

Cincinnati is site of 1989 meeting

AOCS will hold its 80th annual meeting May 3-6, 1989, at the Albert B. Sabin Convention Center, Cincinnati, Ohio. In addition, two short courses—Specialty Fats: Production and Application, and Soap Technology for the 1990s—will be presented April 30-May 2, 1989, at the Kings Island Inn, Kings Island, Ohio (see separate article).

The annual meeting will begin with an opening mixer from 6:30 to 8:30 p.m. Wednesday, May 3, in the North Hall of the Albert B. Sabin Convention Center. The meeting registration desk, also in the North Hall of the convention center, will be open from 2 to 6:30 p.m. Wednesday, May 3. The North Hall is the site of the exhibition accompanying the meeting (see separate article on exhibitors).

Technical papers at the annual meeting will be presented Thursday, May 4, through Saturday, May 6, in seven concurrent sessions Thursday and Friday, six concurrent sessions Saturday morning, and three concurrent sessions Saturday afternoon. Technical topics will include fat substitutes; canola in Canada and the U.S.; dietary omega-3 and other fatty acids; mycotoxins; surfactants and detergents; feed products from protein; proteins and snacks; plant lipids; plant biotechnology; state-of-the-art oilseed processing; enzymes and novel applications; nutrition and biology; fats and oils processing; fatty acids and fatty chemicals; analytical aspects and techniques; seeds and oils discussion; flavor quality and stability; and pharmacological effects of lipids. There also will be poster presentations.

AOCS will hold its annual business meeting at a 7:30 a.m. breakfast Thursday, May 4, in the convention center ballroom. The inaugural and awards breakfast will be held Saturday, May 6, at 7:30 a.m. in the ballroom. Awards to be presented will include the Supelco AOCS Research Award, The Soap and Detergent Association Award

for best technical paper on surfactants and detergents published in *JAOCS* during 1988, the Archer Daniels Midland Awards for best technical papers relating to protein and co-products, and the Ralph H. Potts Memorial Fellowship. Also recognized will be the AOCS Honored Students and the top-ranking Smalley Check Sample Program participants.

Technical interest groups are scheduled to meet at noon on Thursday, May 4. Participants are encouraged to purchase lunch and join the group of most interest to them. As of mid-November, the following interest groups had been scheduled:

- Processing—refining and bleaching
- Processing—hydrogenation and winterization
- Nutrition—analysis of lipid classes
- Detergent testing methodology
- Surface activity fundamentals
- Formulation of liquid detergents

Social activities for the meeting include an optional riverboat cruise on the Ohio River on Thursday evening, May 4. The \$35 fee (\$40 after April 3) includes dinner, soft drinks, beer, wine, entertainment, transportation to and from the boat and a tour on the river.

On Saturday, May 6, at the conclusion of the technical program, all meeting attendees are invited to a "Run for the Roses" Kentucky Derby party at the convention center to watch the race. This activity is sponsored by United Catalysts Inc. of Louisville, Kentucky. After the party, there will be an Oktoberfest at the Oldenberg Brewery, site of the world's largest brewing memorabilia collection. Buses will take participants to the brewery in Fort Mitchell, Kentucky, for an evening of food and entertainment featuring the Brew*Ha*Ha! Revue. Oktoberfest tickets are \$35 each (\$40 after April 3).

There also are sporting events, plant tours, section events and activities for spouses (see separate articles). In addition, the AOCS Placement Center will be open during the meeting. This service is designed to bring together employers and job applicants in the fields of fats, oils, lipids and other areas served by AOCS. Employers and job applicants wishing to register in advance for the Placement Center should contact Kathy Atchley, AOCS, PO Box 3489, Champaign, IL 61821-0489, USA.

In addition to the Wednesday afternoon hours, the registration desk will be open from 7 a.m. to 5 p.m. Thursday, May 4, and Saturday, May 6, and 8 a.m. to 5 p.m. Friday, May 5.

Meeting registration and housing forms are included in this issue of *JAOCS*. Completed meeting registration forms should be returned to AOCS Headquarters, PO Box 3489, Champaign, IL 61821-0489, USA. Those registering by April 3 pay lower fees than those registering after that date (see registration forms for details).

Completed hotel reservation forms should be mailed by April 3, 1989, to the AOCS Housing Bureau, 300 West Sixth St., Cincinnati, OH 45202, USA. The Clarion Hotel, Hyatt Regency and Omni Netherland will be headquarter hotels for the meeting. All technical sessions, committee meetings and exhibits will be held at the Albert B. Sabin Convention Center, Cincinnati.

Ahmad Moustafa, a consultant based in Cincinnati, is general chairman for the 1989 meeting. Bryan Madison of Procter & Gamble is technical chairman.

Section events

Geographic and specialty sections of AOCS will hold a section cocktail party from 5:30 to 6:30 p.m. Friday, May 5, at the convention center in Cincinnati. The purposes

MEETINGS

are for current members of sections to get together and for those interested in joining a section to get acquainted with section members.

Sections planning to participate in the cocktail party are the Canadian, Desert Southwest, Latin American, Mid-American, Mid-South, Northern California, North Central, Northeast, Plant and Microbial Lipids, Protein and Co-Products, South Central, Southwest and Surfactants and Detergents, as well as the proposed Cincinnati section. Tickets are \$15 per person before April 3, or \$20 after that date.

Meanwhile, two sections—the Protein and Co-Products Section and the Surfactants and Detergents Section—have scheduled lunches on Friday. Each will also feature a speaker. Lunch tickets for each are \$15 per person by April 3, \$20 after April 3.

Plant tours

Tours of four companies in the Cincinnati and Dayton, Ohio, areas have been arranged in conjunction with the 1989 AOCS annual meeting. All tours will depart from and return to Cincinnati's Albert B. Sabin Convention Center. Two are slated for Thursday, May 4, and two for Friday, May 5.

Buses will depart at 8:30 a.m. Thursday for a tour of the U.S. Environmental Protection Agency's Water Resources Laboratory. This laboratory is a major center for EPA research on water quality. The chemical analysis facilities will be toured as well as pilot-plant areas for water testing and computer systems. A brief film will be shown. Buses are scheduled to return to the center by 1 p.m.

Also on Thursday, buses will depart at 11:30 a.m. for a walking tour of Procter & Gamble's Ivorydale manufacturing plant. The facility manufactures soaps and detergents and processes vegetable oils for use in edible and inedible products. Ivory soap and Crisco processing and packaging operations will be seen. Buses are scheduled to return by 1:15 p.m.

On Friday, buses will leave at 8 a.m. for a trip to Piqua, Ohio, to visit The French Oil Mill Machinery Co., manufacturer of equipment for mechanical and solvent-based fats and oils processing. Participants will visit French's research and development facilities, engineering area and manufacturing and assembly operations. During the return trip, buses will take participants to the Golden Lamb Restaurant in Lebanon, Ohio. Lunch cost is not included in the tour price. Buses will return to the convention center around 3 p.m.

Also on Friday, those signing up can visit Mike-Sell's Potato Chip Co. in Dayton, Ohio. Buses will leave the convention center at 12:45 p.m. The trip will include transportation to and from Dayton and a one-hour tour of the plant to view the potato chip manufacturing operation. Return is scheduled for 4:15 p.m.

The charge for each tour is \$10 for those registering by April 3, or \$15 for those registering after that date. Meal costs are not included in this fee.

Sports events

Golf and tennis tournaments, as well as the annual Fat People's Fun Run and Walk, will be held in conjunction with the 1989 AOCS annual meeting. The golf and tennis tournaments are slated for Wednesday, May 3, and the fun run and walk will be held early Friday, May 5.

The golf tournament will be held on the Vineyard Golf Course. Registration fee of \$50 (\$60 if paid after April 3) includes greens fees, round-trip transportation between the convention hotels and the golf course, cart rental, breakfast and prizes. The first bus will leave at 7 a.m., with a second bus leaving at 8 a.m. to accommodate those with later tee-times.

A round-robin tennis tournament will be held at the Queen City Racquet Club from 8 a.m. until noon. The \$25 (\$30 if paid after April 3) registration fee includes court fees and prizes. Participants

are welcome to use the Nautilus equipment, to join the aerobics classes and to use the athletic facilities at the club.

On Friday, May 5, fun run participants will cover a five-kilometer course in the downtown area, along the river and back to the convention center. The run begins at 6:15 a.m., with plans that everyone finish before the technical program begins. The fee is \$15 by April 3, or \$20 after April 3. Prizes will be awarded, and t-shirts will be given to early registrants.

Spouses' program

Special activities have been planned for spouses attending the annual meeting in Cincinnati. First is a hospitality tea, from 2:30 to 4:30 p.m. Wednesday, May 3, at the Albert B. Sabin Convention Center.

On Thursday, the program includes a continental breakfast at the convention center, followed by a bus tour featuring highlights of Cincinnati. Lunch will be served at the Cincinnati Club. After lunch, local historian Don Demming will bring the past to life with stories of "Life Along the River."

After a continental breakfast Friday at the convention center, program participants will have a conducted tour of the Cincinnati Art Museum and the Krohn Conservatory. Lunch will be served on the upper deck of a riverboat restaurant on the Ohio River. After lunch, participants will visit the historic Riverside District of Covington, Kentucky, where several historic homes will be viewed.

On Saturday, participants will have a full breakfast at the convention center, followed by a short program. Time will be available for individual activities.

The spouses' program registration also includes a ticket to the Wednesday evening opening mixer. The program fee is \$125 by April 3, or \$135 after that date. Tickets for other optional events can be ordered on the registration form.

(Continued on page 62)

1989 AOCS Annual Meeting Tentative Technical Program

Thursday Morning, May 4

Session A: Detergents & Surfactants I—Performance Evaluation and Formulation Technology

Chairperson: James A. McDonnell, 3M Company

Liquid Autodish Detergent Technology

Jim Kaeser, Colgate Palmolive Co.

Rheology of Alumina Thickened Liquid Automatic Dishwasher Formulations

Steven L. Baxter and David A. Barclay, Vista Chemical Co.

Evaluation of Foam Stability in Light Duty Liquid Dishwashing Products

C. Nguyen, G. Riska, B. Hawrylak, F. Malihi, Colgate Palmolive Co.

Characterization of Key Laundry Stains on Washed Fabrics

Ann M. Wolff, Procter & Gamble Co.

The Evaluation of Parameters Affecting the Precision of Launder-O-Meter Test Methods

Walter N. Opdycke, Diversey Corp.

Wear Life Properties of Cotton and Polycotton as a Function of Laundering and Use

R.S. Carpenter, Procter & Gamble Co.

The Effect of Sodium Citrate in a Liquid Laundry Detergent at Various Wash Temperatures

Karen L. Pratt, Miles, Inc.

A Study of Detergent Builder Efficiency: Comparison Between Performance and Molecular Orbital Calculations

Dave McCall, Diversey Corp.

Session B: Nutrition as a Basis for Value-added Products from Oilseed Proteins

Chairperson: John Story, Purdue Univ.

Effects of Dietary Protein on Metabolism of LDL Apo B in Rabbits

Samir Samman, Univ. of Western Ontario

Protein and Co-products Invited Lecture

David Kritchevsky, Wistar Institute

Seven additional papers to be added

Session C: Canola in Canada

Chairperson: Roy A. Carr, POS Pilot Plant Corp.

Six papers to be determined

Session D: Plant Lipids I: Isopentenoid Metabolism in Plants and Fungi

Chairperson: W. David Nes, USDA-ARS

Cloning of Sterol Biosynthetic Genes in Fungi

Martin Bard, Purdue Univ.

Developmental Regulation of Plasma Membrane Lipids

J.R. Morré, Purdue Univ.

Epiminoisopentenoids: Development and Application as Potential Fungicidal and Hypocholesterolemic Agents

E.J. Parish, Russell Research Center
Developmental Changes in Sterol Biochemistry of Vascular Plants

Malgorzata Kalinowska, Warsaw Univ.

Session E: Analytical I - HPLC Applications

Chairperson: John Callahan, Colgate Palmolive Co.

High Performance Liquid Chromatographic Separation of Enantiomeric Alkyl Ether Glycerols

Kazuhito Maeda, Nippon Oil & Fats Co., Ltd., Thomas A. Foglia, USDA-ARS-ERRC

A Comparison of Detection Methods for High Pressure Liquid Chromatography of Dimer Acids

J.A. Barnhorst and K. Gates, E.H. Fairchild, Quantum Chemical Corp., Emery Division

The Determination of Fatty Amides by HPLC

James Jasperse, Sherex Chemical Co.

Establishing Adulteration of Olive Oil by Triglyceride Analysis

Richard V. Flor, U.S. Customs Service and Brian David Martin, Univ. of Maryland

Detection of Docosahexaenoic Acid Oxidation Products Using HPLC with Post Column Reactions

Martin P. Yurawecz, George D. Yang, Agnes N. Pho, Yuoh Ku and Kim M. Morehouse, U.S. Food & Drug Admin.

Trace Analysis of Alkylphenol Ethoxylates

Edmund Kubeck and Carter G. Naylor, Texaco Chemical Co.

Session F: Mycotoxin Symposium

Chairperson: Jim Henderson, Procter & Gamble Co.

Recent Developments in Ochratorin: A Methodology Incidence and Significance

Stanley Nesheim, FDA

Aflatoxin in Cottonseed: An Overview of the Southern Regional Research Center's Multidisciplinary Approach to Problem Solution

L.S. Lee, M.A. Klich, J.E. Mellon, W.R. Goynes, P.J. Cotty and H.J. Zeringue, USDA-ARS-SRRC

Perspectives on the Safety of the Ammoniation Procedure

Douglas L. Park, Univ. of Arizona, Louise Lee, USDA-ARS-SRRC and Albert E. Pohland, FDA
SRRC's Progress on Alternate Solvent Research
Emphasizing Aflatoxin Extraction From Cottonseed
Robert J. Hron, Sr., USDA-ARS-SRRC

Immunochemical Methods for Monitoring Aflatoxin Contamination in Animal Feeds: A Field Test Evaluation

Douglas Park, Sam M. Rua, Jr., Henry Nsapau, Maha Rosa and Karen Jorgensen, Univ. of Arizona

Session G: Dietary, Omega-3, Essential and Other Fatty Acids

Chairperson: Joyce Beare-Rogers, Canadian Dept. of Health & Welfare

Flax Consumption by Humans Increases Plasma and

Red Cell Omega-3 Fatty Acids and Decreases Serum Cholesterol

Stephen C. Cunnane, Sujata Ganguli, Julia K. Armstrong, Thomas M.S. Wolever and David J.A. Jenkins, Univ. of Toronto

Synthesis, Preparative HPLC Purification and Structure Confirmation of a New Fish Oil-Derived Omega-3 Polyunsaturate

J.G. Turcotte, S.S. Shirali and P.E. Pivarnik, Univ. of Rhode Island

The Digestive Process and Therapy with Marine n-3 Fatty Acids in Acid, Ester or Triglyceride Form

R.G. Ackman, Canadian Inst. of Fisheries Technology

Distributional Analyses of Pinniped Milk Fatty Acids on the Glycerol Backbone

Don L. Puppione, UCLA, D.P. Costa, Univ. of California - San Diego and S.T. Kunitake Univ. of California - San Francisco

Effects of Safflower Oil, Evening Primrose Oil, Fish Oil and Liquid Paraffin on Human Plasma Essential Fatty Acid Levels

David F. Horrobin, Mehar S. Manku, Janet Shay, Kelly R.M. Ells and Nancy Morse-Fisher, Efamol Research Institute

Essential Fatty Acids in Plasma Phospholipids from Normal Humans in Different Geographical Locations

Mehar S. Manku, David F. Horrobin, Kelly R.M. Ells, Janet Shay and Nancy Morse-Fisher, Efamol Research Institute

Correlation of Isomeric Fatty Acids in Human Adipose Tissue with Clinical Risk Factors Associated with Heart Disease

E.A. Emken, USDA-ARS-NRRC

Thursday Afternoon, May 4

Session H: Detergents & Surfactants II - Recent Advances in Detergents Technologies

Chairperson: J.H. Collins, Procter & Gamble Co.

New Builder Systems

M.S. Greenberg, Procter & Gamble Co.

Optimization of Alkoxylbenzenesulfonate/Sodium Perborate Compositions for Laundry Bleaching

Allen D. Clauss, Procter & Gamble Co.

TAED Bleach Activator - Technology, Activity, Efficiency, Degradability

G. Reinhardt, Hoechst A.B.

New Soil Release Polymers

E.P. Gosselink, Procter & Gamble Co.

Detergency Study: The Role of Soil Release Polymer

J.R. Hartman, Procter & Gamble Co.

Detergency and Antiredeposition Performance of Polymer Blends for Laundry Liquids

Richard J. Holland, BASF Corp.

Effect of Polyacrylate Molecular Weight on Laundry Detergent Performance

Michael B. Freeman and David Witiak, Rohm and Haas Co.

Polymers to Enhance Performance in Liquid Laundry Detergent Formulations

Charles E. Jones, Rohm and Haas Co.

Mechanism of Detergent Protease Action

M.S. Showell, Procter & Gamble Co.

Session I: Value-added Feed Products from Protein and Co-Products I

Chairperson: Edmund Lusas, Texas A&M Univ.

Utilization of Full-fat Oilseeds in Animal Feeding

Speaker to be determined

Utilization of Full-fat Soybeans for Swine Feeding

Speaker to be determined

Canola Meal for Animal Feeding

Phil McKinnon, Canola Crushers of Western Canada

Rice Bran as a New Feedstuff

Wallace Migura, Uncle Ben's, Inc.

Feeding Requirements of Catfish

Ed Robinson, Univ. of Mississippi

Use of Soybeans, Cottonseed, Meat and Bone Meal, and Dried Blood in Shrimp Feeds

Addison Lawrence, Texas A&M Univ.

Feeding of Whole Cottonseed and Replacements to Dairy Cattle

Carl Coppock, Texas A&M Univ.

Direct Feeding of Oils and Calcium Soaps to Ruminants

Donald Palmquist, Ohio Agricultural R&D Center

Milk Replacers and Weanling Diets for Calves and Pigs

L. Williams, Central Soya Co., Inc.

Soybean Proteins in the Diets of Preruminant Calves

W.G. Schmutz, Central Soya Co., Inc.

Recent Advances in Upgrading Industrial Fish to Value Added Products

Anthony P. Bimbo, Zapata Haynie Corp.

Session J: Canola in the United States

Chairperson: Andrew Baum, Calgene, Inc.

Rapeseed Production in the Midwest

Dr. Walter Schmidt, Ohio State Univ.

Rapeseed Production in the Mid-South

Dr. John Bradley, Univ. of Tennessee

Breeding Canola for the United States

Dr. Matti Sovero, Calgene, Inc.

Canola in the United States - A Processor's Perspective

Dr. Joseph Endres, Central Soya Co., Inc.

The Economic and Functional Acceptance of Canola Oil

James M. Stanton, Experience, Inc.

Acceptance of Canola Meal by the U.S. Feed Industry

Charles Dexheimer, Farmland Industries

Session K: Plant Lipids II: Fatty Acid and Lipid Synthesis in Plants

Chairperson: Mike Pollard, Calgene, Inc.

Recent Progress with Plant Acyl Carrier Proteins

J.B. Ohlrogge, Michigan State Univ.

The Pathways of Fatty Acid Desaturation in Leaf Lipid

C. Sommerville, Michigan State Univ.

Re-evaluation of the Initial Reactions of Fatty Acid Biosynthesis in Plants

J. Jaworski, Miami Univ. of Ohio

Fatty Acid Synthesis

P. Kollattukudy, Ohio State Univ.

Identification and Some Properties of Polypeptides Associated with Linolenate Levels in Soybean and Arabidopsis

D. Hildebrand, J.A. Brockman, E.A. Lurding, X.M.

Wang, C.R. Sommerville, T. Pfeiffer, Univ. of Kentucky

Growth Temperature and the Regulation of Fatty Acid Metabolism in Developing Soybean Seeds

T. Cheeseborough, USDA

Cocoa Butter Biosynthesis: sn-Glycerol-3-Phosphate Acyltransferase Gene Studies

P. Fritz, T. Heeyoung (speaker), Pennsylvania State Univ.

Is Acetyl Transacylase the Condensing Enzyme? - Studies with the Purified Enzyme from Brassica Leaves

G. Thompson, Calgene, Inc.

Session L: Physical/Analytical Chemistry Technique for Analysis and Characterization of Fats/Lipids

Chairperson: Dr. Peter Wan, Kraft, Inc.

Textural Properties of Margarines

L. DeMan, DeMan Food Technology Services, Inc., J.M. DeMan and E. Postmus, Univ. of Guelph

Particle Size Analysis of Fat Crystals

J.M. DeMan, P.R. Chawla, Univ. of Guelph and L. DeMan, DeMan Food Technology Services, Inc.

Physical Properties of Fully Hydrogenated Fats

L. DeMan, DeMan Food Technology Services, Inc., J.M. DeMan and B. Blackman, Univ. of Guelph

Heats of Combustion of Fatty Esters and Triglycerides

Bernard Freedman and Marvin O. Bagby, USDA-ARS-NRRC

Country of Origin Determination of Pistachio Nuts by Thermal Analysis and HPLC

Susan M. Dyszel and Bruce C. Pettitt, U.S. Customs Service

A Solution Thermodynamic Study of Jojoba Oil Solvent System by Inverse Gas Chromatography

Jerry W. King, USDA-ARS-NRRC

Studies on Oil Quality and Stability

Melinda Guzman-Harty and Normanella DeWille, Ross Laboratories

A Comparative Study of Soybean Oil Oxidation Methodology

G.R. Goss, D.D. Brooks, S.K. Brophy and B. Hayden, Oil-Dri Corp. of America

Session M: Mycotoxin Symposium II

Chairperson: R.J. Hron, Sr., USDA/RRRC

Aflatoxin Decontamination in Peanuts by Density Using Water Flotation: A Process Study

James C. Henderson and William Hagen, Procter & Gamble Co.

Comparison of Affinity Column and Solid Phase Sorbant Cleanup Techniques for the Determination of Aflatoxins in Raw Peanuts with Detection by Flavorometer and HPLC

Daniel Sweigert, Hershey Foods

Four additional papers to be added

Session N: Pharmacological Effects of Lipids and Proteins

Chairperson: To be determined

Changes of Tissue Phospholipid (PL) Fatty Acid Profiles in the Spontaneously Hypertensive (SHR) and Normotensive (WKY) Rats During Fat Depletion

Y.S. Huang, D.F. Horrobin and V.A. Simmons, Efamol

Research Institute, D.E. Mills and R.P. Ward, Univ. of Waterloo

Differential Incorporation of Dietary n-6 and n-3 Fatty Acids by EFA-Deficient Genetically Hypertensive (SHR and BHR) and Normotensive (WKY) Rats

David E. Mills and R.P. Ward, Univ. of Waterloo, Y.S. Huang, Efamol Research Institute

Dietary Fat and the Phospholipid Molecular Species of Rat Photoreceptor Membranes

Rex D. Wiegand, Ann Stinson, Cynthia A. Koutz and Robert E. Anderson, Baylor College of Medicine

Conversion of Octadecadienoic Acid Isomers to Isomers to Arachidonic Acid in Mice

E.C. Beyers and E.A. Emken USDA-ARS-NRRC

Influence of Omega 6,3 Fatty Acid Ratios on Photocarcinogenic Expression

Homer S. Black, Wanda Lenger, Janette Gerguis and John I. Thornby, Veterans Administration Medical Center

Membrane Cholesterol in Novikoff Hepatoma Cells and its Effect on Gap Junction Formation

Barbara Malewicz, Rita A. Meyer, Ross G. Johnson and Wolfgang J. Baumann, Hormel Institute, Univ. of Minnesota

Friday Morning, May 5

Session O: Detergents & Surfactants III—Cosmetics and Toiletries

Chairperson: I.R. Schmolka, Consultant

Soap Production Via Fatty Acid Methyl esters

Giovanni Franco Moretti, I. Adami and C. Mazzanti, Ballestra, S.p.A.

The Use of Mild Surfactants in Bars

Al Green, Lever Research & Development Center

New Acylamino Acid Compound for Cosmetic Formulations

Kazutami Sakamoto, Ajinomoto U.S.A., Inc. and Jon Packer, Centerchem, Inc.

New High Molecular Weight Polyglyceryl Esters

Larry K. Hall and Victor Landeryou, Lonza, Inc.

Triglycerides as Primary Emollients in Commercial Skin Care Products

Branko Sajic, Stepan Co.

Alkyl Polyglycosides: A Natural for the Personal Care Industry

J.R. Varvil and R.A. Aleksejczyk, Henkel Corp.

Three additional papers to be added

Session P: Value-added Industrial Uses for Soybeans

Chairperson: Keith Smith, American Soybean Association

Historical Review of Soybeans' Use in Industrial Manufacturing

William Shurtleff, Soyfoods Center

Overview of Industrial Uses for Soy Protein

Andre Sipos

Soybean-based Wood Adhesives

Tony Conner, Forrest Products Laboratory

Industrial Uses of Vegetable Oil

Ruxton H. Villet, USDA-ARS-NRRC

Vegetable Oils as Diesel Fuel Extenders

Marvin O. Bagby, USDA-ARS-NRRC

Use of Soybean Oil in News Ink Formulations

Wilson Cunningham, American Newspaper Publishers' Assoc.

Use of Vegetable Oils in Feeds

Jerry Weigle, Archer Daniels Midland

Vegetable Oil Use with Agrichemical Crop Protectants

George Kapusta, Southern Illinois Univ.

Session Q: Oilseed Processing - State of the Art

Chairperson: Les Watkins, Texas A&M Univ.

Microscopic View of Why the Expander Improves Extractability

Les Watkins, Texas A&M Univ.

Hot Dehulling of Soybeans

W. Fetzer, Buhler Brothers Ltd.

New Generation of Flakers

W. Fetzer, Buhler Brothers Ltd.

Energy and Labor Savings Utilizing Programmable Controllers in Plant Operations

John Schnake, Consultant

Computer Controlled Soybean Dryer

Peter Douglas, Dantec Electronics, Ltd.

Hydrogenation with Loop Reactor

R.J. Malone, Herzog-Hart Corp.

The Vegoil Expander - How it is Used to Improve Extractability of Oilseeds Material

Maurice Williams, Anderson International

Mineral Oil Recovery System with 99.5% Efficiency

Les Watkins, Texas A&M Univ.

Session R: Nutrition and Biology

Chairperson: John E. Bauer, Univ. of Florida

Modulating Effects of Dietary Omega-3 Fatty Acids on Membrane Phospholipids and Kidney Function in Health and Disease

Bruce J. Holub, Univ. of Guelph

Differential Fatty Acid Incorporation in Hypertensive Animals

V. Huang

Fatty Acid Metabolism in Hypertensive Animals

D. Mills

Omega-3 Fatty Acid Metabolism in Rabbits

G. Nelson

Dietary Fat Effects on Rabbit Lipid Metabolism

J. Bauer, Univ. of Florida

Dietary Protein Effects on Rabbit Lipid Metabolism

K. Carroll

Canola Oil in Atlantic Salmon Nutrition

R.G. Ackman, Canadian Inst. of Fisheries Technology,
S.M. Polvi, Tech. Univ. of Nova Scotia, R.L. Saunders
and S.P. Lali, Fisheries & Oceans Canada

Effects of Dietary n-3 and n-6 Polyunsaturated Fatty Acids on Plasma Lipoprotein Composition and Fluidity

Elliott Berlin, USDA-ARS-HNRS

Session S: Fats and Oils Processing

Chairperson: A. Rossetto, Jr., L.A. Salomon, Inc.

Bleaching of Vegetable Oils

Ronald L. Christenson, Cargill Oilseed Processing

Filtration of Vegetable Oils

Ed King, Frank Passalacqua, Industrial Filter & Pump
Mfg. Co.

Hydrogenation of Vegetable Oils

Walter Farr, Kraft, Inc.

Formulations for the Refining of Vegetable Oils

John Hasman, Sigma Quality Foods

Deodorization for the Refining of Vegetable Oils

Calvin T. Zehnder, Consultant

Packaging of Vegetable Oils

David Lawrence, Safeway Stores, Inc.

Session T: Flavor Quality and Stability: Effect of Minor Oil Constituents

Chairpersons: N.A.M. Eskin, Univ. of Manitoba and
Kathleen Warner, USDA-ARS-NRRC

Volatile Decomposition Products from Autoxidized Triglycerides Containing Linoleate and Linolenate

E.N. Frankel, ARS-USDA, Edward Selke, R.A. Awl,
USDA-ARS-NRRC and K. Miyashita, Hokaido Univ.

Overview of Effect of Minor Constituents on Oil Quality

E.N. Frankel, USDA-ARS-NRRC

Effects of Processing Conditions of Minor Constituents

M. Gupta, Frito-Lay

Relationship of Minor Constituents to Oil Stability

Y. Endo and K. Fujimoto, Tohoku Univ.

Mixed Tocopherols: Effective Antioxidants for Animal Fats

C.J. Megremis, W.F. Froula and J.P. Clark, Henkel
Corp.

Low Linolenic Acid Canola Oil

R. Przybylski, Univ. of Manitoba

Effect of Tocopherols and Phytosterols on the Flavor and Oxidative Stability of Vegetable Oils

K. Warner and T.L. Mounts, USDA-ARS-NRRC

The Effect of Linalyl Acetate on the Rate of Cholesterol Oxide Formation in Heated Lard

Pearly S. Yan and Pamela J. White, Iowa State Univ.

Oxidative Stability of Meadowfoam Oil

Robert R. Lowry and Ian J. Tinsley, Oregon State
Univ.

Session U: Plant Biotechnology I

Chairpersons: James Rattray, Univ. of Guelph and
Richard F. Wilson, North Carolina State Univ.

Plant Biotechnology and the Fats and Oils Industry

J.B.M. Rattray, Univ. of Guelph

New Oilseed Opportunities from Biotechnology

W.R. Scowcroft, Biotechnica International

Genetic Diversity of Lipids in Germplasm

R. Kleiman, USDA-ARS-NRRC

Restriction Fragment Length Polymorphism (RFLP) in Oilseeds

D. Zaitlin, Sungene Tech. Corp.

Introduction and Expression of Foreign Genes in Canola and Other Crop Species

D. Shah, Monsanto

Cell Culture Techniques and Oilseed Crop Development

K.P. Pauls, Guelph-Waterloo Biotech.

Friday Afternoon, May 5

Session V: Detergents & Surfactants IV—Surface Chemistry of Surfactants

Chairperson: M.J. Rosen, Brooklyn College-CUNY

Current Status of Surfactant Phase Science

Robert B. Laughlin, Procter & Gamble Co.
Solubilization of Organics in Micelles and Mixed Micelles

S.D. Christian, E.E. Tucker and J.F. Scamehorn,
 Univ. of Oklahoma

Effects of Chemical Structure and Molecular Environment on the Dynamic Surface Tension of Aqueous Solutions of Surfactants

K.Y. Hua and M.J. Rosen, Brooklyn College -CUNY
Fundamental Surface Properties of Branched Alkyl Sulfate and Ethoxysulfate Surfactants I - Some Effects of Alkyl Chain and Ethoxy Chain Variation

R. Varadaraj, P. Valint, J. Bock and S. Zushea, Exxon Research & Engineering Co.

Fundamental Surface Properties of Branched Alkyl Sulfate and Ethoxysulfate Surfactants II - Properties of Two Highly Purified Isomeric Molecules

D.S. Murphy, Z.H. Zhu, X.Y. Yuan and M.J. Rosen, Brooklyn College - CUNY

Properties of Pseudo-Nonionic Complexes of Anionic and Cationic Surfactants

A. Mehreteab and F.J. Loprest, Colgate Palmolive Co.

The Effect of Polar Soil Components on the PIT and Optimum Detergency Conditions

K.H. Raney and H.L. Benson, Shell Development Co.

Surfactant Precipitation Kinetics

L.A. Hole, J.F. Scamehorn and J.H. Harwell, Univ. of Oklahoma

Session W: Dietary Fiber—Potential for Use in Value-added Co-products

Chairperson: Frederick Dintzis, USDA/NRRC

Dietary Fiber Update: Evolution of Concepts, Analysis and Values in Foods

Frederick Dintzis, USDA-ARS-NRRC

Scientific Consideration of Adding Dietary Fiber to Foods

Dennis Gordon, Univ. of Missouri-Columbia

Update on Regulations for Health Claims for Dietary Fiber in Foods

John Vanderveen, FDA

Use of Soybean Cotyledon Fiber in Foods

Grace Lo, Protein Technologies, Inc.

Dietary Fiber in Bread

Bernard Bruinsma, Roman Meal Co.

Mevalonate-suppressive Action of Secondary Plant Products: Prospective Roles in Health Maintenance - Tumor Inhibiting Substances in Palm Oil

Charles Elson, Univ. of Wisconsin

Session X: Enzymes and Novel Applications to Some New and Old Lipid Systems

Chairperson: To be determined

Synthesis of Triglycerides at High Substrate Concentrations with Lipase

Francoise Ergon, Michael Trani and Gerald Andre, Biotechnology Research Institute

Olease - Enzyme Complex for Oil Extraction

Ann A. Metzner, Biocon U.S., Inc.

Selectivity of Lipase Catalyzed Interesterification over Hydrolysis in Triglycerides

George Abraham, Min Kun Chang, USDA-ARS-SRRC and Vijay John, Tulane Univ.

Chemistry of Thiol Esters that are Useful for Lipase Assays

Philip E. Sonnet, Mary Welch Baillargeon and Gordon G. Moore, ARS-USDA-ERRC

Synthesis of Lipid Experimental Anti-AIDS Drugs

J.G. Turcotte, Univ. of Rhode Island, H.K. Singh, N.N. Bhongle and N.C. Motola

Polyunsaturated Algal Fatty Acid in Larval Oyster Nutrition

R.G. Ackman, Canadian Inst. of Fisheries Technology, G.S. Napolitano, Dalhousie Univ.

A Comparison of Lipid Profiles in Chill Injured and Non-injured Grapefruit Peel

Harold E. Nordby, USDA-ARS Horticultural Research Lab

Session Y: Fatty Acids and Fatty Chemicals - Hydrogenation

Chairperson: E.F. Sanders, Malinckrodt, Inc.

A Catalyst Evaluation Procedure for Production of Alkyl Amines

F. Friedli and R.M. Gilbert, Sherex Chemical Co.

Soybean Oil Hydrogenation with Advanced Gas Reactor

M.K. Weise, Linde Division, UCC, S.S. Koseoglu, Texas A&M Univ.

Computer Automated Hydrogenation Catalyst Evaluation System

D. Vavrek, Akzo Chemie America

Application of Laser Light Detector in HPLC Separations of Fatty Acid Derivatives

G. Szajer and L. Yodual, Akzo Chemie America

Applications of Wiped-Wall Stills in Fish Oil and Ester Purification

R.G. Ackman, W.M.N. Ratayake and D. Matthews, Technical Univ. of Nova Scotia

Biological Consequences of the Hydrogenation Process

J.L. Zevenbergen, Unilever Research Labs

Hydrogenation of Oxidized Oil

J.E. Covey, R.R. Allen and P.J. Wan, Kraft, Inc., J.E. Covey, Consultant

Hydrogenation Catalyst Poisons Present in Industrial Fats and Oils, Fatty Acids and Methyl Esters

Charles R. Milburn, Sherex Chemical Co., Inc.

Effect of Hydrogenation on the Properties of Palm Oil and Palm Olein

Peck Hong Yap, J.M. DeMan and L. DeMan, Univ. of Guelph

Session Z: Analytical II - Magnetic Resonance Spectroscopy - High Resolution and Pulsed Applications

Chairpersons: Dale Gardner and Steve Caravajal, Procter & Gamble Co.

Nondestructive Determination of Oil Composition in Seeds Using Magic Angle Sample Spinning NMR

V. Rutar, Iowa State Univ.

Choline Phospholipid Aggregation and Non-Aggregation Monitored by Multinuclei Magnetic Resonance Techniques

V.V. Kumar and Wolfgang J. Baumann, Univ. of Minnesota, R. Murari, Rorer Central Research

The Synthesis of Methyl Arachidonate-17,17,18,18-d₄

R.O. Adlof, USDA-ARS-NRRC

The Protective Effect of Water on the Decomposition of Methyl Linoleate Hydroperoxide Catalyzed with Cobalt (II)

H. Chen, D.J. Lee, G.O. Caviness, Washington State Univ., and E.G. Schanus, Provesta Corp.

Session AA: Seeds and Oils - A General Discussion

Chairperson: To be determined

Volatiles from Microwave-Treated/Stored Soybeans

J.M. Snyder, T.L. Mounts and R. Holloway,
USDA-ARS-NRRC

Impact of Microwave Treatment of Soybeans on Phospholipase d Activity

G.R. List, USDA-ARS-NRRC

Determination of Oil and Oil Quality (Linolenic Acid) in Industrial and Edible Oil Flax

R.S. Bhatti and G.G. Rowland, Univ. of Saskatchewan

OXO Fatty Acid Composition of the Seed Oil of the Family Cucurbitaceae

Daniel P. Schwartz, USDA-ARS-ERRC

A Survey of Investigations on Chemistry and Utilization of Chinese Tallow Tree (*Sapium sebiferum* [L.] Roxb.)

Xu Bu Qing, Shanhai Cereal Science Research Inst.

Session BB: Plant Biotechnology II

Chairpersons: James Rattray, Univ. of Guelph and
Richard F. Wilson, North Carolina State Univ.

Somatic Embryogenesis in the Biotechnology of Grasses and Cereal Crops

I.K. Vasil, Univ. of Florida

Detection of Glucosinolates by Polyclonal Antibodies to Sinigrin

R.S.C. Wong, Allelix, Inc.

Progress in Biotechnological Approaches in the Improvement of Soybean Seed Quality

D.F. Hildebrand, E.G. Williams, G.B. Collins and T.R.
Hamilton-Kemp, Univ. of Kentucky

Molecular Biological Approaches to Enzyme Modifications in Oilseeds

R. Eccleshall, Sungene Tech. Corp.

Arabidopsis Plants with Altered Seed Storage Lipids Obtained by Chemical Mutagenesis - Identification Via Transposon Tagging

D.W. James, Advanced Genetic Sciences

Purification and Characterization of Diacylglycerol Acyltransferase from Soybean

K. Yuen, USDA-ARS-NRRC and R.F. Wilson, North
Carolina State Univ.

Saturday Morning, May 6

Session CC: Detergents & Surfactants V—New Directions in Surfactants and Higher Alcohols

Chairperson: To be determined

Microemulsion, A New Alternative for the Washing Process

Fred Schaebil and Milan J. Schwuger, Henkel KGaA

The Effect of Anionic Surfactant Structure on the Mechanism of Detergency by Anionic/Nonionic Mixtures

R. Kok and T.A.B.M. Bolsman, Shell Research B.V.

Effects of Ethylene Oxide Distribution on Nonionic Surfactant Performance

Albert F. Joseph, Robert F. Weinheimer (Speaker) and
Kevin W. Dillen, Union Carbide Corp.

Comparative Biodegradability of Linear and Branched Alcohol Ethoxylates

A.I. Hughes, D.R. Peterson, R.K. Markarian, Exxon
Biomedical Sciences, Inc.

Effect of Hydrophobe Branching on Ethoxylate Distribution in Nonionic Surfactants

C.A. Smith, Union Carbide Corp.

Structure/Performance (Detergency) of Nonionic Surfactants for Various Soil Types

Michael J. Gula, Exxon Chemical Co.

Effects of Hydrophobe Structure on the Performance Properties of Nonionic Surfactants

Albert F. Joseph and Kevin W. Dillen, Union Carbide
Corp.

Guerbet Alcohol, a Versatile Hydrophobe

Joseph J. Fanelli, Alkaryl Chemicals, Inc.

The Fate Cycle of Linear Alkylbenzene Sulfonate in the Environment

Jose Luis Berna, J. Ferrer and A. Moreno, Univ. of
Alicante

Session DD: Value-added Feed Products from Protein and Co-Products II

Chairperson: Edmund Lusas, Texas A&M Univ.

Low-cost Dry Extrusion of Feeds

Leroy Hansen, Triple-F, Inc.

Extrusion of High-Energy Feedstuffs

Galen J. Rokey, Wenger Mfg, Inc.

Detoxification and Deallergination of Feed Meals

Khee Choon Rhee, Byongki Kim and Edmund W.
Lusas, Texas A&M Univ.

Wet Milling Corn Proteins as Animal Feeds

Jerry Weigel, Archer Daniels Midland Co.

Alkaline Peroxide Treated Crop Residues as Ruminant Feeds

J. Michael Gould, USDA-ARS-NRRC

Biotechnology in By-Product Feeds Processing and Utilization

T. Pearse Lyons, Alltech Biotechnology Center

Advances in Dog, Cat and Zoo Animal Feeding

Jim Corbin, Univ. of Illinois

Significance, Measurement and Processing of Proteins Resistant to Ruminant Degradation

Marshall D. Stern, Univ. of Minnesota

Session EE: Fat Substitutes I

Chairpersons: H.W. Wharton, Procter & Gamble and
Edward A. Emken, USDA-ARS-NRRC

Esterified Propoxylated Glycerols - A New Non-Caloric Oil and Fat Substitute

Charles F. Cooper, ARCO Chemical Co.

Metabolism and Disposition of Esterified Propoxylated Glycerol (EPG)

Lawrence W. Masten, ARCO Chemical Co.

Olestra

Carolyn Bergholz, Procter & Gamble Co.

The Effect of Powdered Cellulose on Fat Uptake During the Frying of Battered Food Products

Jit F. Ang, James River Corp.

TATCA

Mark Bieber, CPC International

Session FF: Fats and Oils Processing I

Chairperson: To be determined

Acid Enhancement of Neutral Bleaching Earth for Chlorophyll Removal in Canola Oil

S.K. Brophy, D.D. Brooks, A. Brophy and G.R. Goss,
Oil-Dri Corp. of America

Effect of Nitrogen Purity Upon Storage Stability of

Corn, Soy, and Canola Oils

Roger D. Sinram, A.E. Staley Mfg. Co. and Florio K. Young, Air Products and Chemicals, Inc.

Nitrogen Supply Optimization: Purity, Cost and Operation

Kathleen A. Kuberka, Union Carbide Corp., Linde Div.

Interim and Emergency Hydrogen Supply Options

Kathleen A. Kuberka, Union Carbide Corp., Linde Div.

Modified Bleaching

J.M. Bogdanor, W.R. Grace & Co.

The Role of Fat and Emulsifier Composition in the Processing of Food Emulsions

André J. Eydt, Food Consultant

Integrated Oils and Fats Processing

David W. Foster, KBC Process Automation

Tallow Simulating Product from Castor Oil

R.K. Trivedi and A.K. Vasishtha, Harcourt Butler Technological Inst.

G. Fuller, USDA-ARS-WRRC

Production of Seed Lipids via Culture of Somatic Embryos

J. Janick, Purdue Univ.

Specialty Oils from Microalgae

D.J. Kyle, Martex Corp.

A Systems Approach to Development and Commercialization of Crops with High Erucic Acid for Industrial Oils

Melvin G. Blase and Donald L. Van Dyne, Univ. of Missouri

The Development of Canola with Novel Fatty Acid Profile

Raymond S.C. Wong, J.R. Patel, E. Swanson and J. Grant, Allelix, Inc.

Somoclonal Variations and Somatic Embryogenesis in Oilseeds

R. Ram, Sungene Tech. Corp.

Session GG: Analytical III—General Analytical Measurements

Chairperson: Richard DePalma, Procter & Gamble Co.

Determination of Moisture, Protein and Oil in Whole Soybean Seed by Near-Infrared Transmittance

Charles R. Hurburgh, Jr. and R.A. Hartwig, Iowa State Univ.

Carotenoid Composition and Vitamin A Values of Oils from Four Brazilian Palm Fruits

Jose A. Trujillo-Quijano, D. Rodriguez-Amaya, W. Esteves and G.F. Plonis, State Univ. of Campinas

Reasons Underlying Differences in Wavelength Selection for the Estimation of Protein Content in Oilseeds by NIR Spectroscopy

Janet A. Panford and P.C. Williams, Canadian Grain Commission, J.M. DeMan, Univ. of Guelph

Determination of Relative Rate Constants in the Ethoxylation of Alcohols

Paul R. Geissler and Larry D. Talley, Exxon Chemical Co., Adrian E. Johnson, Jr., Louisiana State Univ.

Cloud Point Phenomena in Mixture of Anionic and Cationic Surfactants in Aqueous Solutions

Yasunari Nakama, Fuminori Harusawa and Isao Murotani, Shiseido Laboratories

Vaccenic Acid as a Major Component of the Triacylglycerols in Residual Oils of Canola Meals

J.K. Daun, Canadian Grain Commission

Acid Value Determination of Carboxylic Acids via Laboratory Robotics

Patrick J. Slonecker and Timothy M. Mitchell, Quantum Chemical Corp.

Efficacy of Supercritical Fluid Chromatography (SFC) for Separation of Complex Mixtures of Fatty Acid Methyl Ester Hydroperoxide Isomers

Robert M. Sauer, Jr., Univ. of Illinois, Potts Award Winner

A Novel Spectrophotometric Assay for Lipase Activity Utilizing cis-Parinaric Acid

A.M. Rogel, W.L. Stone and O. Adebonojo, Meharry Medical College

Session II: Plant Biotechnology III

Chairpersons: James Rattray, Univ. of Guelph and Richard F. Wilson, North Carolina State Univ.

Cell Culture of Plant Seed Tissue - Effect of Growth Conditions on Fatty Acid Composition

Saturday Afternoon, May 6

Session JJ: Proteins and Snacks

Chairperson: Sharon Melton, Univ. of Tennessee

Flavor and Stability of Potato Chips Fried in Soybean, Cottonseed and Palm Olein Oils

Myung-Joo Han, Univ. of Tennessee

The Stability of Potato Lipids During the Production of Potato Granules

M. Lilja and H. Lingnert, Swedish Institute for Food Research

Session KK: New Functionalities for Value-added Food Proteins

Chairperson: Pat Murphy, Iowa State Univ.

Factors Affecting the Functionality of Pea (*Pisum sativum*) Protein Isolates

Jeff Culbertson, Central Michigan Univ.

Potential for Substituting Bovine Plasma for Egg Proteins in Bakery Products

Suzanne Lee, Lawrence Johnson and Jane Love, Iowa State Univ.

Manipulation of Muscle Protein Functionality for Value-added Meat Products

Denise Smith, Michigan State Univ.

A New Molecular Basis for the Salt-induced Solubility Profiles of Food Proteins

Tom Kumosinsky, USDA-ARS-ERRC

Thermodynamics of Flavor-ligand Binding to Purified Soy Proteins

Sean O'Keefe, INRS

Effects of Extrusion on the Protein Quality of Cornmeal-Cottonseed Snacks

Mary Ellen Camire and C. Clay King, Texas Woman's Univ.

Session LL: Fat Substitutes II

Chairpersons: Edward A. Emken, USDA/NRRC and H.W. Wharton, Procter & Gamble Co.

Worldwide Potential of Fat Substitutes Through the Year 2000

James M. Stanton, Experience, Inc.

Olestra - Applications of NMR, IR and PDMS for the Spectroscopic Characterization

R.A. Sanders, D.R. Gardner, T.W. Keough and J.D. Wendel, Procter & Gamble Co.

Olestra - Solid Fat Content Measurements by Pulsed Magnetic Resonance Spectroscopy

B.L. Madison, T. Guffey (Speaker) and D. Boatman, Procter & Gamble Co.

Olestra - Determination in Food Products

P.Y.T. Lin, Procter & Gamble Co.

Session MM: Fats and Oils Processing II

Chairperson: Monoj K. Gupta, Frito-Lay

Winterization of Vegetable Oil in Conjunction with Caustic Refining

Karl Klein, Centrico

Plant Construction & Operating Economics

Joe Englund, PSI

Degumming of Vegetable Oil

Emery Balazs, Central Soya Co., Inc.

Winterization

Alain Tirtiaux, S.A. Fractionnement Tirtiaux

Degumming

Anthony Athanassiadis, DeSmet

Plant Economics

Norm Smallwood, Core Team

Chemical Refining

Reginald E.S. Bacchus, POS Pilot Plant Corp.

Session NN: HPLC of Triglycerides and Lipids - A Worldwide Perspective

Chairperson: Vijai K.S. Shukla, Aarhus Oliefabrik A/S

HPLC Assay of Lipid Peroxidation in Biological Systems

Harold H.O. Schmid, Univ. of Minnesota

HPLC Analysis of Fat Modified by Oxygenated Fatty Acids

F. Spener and L. Haalck, Univ. of Munster

LC/MS of Plasma Lipids

A. Kuksis, Univ. of Toronto

HPLC of Fish Oil

Bengt Herslof, Lipidteknik, Theresa W. Lee, Ross Laboratories, Taru Takagi, Hokkaido Univ. and Shun Wada, Tokyo Univ. Fisheries

Application of Size Exclusion Chromatography for Evaluation of Oils and Fats

Vijai K.S. Shukla, Aarhus Oliefabrik A/S

Separations of Acyl- and Alkyl Glycerol Enantiomers by HPLC on a Chiral Phase and their Applications

Toru Takai, Hokkaido Univ.

Application of HPLC for Monitoring the Extraction of Phospholipids in Various Sardine Oils

K. Takahashi, Hokkaido Univ.

Posters

The Use of Proton Nuclear Magnetic Resonance Spectroscopy to Study the Decomposition of Methyl Linoleate Hydroperoxide

H. Chen, D.J. Lee and G.O. Caviness, Washington State Univ., E.G. Schanus, Provesta Corp.

Metabolic Labelling of Polyisoprenoids in Isolated Rye Embryos

Robert T. Rymerson and Kenneth K. Carroll, Univ. of Western Ontario

Epoxydation of Lesquerella and Limnanthes Oils

Kenneth D. Carlson, Marvin O. Bagby and Robert Kleiman, USDA-ARS-NRRC

Effect of Peanut and Peanut Flour Addition on the Yield and Quality of Tofu

Bon Tong Lim, J.M. DeMan, Univ. of Guelph and L. DeMan, DeMan Food Technology Services, Inc.

Dissociation of Calcium Soaps of Long-chain Fatty Acids in Rumen Fluid

P.S. Sukhija and D.L. Palmquist, Ohio State Univ.

Characterization of Chlorophylls Present in Edible Oils

Edward A. Pfannkoch and James M. Bogdanor, W.R. Grace & Co.

Synthesis of Trierucin and Production of Very High Erucic Acid Oils

Kenneth D. Carlson and Marvin O. Bagby, USDA-ARS-NRRC

Heated Fats, Dietary Nutrient Levels and Hepatic Oxidative Stress

J.C. Alexander, P.G. Harris and T.S. Kok, Univ. of Guelph

Effect of Canola Oil on Plasma Phospholipid Fatty Acid Composition of Healthy Young Men

Bruce E. McDonald, E. Corner and V.M. Bruce, Univ. of Manitoba

Silica Refining of Oils With Little or No Chlorophyll

J.M. Bogdanor and G.J. Toeneboehn, W.R. Grace & Co.

Automation of the Assay for Tocopherols by HPLC Using Laboratory Robotics

Charles Marks and Fred Bean, Distillation Products Inc., Eastman Kodak Co.

Production of Cocoa Butter-Like Fat from Interesterification of Vegetable Oils

Min-Kun Chang and George Abraham, USDA-ARS-SRRC

The Vitamin E Content of Selected Foods; Data for USDA's Nutrient Data Bank

John L. Weihrauch, USDA-HNIS-NDRB and Johanna Lehmann, Lipid Nutrition Laboratory (retired)

Specificity of Lipases from Pseudomonas cepacia and Humicola lanuginosa

Donna R. Galluzzo and Robert G. Jensen, Univ. of Connecticut, Birgitte Høge-Jensen, Novo Industri A/S

High-Performance Liquid Chromatographic Analysis of Gossypol-Aminopropanol Complex

Robert J. Hron, Sr., Myong S. Kuk and George Abraham, USDA-ARS-SRRC

Altered Compositions and Synthesis of Phospholipid and Triglyceride in Liver of Rats Consuming a Fish Oil Concentrate

Young K. Yeo, Kyungpook National Univ., Diana J. Philbrick and Bruce J. Holub, Univ. of Guelph

Fractionation of Polyenoic Acids from Marine Lipids by Selective Esterification with Lipase

Toru Takagi, Hokkaido Univ.

Alternative Solvents for Peroxide Value Determination

D.D. Brooks, S.K. Brophy, B. Hayden and G.R. Goss, Oil-Dri Corp. of America

Carbon-13 FT-NMR Examination of Positional Isomerism in Fats and Oils

J.D. Wendel and D.R. Gardner, Procter & Gamble Co.

Properties and Substrate Specificity of Lipase Activity from Oat (Avena Sativa) Seeds

George J. Piazza and Alexander Bilyk, USDA-ARS

MEETINGS

ing and Icing Applications, Frank Kincs, Bunge Edible Oil Corp.

- Specialty Margarines and Their Applications, Klas Anjoy, Karlshamns AB

- Lipids of Special Nutritional Interest, Ron Jandacek, Procter & Gamble Co.

- Emulsifiers, Pamela J. Beach, Grindsted Products Co.

- Specialty Lipids Used in Non-food Applications, James C. Phillips, Capital City Products Co.

The registration fees for this course are \$395 for AOCS members, and \$420 for nonmembers if paid by April 3, 1989. After April 3, the fees rise to \$430 for AOCS members, and \$455 for nonmembers.

Soap technology

The short course on Soap Technology for the 1990s is being chaired by Luis Spitz of L. Spitz Inc. The purpose of this course is to provide a review of state-of-the-art technologies involved in soap manufacturing. Topics and speakers during the two-day course include the following:

- Chemistry, Chemical and Physical Properties and Raw Materials, Shyam Gupta, The Dial Corp.

- Washing, Refining, Bleaching, Deodorization and Hydrogenation, Ken Halloran, Procter & Gamble Co.

- Fat Splitting and Fatty Acid Distillation, Fred P. Simonian, The Dial Corp.

- Continuous Saponification and Neutralization from Fats, Fatty Acids and Methyl Esters, Greg Fischesser, The Andrew Jergens Co.

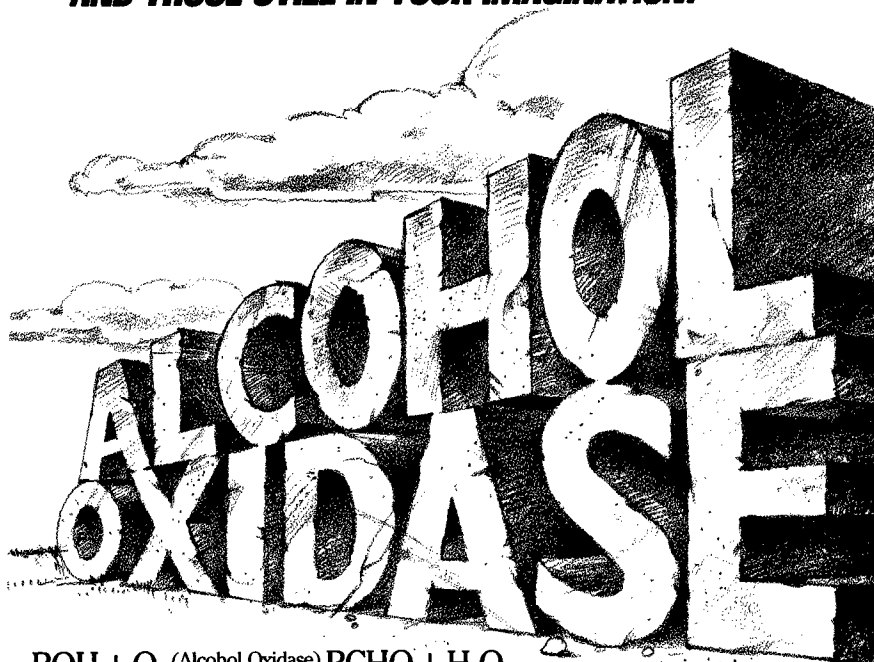
- Glycerine Processing from Spent Lyes and Sweetwater—Treatment, Evaporation and Refining, K.P. Radharkrishanan, Lever Brothers Co.

- Drying and Finishing, Danilo Baggini, Fabio Nizzero and Luis Spitz, G. Mazzone S.p.A.

- Soaps, Syndets and Soap/Syndet Bar Formulations, Carol Ann Winder, Colgate-Palmolive Co.

- Special Soaps, Formulations and Processing, Eric Jungermann, Jungermann Associates Inc.

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MEETINGS

- Analytical Methods, Evaluation Techniques and Quality Control, Tom Wood, The Hewitt Soap Co.

- Environmental Aspects of Soaps and Water Treatment, Fred P. Simonian

- Perfuming and Coloring, Anthony C. Davies, Quest International

- Packaging Machinery and Materials, L. Spitz

- Soap History, Marketing and Advertising, L. Spitz.

Registration fees for this course are \$345 for AOCS members and \$380 for nonmembers if paid by April 3, 1989. After April 3, the fees rise to \$370 for AOCS members, \$405 for nonmembers. Those attending both the soap technology short course and AOCS annual meeting in Cincinnati receive a \$50 discount on the combined registration fee. Thus, the combined short course/annual meeting registration would be \$490 for AOCS members and \$600 for nonmembers if paid by April 3; after April 3, these would rise to \$540 for AOCS members, \$650 for nonmembers.

Call for papers

Organizers of the World Conference on Edible Oils and Fats Processing—Basic Principles and Modern Practices, to be held Oct. 1-6, 1989, in Maastricht, The Netherlands, are seeking additional volunteer poster presentations.

The meeting will feature technical sessions on the world oils and fats situation; storage, handling and shipping practices; separation and/or extraction of oils and fats; refining of oils and fats; nutrition in relation to processing; formulation and processing of finished products; individual oils, including animal, marine, palm, laurics, soybean, sunflowerseed, rapeseed, cottonseed, peanut, corn, safflower, rice bran and olive; quality control/analytical; meal and by-products; and waste treatment and environmental concerns.

The conference will be held at the Maastricht Exhibition and Conference Centre. The official language of the meeting will be English, with simultaneous translation into Spanish and French available.

AOCS is organizer of the conference, with such participating organizations as the American Soybean Association, Association of Edible Fats Manufacturers in Denmark, FOSFA International, Institut des Corps Gras, International Association of Seed Crushers, International Oil Mill Superintendents Association, International Olive Oil Council, Japan Oil Chemists' Society, Japan Oil & Fat Importers & Exporters Association, Japan Oilseed Processors Association, National Cottonseed Products Association, Palm Oil Research Institute of Malaysia and the Association of Dutch Manufacturers of Edible Oils and Fats (VERNOF). E.J. Campbell of Archer Daniels Midland Co. is general chairman.

Those wishing to present a poster presentation should send an abstract to World Conference Poster Chairman Richard F. Wilson, North Carolina State University, Department of Crop Science, 4114 Williams Hall, Raleigh, NC, 27695, USA.

Handbook of Soy Oil Processing and Utilization

Edited by

David R. Erickson, Everett H. Pryde, Ordean L. Brekke,
Timothy L. Mounts and Richard A. Falb

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