

Jojoba conference slated for 1988

The Seventh International Conference on Jojoba, to be held Jan. 17–22, 1988, in Phoenix, Arizona, will mark another milestone in the transformation of a desert shrub to a commercial crop.

Until five years ago, jojoba seeds were collected from the wild shrubs growing primarily in the North American Sonora Desert region. But in 1982, U.S. growers harvested their first crop from planned jojoba plantations—the crop coming from three-year-old plants on 395 acres in Arizona and California. Those acreages now are approaching their prime production years, and other plantations have matured. Carole A. Whitakker, general chairman for the conference, commented, "We all expect that supplies of jojoba oil will increase very rapidly within the next few years as more and more plantations come into production and reach maturity."

She added, "Probably the next great challenge to be met in the successful commercialization of jojoba is the development of the market for jojoba oil."

The 1988 jojoba conference will focus on potential uses. Session topics include plant physiology; agronomy; processing, economics and marketing; basic chemistry and industrial uses; cosmetics and pharmaceutical uses; and dietary food and feed uses of jojoba products. The full tentative technical program follows this article. Discussion sessions will be held each day to permit registrants to question speakers or comment upon the presentations they have heard. While the plenary sessions include only invited papers, persons wishing to contribute poster papers should send the paper title, an abstract and the author's name and mailing address to either Xicotencatl Murrieta S., Apartado Postal A-068, Hermosillo, Sonora, Mexico, or to L.H. Princen, USDA-ARS Northern Regional Research Center, 1815 N. University St., Peoria, IL 61604 USA. Princen has served as chairman of the international program committee that has been developing the program during the past few years.

One day of the conference is

reserved for field trips to nearby jojoba plantations, where registrants can see how the plant is cultivated on commercial farms, and also for a trip to local jojoba processing facilities. The combination of technical lectures with plantation and processing plant field trips will permit registrants to see how to apply knowledge gained in the lectures.

Jojoba oil is unique. The seed contains 45–60% liquid wax, a mixture of linear esters of unsaturated long chain fatty acids and fatty alcohols, with primarily 20 to 22 carbon atom chains, each with one double bond. In the 1960s, jojoba oil was touted as a potential replacement for sperm

whale oil, long the only commercial source of similar molecules. Sperm whale oil was prized as a lubricant in high-pressure, high-temperature equipment. Jojoba derivatives can be used as lubricants. Another major use for jojoba oil has been in cosmetic products, but is less of a fad product than it was a decade ago. It now is being used for its functional properties. Food uses for jojoba have been slower to develop, but the 1988 program will look at what has been learned about jojoba as human food as well as use of the meal in animal feed products.

The increased plantation acreage in the United States is seen as leading to stable supplies and stable

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prices, which may make jojoba more attractive to potential users.

Work on commercializing jojoba has continued in other countries as well. The series of international conferences was begun in 1972, in part to provide a chance for jojoba specialists to discuss what they had learned and to determine what needed to be done to advance the crop. In the early years, the technical program focused much more on agronomy. In 1988, one of the primary topics will be end uses and

marketing. Technical registrants at the meeting will receive copies of a new AOCS monograph, *Chemistry of Jojoba*, authored by Jaime Wisniak of Israel, who served as chairman for the sixth international conference that was held in Israel. The new monograph is scheduled for publication about the time of the conference.

Accompanying the conference will be an international exposition of firms providing equipment and supplies to the jojoba industry. Firms

interested in participating in the exhibit should contact J. Patrick Graham, American Oil Chemists' Society, PO Box 5037, Station A, Champaign, IL 61820 USA.

Organizers are providing ample opportunity for informal discussion between registrants, speakers and exhibitors. There will be a series of social events beginning with a social hour on Sunday, Jan. 17, 1988.

A spouses' program will be offered to persons accompanying technical registrants to the meeting.

Tentative Technical Program

Monday, Jan. 18, 1988

Session I: Plenary

Chairperson:

L.H. Princen, USDA-ARS Northern Regional Research Center, Peoria, Illinois



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Welcome

Carole A. Whittaker, conference general chairperson

Welcome Addresses

President, American Oil Chemists' Society
President, Jojoba Growers Association

Keynote address

Session II: World Trends

Chairpersons:

Robert L. Dunstone, CSIRO, Canberra, Australia

David Palzkill, University of Arizona, Tucson, Arizona

Photosynthesis, Respiration and Growth

William Feldman, USA

Water Relations

Aliza Benzioni, Israel

Mineral Nutrition

Paul Eberhardt, IAS Laboratories, Phoenix, Arizona

Reproduction

Robert L. Dunstone, CSIRO, Division of Plant Industry, Canberra, Australia

Selection Criteria

R. Ramonet, Mexico

P. Milthorpe, Australia

Session III: Agronomy

Chairpersons:

Kenneth L. Ludeke, Southwest Desert Farms, Phoenix, Arizona

Hal C. Purcell, McVay Jojoba Co., Avila Beach, California

Nutrient Balance of Jojoba, Based on Tissue Analysis Evaluation

Meetings

Albin Lengyel, Lengyel Agricultural Consulting and Laboratories, Phoenix, Arizona

Propagation of Jojoba by Stem Cuttings

David A. Palzkill, University of Arizona, Tucson, Arizona

Genetics for Improved Jojoba Production

Hal C. Purcell, McVay Jojoba Co., Avila Beach, California

Evaluation of Jojoba Leaf Analysis as an Agronomic Tool

Paul Eberhardt, IAS Laboratories, Phoenix, Arizona

Optimum Production of Jojoba Based on Agronomic Factors

K.L. Ludeke, Southwest Desert Farms, Phoenix, Arizona

Tuesday, Jan. 19, 1988

Session IV: Agronomy (continued)

Evaluation of Jojoba Harvesting Systems

Edgar J. Carnegy, California Polytechnic Institute, San Luis Obispo, California

Application of Biotechnology for Clonal Propagation and Yield Enhancement

Chi Won Lee, Colorado College, Colorado Springs, Colorado

Ground Harvesting of Jojoba

Wayne Coates, University of Arizona, Tucson, Arizona

Nutritional Requirements of Jojoba

Wesley M. Jarrell, University of California, Riverside, California

Session V: Processing, Economics and Marketing

Chairpersons:

Michael Hein, SVO Enterprises, Columbus, Ohio

Frank J. Flider, JMC Technologies, Phoenix, Arizona

Processing of Jojoba

David C. Tandy, EMI Corporation, Des Plaines, Illinois

Quality Control, Grades and Identification for Jojoba Oil

Gayland F. Spencer, USDA-ARS Northern Regional Research Center, Peoria, Illinois

Comparison of Properties and Functions of Jojoba Oil and Jojoba Oil Substitutes

John P. Friedrich, USDA-ARS Northern Regional Research Center, Peoria, Illinois

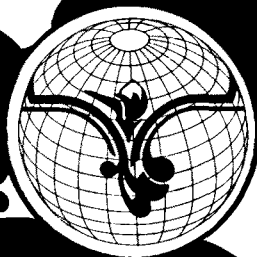
Economics of Jojoba Production and Cultivation

Dan Dvoskin, Economic Research Service, Washington, D.C.

Supply, Demand and Price Characteristics of Jojoba

Frank Flider, JMC Technologies, Phoenix, Arizona

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Wednesday, Jan. 20, 1988

All-day field trip to jojoba production farms and jojoba processing plant

Thursday, Jan. 21, 1988

Session VI: Basic Chemistry and Industrial Uses

Chairpersons:

Jaime Wisniak, Ben Gurion University of the Negev, Beersheva, Israel

Phillip S. Landis, Glassboro State Collegem
Glassboro, New Jersey

Recent Advances in the Chemistry of Jojoba Oil

Jaime Wisniak, Ben Gurion University of the Negev, Beersheva, Israel

Novel Derivatives of Jojoba Oil and Friction-Reducing Bench Test Results

Meetings

A.G. Horodysky and P.S. Landis, Glassboro State College, Glassboro, New Jersey
Jojoba Oil: Renewable Substitute for Mineral Oil in Lubricants and Greases
 Alka Chaudhry, Indian Institute of Petroleum, Dehradun, India

Session VII: Cosmetics and Pharmaceutical Uses

Chairpersons:

James H. Brown, Jojoba Growers and Processors Inc., Apache Junction, Arizona

Ken T. Kunimoto, Koei Perfumery Company, Tokyo, Japan

Alkoxylated Jojoba Derivatives

Ronald Smith, Heterene Chemical Corporation, Paterson, New Jersey

Jojoba and Viscoelastic Skin Properties

Eli Packman, Philadelphia College of Pharmacy, Philadelphia, Pennsylvania

Jojoba as a Treatment for Psoriasis

Eugene Farber, Psoriasis Research Institute, Palo Alto, California

Friday, Jan. 22, 1988

Session VIII: Dietary Food and Feed Uses of Jojoba Products

Chairpersons:

Krishna Anantharaman, Nestec Research Center, Vevey, Switzerland

Ralph Price, University of Arizona, Tucson, Arizona

Animal and Human Acceptability and Tolerance of Jojoba Oil as a Dietary Fat

K. Anantharaman, Nestec Research Center, Vevey, Switzerland

Regulatory Requirements for Food Use of Jojoba Oil

Douglas Park, U.S. Food and Drug Administration, Washington, D.C.

Developments on Use of Jojoba Meal as Animal Feed

Antony Verbiscar, Anver Bioscience, Sierra Madre, California

Protein and Digestive Enzyme Reactions with Jojoba Tannins

Manuel Sanchez-Lucero, University of Sonoro, Hermosillo, Mexico

Call for papers

The Canadian Section of the American Oil Chemists' Society will hold its second annual meeting at the University of Manitoba, Winnipeg, Canada, Oct. 7-8, 1987. The meeting has been scheduled immediately after the Canola Council of Canada's Research and Technical Committee meeting and immediately before the meeting of the Canada Committee on Fats and Oils.

Included will be the annual business meeting and banquet and five technical sessions. Topics are breeding and biotechnology, industrial processing, nutrition, analytical and a general poster session. A major emphasis is to give graduate students an opportunity to present their research; graduate student presentations will be given first priority in oral presentation slots in sessions. Also, a limited amount of funding, available through donations, will provide 200 Canadian dollars for travel to the meeting for graduate students, based on need and quality of the presentation.

Papers are being solicited from all

sectors of the industry. Titles and abstracts should be sent as soon as possible to James K. Daun, program chairperson, CAOCS Meeting, Canadian Grain Commission, Grain Research Laboratory, 1404-303 Main St., Winnipeg, Manitoba, Canada R3C 3G8.

Papers submitted should indicate whether they are a graduate student presentation and whether a poster is preferred. To qualify for possible travel awards, graduate student papers must be received by Aug. 1, 1987. The final deadline for abstract submissions is Aug. 30, 1987.

For information on local arrangements, contact local arrangements chairperson Bruce E. MacDonald, CAOCS Meeting, Department of Foods and Nutrition, University of Manitoba, Winnipeg, Manitoba, Canada R3T 2N2.

Protein society

The First Symposium of the Protein Society is slated for Aug. 9-13, 1987, at the Sheraton East in San Diego, California.

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The program is designed to bring together individuals representing different aspects of protein research. Session topics planned include 3D Structure: Theory, Folding and Dynamics; Microanalytical Strategies: Structural Analysis and Micropurification; Protein Kinases: Biological Control of Protein Function; Protein/Nucleic Acid Interactions; Studies with Synthetic Peptides and Proteins; Photoreceptors as Signal Transducers; Expression, Processing and Secretion; Mutagenic Studies of Protein Function: Design and Selection; and New Developments in Instrumentation, Chemicals and Accessories for the Protein Chemistry Laboratory.

For information, contact Shirley E. Schlessinger, 400 E. Randolph, Chicago, IL 60601.

Short course on oleochemicals

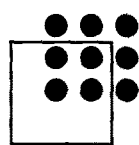
The tentative technical program and speakers for the AOCS Short Course on Oleochemicals: Fatty Acids, Fatty Alcohols, Fatty Amines, slated for Sept. 13-16, 1987, have been announced. The short course, under the direction of Karl Zilch, technical director for Emery Industries in Cincinnati, Ohio, has 23 confirmed topics and speakers. The meeting will be held at the Kings Island Resort near Cincinnati, Ohio.

The topics and speakers are:

- Overall Perspective of the Fatty Acid Industry, R.T. Betz, Emery
- Natural Raw Material Feedstocks for the Oleochemical Industry, N.O.V. Sonntag, consultant
- Biotechnology and Oilseed Production, John Perchorowicz, Calgene
- Fat Splitting and Glycerine Recovery/Purification, W. Rowell, Sherex
- Purification and Quality Improvement via Distillation, E.L. Ewbank, Emery
- Hydrogenation of Fatty Acids, Robert Hastert, Harshaw/Filtrol
- Polymerization of Unsaturated Fatty Acids, Bob Johnson, Union Camp
- Principal Chemical Reactions of Fatty Acids and Their Utilization, N.O.V. Sonntag, consultant
- Biotransformation of Fats and Fatty Acids, Phil Sonnett, USDA Eastern Regional Research Center
- State-of-the-Art Analytical Techniques, Lincoln Metcalfe, Akzo-Chemie America
- Quality Assurance in the Oleochemical Industry, D.J. Kriege, Emery
- Utilization of Fatty Acids and Derivatives in Detergent Surfactants, I. Schmolka, consultant
- Fatty Acids and Derivatives for the Manufacture of Soaps, D.V. Kinsman, Emery
- Metallic Stearates: Manufacture and Utilization, Dale Dieckman, Nuodex
- Utilization of Natural Glycerine, Mike Packard, Procter & Gamble

- Utilization of Fatty Acids and Derivatives in the Food Industry, J.L. Van Haften, C.J. Patterson
- Overall Perspective of the Fatty Amine Industry, Charles Aldag, Sherex
- Manufacture of Nitrogenous Fatty Acid Products, Richard Reck, Akzo-Chemie America
- Utilization of Nitrogenous Fatty Acid Products, L. Walp, Humko/Witco
- Overall Perspective of the Natural Fatty Alcohol Industry, Colin A. Houston, Colin A. Houston & Associates
- Manufacture and Utilization of Natural Fatty Alcohols, R. Peters, Procter & Gamble
- Environmental Concerns of Oleochemical Products, C.W. Moores, Badger
- Methyl Esters: Manufacture and Utilization, B. Freedman, USDA Northern Regional Research Laboratory.

Registration fees for the three-day course are \$250 for AOCS members and \$325 for nonmembers if received before August 13, 1987. Fees after that date are \$275 for members and \$350 for nonmembers. Registration includes three days of sessions, all course materials, an opening reception Sunday and dinner on Tuesday evening. Hotel rates at the Kings Island Inn are \$43 for a single room and \$53 for a double. If the registration form in this issue of *JAACS* has been removed, contact the AOCS Meetings Manager, PO Box 5037, Station A, Champaign, IL 61820 USA.



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