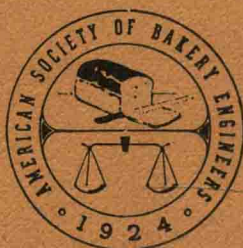


PROCEEDINGS
of
The Sixty-Fourth Annual Meeting
of the
AMERICAN SOCIETY OF BAKERY ENGINEERS
1988



March 6-9, 1988
CHICAGO, ILLINOIS

PROCEEDINGS
of the
Sixty-Fourth Annual Meeting
AMERICAN SOCIETY
OF
BAKERY ENGINEERS

March 6-9, 1988

Chicago Marriott Hotel, Chicago, Illinois

We gratefully acknowledge the cooperation of the business papers in the baking and allied fields for generously contributing space to describe the activities of the Society during the year. Our special appreciation to those which gave careful coverage to our Annual Meeting.

We extend our sincere thanks to the members of the Bakers Courtesy Club of Chicago who served during the Annual Meeting as ushers, microphone monitors and maintained the information desk. On behalf of our members, the Society thanks the "ASK ME" men for serving.

2 North Riverside Plaza, Chicago, Illinois, U.S.A., 60606

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2 North Riverside Plaza, Chicago, Illinois, U.S.A., 60606

SEVENTH ANNUAL MEETING
AMERICAN SOCIETY
OF
BAKERY ENGINEERS

March 6-8, 1988

Chicago Marriott Hotel, Chicago, Illinois

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Printed in U.S.A.

The grateful acknowledgment is made to the members of the American Society of Bakery Engineers who have generously contributed space in the program of the Society during the year for special sessions in those areas which have proved to be of interest to the members of the Society. The members of the Society who have contributed to the program of the Society are listed on the following pages. The members of the Society who have contributed to the program of the Society are listed on the following pages.

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American Society of Bakery Engineers

ROBERT A. FISCHER, PRESIDENT
JAN SNEESBY AARON, EDITOR

2 North Riverside Plaza
Chicago, IL 60606

64th ANNUAL MEETING

CHICAGO MARRIOTT HOTEL
March 6-9, 1988, Chicago, Illinois

Introduction to the 1988 PROCEEDINGS

This issue of the PROCEEDINGS—as was the case with all previous issues—is intended as more than a transcript of the program for the Annual Meeting; it is a valuable reference source for technical information on bakery production. All members of ASBE receive a single copy as a privilege of membership and most of them consider the PROCEEDINGS as an indispensable addition to their libraries.

As a technical reference book, this volume includes reproductions in complete form of all papers which were presented, transcripts of all the discussions following each paper, reproductions of the slides shown during the presentation of the papers, as well as any handout material distributed. This volume also contains a Subject Index for the 1988 Program, a list of papers presented from 1975 to 1988, and lists of Technical Bulletins and EIS Reports issued since 1975.

Besides the technical data, there is a registration list for the 1988 Meeting. A handy Table of Contents has been provided for ease in locating specific papers, reports and sections.

Total registration for the 64th Annual Meeting was 1,144 not including spouses who accompanied registrants and who received complimentary badges.

64th ANNUAL MEETING

INVOLVEMENT
COMMITMENT
DEDICATION

FOR YOUR INFORMATION

For your convenience in locating the various rooms in the Chicago Marriott assigned for our use, we list the floors:

PROGRAM MEETING ROOMS

Salon I—Seventh Floor
Monday A.M. Session
Monday P.M. Session
Tuesday A.M. Session
Tuesday P.M. Session
Wednesday A.M. Session

OTHER

Northwestern and Ohio State Rooms—Sixth Floor
Advisory Committee Meeting
Wisconsin and Purdue Rooms—Sixth Floor
Luncheon for Advisory Committee
Northwestern and Ohio State Rooms—Sixth Floor
Executive Committee Meeting (Sun.)
Salon I—Seventh Floor
Program Participants' Meeting
Lincolnshire I—Sixth Floor—ASBE Office
Minnesota Room—Sixth Floor—Property Room
Foyer—Seventh Floor—Registration
Chicago Ballrooms A, B, C & D—Fifth Floor
Bakery Foods Display
Denver and Houston Rooms—Fifth Floor
Executive Committee Meeting (Wed.)

FOR YOUR CONVENIENCE

Restaurants in Chicago Marriott
Allie's Bakery
La Plaza
Upper Avenue Lounge
JW's Steak House

PRIZES ON DISPLAY

See the prizes for the Wednesday morning attendance drawings in the lobby window of the gift shop on the north side of the lobby.

AN EXPLANATION OF BADGES AND RIBBONS

Badge Inserts

White with orange lettering
A colored dot denotes a new member
(who has joined since 9/1/87)
A receipt for registration fee is
stamped on back of insert

Ribbons

White for overseas visitors
Silver, coral, ruby & gold for members with 25
years or more of continuous membership
Blue for members on the program
Green for Committee Chairmen, Advisory Com-
mittee and Executive Committee members
White with red lettering for exhibitors at
Table Top Display

INTRODUCTION

TO YOUR 64th ANNUAL MEETING

Welcome to the 64th Annual Meeting of the American Society of Bakery Engineers.

This year's program has been prepared with much care and every effort has been made to provide you, the members, with timely papers, using your topic sugges-
tions.

The success of this year's program is a direct reflection on your participation. Your attendance and involve-
ment at these sessions will measure its success and
your suggestions will help in planning next year's
Meeting.

The Officers, Program Committee, Session Chairmen
and Speakers thank you for your support and hope you
will enjoy these next three days.

JACK F. B. BURRIS III
PROGRAM CHAIRMAN

CANDIDA C. WARD
FIRST ASSISTANT
PROGRAM CHAIRMAN

CHARLES S. ROWE
SECOND ASSISTANT
PROGRAM CHAIRMAN

AMERICAN SOCIETY OF BAKERY ENGINEERS

SUITE 1733, 2 NORTH RIVERSIDE PLAZA
CHICAGO, ILLINOIS 60606

REGISTRATION

Please register promptly on arrival to prevent delays
during meeting hours.

Registration Hours

Sunday	10:00 A.M. to 5:00 P.M.
Monday	8:00 A.M. to 5:00 P.M.
Tuesday	8:00 A.M. to 5:00 P.M.
Wednesday	8:00 A.M. to 10:00 A.M.

Registration Desk

Seventh Floor Foyer

Please cooperate by keeping escalator landings free
of crowds, and avoid group conversations in front of
registration desks.

Registration Fees at Meeting

Members	\$ 90.00
Non-Members	\$110.00

Registration includes the Table Top Display, the Of-
ficers' Reception and the Bakery Foods Display. Ad-
mittance to these events is limited to registrants—
by badge only.

OFFICERS 1987-1988



FRANK J. MARTIN
Chairman



JOHN P. DEL CAMPO
First Vice-Chairman



RICHARD T. RICHTER
Third Vice-Chairman



NANCY G. STAHEL
Second Vice-Chairman



ROBERT A. FISCHER
President
Acting Secretary-Treasurer

PROGRAM CHAIRMEN 1987-1988



JACK F. B. BURRIS III
Program Chairman



CANDIDA C. WARD
First Assistant Chairman



CHARLES S. ROWE
Second Assistant Chairman

OFFICERS OF AFFILIATES TO ASBE

ASIAN SOCIETY OF BAKING

Chairman Henry Yu Ah
First Vice-Chairman .. Leonardo B. Figueroa
Secretary Cesar C. Calma
Treasurer Tecson H. Alonzo

AUSTRALIAN SOCIETY OF BAKING

Chairman H. G. Milgate
First Vice-Chairman Brian R. Stuart
Second Vice-Chairman Mike B. Dennis
Third Vice-Chairman .. Brian D. O'Callaghan
Secretary-Treasurer . Desmond D. Hennessy

BRITISH SOCIETY OF BAKING

Chairman A. A. Hodges
First Vice-Chairman J. Brown
Second Vice-Chairman Peter R. Ward
Third Vice-Chairman J. R. Parkinson
Secretary Martin P. Roebuck
Assistant Secretary Helen Jones
Treasurer F. G. Kinton

PRE-MEETING SCHEDULE OF EVENTS

SUNDAY, MARCH 6, 1988

- 11:00 A.M.—ADVISORY COMMITTEE MEETING
Northwestern and Ohio State Rooms
Sixth Floor
(Committee members only)
- 1:00 P.M.—ADVISORY COMMITTEE LUNCHEON
Wisconsin and Purdue Rooms
Sixth Floor
(Committee members only)
- 2:00 P.M.—EXECUTIVE COMMITTEE MEETING
Northwestern and Ohio State Rooms
Sixth Floor
(Committee members only)
- 2:30-4:30—LADIES' TEA
Great America I & II
Sixth Floor
- 4:00 P.M.—PROGRAM PARTICIPANTS' MEETING
Salon I
Seventh Floor
(Speakers, session chairmen and meeting chairmen only)

POST-MEETING SCHEDULE OF EVENTS

WEDNESDAY, MARCH 9, 1988

- 2:00 P.M.—EXECUTIVE COMMITTEE MEETING
Denver and Houston Rooms
Fifth Floor
(Committee members only)

THURSDAY, MARCH 10, 1988

- 8:00 A.M.—PROGRAM COMMITTEE MEETING
Lincolnshire II
Sixth Floor
(Committee members only)

SCHEDULE OF LADIES' ACTIVITIES

SUNDAY, MARCH 6, 1988

- 2:30-4:30 P.M.—Ladies' Tea
Great America I & II
Sixth Floor

MONDAY, MARCH 7, 1988

- 6:15-7:45 P.M.—Officers' Reception
Chicago Ballrooms D & E
Fifth Floor

TUESDAY, MARCH 8, 1988

- 10:30 A.M.-4:00 P.M.—Ladies' Tour and Luncheon

SCHEDULE OF NON-ASBE-MEETING FUNCTIONS

MONDAY, MARCH 7, 1988

- KSU-FSU Bakery Science and Management Association Breakfast
- 7:30 A.M.—Denver and Houston Rooms—Fifth Floor
Dennis L. Wilson Chairman

TUESDAY, MARCH 8, 1988

- Allied Trades of the Baking Industry, Inc.
Early Bird Breakfast
- 8:00 A.M.—Salon III—Seventh Floor
John T. Stout Jr., Chairman
- Canadian Members Luncheon
- 11:45 A.M.—Denver and Houston Rooms—Fifth Floor
Bill Sweete, Chairman
- ATBI Directors Luncheon Meeting
- 12 Noon—Scottsdale Room—Fifth Floor
John N. Riesch, President

SUNDAY AFTERNOON PROGRAM

March 6, 1988

SALON III (Seventh Floor)

- 2:00—6:00—Table Top Display
JOHN J. RADER, PORTLAND, OR
Chairman
JOSEPH W. HICKENBOTTOM, MAYWOOD, NJ
Assistant Chairman

2:00—Table Top Display Opens

A new feature of the ASBE Annual Meeting program.

For Bakers—Provides a central location for bakers to meet with allied suppliers to learn about new equipment, ingredients, processes, services, etc.

For Non-Bakers—Provides a central location for allied suppliers to meet with bakers to make available information about new equipment, ingredients, processes, services, etc.

6:00—Table Top Display Closes

The Table Top Display will be open again on Monday, March 7, from 4:15 to 6:15 p.m.

A list of exhibitors in the Table Top Display is available at the Bakers Courtesy Club Message Center on the seventh floor and on the table at the entrance to the Display.

MONDAY MORNING PROGRAM

March 7, 1988

SALON I
(Seventh Floor)

- 9:30—Meeting Room Opens—Greet Old and New Friends
- 9:45—Call to Assembly and Greetings
NORMAN F. HIRT, Meeting Chairman
- Introduction of Officers
NORMAN F. HIRT, Meeting Chairman
- America the Beautiful
WILLIAM E. MAIER, READING, PA
- God Bless America
Audience led by WILLIAM E. MAIER
- Invocation
THOMAS E. LEWIS, EDEN PRAIRIE, MN
- The Chairman Comments
FRANK J. MARTIN, THOMASVILLE, GA
- The President Reports
ROBERT A. FISCHER, CHICAGO, IL
- Program Preview
JACK F. B. BURRIS III, HIGH POINT, NC
- Annual Business Meeting
Conducted by FRANK J. MARTIN, Chairman
- Knowing Your Society
Hotel Housing Committee
ROSS HOLTON, CHICAGO, IL
- BEMA Scholarship Program
THOMAS E. BELSHAW, SEATTLE, WA
- Presentations and Introductions
- Introduction of Keynote Speaker
NANCY G. STAHEL, MINNEAPOLIS, MN
- Opening Address
MICHAEL D. MOON, LACROSSE, WI
- Announcements
NORMAN F. HIRT, Meeting Chairman
- Adjournment

JOINING THE SOCIETY

A non-member who joins the Society before registering for the 64th Annual Meeting can register as a member.

The Membership Committee maintains a desk in the registration area during the registration hours. Committee members are on hand to explain the benefits of membership and to assist in signing up new members.

MONDAY AFTERNOON PROGRAM

March 7, 1988

SALON I
(Seventh Floor)

- 1:15—Meeting Room Opens
- 1:20—Call to Assembly
JOHN P. DEL CAMPO, WILMINGTON, DE
Meeting Chairman
- Meet the Muppets
- Introduction to Technical Production Session
ROBERT P. CORNELLA, MANHATTAN BEACH, CA
Session Chairman
- Consumer Relations
LINDA L. SMITHSON, THE PILLSBURY CO., MINNEAPOLIS, MN
Programs designed to ensure customer satisfaction—handling complaints and compliments
- Discussion
- Summer Internship Program—Intern's Perspective
CAREY E. AVERY, THE PILLSBURY CO., TERRE HAUTE, IN
Student's comments on benefits of and/or suggestions for this program
- Summer Internship Program—Employer's Perspective
IRA MARC WALMAN, ENTENMANN'S INC., BAY SHORE, NY
Employer's comments on benefits of and/or suggestions for this program
- Discussion
- Accident Liability
EDWARD T. PERRY, AMF UNION MACHINERY, INC., MIDLOTHIAN, VA
Immediate precautions that can be implemented by equipment manufacturers and users with a minimum of expense
- Discussion
- Drugs and Alcohol in the Work Place
BRIAN W. BULGER, KATTEN, MUCHIN & ZAVIS, CHICAGO, IL
Programs to screen, recognize and control
- Discussion
- Adjournment
- 4:15—Table Top Display Opens
- 6:15—Table Top Display Closes

MONDAY EVENING PROGRAM

March 7, 1988

CHICAGO BALLROOMS D and E
(Fifth Floor)

6:15-7:45—Officers' Reception

GEORGE E. LAURANCE, MINNEAPOLIS, MN
Reception Chairman

ASBE Chairman Martin and the other officers, with their ladies, look forward to meeting fellow members and guests at this annual social event. Chairman Laurance has planned this event with your enjoyment in mind.

TUESDAY MORNING PROGRAM

March 8, 1988

SALON I
(Seventh Floor)

9:45—Meeting Room Opens

9:50—Call to Assembly

NANCY G. STAHEL, MINNEAPOLIS, MN
Meeting Chairman

—The Muppets Return

—Introduction to Technical Production Session

NEIL A. BAILEY, HORSHAM, PA
Session Chairman

—Roofs

FRANCIS F. KETHCART, MANVILLE SALES CORP., DENVER, CO
Problems and materials involved with maintenance and replacement

—Discussion

—Maintenance

WILLIAM G. BUMP, STROEHMANN BAKERIES, WILIAMSPORT, PA
Importance of maintenance to a good bakery operation

—Discussion

—Use of Plastics in the Bakery

LARRY A. MECHELKE, AEROMAT PLASTICS, BURNSVILLE, MN
Plastics in proofer trays, in dough troughs and the repair of these materials

—Discussion

—Flour: Handling Your Most Important Ingredient

ROBERT F. MOORE, AZO, INC., MEMPHIS, TN
From railcar to reclaim

—Discussion

—Adjournment

TUESDAY AFTERNOON PROGRAM

March 8, 1988

SALON I
(Seventh Floor)

1:45—Meeting Room Opens

1:50—Call to Assembly

RICHARD T. RICHTER, SAN ANTONIO, TX
Meeting Chairman

—More of the Muppets

—Introduction to Technical Production Session

PAUL J. SIDELEAU, BRIDGEPORT, CT
Session Chairman

—Muffins

RONALD C. BENSON, THE PILLSBURY CO., MINNEAPOLIS, MN
Production methods, formulation and equipment for today's muffin industry

—Discussion

—Cheese in Bakery Foods

LYLE E. WILLEY, HAHN'S CHEESE, ENOSBURG FALLS, VT
Cheese types, applications and safety (microbiological) concerns

—Discussion

—Flour Protein Quality

CHARLES L. HAWKS, QUALITY BAKERS OF AMERICA COOPERATIVE, INC., GREENWICH, CT
New means to measure and control flour protein quality

—Discussion

—The Role of Yeast in Fermentation

RONALD H. ZELCH, AMERICAN INSTITUTE OF BAKING, MANHATTAN, KS
Optimizing new yeast technology for specific product application

—Discussion

—Bread Production without Intermediate Proofing

GLENN P. CAMPBELL, AMF UNION MACHINERY, RICHMOND, VA
Case histories and parameters of use

—Discussion

—Adjournment

TUESDAY EVENING PROGRAM

March 8, 1988

CHICAGO BALLROOMS A, B, C AND D
(Fifth Floor)

4:45-7:00 P.M. Bakery Foods Display

HAROLD D. FORTNER, Elmwood Park, IL
Chairman
ALAN R. DEE, Franklin Park, IL
Assistant Chairman

FRANK SBERNA, Pickerington, OH
Regional Chairman—East
GEORGE H. COIN, Rock Island, IL
Regional Chairman—Mid-Central
ROLAN E. FLETCHER, Norcross, GA
Regional Chairman—South
JAMES D. KNOX, Oakland, CA
Regional Chairman—West
TOM MACDONALD, Franklin Park, IL
Regional Chairman—Northwest
BRUCE E. CRISS, Gibsonia, PA
Regional Chairman—Central

DARYL W. BLOCK, Coal Valley, IL
WILLIAM J. CROWTHER, Westmont, IL
KATHY M. DIERICKX, Franklin Park, IL
WILLIAM A. HOFFMAN, Chicago, IL
JOHN R. JANSEN, Kankakee, IL
GEORGE J. KIEFER, Huron, SD
RICHARD L. KOENIG, Franklin Park, IL
MELVIN W. MUELLER, Mt. Prospect, IL
ROBERT C. RADUENZ, Minneapolis, MN
ROGER W. STRAND, Minneapolis, MN

The Bakery Foods Display covers the widest possible variety of bakery foods from all corners of our country and from all over the world. It has practical significance in acquainting us with progress in our specialized field of production. It also instills in us the pride in the achievement of our industry and its contribution to human nutrition.

The Display opens at 4:45 P.M. Tuesday, March 8, 1988. ADMISSION BY BADGE ONLY. Samples in the general display area are to be VIEWED ONLY and may not be opened. Samples in the "tear-apart room" are open and can be examined closely. At 7:00 P.M. when the display closes, all samples will be turned over to the Salvation Army for local consumption.

We acknowledge with grateful appreciation the cooperation of our friends in the allied trades, who collected most of the bakery products for this Display. We also thank the donors of this merchandise. Their help makes this Display possible. Our thanks to our members who sent in the samples of their products.

WEDNESDAY MORNING PROGRAM

March 9, 1988

SALON I
(Seventh Floor)

9:00—Meeting Room Opens

9:05—Call to Assembly

FRANK J. MARTIN, THOMASVILLE, GA
Meeting Chairman

—Muppets Adjourn

—Introduction to Technical Production Session

JOHN J. STRITCH, WATERTOWN, WI
Session Chairman

—Vision Inspection Advances Baking

THOMAS M. EGAN JR., CBIT CORP., MALVERN, PA
Overview of technology and application in

the baking industry for monitoring of size, shape and other variations

—Discussion

—Attendance Prize Drawing

—In-Store Bakery Production by a Captive Baker

K. WAYNE ENGEL, GIANT FOOD, INC., WASHINGTON, DC

How a supermarket central bakery interfaces with an in-store bakery operation

—Discussion

—Attendance Prize Drawing

—Baking for the Vending Industry

WILLIAM D. MOLL, CRESTVIEW VENDING, INC., GLENVIEW, IL

What vending companies look for in bakery products

—Discussion

—Attendance Prize Drawing

—Process Control in Baking

R. SCOTT CHARLTON, PUBLIX SUPERMARKETS INC./DANISH BAKERY DIV., LAKELAND, FL

Statistical process control philosophy and management, and its impact on bakery quality and production

—Discussion

—Attendance Prize Drawing

—Installation of Officers

—Chairman's Comments and Appointments

—Attendance Prize Drawing

—The Lord's Prayer

WILLIAM E. MAIER, READING, PA

—Final Adjournment

COMMITTEES 1987-1988 EXECUTIVE COMMITTEE

Frank J. Martin, Thomasville, GA
John P. Del Campo, Wilmington, DE
Nancy G. Stahel, Minneapolis, MN
Richard T. Richter, San Antonio, TX
Robert A. Fischer, Chicago, IL
Norman F. Hirt, Maumee, OH
Joseph W. Hickenbottom, Maywood, NJ
Edgar R. Lowe, South Williamsport, PA
John J. Rader, Portland, OR
Stanley R. Frisch, Highland Mills, NY
Thomas E. Lewis, Maple Grove, MN
Edgar T. Fields, Cherry Hill, NJ
Thomas A. Shannon, Poland, OH
Steven M. Feder, St. Louis, MO
Roger W. Masa, Fairview Park, OH
Wayne D. Freihofer, Albany, NY
Victor J. Strama, Pottstown, PA
Bill R. Justice, Decatur, GA
Charles S. Rowe, Irvine, CA

STANDING COMMITTEES

Financial—John C. MacAlpine, III, Philadelphia, PA
Publications—Herman Saussele Jr., St. Louis, MO
Technical Information Service—Simon S. Jackel, Westport, CT
Manual—Paul W. Kamman, Park Ridge, IL
Sanitation—William E. Pieper, Oak Lawn, IL
Nominating—Norman F. Hirt, Maumee, OH
Membership—Richard C. Freihofer, St. Louis, MO
Planning and Steering—Byron R. Baird, Fort Worth, TX
Insurance—James A. Boge, Park Ridge, IL
Hotel Housing—Ross Holton, Chicago, IL
Educational—William A. Hoffman, Chicago, IL
Public Relations—John C. Morris, Wilmette, IL
Safety Z-50—Donald L. South, Chicago, IL
Standardization of Terms and Index—M. Rella Dwyer, Park Ridge, IL
Exposition Booth—William H. Fife Jr., Rolling Meadows, IL
Group Trip—Lon D. Zimmerman, St. Louis, MO

Melvin W. Mueller, Mt. Prospect, IL
Robert C. Raduenz, Minneapolis, MN
Roger W. Strand, Minneapolis, MN
Committeemen

OFFICERS' RECEPTION

George E. Laurance, Minneapolis, MN—Chairman

TABLE TOP DISPLAY COMMITTEE

John R. Rader, Portland, OR
Chairman
Joseph W. Hickenbottom, Maywood, NJ
Assistant Chairman

PRIZE COMMITTEE

Dan E. Miller

COMMITTEES—1988 PROGRAM

PROGRAM COMMITTEE

Jack F. B. Burris III, High Point, NC
Chairman
Candida C. Ward, Norcross, GA
First Assistant Chairman
Charles S. Rowe, Irvine, CA
Second Assistant Chairman
Frank J. Martin, Thomasville, GA
John P. Del Campo, Wilmington, DE
Nancy G. Stahel, Minneapolis, MN
Richard T. Richter, San Antonio, TX
Robert A. Fischer, Chicago, IL
Norman F. Hirt, Indianapolis, IN

PROPERTY COMMITTEE

William F. Geist, Rockford, IL
Property Manager
Albert L. Bachman III, Kankakee, IL
Robert P. Bernoski, Mansfield, TX
Donald F. Bianchi, Mt. Prospect, IL
Chris V. Cipriani, Hanover, MI
Richard A. Danko, Milwaukee, WI
James P. Funk, Dyer, IN
Thomas V. LiPuma, New City, NY
Edward J. Whitley, Mt. Royal, NJ
Assistant Property Managers

BAKERY FOODS DISPLAY

Harold D. Fortner, Elmwood Park, IL
Chairman
Alan R. Dee, Franklin Park, IL
Assistant Chairman
George H. Coin, Rock Island, IL
Bruce E. Criss, Gibsonia, PA
Rolan E. Fletcher, Norcross, GA
James D. Knox, Oakland, CA
Tom MacDonald, Franklin Park, IL
Frank Sberna, Pickerington, OH
Regional Chairmen
Daryl W. Block, Coal Valley, IL
William J. Crowther, Westmont, IL
Kathy M. Dierickx, Franklin Park, IL
William A. Hoffman, Chicago, IL
John R. Jansen, Kankakee, IL
George J. Kiefer, Huron, SD
Richard L. Koenig, Franklin Park, IL

PAST PRESIDENTS

(Year of election shown)

1924—Richard Wahl, Palm Bay, FL
1933—Carl S. Pickering, San Diego, CA
1934—Edward M. Joy, Clearwater, FL
1935—F. B. Evers, Sr., Nashville, TN
1937—John Roberts, Beaumont, TX
1944-1945—Albert J. Faulhaber, Longboat Key, FL
1946—Guy T. Shiverdecker, Kettering, OH
1948—Otto Richter, San Antonio, TX
1952—Fred Weberpals, Queens Village, NY
1954—Wallace K. Swanson, Atlanta, GA
1956—Arthur G. Hackett, Venice, FL
1957—Harold M. Freund, Beverly Hills, CA
1958—Andreas F. Reising, New Orleans, LA
1959—H. Alvin Meyer, Jackson, MS
1960—Clayton C. Daley, Berwick, PA
1961—Robert Nicolait, Santa Barbara, CA
1963—John A. Wagner, Sarasota, FL
1965—Irwin O. Rohrbach, Reading, PA
1966—George H. Gugler, Yucca Valley, CA
1968—William C. Kollman, Wilton, CT
1969—William H. Ziemke, San Jose, CA
1970—Carl C. Hauswald, Jr., Baltimore, MD
1971—Robert C. Brink, Milford, OH
1972—Louis J. Richter, San Antonio, TX
1973—Paul W. Kamman, Park Ridge, IL
1974—Charles B. Clark, Fort Smith, AR
1975—Eugene D. Swenson, Winter Haven, FL
1976—Donald S. Noot, St. Louis, MO
1978—Byron R. Baird, Fort Worth, TX
1979—Frank H. Otway, Springfield, OH
1980—R. Richard Schlupf, LaCrosse, WI
1981—Ernest T. Stevens, Birmingham, AL

PAST CHAIRMEN

1982—Francis M. Covey, Hot Springs Village, AR
1983—Frederick J. Bower, Winston-Salem, NC
1984—Frank R. Goley, Dallas, TX
1985—Benjamin A. Delorio, Utica, NY
1986—Norman F. Hirt, Maumee, OH

PAST PROGRAM COMMITTEE CHAIRMEN

(Year of program shown)

1938—Harold Hall, Port Angeles, WA
1939—O. S. Otting, New Smyrna Beach FL
1940—George T. Carlin, Furman, AL
1942—F. J. Coughlin, Cincinnati, OH
1947—J. H. Debs, Chicago, IL
1951—Jack S. Devanny, Pensacola, FL
1953—Elmer F. Glabe, Northbrook, IL
1957—Ray Thelen, San Diego, CA
1958—Clifton R. Scarborough, Shawmut, AL
1960—Irwin O. Rohrbach, Reading, PA
1962—Harry D. Gardner, Albion, MI
1964—Lloyd L. Fisher, Sun City Center, FL
1965—Zenas Block, Jessup, MD
1968—Philip W. Orth, Jr., Oak Creek, WI
1969—G. N. Bollenback, Washington, DC
1970—Gerald Reed, Milwaukee, WI
1971—Donald K. Dubois, Manhattan, KS
1972—Herman Saussele, Jr., St. Louis, MO
1973—Richard M. Beaverson, Dallas, TX
1974—Ernest O. Cain, Dallas, TX
1975—Frank E. Johnson, Wayne, NJ
1976—Lyle C. Woods, Olathe, KS
1977—Armand P. Cicciu, Schenectady, NY
1978—Frank J. Fischer, Coppell, TX
1979—J. W. Doty, North Kansas City, MO
1980—A. Charles Roland, III, St. Louis, MO
1981—F. Robt. Grant, St. Louis, MO
1982—A. G. Oszlanyi, Minneapolis, MN
1983—Edward A. Stigler, LaPorte, IN
1984—Anthony N. Inzerillo, Port Charlotte, FL
1985—William T. McCurry, Shawnee Mission, KS
1986—Joseph W. Hickenbottom, Maywood, NJ
1987—Nancy G. Stahel, Minneapolis, MN

DECEASED PAST PRESIDENTS

1925—C. J. Patterson
1926 & 1927—E. B. Price
1928—George W. Tassie
1929—Gordon H. Darnell
1930—Louis E. Caster
1931—Ross E. Anderson
1932—Robert L. Gerdes
1936—W. J. Ocken
1938—Roger Brandenburg
1939—William Hauck
1940—Walter T. Molloy
1941—Cecil C. Cadwell
1942—Wm. F. Gossadge
1943—Willard H. Geller
1947—Jake M. Albright
1949—Harold T. Moody
1950—Don F. Copell
1951—Earl B. Cox
1953—M. J. Swortfiguer
1955—Martin Eisenstaedt
1962—Robert G. Dibble
1964—Walter T. Gase
1967—Lawrence E. Pile
1977—John L. DeKeizer

DECEASED PAST PROGRAM COMMITTEE CHAIRMEN

1929—E. B. Nicolait
1930—G. Cullen Thomas
1931—Peter G. Pirrie

1932—W. E. Doty
1933—C. A. McDuffee
1934—Ross E. Anderson
1935—Charles P. Oliver
1936—R. W. Brooks
1937—W. E. Doty
1941—G. Richard Ludlow
1943—Arthur E. Grawert
1944—Henry P. Montminy
1945-46—Carl W. Steinhauer
1948—Tyler R. Stevens
1949—Glenn E. Hargrave
1950—Charles E. Riley
1952—Len P. Kenney
1954—Jones E. Mapes
1955—T. E. Lauder
1956—Len Franzen
1959—Lewis P. MacAdams
1961—James M. Doty
1963—Ralph E. Manewal
1966—William F. Schroeder
1967—Frank R. Schwain

FIFTY-YEAR MEMBERS

(Joined in 1938)

(Gold Ribbon)

Clarence Brady, Alhambra, CA
Robert C. Junge, Coffeyville, KS
C. W. Lantz, Berwyn, IL
R. E. McCormick, Winona, MN
R. F. Prahl, Orange Park, FL

FORTY-FIVE-YEAR MEMBERS

(Joined in 1943)

(Ruby Ribbon)

Joseph E. Franz, Portland, OR
Past President Harold M. Freund, Beverly Hills, CA
Paul Holton, Chicago, IL
Jeffrey R. Short Jr., Chicago, IL
Dr. Betty Sullivan, Bloomington, MN

FORTY-YEAR MEMBERS

(Joined in 1948)

(Ruby Ribbon)

Dean A. Anderson, Warren, PA
Eric E. Bond, East Lindfield, NSW, Australia
Herbert W. Brown, Woodland, CA
William E. Busse, South Bend, IN
Charles R. Clabbers, Savannah, GA
Harmison E. Hale, Prestonsburg, KY
Stanley Moore, Philadelphia, PA
Philip W. Orth Jr., Oak Creek, WI
Albert C. Roland Jr., St. Louis, MO
Joseph F. Roos, Buffalo, NY
Warren H. Sichel, San Francisco, CA
Julius Tills, Dallas, TX
Constantine V. Vanech, Rockville, Centre, NY
Edward W. Wendelin, Lincoln, NE
Richard A. West, Indianapolis, IN