers for tanks.

EMI Corporation, 3166 Des Plaines Ave., Des Plaines, IL 60018 USA (14). Representatives at the EMI booth

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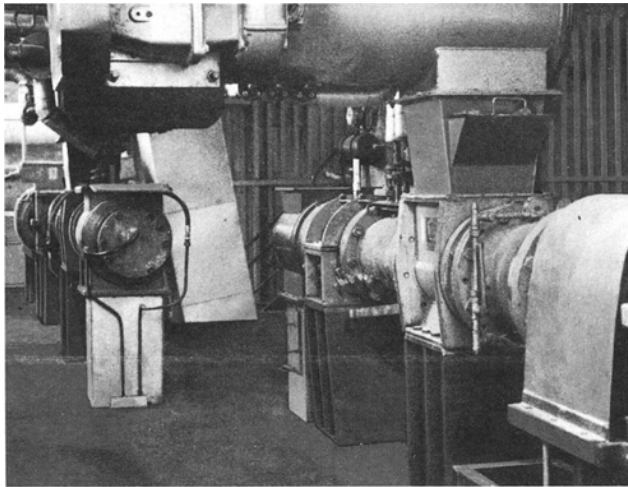
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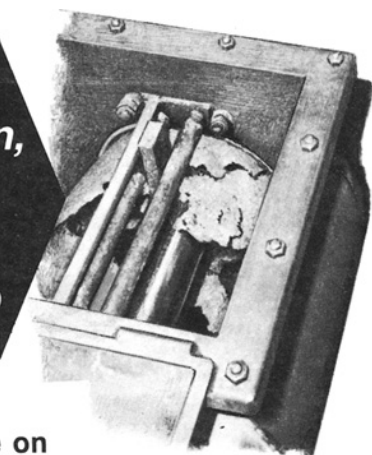
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will be David Tandy and Bill McPherson. Literature describing EMI Physical Refining Systems, award-winning edible protein processing systems; plant pictures and process flowsheets for solvent extraction of oilseeds, fats and oils refining; fatty acid production processing and complete plants as offered by EMI will be displayed.

Engelhard De Meern B.V., Strijkviertel 67, P.O. Box 19, 3454 ZG De Meern, The Netherlands (1, 2, 3 & 4). Engelhard base metals and precious metal catalysts used for the hydrogenation of fats, oils and oleochemicals will be on display. Product performance characteristics and additional information on processes for catalysts and adsorbent bleaching clays will be available.

Extraktionstechnik GmbH, Humboldtstrasse 56, P.O. Box 76 03 69, 2000 Hamburg 76, West Germany (11). Extraktionstechnik will provide a survey of its activities and available equipment for the processing of all vegetable oil-bearing materials and all vegetable oils and fats. The exhibit will feature the company's latest improvements in extraction, refinery and pollution control technology. Highlights will be the SLF physical refiner/deodorizer, low-temperature pollution-free condensation and wastewater-free extraction plants. Technical representatives will be available to discuss specific problems and applications.

French Oil Mill Machinery Company, 1035 W. Greene St., Piqua, OH 45356 USA (5). Visit this booth to discuss your needs for the complete line of oilseed processing equipment. French offers preparation, prepress and direct solvent extraction equipment for all oilseeds and oleaginous materials.

G. Mazzone S.p.A., P.O. Box 421, 21052 Busto Arsizio, Italy (53 & 54). General literature, photographic panels and small-scale model plants will be displayed.

Grace GmbH, Postfach 1445, 6520 Worms, West Germany (20). W.R. Grace & Company, with headquarters in New York, is a multinational company with prime interest in the field of specialty chemicals. Grace GmbH in Germany is the European center for the production of Micronized Silicas, Molecular Sieves, Cracking Catalysts and Silica Gel. TRISYL Silica Gels are the first synthetically produced adsorbents for the refining of edible oils. TRISYL means new products and new technologies for the oil refining industries, giving better finished product quality at lower costs with minimized solid waste and pollution problems.

H.L.S. Ltd., P.O. Box 193, 49101 Petah-Tikva, Israel (28). H.L.S. is an industrial engineering company that specializes in the design and supply of equipment, systems and complete plants for the edible oil industry. H.L.S. is situated in an oil mill which owns edible oil extraction and refining plants and margarine, soap,

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detergent and cosmetic production plants. This provides H.L.S. engineering and research staff with the opportunity to observe equipment operating in the field.

I.M.S.A. Impianti Macchine Saponi Affini SRL, Via Gorizia N. 13, P.O. Box 401, 21052 Busto Arsizio, Italy (56). I.M.S.A. is a worldwide supplier to the soap and synthetic detergent industry. It features complete plant design and equipment — 250 to 5,000 kg/hr — and manufactures turnkey installations for saponification plants (batch or continuous), vacuum drying systems, toilet or laundry soap finishing plants, syndet bars and liquid detergent plants.

Jan Dekker International B.V., P.O. Box 10, 1503 HM Wormerveer, The Netherlands (18). Jan Dekker International, belonging to the Quest International Group, for decades has been a supplier of antioxidants all over the world. It supplies natural and synthetic antioxidants, and synergistic blends/chemicals including BHA, BHT, GALLATES and TBHQ. Representatives and literature will be available for your specific technical needs.

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Krupp Maschinentechnik GmbH, Seevestrasse 1, P.O. Box 90 08 80, 2100 Hamburg 90, West Germany (64 & 65). On display will be the Krupp Edible Oil Technology Program in pictures, prospectuses and videos including mechanical extraction (screen presses), solvent extraction, refining (deodorization), fractionation, and detoxification.

L.F.C. Lochem B.V., P.O. Box 35, 7240 AA Lochem, The Netherlands (19). L.F.C. Lochem will display the wide range of filter products they offer for the edible/vegetable oil industry in filtering bleached oil, crude oil, winterized oil, hydrogenated oil and polishing filtration.

Laporte Inorganics, P.O. Box 2, Moorfield Rd., Widnes, Cheshire, WA8 0JU, England (39 & 40). The full range of activated bleaching earth will be displayed by Laporte Inorganics of England and Minas de Gador of Spain. The latest developments in adsorbents for the edible oil industry may be discussed with technical personnel at the exhibit.

Lurgi GmbH, Lurgi-Allee 5, P.O. Box 11 12 31, D-6000 Frankfurt AM Main, West Germany (59 & 60). Lurgi's stand will feature photos, graphs and text-panels which will show information about oils and fats processing.

Mallinckrodt GmbH, Josef Dietzgenstrasse 1, 5202 Hennes, West Germany (29 & 30). Mallinckrodt will exhibit its descriptive product literature for the line of Calscat catalysts — nickel catalyst droplets for edible and inedible applications, copper-chromite catalysts for fatty alcohol production, nickel-catalysts for fatty amine production, and palladium and platinum on carbon catalysts for reductive alkylations. Samples will also be on display.

Nash Engineering Company, 310 Wilson Ave., P.O. Box 5130, Norwalk, CT 06856 USA (66 & 67). Nash Engineering will be exhibiting a 3-stage vacuum deodorizing system.

Novo-Nordisk A/S, Novo Alle, DK-2880 Bagsvaerd, Denmark (47). Novo will exhibit a range of enzymes used by the fats and oils and detergent industries. A new range of immobilized and liquid lipases will be introduced and the application technology will be described.

Oxford Analytical Instruments Ltd., 20 Nuffield Way, Abingdon, Oxford, OX14 1TX, England (26). The Oxford 4000 oil and fat content measurement instrument allows rapid, simple and economical testing, without the need for calibration factors, artificial standards or complex sample preparation. Robust and compact in design, the Oxford 4000 is suited to any laboratory or industrial environment and will be featured at Oxford's booth.

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Palm Oil Research Institute of Malaysia, Brickendonbury, Hertford, SG18 8NL, England (25).

POS Pilot Plant Corp., 118 Veterinary Rd., Saskatoon, SK, S7N 2R4 Canada (70). POS is designed and equipped to specialize in contract R & D, pilot plant testing, custom processing/test market production, dietary supplements, and bioactive research. Brochures, a company profile, documentation, posters and other information will be displayed.

Roskamp Div., CPM, 2975 Airline Circle, Waterloo, IA 50703 USA (71). Roskamp, a division of California Pellet Mill, is a manufacturer of grinders, crackers, crumblers, roller mills, flakers, steam flaking equipment, coolers and other related oilseed equipment used worldwide in the commercial, industrial and farm markets. Information will be available at their booth.

S.A. Fractionnement Tirtiaux, Rue de Fleurjoux 8, 6220 Fleurus, Belgium (41 & 42). Tirtiaux will exhibit pictures and diagrams of its plants for fractionation and physical refining of edible oils and fats. Personnel will be available for questions and release of documentations.

Sanki Engineering Limited, 2-16-10 Imazato, Nagaokakyo, Kyoto 617, Japan (21). Sanki Engineering Ltd. will present its Centrifugal Partition Chromatograph (CPC) for laboratory and industrial use, which is used for extraction and purification of lipids. Separation processes of EPA and DHA esters from fish oils, phospholipids from soybean and egg, and hydrophobic vitamins from natural sources will be explained. CPC is also used as a bioreactor between aqueous/organic two-phase. Hydrolysis and esterification of lipids using CPC as a bioreactor will also be presented.

Seitz Enzinger Noll Maschinenbau Aktiengesellschaft, Planigerstrasse 139-147, BRD-6550 Bad Kreuznach, West Germany (55).

SKET, VEB Schwermaschinenbau-Kombinat "Ernst Thalmann", Marienstrasse 20, 3011 Magdeburg, East Germany (31). Developed into a center for vegetable oil and protein extraction plants and equipment, SKET specializes in consulting, planning, coordinating, research, development and delivery of these plants. SKET is also involved in seed preparation, pressing, solvent extraction, crude oil refining, protein extraction and auxiliary installations.

Still Otto GmbH, Christstrasse 9, D-4630 Bochum 1, West Germany (68 & 69). Still Otto will feature its range of products and services for the food processing industry which include precleaning plants for vegetable and animal oils and fats and plants for physical neutralization and deodorization. It will also feature products and services for fat chemistry including splitting facilities, fatty acid straight-run distillation plants, fatty acid fractionating plants, esterification and transesterification plants, plants for the cleaning of fatty acid derivatives by distillation and glycerine isolation facilities.

Süd-Chemie AG, Postfach 20 22 40, 8000 München 2, West Germany (12 & 13). The Süd-Chemie Group will present its program of highly active bleaching earths and hydrogenation catalysts. The Group brings together valuable know-how on fat and oil processing from many countries, and makes it available to customers in a concentrated form within the framework of an applications advisory service.

Sulzer-Escher Wyss GmbH, P.O. Box 1380, D-7980 Ravensburg, West Germany (57 & 58). Sulzer-Escher Wyss will feature the Escher Wyss dehulling system, a front-end system utilizing the Escher Wyss fluidbed technology. Also on display will be other fluidbed applications within the oilseed industry.

The Tintometer Limited, The Colour Laboratory, Waterloo Road, Salisbury, SP1 2JY, England (27). Tintometer Ltd. will be showing their range of colour measuring instruments as used by the oils and fats industry. Of particular interest will be the computer-

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assisted Lovibond Colourscan for obtaining objective measurements relating to traditional subjective colour scales including Lovibond: red, yellow, blue; AOCS/Tintometer: red, yellow; and FAC, Gardner D1544, hazen (alpha). Full CIE xy parameters will be included in the program.

Unichema International, Buurtje 1, P.O. Box 2, 2802 BE Gouda, The Netherlands (33 & 52). Unichema International will introduce the latest generation of PRICAT nickel catalysts. Using new techniques and optimal compositions, Unichema has created catalysts with significantly higher activity and increased selectivity, offering a far better performance to price ratio. They also have excellent characteristics with rapid distribution in the liquid and they are highly resistant to catalyst poisoning.

Votator Division, Cherry-Burrell Corp., P.O. Box 35600, Louisville, KY 40232 USA (37). Displayed will be the Votator line of equipment for the edible fats and oils industry. Shown in photo displays will be deodorization processing plants plus shortening and margarine processing equipment and system concepts.

Westfalia Separator, Werner Habigstrasse 1, D-4740 Oelde, West Germany (6 & 7). Technical information about new refining centrifuges and processes will be shown by Westfalia Separator.

Book exhibit

The following publications will be on display at a commercial publishers' exhibit in the exposition hall during the world conference. Inquiries regarding these books should be made directly to the publishers, whose addresses are listed.

Association of Official Analytical Chemists (AOAC), Suite 400, 2200 Wilson Blvd., Arlington, VA 22201-3301 USA:

Journal of the AOAC, six issues per year; Raffaele Bernetti, editor-in-chief. 1 Year (1989) subscription: AOAC members \$84.50 in U.S., \$94.50 outside U.S.; nonmembers \$125 in U.S., \$145 outside U.S. air mail: additional \$70.

Institut des Crops Gras, 10A rue de la Paix, 75002 Paris, France:

Revue Francaise des Crops Gras, edited by ETIG. Subscription: 940 French francs (FF)/year.

Proceedings: "Chevreul" International Congress on the Study of Fats and Oils, Angers, France, June 6-9, 1989, edited by ETIC, 750 FF.

ISTA Mielke GmbH, P.O. Box 90 08 03, 2100 Hamburg 90, West Germany:

Oil World 1958-2007, December 1988, edited by Siegfried Mielke, 298 Deutschmarks (DM), surface mail Europe.

Oil World Annual 1989, April 1989, edited by Siegfried and Thomas Mielke, DM 118 (surface mail).

Oil World Weekly, published every Friday, edited by Thomas Mielke. Subscription: DM 822 (surface mail).

John Wiley & Sons Ltd., Baffins Lane, Chichester, West Sussex, PO19 1UD, England:

Flavour and Fragrance Journal, published quarterly, edited by R. Stevens of Keswick, Cumbria, U.K. Subscription: 1989 US\$130; 1990 US\$145.

Marcel Dekker Inc., 270 Madison Ave., New York, NY 10016 USA:

Crystallization and Polymorphism of Fats and Fatty Acids, 1989, Garti and Sato, \$150 U.S. and Canada; \$180 all other countries.

Fatty Acids in Industry, 1989, Johnson and Fritz, \$150 U.S. and Canada; \$180 all other countries.

McGraw-Hill Publishing Co., 11 West 19th St., New York, NY 10011 USA:

Oil Crops of the World, June 1989, G. Robbelen, R.K. Downey and A. Ashri, \$31.96.

The Oily Press Ltd., 36 Woodend Rd., Alloway, Ayr KA7 4QR, Scotland:

Gas Chromatography and Lipids: A Practical Guide, February 1989, W.W. Christie, £30 (air-mail £5).

Omega-3 Project, Inc., 10615-G Tierrasanta Blvd., Suite 347, San Diego, CA 92124 USA:

Omega-6, Excess Polyunsaturate Folly, 1988, G.G. Pique, \$11.95.

Omega-3, The Fish Oil Factors, 1986, G.G. Pique, \$9.95.

Peter Pomp GmbH, P.O. Box 250113, D-4300 Essen 11, West Germany:

The Basics of Industrial Oleochemistry, 1988, G. Dieckelman and H.J. Heinz, \$86.

South Asia Books, P.O. Box 502, Columbia, MO 65205:

11th International Congress of Essential Oils, Fragrances and Flavours, November 1989, published by Oxford & IBH Publishing Co. Pvt. Ltd., 66 Janpath, New Delhi 110 001, India, \$250.

Edible Oilseeds - Growth, Area, Response and Prospects, 1989, K.N. Ninan, \$150.

Alfalfa, 1988, A.I. Ivanov, \$195.

Handbook of Annual Oilseed Crops, 1988, S. Maiti, \$95.

Post Harvest Technology of Cereals, Pulses and Oilseeds, 1988, A. Chakraverty, \$45.

Tuber Crops, 1988, S.P. Ghose et al., \$165.

Non-Traditional Oilseeds and Oils of India, 1987, N.V. Bringi, \$85.

Placrosym VI, Proceedings of the Sixth Symposium on Plantation Crops, 1987, Dr. S.N. Potty, \$195.

Castor, 1986, V.A. Moshkin, \$165.

Oilseed Production - Constraints and Opportunities, 1985, Dr. H.C. Srivastava, et al., \$195.

Handbook of Coconut Palm, 1981, P.K. Thampan, \$36.

Soyatech, Inc., 318 Main St., P.O. Box 84, Bar Harbor, ME 04609 USA:

'89 Soya Bluebook, August 1989, published by Soyatech, Inc., \$35 North America, \$45 all other countries.

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Stazione Sperimentale Oli e Grassi (SSOG), Via Giuseppe Colombo, 79, 20133 Milano, Italy:

La Rivista Italiana delle Sostanze Grasse, published monthly, edited by the SSOG, 1989 subscription: 100,000 Italian lira.

Chevreul Medals to 3

The first Eurolipid Congress (International Chevreul Congress) was held June 6-9, 1989, in Angers, France, where the French chemist Michel-Eugene Chevreul was born. In this report prepared for JAOCS by James K. Daun of the Canadian Grain Commission in Winnipeg, Manitoba, Canada, the highlights of Chevreul's career are noted and summaries provided for talks by the three plenary speakers who received the "Chevreul Medal" during the congress. G. Robellin, speaking on genetic improvement of crops, suggested genetic transfer techniques might be a preferred path to tailored crops as opposed to trying to domesticate wild species. P. Capella discussed oxidation and its potential effects on health. J.M. Bourre described the role of polyunsaturated fats in nerve tissue.

The First Eurolipid Congress, organized by the French Association for the Study of Fats and Oils (AFECG) in collaboration with the German Association for the Study of Fats and Oils (DGF) and the Italian Association for the Study of Fats and Oils (SSIG), was held June 6-9, 1989, in Angers, France. The congress was designated a "Chevreul Congress" to mark the 100th anniversary of the death of Michel-Eugene Chevreul. Approximately 600 technical registrants from three dozen nations attended.

Chevreur was born in Angers in 1786. A distinguished student, he moved to Paris in 1803 where he studied with Vauquelin until 1810. He was appointed assistant director of the Museum of Natural History. Between 1813 and 1823, Chevreul published eight papers on animal fats with the French Academy of Science, summarizing his work in 1823 with his publication "Chemical Research on Animal Fats" in which he set out many of the basic premises of lipid chemistry. It is interesting that he began his study of animal fats at a time when most chemists were interested in inorganic materials. Chevreul utilized the newly developed techniques of elemental organic analysis conceived by Lavoisier and established by Gay-Lussac and Thenard as well as the methods for chemical nomenclature of De Morvan, Lavoisier, Bertholet and Fourcroy.

In less than 10 years, using the very basic tools and the crude solvents available at the time, Chevreul unravelled the nature of the saponification reaction. He purified stearine and olein from animal fats as well as stearic, "margaric" (palmitic) and oleic acids. He discovered isovaleric acid as a major component of porpoise fat as well as four characteristic acids in butterfat (butyric, caproic, caprylic and capric). He pointed out the role of volatile fatty acids in the odor of cheese and indicated the presence of a yellow color body (carotene) in butter. Studying spermaceti, he isolated cetyl alcohol, hirsique and phocenique acids, as well as cetin, and pointed out the difference between long chain wax esters and triglycerides. Working with gallstones, he isolated cholesterol and recognized its unsaponifiable character.

An analysis of some compounds prepared by Chevreul during the period was presented at the Congress. His stearic and palmitic acids and cholesterol were found to be better than 90% pure. Modern analytical values of the carbon, hydrogen and oxygen in these samples were remarkably close to those obtained by Chevreul.

In 1824, Chevreul became involved with the dye industry at the Gobelins factory and constructed a workable psychromatic circle. He studied cochineal dyes and defined the chemical structure of cochineal and kermes and made a number of studies of indigo and madder. Chevreul held many other posts, including President of the French Academy of Science, President of the Royal Society of Agriculture, examiner in chemistry of l'Ecole Polytechnique, and fellow of the Royal Academy of Medicine. He was honorary chairman of the Anjou Wine Society (although he

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MEETINGS

drank only water). He was an honorary member of the Royal Society in London as well as the Academies of Stockholm, Copenhagen, Berlin, St. Petersburg, etc. He was presented with many honors including the Legion d'Honneur.

Chevreur died in 1889 at the age of 103 years, shortly after having visited the newly erected Eiffel Tower. Chevreur liked to refer to himself as the "oldest student of all." He certainly was the "father of lipid chemistry."

In 1963, the AFECG instituted the "Chevreur Medal," a reproduction of a medallion made by Chevreur's schoolboy friend, David d'Angers, in 1830. The medal has been presented annually to one French scientist and a scientist from another country. Past AOCS presidents holding this award include A.R. Baldwin, J.C. Cowan, W.O. Lundberg, J. Beare-Rogers and T.L. Mounts. In 1989, the award was presented to one person from each of the three nations sponsoring the conference: G. Robellin from Germany, P. Capella from Italy and J.M. Bourre from France. Presentations from each of the three medalists made up the plenary sessions of the Congress.

Robellin was recognized for his work in plant breeding, specializing in the area of Brassica oilseeds. In his paper, "The challenge to genetic improvement of vegetable fat productions," he outlined the current state of development of oilseed crops, using rapeseed as an example to point out the necessity to breed for both quality and agronomic objectives. The need to develop "double-zero" cultivars of rapeseed may have cost a yield gain (through plant breeding) of as much as 1% to 2% per year. He also pointed out the world trend toward a decreasing variety of oil crops and considered genetic manipulation of composition in established agricultural crops better than attempting to cultivate new species as a means to achieve the desired product. For example, although *Cuphea* species exist with desirable levels of unusual fatty acids, most of the lines have undesirable agronomic characteristics which will be difficult to remove through plant breeding. Biotechnology may provide the means to transfer genes from wild species into cultivated species to tailor the fatty acid composition. He emphasized the need to fully explore the genetic variability available in wild species before they disappear.

Capella was recognized for his work in the area of lipid oxidation. In his presentation, "Les produits de l'évolution des hydroperoxydes," he reviewed his studies on the oxidation of methyl esters of oleic, linoleic and linolenic acid, noting the mechanisms to support the breakdown of hydroperoxides to form each of the breakdown products in the "low boiling" and the "high boiling" groups. He concluded his paper with some remarks on the biological significance of oxidized lipids. He noted that ingestion of oxidized fat has been associated with increased risk of colonic cancer and that antioxidants might be considered important anticarcinogens, if they are used wisely.

The amount of oxidized fat ingested is small, however, since more products of oxidation are removed by processing. More information is needed, however, on the components formed during frying and their possible antinutritional effects. He noted the occurrence of compounds with similarity to prostaglandins produced during peroxidation of linolenic acid and wondered about their possible nutritional role or about the possible use of peroxidation as a synthetic pathway to prostaglandin analogs.

Bourre was recognized for his work in the area of brain lipids. His lecture, "Les acides gras du cerveau: nature, rôle origine. Leur importance alimentaire," outlined the important role of polyunsaturated fatty acids in nerve tissue. He emphasized the essentiality of both the n-3 and n-6 groups of fatty acids and gave some rationale for the importance of different structural types. At the same time he pointed out that fatty acids in nerve tissues have relatively long lives and that dietary needs, except in the neonatal period, are small (a minimum of 2.4% calories as linoleic and 0.4% of calories as linolenic). He suggested that deficiencies in linolenic acid may occur, particularly in the Third World, in the elderly and in the ill, particularly in cases requiring parenteral nutrition. He pointed out the need to consume a diet which has fatty acids available in proportion to the energy and membrane needs. At the same time, it is important that the fatty acids in the membranes be protected by the use of appropriate antioxidants from oxidation.

There were 14 general sessions (lectures and poster) at the conference, including (a) New Sources of Oils—Genetic Modification (14 papers); (b) Composition and Analysis (29 papers); (c) Chemical Properties and New Reactions (8 papers); (d) Physical and Rheological Properties (9 papers); (e) Sensory Properties (6 papers); (f) Olive Oil and other Virgin Oils; (g) Biochemistry and Nutrition (39 papers); (h) Biotechnology (19 papers); (i) New Extraction Technologies (5 papers); (j) New Refining Technologies (5 papers); (k) New Transformation Technologies (5 papers); (l) New Food and Dietetic Products (17 papers); (m) New Animals Feedstuffs (3 papers); (n) New Pharmaceutical and Cosmetic Products (9 papers); and (p) New Products for Industrial Use (17 papers).

In addition there were 12 general papers presented in a session entitled "Information—Current Situation and Prospects." The titles and abstracts for all papers may be found in *Revue Française des Corps Gras*, Vol. 36, March–April 1989. The text of all presentations is available in a three-volume set, *Actes du Congrès international 'Chevreur' pour l'étude des corps gras. Premier congrès Eurolipids. Angers 6–9 juin 1989*, which is available from ETIG, 10A rue de la Paix, 75002 Paris, France. A. Karlskind, chairman of the organizing committee, and M. Naudet, chairman of the scientific committee, are to be congratulated on having the texts available at the start of the Congress.