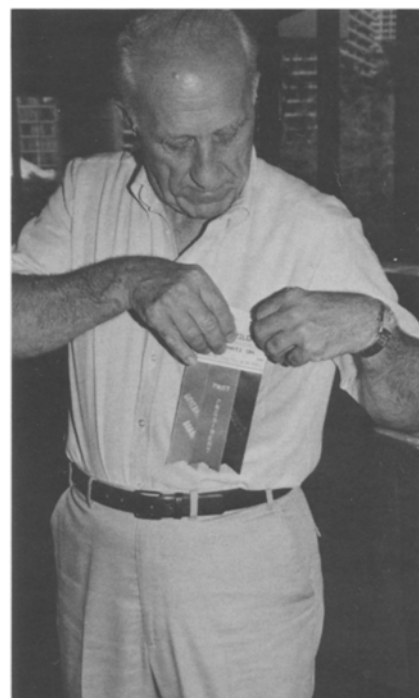




Registration workers are kept busy Wednesday afternoon as people arrive at the Hilton Hawaiian Village, Honolulu, to check in for the annual meeting. In addition to the many who preregistered for the meeting, 127 others registered on-site.



One of the official greeters in the AOCs registration area, Karl Zilch adjusts his three ribbons—Past President, President's Club and Governing Board—before greeting nonmember registrants to invite them to join AOCs.

As a token of friendship, gifts between AOCs and the Japan Oil Chemists' Society are exchanged at the awards breakfast. The lacquered wooden vase on the left is the JOCS gift to AOCs; on the right is the hand-carved outrigger canoe set presented by Joyce Beare-Rogers to JOCS.



1,600 attend Hawaii meeting

Over 1,600 persons attended the 77th annual meeting of the American Oil Chemists' Society held May 14-18, 1986, in Hawaii.

Set in colorful Honolulu, the joint meeting with AOCs and the Japan Oil Chemists' Society (JOCS) featured more than 360 technical presentations, three days of exhibits and a variety of social events. A total of 1,627 persons participated, including 1,104 technical registrants, 331 in the spouses' program and over 50 exhibit representatives.

This year's meeting differed from those held in recent years in that the schedule began on Wednesday afternoon, versus Sunday, and ended Sunday morning. This allowed the scheduling of four educational courses earlier in the week. This educational program included three short courses held on the island of Oahu—on food uses of whole oil and protein seeds, physical chemistry of fats and oils, and a colloquium on hydrogenation—and

a short course on marine lipids and eicosapentaenoic acids held on the island of Hawaii.

The annual AOCs business meeting was held separately from the awards breakfast this year. AOCs President Joyce Beare-Rogers and JOCS President Akira Mori welcomed participants to Hawaii and this, the third joint meeting of the two societies. In addition to routine business, a new article was approved for inclusion in the AOCs bylaws. The article enables AOCs to indemnify any director, officer, employee or agent of the society for expenses incurred from legal action taken against him or her for acting on the society's behalf.

AOCs Treasurer Timothy Mounts reported that the society was in sound financial condition, with a surplus of \$91,000 for 1985, \$69,000 more than budgeted. Mounts said the society's actual net worth was \$860,210, a 21.6% increase over

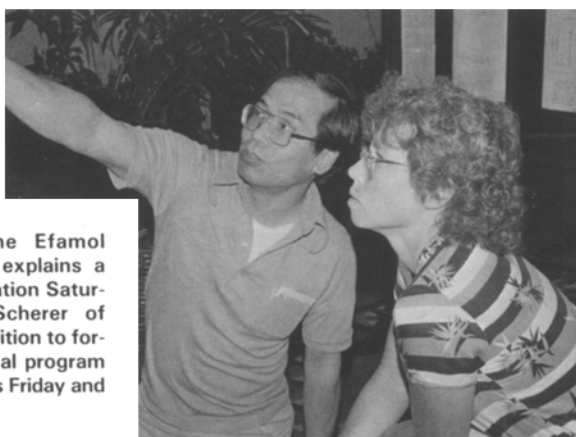
1984; in constant dollars, the net worth was \$268,750, an increase of 18.1% over 1984. His complete report appears in an accompanying article.

Glenn Fuller, technical program chairman along with Ichiro Hara, announced that the final technical program included 326 papers and 39 posters in the poster sessions. Noting that a number of session chairmen were unable to attend the meeting, Fuller told participants, "We're very solicitous about your health if you're a session chairman." One who had to cancel was James Mead, recipient of the 1980 AOCs Lipid Research Award, who was to cochair the lipids and cancer symposium; although he was able to attend the marine lipids short course at Waikalua, Hawaii, Mead was quarantined from Honolulu because his granddaughter had chicken pox.

The opening reception was held Wednesday evening at the Bishop's



Those turning out for the Friday evening luau are rewarded with food, drinks and festivities. Approximately 900 persons took part in the fun.



Yung Sheng Huang of the Efamol Research Institute, Canada, explains a point from his poster presentation Saturday afternoon to Donna Scherer of Calgene Inc., California. In addition to formal plenary talks, the technical program offered 39 poster presentations Friday and Saturday afternoons.

Museum. Approximately 1,000 people attended the reception, featuring food, drinks and music on the grounds outside the museum and the opportunity to view exhibits inside.

Thursday opened with the awards breakfast (see accompanying story) followed by the beginning of the technical sessions, which ran through late Saturday afternoon. For some, Friday began with the 2nd Annual Fun Run and Walk (see separate story) hours before technical sessions started for the day.

Other social events included a luau Friday evening at the Campbell Estates, 35 miles from Honolulu, attended by approximately 900 persons. Costs of the luau were partially underwritten by JOCS. On Saturday evening, an international party featuring food and music from Europe, Hawaii, Japan and China was held.

The spouses' program, meanwhile, featured a tour of the

Honolulu area, including the Punchbowl Crater, Queen Emma's Summer Palace, the State Capitol, Hawaiian War Memorial and Iolani Palace; a house and garden tour; and a fashion show, "200 Years in Hawaii."

Many committee meetings were held during the week. At the Lipids Advisory Board meeting Friday morning, Ralph Holman noted, "There's a home here for anybody who works with a lipid molecule."

The annual meeting closed with an inaugural breakfast Sunday morning. At the breakfast, Nick Pelick of the Nominating Committee announced the new officers for the coming year and asked them to stand. The only officer missing was David Erickson, elected to serve as secretary; Erickson earlier in the week had been one of three chairmen for the short course on food uses of whole oil and protein seeds, but had returned to the mainland for his youngest son's graduation

from college.

Retiring AOCS President Joyce Beare-Rogers turned the meeting over to incoming president Arnold Gavin, president of EMI Corp.'s import-export arm in Scottsdale, Arizona, by officially presenting him with the AOCS tomahawk gavel. "The tomahawk gavel has traveled across an international boundary with ease . . . and made its longest journey ever, across the Pacific Ocean," Beare-Rogers said.

Gavin, wearing a colorful lei around his neck, was befittingly dressed for his inauguration in Hawaii.

Introduced by Ralph Holman at the inaugural breakfast was George Burr, now retired and living in Hawaii, whom Holman called the "father of essential fatty acids."

Stan Loft, general chairman for the meeting, also recognized members of the Northern California Section, 2000 miles from the meeting site, who made up the local committee for the Honolulu meeting. Chairmen from the local committee were the following: Glenn Fuller, who served as technical program chairman with his Japanese counterpart, Ichiro Hara; Larry Brickman, registration; Robert Faulkner, hotel arrangements and exhibits; Jackie Lewis and Michael Sandor, entertainment; Elizabeth Loft, spouses' program; Dennis Taylor, publicity and speakers' fund; and Arnold Johnson, sports tournaments. Joseph Fioriti, who had been a member of the local committee for AOCS' 1985 annual meeting in Philadelphia, coordinated the Fun Run, held early Friday morning.

The breakfast also included an invitation by Kurt Gehri of Switzerland, local chairman for the Second World Conference on Detergents slated for Oct. 5-10, 1986, in Montreux, Switzerland. "The weather forecast is good," Gehri quipped.

Also present at the breakfast were local birds. Gavin told attendees not to worry about them: "They're hired to pick up the crumbs."

The Governing Board met following the breakfast. Business included a decision to hold the 1990 AOCS annual meeting in Baltimore, Maryland.

State of the Society

(The following address on the state of the society was given by outgoing AOCS President Joyce Beare-Rogers to the opening plenary breakfast during the 1986 annual meeting in Honolulu, Hawaii.)

Ladies and Gentlemen:

To my fellow members of the AOCS, it is time to express my gratitude for the honor of serving as president during the past year. The tomahawk gavel has traveled over an international boundary with ease, almost as if it were carried by an early Indian of North America. I have been the privileged custodian of this AOCS treasure.

It is perhaps necessary to serve in many capacities to appreciate how much world-class activity flourishes within our Society. The most widely visible achievements have been, of course, our scientific journals. During the year, new editors assumed responsibility for the *Journal of the American Oil Chemists' Society* and for *Lipids*, and the new editors are building on the firm foundations of their predecessors. The production of these journals, completed by our competent headquarters staff, began with the efforts of authors who chose to make their work known through AOCS channels. To all who volunteer their time and expertise, we say "Thank you." As the news section of *JAACS* grew in importance, thought was given to splitting it off as a separate publication for extensive distribution. Other signs of growth in AOCS publications included the ever-increasing number of monographs. To accomplish more, the facilities and resources of the Champaign office have been updated and extended.

This year also has seen enhanced programs for methods development and the analyses of check samples. Encouragement for a curriculum of education programs is expected to lead to further development in that area. As more plans come to fruition, the work load at the AOCS office becomes greater.

The space requirement for growing activities has led to a reap-

praisal of current and projected needs. A building site committee examined and reported on possibilities for the Society to own land for a headquarters building. This could be a monumental step for the AOCS. Fortunately, the Society is at this time financially healthy.

The area of most obvious growth during the past year has been that of local sections. It has been gratifying to see formed the Mid-America Section, centered in Kansas City; the Desert Southwest Section, centered in Phoenix; and the Canadian American Oil Chemists' Society, dispersed coast-to-coast above the 49th parallel. Professional people with mutual interest appreciate the opportunities for more contact, and through the local sections give further strength to the AOCS.

Internationally, our Society has continued to be active. The World Conference on Emerging Technologies in the Fats and Oils Industries was cosponsored with our corresponding French society and held last November in France. New members of our Society are coming more and more from lands far from North America. Some individuals have become acquainted with the

AOCS through world conferences, and may occasionally be able to attend annual meetings. As is the case now, we are pleased to be working cooperatively with other societies meeting the needs of colleagues elsewhere in the world. Much more can be attempted and accomplished by collaboration than by overriding other justifiably proud societies. Our international liaison with professional and trade organizations improves communication, fosters understanding and advances science and technology. Let us maintain and further our international contacts.

An organization such as ours is always evolving. Each Governing Board promotes somewhat different aspects while hoping to maintain and improve all programs. The very structure of the Governing Board is under examination to obtain a broad representation of the membership and to ensure a supply of candidates for leadership. Concurrently, the evaluation of our committees and programs can lead to more effectiveness.

We have elected a vigorous new Governing Board, for whom there will be an orientation program; we have a fine staff at headquarters who perform their duties graciously and well. Our 77-year-old society has a bright and promising future.

Thank you.

Inaugural address

(The following address was given by incoming AOCS President Arnold Gavin during the inaugural brunch at the 1986 annual meeting in Honolulu, Hawaii.)

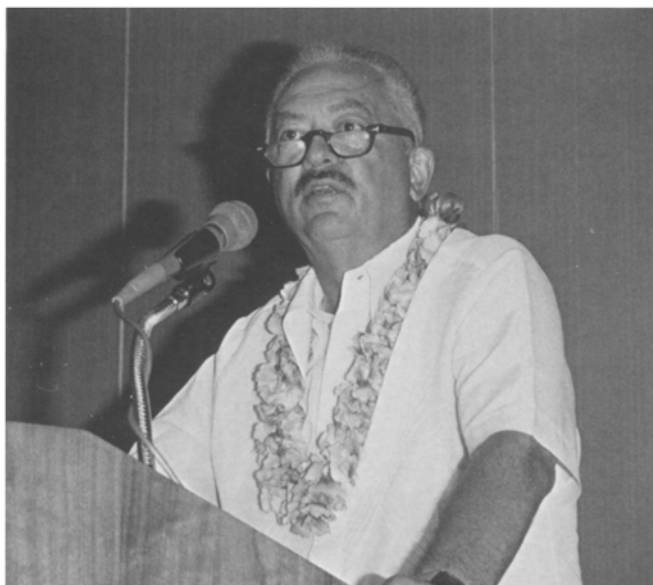
Dr. Nagayama, Dr. Beare-Rogers, Members of the Japan Oil Chemists' Society, Members of the American Oil Chemists' Society, Honored Guests:

This is the highlight of my career in the fats and oil industry. A few years ago, about 1948 to be exact, my boss Henry Dormitzer, who served as president of the AOCS in

1939, gave me an application for membership in the AOCS and made a strong suggestion that I become a member. It took me 38 years to become president. I wish to thank the members for their confidence and thank my wife Joan for her help and understanding. I was visiting here with a former coworker at Wilson & Co., Hiram Spannuth, and he mentioned that Wilson will have produced five presidents of the AOCS by the time [vice-president-elect] Robert Hastert finishes his turn, and we were wondering if any other company could match that.



Joyce Beare-Rogers shares a few words with Arnold Gavin before officially turning over the AOCS gavel and presidency to him.



AOCS President Arnold Gavin, bedecked with a Hawaiian lei, delivers his inaugural address at the closing breakfast Sunday.

The growth of the Society in this time has been impressive. I attended a short course held at the University of Illinois in the early 1950s. I firmly believe this short course, which gave me my first overall view of the industry, substantially helped my career. The short courses have become a major part of the national meetings and I strongly encourage anyone interested in the fats and oils industry to attend these short courses. The world conferences have become very popular with the industry members and serve to promote world knowledge of important areas of the food industry. I am proud to know my career has helped improve the standard of living of many people in the world, and hope the members of the JOCS and AOCS have the same attitude.

In 1985, AOCS had 4,117 members, including 81 corporate members. We have received four new corporate members this year. The membership development committee has worked in the registration area during the meeting to contact nonmembers. If any

Hydrogenation

This is how the Buss Loop Reactor improves the economics of the hydrogenation of oils, fats and fatty acids



Excellent reproducibility of product quality because all operating parameters can be set within narrow limits and held constant.



Short hydrogenation times and better mixing keep catalyst consumption low.



High plant utilisation and production rates due to short cycle times for heating, hydrogenation and cooling.



No steam required – no cooling water needed due to total heat recuperation.



Return on total investment within 2 to 3 years thanks to the optional heat recuperation system.

Ask for detailed information:
Buss AG, Basel
CH-4133 Pratteln · Switzerland
Telex 968 080

Our licensee in USA/Canada is:
Herzog-Hart Corporation
Boston/Mass. 02116
Phone 617 247 2500
Telex 710 321 1605

Buss

76-2-85e

Consulting • Feasibility studies
Laboratory and pilot tests • Engineering
Model making • Equipment supply
Construction services • Turn-key plants

Buss

An association of companies in the +GF+ group

nonmember has not received an application form, please be assured you are invited to join the AOCS. Please contact me or any officer for a membership application.

AOCS is governed by committees with volunteer members, and meetings of most committees are open to the membership. I know we have experienced an extremely interesting technical program at this meeting. I hope you did find some time to attend several of the various committee meetings. The AOCS membership directory contains a list of committees and their chairmen. If you have a special interest, contact or write the chairman to volunteer for the committee.

The Society now has eight local sections, in most regions of the United States and one in Canada. I encourage you to join a local section, as this is an excellent way to meet with your peers and become active in the AOCS. I will stop selling AOCS with a final comment: I encourage you to give technical papers both in the local and national meetings. It really is not hard to do. AOCS has good guidelines for preparing papers. The audience will be attentive. You will be surprised how much more you will learn about your subject when you put it on paper and have to either condense it or expand it to fit the time allowed.

Now for the future, I have several objectives I would like to accomplish during my year's tenure:

- I have asked the executive director to review the structure of committee operation with a view to becoming more efficient and responsive to the Governing Board. He has submitted a proposal in-depth and it is under study. I would like to have this proposal or a version of it enacted this year.
- The immediate past president has set up a committee to study the operations of the Governing Board. I want to develop a strong orientation program for new members of the Governing Board and for committee chairmen. In the future when members are asked to serve as committee chairmen or to run for office, they will have a complete understanding of their responsibilities.

- The AOCS has grown to a point where most of the work required for printing our journals, plus monographs, etc., is handled in-house. The present headquarters office building in Champaign, Illinois, has severe space limitations, is very inefficient and is no longer adequate for the present and future needs of the Society. The building needs substantial renovation if we are to use it as effectively as we can given current programs and short-term staff needs. Even with the proposed renovations the executive director anticipates the need to rent additional external space in one-and-a-half to two years.

Rather than spend a large sum to renovate a building that will be inadequate for our needs in two years, we have looked at alternatives that include leasing another building or constructing a new building for our headquarters. I plan to work closely with the various committees studying this project and make a decision on which alternative to follow.

- I would like to see more of you attending local section meetings. The one-day seminars are usually well attended. The best way to attract people to the evening meetings is to have an interesting program with good speakers. I will ask the national headquarters staff to review this problem to determine what they can do to help. I will ask the national officers and members of the Governing Board to attend as many local section meetings as possible to improve the communications between local sections and the national organization.
- The Education Committee has been considering ways to improve the quality and quantity of education programs, short course research conferences, symposia, etc., offered by the Society. The committee members are convinced certain steps need to be taken to improve the overall quality of AOCS offerings. Education is a very important function of the AOCS and I intend to follow this closely to insure prompt implementation.
- Our technical director, David

Berner, has done an excellent job in coordinating our efforts to publish a revised and updated methods book. I hope this year we will be able to at least set a date for publication.

I hesitate to admit it, but some know it anyhow—several years ago, as chairman of the meeting logistics committee, I opposed having a meeting in Hawaii. Of course, I did not dream of becoming President of AOCS in Hawaii. This was to be the first meeting held in a city without a local chairman and also the first to start on a Wednesday. Well, I was wrong. Stan Loft and his committee have done an excellent job under very trying circumstances. Thank you, Stan. The hard work of our meetings coordinator, Joan Dixon, has made it possible for the national headquarters to assume the major duties of putting on a successful meeting. Thank you, Joan. Pat Graham has done his usual fine job in attracting exhibits and taking care of our exhibitors. Last, but surely not least, the members of the AOCS staff are to be thanked for their help. I do want to give special thanks to Jim Lyon for the outstanding job he has done as executive director of AOCS. The worldwide recognition of AOCS is due in a large part to his efforts.

Our next annual meeting will be held May 17–21, 1987, in New Orleans. Chairman Bob Ory promises an excellent program. In the fall of 1987 there will be an international conference on biotechnology in Hamburg, organized with our West German colleagues. Carole Whittaker is chairwoman for an international conference on joboba to be held in January 1988 in Phoenix, Arizona. This is a good time to visit the Sun Belt. I do want to remind all of you to plan to return to Phoenix in May 1988 for the annual meeting. This will be the first AOCS annual meeting in Phoenix and I promise you an outstanding meeting. I would like to extend a personal invitation to all of our overseas visitors to attend all of these meetings.

I consider it quite an honor to follow in office our first Canadian president and also our first woman president.

Dr. Nagayama, the officers and members of the AOCS wish to

thank you and the membership of the JOCS for your excellent contributions to this meeting. We look forward to more joint meetings with the Japanese oil chemists. *Doomo arigatoo gozaimasu—sayonara.*

We trust everyone will have a pleasant and safe journey home.

Thank you for coming. Goodbye.

Financial report

(The following financial report was presented by AOCS Treasurer Timothy Mounts during the 1986 annual meeting in Honolulu, Hawaii.)

The Society had a strong financial performance in 1985 by exceeding its budgeted contribution to reserves. The excess of revenues over expenses surpassed \$91,000 for the year, almost \$69,000 more than budgeted. Interest on investments, rent and other non-operational income added a net additional \$61,500 to the Society's reserves. Of this amount, \$30,000 is assigned to the building contingency fund. The current balance in this fund is \$77,500.

Continued growth in the AOCS reserves is important because the reserves offer stability and financial support in several areas. For example, the reserves provide a form of insurance in the event of catastrophe, offer an alternative source of financing for capital investments (such as building and equipment), and generate investment income.

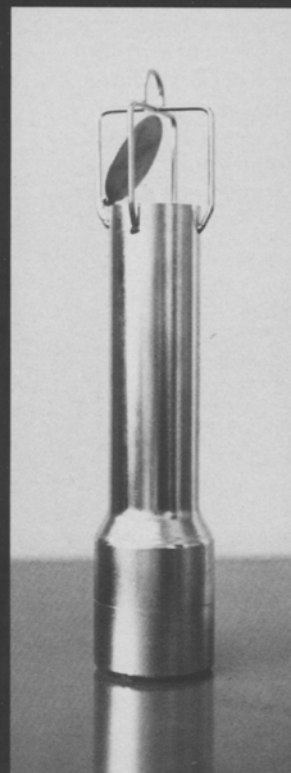
Sources of AOCS income are indicated in Table 1. Income from meetings constituted 34% of the total income and this reflects the highly successful programs of world conferences and short courses sponsored by the Society. While the actual cost of a *JAACS* subscription is about \$62, only \$25 of the \$50 individual member's dues is allocated directly to the publications department. The remainder is distributed to all departments on the basis of direct expenses.

AOCS expenses are categorized in Table 2. While the publications department remains the largest expense activity, it is down from 58% of the total in 1982, and total cost of AOCS publications has increased only 7% in three years.

AOCS activities have been departmentalized for financial as well as operational purposes for the past two years. The departmental financial results are presented in Table 3. Note that dues and general operating expenses have been allocated to the departments in this table. These results clearly show the importance of our meetings (annual meetings, world conferences, short courses, research conferences) and materials (Official Methods book and supplies, and monographs) activities to the financial success of the society. These are areas which have seen increased emphasis in the past several years and contribute significantly to dues stability.

This strong financial performance is also reflected in the Society's net worth chart shown in Figure 1. The

STAINLESS STEEL LIQUID ZONE SAMPLER



"Approved for use in American
Oil Chemists' Society Methods"

FOR SAMPLING • TANK TRUCKS
• TANK CARS • STORAGE &
SHIPS TANKS

This sampler is used by major
manufacturers, laboratories and
surveyors of fats and oils.

*Analyses are only as accurate as
the sample.*

Order now from
ZONE DEVICES, INC.

1825 Lincoln Ave., Suite 112
San Rafael, CA 94901

total net worth in both actual and constant dollars has climbed to record amounts and this indicates full recovery from the 1982 recessions. The actual net worth is \$860,210; this is a 21.6% increase over 1984. The lower curve shows the net worth in constant dollars; that is, actual dollars for each year adjusted for inflation since 1967. On

this basis the Society's net worth is \$268,750. In constant dollars, net worth increased 18.1% over 1984.

This excellent financial health, which can be attributed to wise stewardship and good management, puts the Society in a good position to respond to the chal-

lenges cited by our new President and Vice-President for expansion of our educational programs to the benefit of our members and the fats and oils industry.

Awards breakfast

Robert R. Allen, former AOCS president and winner of the 1983 Bailey Award, received the 1986 Supelco AOCS Research Award at the Thursday morning awards breakfast of the annual meeting.

Allen, who has spent his entire career in industry, was selected to receive the award for his pioneering work on hydrogenation and other research. Allen, of McKinney, Texas, retired as principal scientist for Anderson Clayton Foods in 1980 but has remained active as a consultant. His long research career has centered on improving the quality of fats and oils for edible use, especially their physical and nutritional properties and flavor. He is known for his knowledge and work in the catalytic hydrogenation of vegetable oils.

In presenting the Supelco AOCS Research Award to Allen, Earl Hammond of Iowa State University called Allen "an excellent scientist, a good leader and a delightful companion." Nick Pelick, on behalf of Supelco Inc., presented Allen with a \$3,000 check which accompanied the award.

Pelick noted that Allen is only the second person from industry to receive the award in the 22 years it has been presented.

After receiving the award, Allen gave a talk reviewing his work with hydrogenation. One line in his address—"Nothing is too much trouble as long as someone else does it"—brought smiles to listeners' faces. Concluding that there is a need for further research in this area, Allen encouraged others to try to resolve some of the still unanswered questions.

The AOCS Award of Merit was presented to Lloyd Witting. Witting is the regulatory compliance specialist for Supelco Inc. in Bellefonte, Pennsylvania. An interna-

TABLE 1

1985 AOCS Income

	Amount (\$000)	Percentage of total
Publications	484	29
Advertising	250	15
Meetings	547	34
Materials	123	8
Programs	123	8
Dues	103	6

TABLE 2

1985 AOCS Expenses

	Amount (\$000)	Percentage of total
Publications	555	36
Advertising	171	11
Meetings	313	20
Materials	49	3
Programs	106	8
General Operations	345	22
Total	1539	

TABLE 3

1985 AOCS Departmental Financial Results^a

Department	Income (\$000)	Expenses (\$000)	Net (\$000)
Publications	532	715	(183)
Advertising	265	221	44
Meetings	574	403	171
Materials	127	64	63
Programs	132	137	(5)
Totals	1,630	1,539	91

^aDues and general operating expenses allocated to departments.

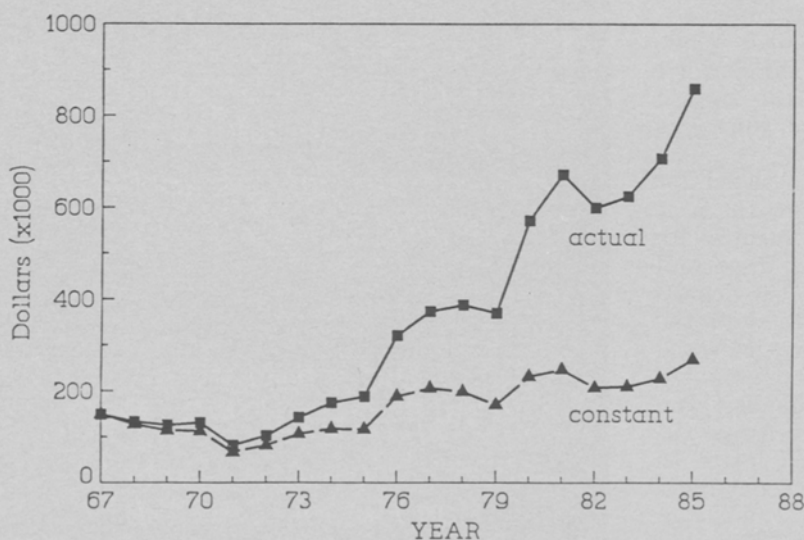


FIG. 1. AOCS total net worth.



Robert R. Allen, center, displays the Supelco AOCS Research Award which he received during the awards breakfast. With him are Earl Hammond, left, and Nick Pelick, right, who made the presentation of the plaque and \$3,000 honorarium.



R.G. Krishnamurthy (left) presents the 1986 AOCS Award of Merit to Lloyd A. Witting.

tionally known specialist in chromatography, he has been an AOCS member for more than 30 years and has participated in numerous AOCS activities. He has been an associate editor for *Lipids* and book review editor for *JAACS*.

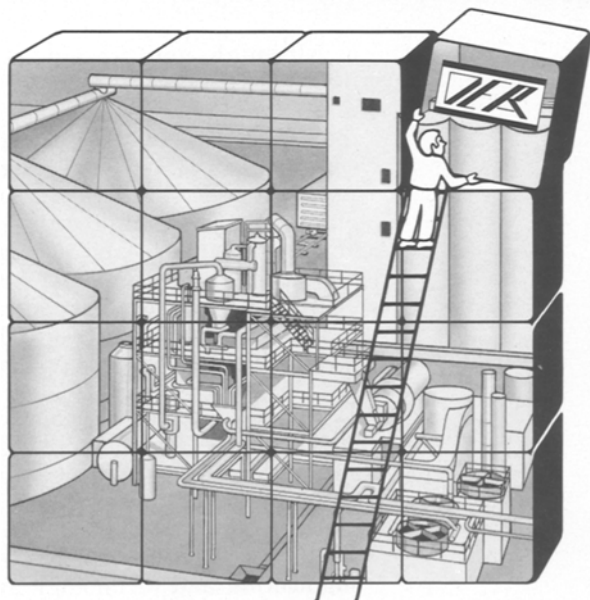
Jonathan Blitz of Colorado State University, Fort Collins, Colorado,

received the Ralph H. Potts Memorial Fellowship Award. The award, consisting of a \$1,000 honorarium and plaque, recognizes a graduate student for outstanding work in the chemistry of fats and oils and their derivatives. The award is sponsored by Akzo Chemie America.

Four students were selected as

1986 AOCS Honored Students for the meeting. They were **Kenneth Hundrieser**, University of Connecticut at Storrs; **David B. Josephson**, University of Wisconsin-Madison; **Christopher C. Parrish**, Dalhousie University, Halifax, Nova Scotia, Canada; and **Laura A. Woollett**, Iowa State University, Ames, Iowa.

Getting it together



takes an engineering consulting firm with a lot of experience.

At DER — "Getting It Together" — is taking the seed of an idea and developing it in a professional manner into a workable and cost-effective project. This means not only meeting immediate needs but also careful planning for the future. Our geographic location in the heart of corn and soybean country has given us a unique opportunity to serve the engineering needs of the grain processing industry. At DER, our team of engineering specialists has worked to solve many difficult and complex new construction and retrofit problems. Our services involve not only engineering but the dovetailing of the efforts of a contractor and suppliers. DER would like to put this expertise to work for your company.

WE INVITE YOU TO WRITE FOR OUR INFORMATION PORTFOLIO.



Dennis E. Roby & Associates Inc.

CONSULTING ENGINEERS

1900 EAST ELDORADO ST. • P.O. BOX 1425 • DECATUR, ILLINOIS 62525 • TELEPHONE 217/429-4412



Jonathan Blitz (center) is the recipient of this year's Ralph H. Potts Memorial Fellowship Award sponsored by Akzo Chemie America. Shown with Blitz are Lincoln Metcalfe (left) and Richard Reck (right), representatives of Akzo Chemie.



Niels C. Nielsen (center) receives the 1986 Archer Daniels Midland (ADM) Award for the best paper published for chemistry and nutrition from George Liepa (left) of the Protein and Co-Products Section while Edward Campbell of ADM watches.



This year's honored students are, from left, Kenneth Hundrieser, Laura Woollett, David Josephson and Christopher Parrish.



Recipients of the 1986 Soap and Detergent Award are Katherine F. Guin (left) and Lou Kravetz (right), both of Shell Development Co. With them is H. Stupel of Shell Chemical Co., who presented the award on behalf of the Soap and Detergent Association.

Although not present at the meeting, L. Kravetz and K.F. Guin of Shell Development Co. in Houston, Texas, were named the recipients of the 1986 Soap and Detergent Award for the best technical paper published during the preceding year in the surfactants and detergents portion of *JAOCS*. Their paper, "Effect of Surfactant Structure on Stability of Enzymes Formulated into Laundry Liquids," appeared in the May 1985 issue of *JAOCS*.

Meanwhile, Archer Daniels Midland Awards were announced for authors of the best papers relating to proteins and co-products published during the past year in *JAOCS*. The 1986 recipients of the engineering and technology award were J.B. German, T.E. O'Neill and J.E. Kinsella of the Institute of Food Science, Cornell University, Ithaca, New York, for their paper,

"Film Forming and Foaming Behavior of Food Proteins," published in the September 1985 issue of *JAOCS*. The 1986 recipient of the award for chemistry and nutrition was Niels C. Nielsen of the USDA/ARS Agronomy Department at Purdue University, West Lafayette, Indiana, for his paper, "The Structure and Complexity of the 11S Polypeptides in Soybeans," which appeared in the December 1985 issue of *JAOCS*.

Also recognized at the breakfast were the first place and honorable mention winners in the AOCS Smalley Check Sample Program.

Ronnie Fox of Fox Testing Labs., Lubbock, Texas, received the R.T. Doughtie Jr. Award, while C.E. McLean Jr. of Arizona Testing Labs., Phoenix, Arizona, received the Smalley Award for oilseed meal. Receiving recognition for earning the most awards in the check sample program was Shams Mustafa of Caleb Brett USA, Jefferson, Louisiana, with eight awards, including a first place in soybeans.

In addition at the awards ceremonies Thursday morning, the Japan Oil Chemists' Society and American Oil Chemists' Society exchanged gifts of friendship.

AOCS President Joyce Beare-Rogers presented Akira Mori, JOCS president, with a Hawaiian hand-carved outrigger canoe set as a gift to JOCS from the society. In return, Mori presented the society with a Japanese handcrafted Kyoto lacquerware vase. Beare-Rogers and Mori also exchanged gifts.

Mori announced that more than 100 JOCS members were registered at the meeting and would present 95 papers in the technical sessions. "This is a very good opportunity for us to present our technology and science for mutual understanding," Mori said.

Soy milk focus of protein luncheon

More than 80 persons turned out at noon Friday, May 16, to attend the Protein and Co-Products Section luncheon and business meeting held in conjunction with the annual meeting. Featured speaker was Darshan S. Bhatia, director of corporate research and development for The Coca-Cola Co., Atlanta, Georgia.

Bhatia, speaking on "Soy Beverages—Some Unresolved Problems," told attendees that in spite of efforts over the past four decades to improve the flavor, mouthfeel and shelf-life of soy beverages, they are still a minor product in the beverage industry. "Despite the attempts to give the soy beverage the image of a soft drink, with added value, through production in a bottling plant and distribution on the traditional soft drink trucks, the total volume of soy beverage is perhaps on the order of one percent of the world's soft drink volume," he said, pointing out that they are relatively more popular in such countries as China, Japan, Hong Kong, Korea, Malaysia, Singapore, Taiwan and Thailand. "Marketing attempts in Brazil, Costa Rica, Ecuador, Indonesia, Mexico, the Philippines and the United States have received limited success," he said, although noting, "Some European countries offer potential markets for soy beverage."

Recalling the euphoria several

decades ago that soybeans were going to solve the world's protein needs, Bhatia noted that hasn't happened. In fact, he said, soybeans are not generally perceived as human food. "Soy oil is well accepted, but it is a different story with nonfat solids of soybeans. Efforts to promote soyfoods in producing countries such as the U.S. and Brazil have been crowned with limited success. Of the U.S. soy protein available, some five percent goes into human foods."

Because soy beverages have been promoted as nutritious and sometimes specifically as a healthful alternative to dairy milk, the dairy lobby has become hostile, preventing the use of soy beverages in public institutions, according to

Bhatia. Also, he said, consumers' expectations have not been realized because soy beverages lack the appearance, creaminess, flavor and mouthfeel of dairy milk. Meanwhile, nutritionists have insisted on the nutritional equivalency of soy beverages with dairy milk. "The nutritional value of the beverage can of course be improved by adjusting the protein content and by enrichment with limiting amino acids, but the added cost may not be justified in the marketplace," Bhatia said.

He explained that while large companies such as Coca-Cola have tried to promote beverages containing soy protein in some developing countries, they have faced a number of constraints. For example,



More than 80 persons listen intently to a talk on soy milk at the Protein and Co-Products Section luncheon Friday during the annual meeting.



Darshan S. Bhatia, featured speaker at the luncheon, offers a hopeful prognosis for the future of protein beverages provided they are marketed "in their own standing."

the host government wanted the nutritional beverage sold at a lower price than carbonated soft drinks since it was aimed for consumption by less privileged segments of the population. "It was either not appreciated or overlooked that a protein-containing beverage is a more expensive product compared to a conventional soft drink because of the additional cost of the protein ingredient and almost invariably of the increased level of added flavoring ingredients and extra processing," Bhatia said. Bottlers did not have any incentive to produce soy beverages since they could more profitably use production capacity for conventional soft drinks.

According to Bhatia, despite existing technological improvements, there is still room for improving the flavor, taste and mouthfeel of soy beverages to make them more appealing, especially to Western tastes. He predicted the two raw materials most likely to be used increasingly for soy beverages are the whole bean and full-fat soy flour.

Genetic engineering may also produce improved soybean cultivars with higher nutritional value, improved physical properties of the protein, reduced fiber content and less undesirable oxidizing enzymes and trypsin inhibitor activity.

Noting that different countries have different ideas of an acceptable soy beverage, Bhatia encouraged industry to promote standards for

protein and fat contents, and to set up reasonable guidelines for enrichment with vitamins, amino acids and minerals. He predicted there will be more use of blended proteins as well as incorporation of fruit and vegetable juices. "Also, the labeling aspect needs to be considered," Bhatia said.

Marketing soy beverages as an alternative to dairy milk is a mistake, Bhatia said. "We should promote the product in its own right with its own flavor, and the promotion material should be consistent with the product's intrinsic attributes." He added, "We need not promote soy beverages with exclusive emphasis on use by lactose-intolerant or health-conscious individuals, nor should we promote them for just the poor and hungry people."

According to Bhatia, marketing must be aimed at mainstream consumers. "It is obvious that unlike soft drinks, soy beverages are likely to succeed more readily in countries where cultural and economic factors are favorable to soy-based products and where dairy milk supplies are less abundant."

Expressing optimism that soy-based products will gain a respectable share of the market, Bhatia recalled that in 1967-68 when he first drew up a proposal that Coca-Cola produce soy beverages, "I predicted a time when soft drinks would be fortified with more and more nutrients. As of early this year, my company is now doing this in some products." Encouraging companies to continue their efforts to sell soymilk, Bhatia cautioned not comparing a nutritious drink such as soymilk with a fun, or soft, drink. "We want it to stand on its own."

Bhatia said he'd like to see 10% of the soft drink market be captured by fortified drinks and predicted that by 1992, soft drinks containing juice may represent 20% of the soft drink market.

Following the talk, the section conducted its business meeting, including installation of Mary Zabik as chairman for the coming year. Secretary-treasurer Nancy DiMarco reported that as of April 1, 1986, the section had a balance of

\$2,309.96. In addition, it was announced that as a result of a pledge by A. Richard Baldwin to donate \$10 for each new member who joined both the section and AOCS for the year, the section had received a check for \$90.

In other announcements, Ed Lusas reported that there will be a short course on production modification held at College Station, Texas, prior to AOCS' 1987 annual meeting and that the talks from the short course on food uses of whole oil and protein seeds held prior to AOCS' 1986 meeting will be published by AOCS as a monograph.

Noting that it is difficult and time-consuming to hold a sit-down luncheon and conduct a business meeting featuring a speaker, section members discussed holding a shorter luncheon gathering next year with a lighter menu offered. Zabik said she will survey members through a newsletter to see what they prefer the section do in 1987.



A musician serves as a centerpiece for the Japanese food serving tables at the Saturday evening international party.

Potential oil sources explored

Six potential sources of commercial oils for industrial use were discussed in opening-day technical sessions. Meadowfoam, crambe, jojoba, *Vernonia galamensis*, Chinese tallow tree and cuphea were highlighted.

Meadowfoam is agronomically suited to cool, moist conditions in Oregon's Willamette Valley where farmers are looking for an alternate crop to rye grass. Meadowfoam, a white flower crop, produces a seed containing a high proportion of 20:5 fatty acid with a double bond at the Δ5 position. Agronomists are working to develop higher-yielding cultivars. The first samples of shampoos formulated with meadowfoam oil were distributed in the meeting exhibition; researchers are studying other possible applications. Limited quantities of oil have been produced at costs of approximately \$3-3.50 a pound, but

projections are that with larger acreage and improved cultivars and processing, the cost eventually would be 50-60¢ a pound. Research studies have shown meadowfoam produces a high-quality sulfized lubricating oil.

E. Charles Leonard of Humko Chemical reported on that firm's work toward using crambe as a raw material for oleochemicals in the C₂₀ range. In 1982, the firm contracted for 1,500 acres to be planted in crambe, with the eventual yield being about 1,100 pounds per acre (potential yield is estimated at 2,000 pounds an acre). The oil was processed at Humko's facilities in Memphis, Tennessee. Humko estimates enough crambe could be grown within 200 miles of Memphis to meet the firm's raw material needs for that class of products. In 1987, Humko expects to contract for 1,500-2,000 acres of crambe to

be grown in Iowa, Leonard said.

Jojoba growers in North America now have about 45,000 acres under cultivation, Carole Whittaker of Hyder Jojoba Inc. told the group, with about 6,000 acres to be commercially harvested in 1986. Growers hope to be able to produce more by creating plantations of high-yielding cultivars. Jojoba oil cost \$90-100 a gallon in 1980, but increased production has prompted a drop to about \$35-40 a gallon more recently, she said. Jojoba oil will probably always be a source of specialty chemicals, rather than a basic commodity oil, she noted. Recent work has included its use as a skin infection medication, as an anti-wrinkle cream and as a medication for psoriasis.

R.E. Perdue Jr. of the U.S. Department of Agriculture reported on potential use of *Vernonia galamensis* as a source of seeds rich

Refining Cups

Highest quality stainless steel, seamless, welded handle

Used in conjunction with AOCS Official Method Ca9a-52 to determine the refining loss of free fatty acids, oil and impurities when the sample is treated with alkali solutions under test conditions. The method applies to crude peanut oil, crude coconut oil, crude corn oil, crude soybean oil (expeller and hydraulic), and crude cottonseed oil (expeller and hydraulic). Cup dimensions: 4 1/2 inch diameter and 4 1/8 inch depth. Capacity: 960 ml.



PRICE

Carton of 6 cups: \$96/carton
Broken cartons: \$20/cup
Postage and handling extra.

ORDER FROM

American Oil Chemists' Society
508 South Sixth Street
Champaign, IL 61820

Tecator- First In Fast Fat Extraction.



Our patented fat extraction method produces results up to 5 times as fast as Soxhlet without change in precision, and has revolutionized the way in which big fat problems are solved in many labs.

Savings.

The Soxtecs save time, labor, solvent and space.

Safety.

Heat transfer controlled from remote source.

Flexibility.

Now available as 2 or 6 place systems for small and large laboratories and to provide for a wide range of samples sizes.

Please call or write for product details today.



P.O. Box 405, Herndon, VA 22070.
Phone: (703) 435-3300. Telex: 230/903034.

Sales and service exclusively by
Fisher Scientific Company.

Fats & Oils News

in epoxy acid. Seed from Ethiopia contained 40% oil, of which 75% was epoxy acid, while cultivation in Kenya produced seed with up to 42% oil, 80% of that epoxy acid.

H.W. Scheld of Phyto Resource Inc. reported on activity during the past six years to develop a data base on the Chinese tallow tree, including identifying and propagating strains

with desirable characteristics.

A.E. Thompson of USDA was unable to attend, but his report on research on cuphea was read by session chairman L.H. Princen. The report noted that germplasm studies are being centralized at Ames, Iowa. Cuphea is being studied as a potential source of lauric oils.

Test strip for frying fats

A simple test strip method has been developed to measure free fatty acids in used frying fats, according to Jerry Mlinar of 3M, St. Paul, Minnesota.

In a technical session on frying fats held Friday morning, Mlinar presented a talk describing a paper strip method developed by 3M and field-tested in 10 fast-food stores for a year. The purpose, he said, was to design a simple, quick method to aid fast-food personnel in determining when to discard the used fats. In addition, taste panels were used to determine safe, acceptable levels of FFA in a variety of fried foods.

Sparkling this research, Mlinar said, was the inconsistent discard of shortenings from a fast-food store and other stores within the same company, indicating the need for a device to objectively measure some characteristic of used shortening which could be used to better define when to discard it.

In order for a method to be practical for the fast-food industry, Mlinar said, it would have to be simple enough for fast-food personnel to use on site, with little or no technical knowledge. Most tests in existence require technical know-how and involve the use of sophisticated equipment, he explained.

The paper strip discussed, however, has proven simple enough while also being safe, fast and consistent, Mlinar said. He described the strip's composition as follows:

A paper strip 1 cm wide by 10 cm long made of pure alpha-cellulose is divided into separate cells by

allowing stripes of a heat-polymerizable liquid silicone to penetrate the paper. The stripes then are polymerized by heat, resulting in impenetrable physical barriers. The paper between the barriers is impregnated with a water solution containing a nonvolatile long chain polyhydric alcohol, a metal carbonate and an acid/base indicator dye. "Each cell in effect is a reaction 'flask,' as the physical barriers contain any nonvolatile reactants within a defined volume of substrate. It is therefore possible to place precise amounts of liquids and/or solids within these 'flasks,'" Mlinar said, explaining that the strip designed for the food service industry has four such reaction cells, which are treated with solutions containing different concentrations of metal carbonate. The strips have an acid indication range from 1 to 14.

Mlinar said the accuracy of the strip readings has been determined by comparing the FFA concentration as determined by the strip to the concentration as determined by titration. The correlation coefficient for the comparison of 132 samples was 0.89, Mlinar said.

According to Mlinar, the major components of the strip are food-grade, ingestible materials, thereby making the strip virtually nontoxic for food contact. "This important aspect allows the strip to be dipped directly into the vat of shortening being used to prepare foods and eliminates the need for removing a sample of shortening, which can become messy and involved during the busy schedule of a fast-food

operation."

Once the free fatty acid indicator strip had been designed to measure a range of FFA, Mlinar said, the next step was to see if the device could provide positive results in practical applications. First, it was necessary to determine at what FFA levels food quality would be unacceptable. A total of 16 consumer taste panels were conducted to determine the discard point for shortening by correlating FFA levels with taste-test evaluations. Foods and shortenings were obtained from a local fast-food franchise. The foods were french fries, chicken patties, chicken nuggets and fish, which remained frozen until used.

In addition, 10 fast-food stores from a local franchise were placed on a shortening discard program which used FFA levels as the principle criteria for discard. The FFA levels at which the shortenings would be discarded were defined by the taste panel results. The FFA level at discard for shortenings in which breaded foods were fried was designated at acid number 5 and at acid number 9 for shortenings in which french fries were prepared.

According to Mlinar, fast-food stores using the strips obtained better efficiency and used less shortening during the test year than the previous year.

"This method has proven to be a practical means of measuring FFA for the fast-food industry, as well as being simple to use and read, safe and nontoxic," Mlinar said.

Mlinar said the range indicated by the strip gives the fast-food operator a reading which should help in deciding whether to filter the oil, change it immediately, or use it for the remainder of the day.

In studies with taste panels to determine safe levels of FFA, Mlinar said, shortenings typical of those in the fast-food industry were used. For french fries, tasters couldn't tell the difference at an acid level of 11, while safe levels for fish, chicken patties and chicken nuggets were 5, 9 and 9, respectively.

"Whether measuring free fatty acid is the way to go in determining safety of frying fats is unclear, but our studies showed this seems to work well," Mlinar said.



J. Edward Hunter, right, winner of the Fun Run, watches as his wife, Marilyn, reaches the finish line to take first place for the women participants.

Hunter defends title

Sixty-five enthusiastic participants from the 1986 annual meeting crossed the finish line of Friday morning's 2nd Annual Fat People's Fun Run and Walk held at Ala Moana Park in Honolulu.


J. Edward Hunter of Procter & Gamble, Cincinnati, Ohio, once again was the first to finish, at 17:59. Despite temperatures into the 80s, Hunter bettered his last year's time by four seconds. Placing second was Neil Brank of Activated Metals, Sevierville, Tennessee, with a time of 18:38. Third place was won by Dan Lampert of Shedd's Food Products, Detroit, Michigan, with a time of 19:51.

Capturing first place for the women was Marilyn Hunter, whose husband won the race overall. Marilyn crossed the finish at 24:51, and was the 24th runner to complete the race. In second place was Laura Woollett of Iowa State University, Ames, Iowa, one of the 1986 AOCS Honored Students. She completed the race in 25th place, at 25:09.

The first Japanese finisher was Kiyotaka Sato, one of the chairmen for the physical chemistry of fats and oils short course, who came in 7th, at 20:54.

The event also turned out to be a family affair for AOCS 1985-86

President Joyce Beare-Rogers' family. Coming in third for the women was Beare-Rogers' daughter, Anne Rogers, who crossed the finish line at 26:25, in 34th place. Beare-Rogers herself completed



IMPORT • EXPORT

Marine Oils • Fatty Chemicals
Industrial Raw Materials

ARTEK INCORPORATED

P.O. Box 1987 • Bloomfield, NJ 07003
(201) 748-9647
Telex 3710296 A/B ARTEK Cable: ARTEKINC



Joyce Beare-Rogers (Number 2614), Ken Carroll (Number 2558), James Baird (Number 2517) and Patsy Brank (Number 2608) approach the first checkpoint in the Fun Run at Ala Moana Park in Honolulu.

the race at 36:09, in 58th place, one place and 12 seconds ahead of her husband, Charles.

Another AOCS officer, Timothy Mounts of USDA's Northern Regional Research Center and AOCS treasurer, had another distinction: he crossed the finish line at 49:04, and was 65th, the final participant to complete the race. Mounts was among those taking part as walkers, not runners.

Meanwhile, Pamela White of Iowa State University, who placed first for the women last year, was the fourth woman to complete the race, crossing the line at 26:31 as the 36th runner. Mary McPherson, who placed second for the women last year, came in fifth this year and 39th in the race.

The oldest participant was 68-year-old Jim L. Baird of West Newton, Massachusetts. He came in 45th, at 30:08.

Coordinating the race again this year was Joseph Fioriti of General Foods Corp., White Plains, New York. Fioriti did not run the course because he was there to officially oversee the activity and to cheer runners on, but his shoes did take part; Fioriti had lent them to a 19-year-old participant who crossed the finish line in 55th place, at 35:33.

Also acting as a cheerleader for the event was AOCS member Aldo Uzzan of Paris, France, who formerly competed as a runner in his own country.

Members of the Mid-Pacific Road Runners Club set up the course for the event and acted as official timekeepers. According to Fioriti, 81 people registered for the event; some, however, changed their minds at the last minute, either to get a few extra minutes sleep (meeting time for participants was 6:30 a.m.) or to avoid the heat.

Sports events

Sixty-three people turned out at the Sheraton Makaha Resort and Country Club Wednesday morning to take part in golf and tennis tournaments arranged by the local committee.

In the golf tournament, Frank Passalacqua of Industrial Filter & Pump Manufacturing Co., Cicero, Illinois, scored low gross, with a 78, while Giles Farmer of Anderson Clayton Foods, Dallas, Texas, captured low net, with a score of 73. A total of 42 people took part in the tournament.

Meanwhile, at the tennis round robin tournament, Toshihiro Itoh and Tsuyoshi Uchibori of Kitasato University, Sagami-hara, Japan, took first place. In second were Gisele Uzzan of Paris, France, and Kamal B. Kardosh of CPC/Best Foods, Landing, New Jersey. There were 21 participants in the tennis event.

Arnold Johnson of the local committee served as tournament chairman.

Contributors

Many firms provided financial support or donations for various portions of the AOCS annual meeting, including the technical and spouses' programs, held during May in Hawaii. They include the following:

Abed Laboratories
Air Products & Chemicals Inc.
Anderson International Corp./
W.C. Cantrell Co.
Applied Engineering &
Science
Beatrice/Hunt Wesson



Hal Purcell (left) of McVay Jjoba Co., California, converses in English and Japanese with Fumikatsu Tokiwa (center) and Yoshihar Kawahara, both of Kao Corp., Tokyo, Japan, at the international party.

Colfax Inc.
 C.T. Refinery
 Eastman Kodak
 EMI Corp.
 Energy Systems
 Foxboro Co.
 Gist Brocades
 Harshaw/Filtrol Partnership
 Hoffmann-LaRoche
 Industrial Filter & Pump Mfg.
 Co.
 Johnson-Loft Engineers Inc.
 Kraft Inc.
 Lion Corp./S.C. Johnson
 Lipo Chemical
 Novo Laboratories
 Nu-Chek-Prep Inc.
 Palmco Inc.
 PSI Inc.
 Shizeido
 Takasago Corp.

Contributors to the Honored Student Program fund for 1986 were the following:

Akzo Chemie America, Chicago, Illinois
 Anderson Clayton Foods, Dallas, Texas

Canada Packers Inc., Toronto, Canada
 Cargill Inc., Minneapolis, Minnesota
 CasChem Inc., Bayonne, New Jersey
 Colgate-Palmolive, New York, New York
 CPC International/Best Foods U.S., Union, New Jersey
 Eagr Development Group, State College, Pennsylvania
 Fabrica de Jabon la Corona S.A., Mexico City, Mexico
 The French Oil Mill Machinery Co., Piqua, Ohio
 Gerber Products Co., Fremont, Michigan
 Kraft Inc., Glenview, Illinois
 Lehn & Fink Products Group, Sterling Drug Inc., Montvale, New Jersey
 LSI Bulk Terminals, Division of LSI Inc., Oakland, California
 Nu-Chek-Prep Inc., Elysian, Minnesota

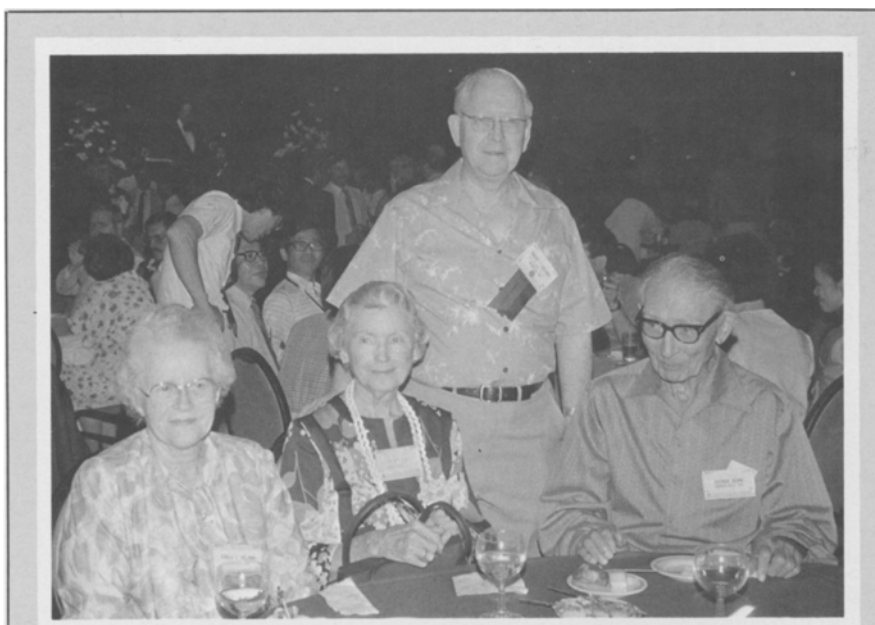
Shell Chemical Co., Houston, Texas
 Somes-Nick & Co., Chicago, Illinois
 Travenol Laboratories, Deerfield, Illinois
 Union Camp Corp., Savannah, Georgia
 U.S. Borax Research, Anaheim, California

Exhibit highlights

Exhibitors at the annual meeting in Hawaii displayed a number of new or expanded products and services available in the industry. Among these were the following:

New processes, products

- Action Engineering Inc., exhibiting with Neumunz Inc.—process for oil/water separation in wastewater applications and possible continuous acidulation separation
- Anco/Votator Division of Cherry-Burrell—secondary heat recovery concepts for increased thermal efficiencies of semicontinuous deodorization
- Cambrian Engineering Group Ltd.—a continuous hydrogenation system which it hopes to market in the near future
- The Chemithon Corp.—new technology (also presented in the technical session on processing of oils) using high intensity ionizing electrode electrostatic precipitator for effluent gas treatment
- DeSmet—a multflash neutralizer for oils and fats refining
- Extraktionstechnik GmbH—a newly developed type of deodorizer for edible oil, and a low temperature condensation system for deodorization plant or steam refining
- The Foxboro Co.—a new line of pressure and differential pressure devices, and hydrostatic gauging and inventory management system
- French Oil Mill Machinery Co.—countercurrent desolventizer toaster designed to reduce the steam required for the process
- Harshaw/Filtrol Partnership—a bleaching earth which is phos-



EFA pioneer

George Burr (at right), discoverer of the essentiality of some fatty acids nearly 60 years ago, participated in the Honolulu meeting at the invitation of AOCS President Joyce Beare-Rogers. Shown with Burr are his wife Violet (second from left) and Karla and Ralph Holman. Burr and his wife have lived in Honolulu for many years. Burr, now in his 80s, takes a daily swim in the ocean. He received a special AOCS Award in Lipid Chemistry in 1966.

phorous-selective and a more active catalyst

- Maschinfabrik Gustav Eirich—unveiling of the Saponiflex process for soap manufacturing. Under a joint venture partnership with Dial Corp., Eirich will build the manufacturing plants while Dial will provide the technology and license.
- Novo Laboratories—an enzyme which immobilizes 1,3-specific lipase, to catalyze interesterification and ester synthesis
- Tekmar Co.—an automatic thermal desorber providing offline trapping and thermal desorption of tenax traps
- UOP Inc.—a continuous, fixed-bed hydrogenation reactor system for the selective reduction of soybean oil (findings were presented in the Saturday technical session on hydrogenation). This is not yet in commercial operation.
- Zone Devices Inc.—a slim stainless steel Zone sampler

New applications

- Bio-Rad Laboratories—use of its gradient module and UV monitor to determine the critical micelle concentration of surfactants in solution (this formed the basis for a paper presented in the poster sessions)
- Oil Skimmers Inc.—application of its oil recovery technology, generally used for petroleum-based oils, to the food oil industry

New relationships

- MirOil Division—has been licensed to market Libra's test kit for measuring frying oil quality. The test kit for polar materials has been accepted for use by official health inspectors in a number of European countries to help enforce their regulations.
- N. Hunt Moore & Associates Inc.—now an agent for N.A. Schröder and Co. and Christian Bock & Sohn, both of West Germany

Expanded services

- Equipment Engineering—expanded services include increased volume, more variety in parts and repair of additional

types of centrifuge equipment.

Other features

The exhibit in May also included the promotion of a number of oilseeds. These included some that have been featured other years, such as palm oil (Palm Oil Research Institute of Malaysia), canola (Canola Council of Canada), jojoba (Desert King Jojoba and Desert

Whale Jojoba Co.) and sunflower-seed oil (SVO Enterprises Corp.), as well as a new crop, meadowfoam. Representatives from the Oregon Meadowfoam Growers Association were on hand to give out samples of products using meadowfoam and to answer questions about this crop now being developed in the Pacific Northwest.

Quality Assurance with Dynamic Headspace Analysis

Your product's reputation is built upon its consistent high quality.

Flavors, aromas and tastes are as recognizable as trademarks.

Your product's integrity and its purity are synonymous.

Dynamic headspace analysis "fingerprints" many of the factors associated with flavors, aromas, tastes and purity. Your product has its own unique fingerprint. Matching that fingerprint from batch to batch assures your product's consistent high quality.

For more information about our Dynamic Headspace Concentrator's role in your quality assurance program, contact Tekmar Company, P.O. Box 371856, Cincinnati, OH 45222-1856, (800) 543-4461. In Ohio call collect (513) 761-0633. Telex No. 21-4221.

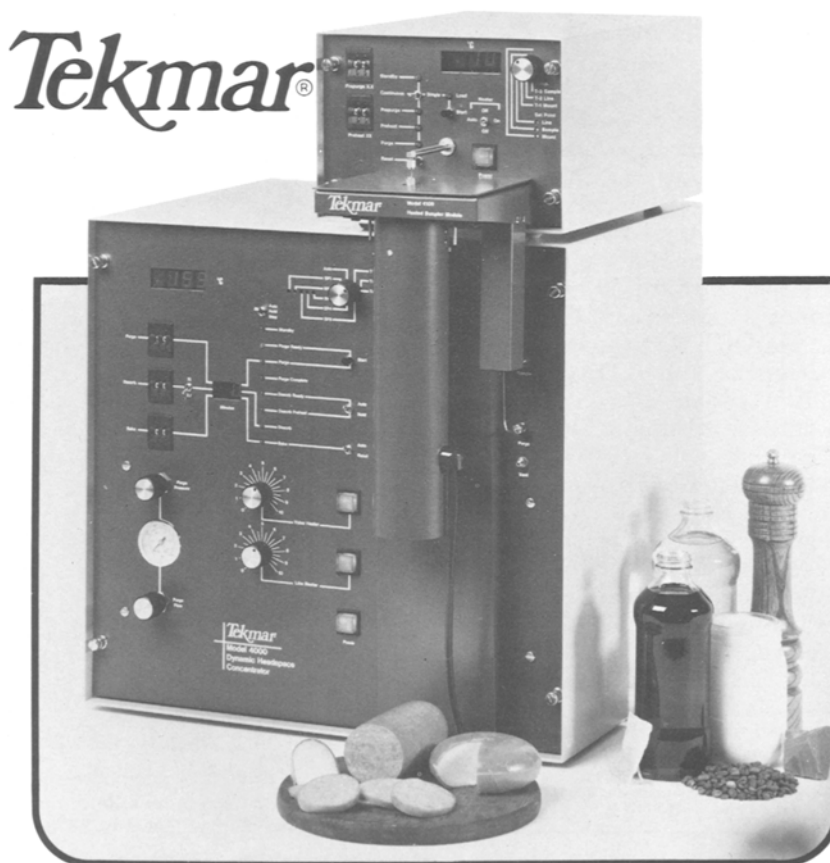


Exhibit door prizes

The following persons were awarded door prizes at the exhibit accompanying the 1986 AOCS annual meeting in Hawaii:

Hawaii T-Shirt: Robert J. Anderson, Gus Bailey, Jose Becerra, Mark R. Bialy, John M. Bolta, Harald Breivik, Emilio Carpinteyro, Shu-pei Chang, George T. Clenzos, Leny DeMan, Levente L. Diosady, G.S. Farmer, Robert D. Feeney, Michael A. Flynn, Joseph Frey, Anthony Garrett, Ilija Gawrilow, Donald J. Hamm, David Holcomb, Bruce J. Holub, John D. Johnston, Peter Kalustian, Tom Kandamtil, Dennis Karl, John Karrow, Joseph P. Kearns, Alex Kiczek, Stan Koltun, Joseph Kuc, Daniel S. Lampert, Louise Lee, Frank T. Lindgren, Robert R. Lowry, Lincoln D. Metcalfe, Tom Meyaard, M.G. Murphy, Hyam Myers, Harry Nicholson, Floreal Fernandez Niello, Kari Nurmela, Takehiko Ohfuji, Douglas Okonek, T. Osberger, Leo W. Parks, Turiddu A. Peloso, Luis Polanco, L.A. Reed, Mike Reynolds, Louis Roman, I.R. Schmolka, Vincent Scorese, Edward A. Sedor, Donita See, P.K. Sen, Robert C. Slagel, Krystyna Sosulski, Tom Steverink, Tony Valicenti, C.N. Wang, William Ward, K. Warner, H. Willinger, Sue Wilson and Michael J. Wint.

New Orleans T-Shirt: A.W. Adamson, Carl B. Amos, Bob La Barge, Anthony H. Chen, Frank Doca, Francis Duneczky, John P. Friedrich, Marty Graber, David N. Holcomb, Joan Hollway, Ernest J. Jacobson, Edward W. McMullen, Andrew P. Menasian, Shigeo Miura, Harland C. Reames, Roberto Rodriguez, Allan D. Scott Jr., Philip W. Staal, Allen J. St. Angelo, Bernard F. Szuhaj, Aldo Uzzan, K.F. Wood.

Cross Pen: Ken Brobst, Ed Hess, John D. Nadenicek, Darwin B. Schlesing, Cecil Wilcoxon, R.J. Zilli.

Cross Pen and Pencil Set: James Amlie, Larry Arshoff, R.J. Hron, Aaron Summers, R.M. Wood.

Television set: D. See.



Frank Passalaqua (left) and Ed King (right) of Industrial Filter & Pump Manufacturing Co. talk with a visitor to their company's exhibit booth.



Books on display at Marcel Dekker's booth tempt passers-by to browse.



Meeting participants examine literature on jojoba at Desert Whale Jojoba Co.'s exhibit booth.



A variety of exhibits ranging from specific oilseed promotion and book sales to equipment, instrumentation and process information attracts visitors to the exhibit hall throughout the meeting. The display included 55 booths.

This publication is available in microform from University Microfilms International.

Call toll-free 800-521-3044. Or mail inquiry to: University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.



Short courses attract 280

Over 280 persons took part in the four short courses preceding the 1986 annual meeting held in Honolulu.

A short course on marine lipids and eicosapentaenoic acid held on the island of Hawaii drew approximately 80 registrants. Chairman Robert Ackman called the 2.5-day short course a success, drawing a variety of participants including representatives of the fishing industry as well as other major food industries.

"It is quite clear that if the fishing industry does not pick up the marketing, some major food companies will," Ackman said, noting that the talks presented indicate that marine lipids still are extremely promising from a health standpoint. "The scientific community is still trying to explain the precise mechanisms, however," he added. The major hurdle, he said, will be the marketing. "Public interest continues to grow in marine lipids."

Approximately 80 registrants participated in a colloquium on hydrogenation held at Turtle Bay on Oahu. Organizer Robert Hastert invited nine specialists to serve as speakers and resource persons for a two-day intensive course on theory and practice of hydrogenation.

More than 60 registrants attended the 2.5-day AOCs short course on physical chemistry of fats and oils, also held at Turtle Bay. The course included theoretical and practical aspects, including how fats and oils react with other ingredients in food products.

Meanwhile, 56 registrants took part in a two-day short course on the food use of whole oil and protein seeds held at Makaha, Oahu. Speakers traveled from Japan, Sweden, Singapore, Taiwan, Indonesia, Jamaica and the U.S. mainland to make presentations on the use of soybeans, dry field beans, pulses, peanuts, sunflowerseed, cottonseed, tropical nuts, palm fruit, coconuts and sesame in food around the world. Also included was a talk by Glen Blix, vice-president of Loma Linda Foods Inc., on vegetarianism in the U.S. During breaks

between sessions, samples of some of the items discussed were available for participants to examine or taste. These included sunflowerseed snacks, Tamunuts made from cot-

tonseed, soymilk, chickpeas, split green peas, lentils, and foods using coconut. The proceedings from this short course are slated to be published in a monograph.



Japanese participants in the marine lipids and eicosapentaenoic acid short course are shown with members of the AOCs staff, Sue Heiser (third from left) and David Berner (to her left), along with Berner's wife Ann Marie.



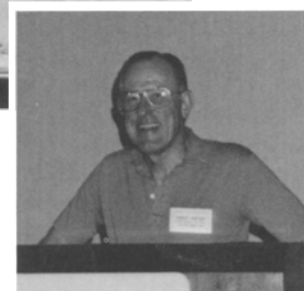
Physical Chemistry of Fats and Oils short course organizers Kiyotaka Sato (left), David Holcomb (center) and Niels Krog.



Social events at short courses allow participants to get to know one another. Here, attendees of the Physical Chemistry of Fats and Oils short course take part in the opening reception.



Hydrogenation Colloquium chairman Robert Hastert (insert) and his faculty: (seated, from left) Norman Smallwood, Richard O'Brien, Robert Allen, James Oldshue, T.L. Mounts; (standing, from left) Roy Carr, J. Edward Hunter, Lyle Albright, Vernon Young and Douglas Okonek.



McDonald's: switch to oil

McDonald's-USA will now fry all Chicken McNuggets and Filet-of-Fish in a vegetable oil blend. The switch from an animal and vegetable shortening blend came about as a response to customer demand, said Stephanie Scurdy, director of media relations for McDonald's. The corn and cottonseed blend is lower in cholesterol than the previous blend, said Scurdy. Because of public demand, McDonald's will still fry french fries in a beef and vegetable shortening.

In addition, McDonald's plans to provide franchises in New York with brochures that contain ingredient information for McDonald's products. The pilot test begins in July. Scurdy said McDonald's already provides information to customers on the sodium, cholesterol and calorie content of many products.

Palm oil venture forms

Netherlands Oil Palm Combination (NOPCO) has been created by Unilever PLC, Stork Amsterdam, HVA International and International Technical Assistance to combine knowledge and experience in the field of oil palm cultivation and production.

According to NOPCO, it can supply complete palm oil projects, including planting material, plantation management, small and large scale palm oil production and processing units, and financing. Its services also include feasibility studies, project design, managerial and technical assistance and personnel training.

NOPCO is active in the field of new plantations and new palm oil industries, as well as the rehabilitation of existing ones.

ADA: labeling for fast food

The American Dietetic Association (ADA) has issued a statement to the Food and Drug Administration saying the ADA supports the labeling of fast foods for nutritional content. The statement urged the FDA to require ingredient labeling of fast foods because so many Americans rely on fast-food products as a significant part of their diets.

The ADA particularly recommended that disclosures for dietary fat and cholesterol be made "to provide crucial information to consumers who want to reduce their risk of heart disease."

The letter to the FDA was in support of a petition by the Center for Science in the Public Interest which advocates fast-food labeling.

Study approved on fat, cancer

The National Cancer Institute (NCI) has approved a \$100 million, 10-year study to determine possible links

CENTRIFUGE SERVICES

Replacement Parts

SRG Hi-Capacity Parts

Bowl Balance

Complete Machine Rebuilding

Rebuilt Models with Warranty

Decanters & High Speeds

Alfa-Laval Gear Box Exchange

Scroll Hard Surfacing



Equipment Engineering

757 East Murry Street
Indianapolis, Indiana 46227
(317) 783-5496
1-800-952-6859
Telex 27-6125 EQPMT ENG

between fat consumption and breast cancer among high-risk women.

After completing a 300-patient feasibility study, NCI concluded that a study of 30,000 women at high risk of breast cancer—those women whose mother and two sisters have had breast cancer—can be carried out. The hypothesis is that a low-fat, high-fiber diet will reduce the risk of breast cancer.

NCI canceled an earlier study which tried to determine the effect of reduced fat intake on breast cancer in women suffering from the disease.

Explosion at Vamo Mill

One man was killed and three others were seriously injured during an explosion in a maintenance building at the Vamo Mills crushing plant in Merksem, Belgium, on May 6. The plant, which is part of the Belgium Vandemoortele group, was to be shut down for less than 48 hours, according to an unofficial US Department of Agriculture report.

The report said the explosion was caused by the improper use of chemicals and not by the explosion of grain or soybean dust. The explosion is not expected to affect Belgium's soybean crushing capacity.

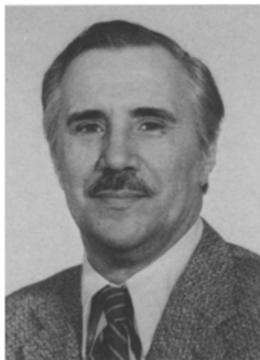
Malaysian port to be enlarged

The World Bank has announced plans for an \$18.8 million loan to meet part of the estimated \$34.1 million cost of expanding Port Kelang in Malaysia.

The work involves constructing a 265-meter berth, capable of handling containers or general cargo. The project is expected to be completed in 1989.

Port Kelang is Malaysia's largest port. The expansion is slated to enable the port to meet anticipated growth in traffic into the early 1990s.

Princen named NRRC director



L.H. "Bert" Princen has been named director of USDA's Northern Regional Research Center (NRRC) in Peoria, Illinois, after serving two years as acting director of the Agricultural Research Service lab. In that capacity, Princen cut administrative overhead and added research programs to study the biochemistry of corn and soybean seeds in order to improve their quality and marketability. He also oversees researchers working to create new and improved agricultural products through fermentation, enzyme technology and biochemical engineering.

"We chose Dr. Princen for this assignment because of his proven leadership, managerial ability and strong record of achievement," said Terry B. Kinney, Agricultural Research Service administrator. "As director he will help the center meet its national goals in the physical and biological sciences and engineering."

Princen is associate editor of *JAOCS*; he has published more than 70 research papers and book chapters and edited several books. He will serve as program chairman for the 1988 International Jojoba Conference.

Chang recognized

During a recent visit to Taiwan, Stephen Chang was recognized by a number of groups for his contributions to the food science industry in Taiwan. He was awarded

plaques from the National Chung Sing University and the National Taiwan University for contributions to their food science departments, and the Food Industry Research and Development Institute cited his contributions in the construction of an edible oil and fat processing pilot plant in the institute and in the development of rice oil.

Chang, chairman of the food science department at Rutgers University, was invited by the Council of Agriculture of the Republic of China to lecture on current trends in the U.S. food industry and to give his suggestions on changes for the Taiwanese food industry.

Trade debate 'war of words'

The United States in May announced import restrictions on a number of European Economic Community (EEC) agricultural products as a result of earlier EEC import restrictions imposed on U.S. oilseed and oilseed products entering Portugal.

Included in the U.S. import restrictions effective May 19 were chocolate, candy, fruit juices, beer and white wine from the EEC.

However, the U.S. import restrictions were set at 20% above 1985 import levels on all of the affected EEC goods except white wine, which was set at 40% above last year's import level.

News briefs

The Italian Society for Fats Research has elected **Enzo Fedeli** as its president for the next four years. Fedeli is director of the Experimental Station for Oils and Fats Industries in Milan, Italy.

The National Sunflower Association has published a new brochure, "Sunflower Seed Protein in Human Foods," reviewing and promoting the use of sunflower proteins. For a free single copy, contact the National Sunflower Association, 4023

Fats & Oils News

N. State St., Bismarck, North Dakota 58501-0620.

The Tropical Development and Research Institute, currently operating from eight different sites in the United Kingdom, is slated to move to Chatham in Kent, approximately 30 miles east of central London, England, in 1988. The planned move will enable the institute to consolidate its staff to one location.

Christopher J. Wright has been appointed president of Stolt-Nielsen Inc., Greenwich, Connecticut, and the holding company, Stolt Tankers and Terminals S.A.

Savinay S. Patel has joined the Food Protein Research and Development Center, Texas Engineering Experiment Station, Texas A&M University System, College Station, Texas, as research scientist and supervisor of oils and fats processing and utilization research. At the Food Protein Research and

Development Center, Dr. Patel will supervise the completion of the new Edible Oils Refining and Processing Pilot Plant slated for summer 1986.

Dan M. Hicks of Ninety-Six Manufacturing Co. was elected president of the National Cottonseed Products Association at the association's 90th annual convention held in May. **Thomas W. Greer** of Amory Cotton Oil Co. has been elected vice-president.

William Lands received Pfizer Inc.'s Biomedical Research Award to continue his biochemical research on fats and lipids and their role in human health. The five-year, \$500,000 award was one of only two such Pfizer unrestricted awards made to American scientists.

Kurt G. Berger, who has spent the past decade in Malaysia helping to establish and guide research programs with palm oil for the Malaysian government, will be returning to his native England this fall.

Berger plans to continue his affiliation with the Palm Oil Research Institute of Malaysia as a consultant. His address will be 17 Grosvenor Rd., Chiswick, London, W4, England.

M/T Stolt Emerald, the second of five 39,000 DWT parcel tankers which will be delivered this year to **Stolt Tankers**, was formally named May 26 at her berth at the Nieuwe Matex Vlaardingen terminal in the Port of Rotterdam. M/T Stolt Emerald arrived in Rotterdam with 46 separate parcels of coconut and palm oils and chemicals from the Philippines, Malaysia, Singapore and Japan. The vessel was delivered April 2, 1986, by Daewoo Shipbuilding & Heavy Machinery Ltd. at its Okpo, Korea, shipyard. M/T Stolt Sapphire previously entered service late in January and a third ship, M/T Stolt Topaz, was delivered in mid-May. Two other ships—MT Stolt Aquamarine and Stolt Jade—are slated to enter service by early summer.

bleaching earths PROLIT

Please contact:



caffaro S.p.A.

Società per l'industria chimica ed elettrochimica
Via Privata Vasto, 1 - 20121 Milano - Tel. 02/62011
P.O. Box: 1288 - Telex 312065 CFFARO