Robert J. Harper Jr. To Receive The Olney Medal

Robert J. Harper Jr., a lead scientist in the textile finishing group at the U.S. Department of Agriculture's Southern Regional Research Center at New Orleans, has been named the 1991 recipient of The Olney Medal in recognition of the many contributions he has made to improving the chemical finishing of cotton and cotton blends.

The eldest of ten children, Harper was born in 1930 in Savannah, Ga., and attended parochial schools there. He holds a BS in chemistry from Fordham University, graduating magna cum laude in 1952, and a doctorate in organic chemistry from Ohio State University (1957).

Prior to joining USDA in 1963, he served 17 months as a First Lieutenant in the U.S. Air Force, working as a project officer at the Air Force Office of Scientific Research in Washington, D. C. From January 1958 to October 1961 he was employed as a research chemist at Ethyl Corp. in Baton Rouge, La. From October 1961 until October 1963 he was a civilian scientist at the Air Force Materials Laboratory in Dayton, Ohio. While at Ethyl Corp. and at the materials laboratory in Dayton, his research was on organometallic chemistry.

At SRRC he has served as a research chemist and project leader (1963-73) and research leader for several different groups (pilot plant processing, special products research and fabric systems) (1973-85). Since 1985 he has been in charge of the textile pilot plant operation.

Harper's work at SRRC has ranged from yarn and fabric formation to experimental finishing to larger scale finishing in pilot plant operations. Particular areas of research over the years include abrasion resistant DP cottons, use of polymer additives in finishing, use of reactive additives in finishing for improved soil release and dyeability after finishing, improved moisture related properties, permanent polymer sizes, cross dyeable fabrics, chemicals for improved processing, FR finishing of blend fabrics, FR and mildew resistant finishes for outdoor cotton fabrics, various techniques for low wet add-on finishing, approaches for reducing formaldehyde release, processes for producing smolder resistant cotton, heat transfer printing of cellulosic fabrics and finishing of core yarn fabrics.

Recent research has focused on the development of processes for producing durable press/flame retardant fabrics for military applications and development of systems for dyeable smooth dry fabrics utilizing cationic grafts. The latter systems have been extended to techniques for differential dyeing, print dyeing, multicolor dyeing and to methods for producing generic cotton fabrics that are cross dyeable. Other recent garment dyeing work has been related to development of single sided treatments for garment dyeing, systems applicable to garment dyeing of blends, stone dyeing and rope finishing of fabrics. The originality of this work is evidenced by the fact that of his nearly 200 publications, 39 are U.S. patents.

In addition to his papers, patents and a book on durable press finishing, Harper has made more than 50 presentations at scientific meetings of the American Chemical Society, the Fiber Society, the Cotton Council and the Industrial Fabrics Association International, among others. He has presented some 15 papers to national AATCC meetings and has spoken to a number of AATCC section meetings. He organized four textile related symposia for ACS and chaired the technical session on formaldehyde release at AATCC's 1983 National Technical Conference at New Orleans.

He has been the recipient of a number of citations and awards including the Federal Businessman's Distinguished Service Group Award from the Cotton Transfer Printing Group in 1982; SRRC's Technology Transfer Award for Work on Cationic Cotton in 1987; and 1990 Employee of the Year for leadership of research in a broad area of textile finishing. He was elected to Phi Lamda Upsilon in 1955 and to Sigma Xi in 1965.

ROBERT HARPER has been a research scientist at USDA's Southern Regional Research Center since 1963.

As a member of AATCC's Gulf Coast Section, Harper has been active as a research committee chairman, judge and speaker in several of the association's Intersectional Technical Paper Competitions. He also served as a member of the host committee for national conferences held in New Orleans in 1967, 1974 and 1983. In 1989-90 he was vice-chairman for the Gulf Coast Section.

Harper is married to the former Ramona Keiser of Columbus, Ohio. They have six children: Theresa Ray, a legislative research analyst for the State of Louisiana in Baton Rouge; Margaret Tarantolo, a geophysicist for Exxon in Houston, Tex.; Agnes Lawrence, a medical technician in Marks, Miss.; Robert, a petroleum engineer for Exxon in New Orleans; Daniel, an industrial engineer for Packard Electric in Clinton, Miss.; and Dorothy, a travel nurse in Winston-Salem, N. C. They also have ten grandchildren.

In addition to family and church activities, Harper's interests include square dancing, jogging, gardening and bird watching.

The Olney Medal

Established in 1944 in honor of Dr. Louis Atwell Olney, the founder and first president of AATCC, The Olney Medal is presented in recognition of outstanding achievement in textile or polymer chemistry or other fields of chemistry of major importance to textile science.

Presentation of the medal each year is a highlight of AATCC conferences. This year's presentation will be made at the conference awards luncheon on Wednesday, October 9. Immediately following the luncheon, Harper will deliver the traditional Olney Medal Address. His topic will be Crosslinking, Grafting and Dyeing: Finishing for Added Properties.

Previous Recipients

Harper is the forty-eighth recipient of The Olney Medal. The first award was to Dr. Olney in 1944. Since then it has been awarded to:

1945—Milton Harris, Milton Harris Associates

1946—William A. Cady, U.S. Finishing Co.

1947—Edward A. Schwarz, Massachusetts Institute of Technology

continued on page 54

for finishing.

1983—Valentin Appenzeller, inventor of the swimming roll concept for overcoming deflections of opposing rolls in padders.

1984—Victor F. Fahringer, inventor of the jet dyeing machine.

1985—Herman B. Goldstein of HBG Export Corp. for development of a low cost process for manufacturing dimethylol dihydroxyethylene urea (DMDHEU) and his discovery that DMDHEU was ideally suited for use as a cellulose crosslinker.

1986—Andrew G. Pierce Jr. and John G. Frick Jr. of the U.S. Department of Agriculture's Southern Regional Research Center for their development of magnesium chloride-hydroxy acid mixed catalyst systems for durable press finishing.

1987—Dietrich R. Hildebrand of Bayer AG for his work on the fundamentals and techniques of reactive dyeing.

1988—Hugh R. Davidson and Henry Hemmendinger, developers of the first successful color matching computer system.

1989—Winfried T. Holfeld of Du Pont for contributions in improving the dye uniformity of nylon and polyester fabrics.

1990—Ulrich W. Meyer of the Swiss Federal Institute of Technology in Zurich for tracing the cause of catalytic damage to cotton fabrics during peroxide bleaching and largely eliminating the problem.

The Olney Medal

from page 51

1948—Harold M. Chase, Dan River Mills

1949—Charles A. Seibert, The Du Pont Co.

1950—George L. Royer, American Cyanamid Co.

1951—Raymond W. Jacoby, Ciba Co.

1952—Werner von Bergen, Forstmann Woolen Co.

1953—Roland E. Derby Sr., The Derby Co.

1954—William D. Appel, National Bureau of Standards

1955—Miles A. Dahlen, The Du Pont Co.

1956—Walter J. Hamburger, Fabric Research Laboratories

1957—P. J. Wood, Royce Chemical Co.

1958—Henry E. Millson, American Cyanamid Co.

1959—Emery I. Valko, Lowell Technological Institute

1960—Arnold M. Sookne, Harris Research Laboratories

1961—Fred Fortess, Celanese Corporation of America

1962—Charles F. Goldthwait, North Carolina State University

1963—Guiliana C. Tesoro, J. P. Stevens & Co.

1964—Richard O. Steele, Rohm and Haas Co.

1965—Herman F. Mark, Polytechnic Institute of Brooklyn

1966—Wilson A. Reeves, U.S. Department of Agriculture

1967—Edwin I. Stearns, American Cyanamid Co.

1968—Harold P. Lundgren, U.S. Department of Agriculture

1969—D. Donald Gagliardi, Gagliardi Research Corp.

1970—Paul L. Meunier, TheDu Pont Co.

1971—Ernest R. Kaswell, Fabric Research Laboratories

1972—Victor S. Salvin, University of North Carolina at Greensboro

1973—Herman B. Goldstein, Sun Chemical Corp.

1974—Henry A. Rutherford, North Carolina State University

1975—R. Lee Wayland Jr., Dan River Inc.

1976—George L. Drake Jr., U.S. Department of Agriculture

1977—James M. Straley, Tennessee Eastman Co.

1978—Dmitry M. Gagarine, Milliken Research Corp.

1979—Joseph W. Gibson Jr., The Du Pont Co.

1980—Roland E. Derby Jr., The Derby Co.

1981—Mathias J. Schuler, The Du Pont Co.

1982—Stephen B. Sello, J. P. Stevens & Co.

1983—Theodore F. Cooke, Textile Research Institute

1984—Ralph McGregor, North Carolina State University

1985—Stanley P. Roland, U.S. Department of Agriculture

1986—Melvin D. Hurwitz, University of North Carolina at Greensboro

1987—Ludwig Rebenfeld, Textile Research Institute

1988—Martin K. Lindemann, Consultant

1989—J. Lee Rush, Allied-Signal Inc.

1990—Hans-Dietrich Weigmann, Textile Research Institute

The Chapin Award

from page 52

Railroads and Stars

Patton has spent much of his leisure time over the years pursuing two passionate hobbies: astronomy and railroading. For the past nine years he has been a director of the National Railway Historical Society. The group meets three times a year in various cities across the country. Its Greensboro chapter puts on yearly steam engine excursions carrying up to a thousand passengers on day long main line trips. The club owns several passenger cars which have been restored by its members and leased to the Norfolk Southern Railroad for excursion service. One of the club's rolling stock is an old Cone Mills boxcar.

He has been a member of the Greensboro Astronomy Club for almost 40 years, serving several times as its president. He also was a team leader for two years for a satellite tracking group during the early days of NASA.

He also is a member of Carolina Model Railroaders and has a large HO layout in his basement. As a member of the Carolina Association for Passenger Trains, he has helped promote the use (or reuse) of passenger trains. The group was instrumental in getting the Amtrak Carolinian train running again between Richmond and Charlotte.

Patton is active in the Boy Scouts, serving as a merit badge counselor for astronomy. He is a member of Our Lady of Grace Catholic Church in Greensboro and a past member of the parish advisory board. He is a past Grand Knight for the Knights of Columbus and a past Faithful Navigator for the Fourth Degree Knights of Columbus.

As an extension of his hobbies, Patton has presented talks with slides to clubs, school classes, scouts and various other organizations on such topics as astronomy, railroads and trains, and wildflowers.

"Photography has been a fun project for me both at Cone Mills and AATCC," Patton points out. "Probably my first AATCC contribution was a series of color photographs to illustrate a Piedmont Section paper on naphthol crocking in 1955. Many times I have made slides for my own talks and presentations and those of others giving papers for AATCC, such as Hobart Souther and Bill Weaver.

"The most pleasure I've had was making the cover for the April 1983 issue of Textile Chemist and Colorist. That was the April Fool shot of a scanning electron photomicrograph of cotton fibers in color.

"I did a wide range of photographs for Cone throughout my years there. During the 1980s I started in video work on test method problems and as a training tool showing testing techniques."

ASTM Too

AATCC hasn't been the only beneficiary of Patton's willingness to share his exper-