

Conference Report

The 42nd Annual Corrugated Containers Conference

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The 42nd TAPPI Corrugated Containers Conference was held at the Washington Hilton and Towers in Washington, DC, on October 12–14. The attendance of 1214 was just shy of the record for a non-CorrExpo year and was impressive, to say the least, in current world economic conditions. Represented in the crowd were 27 countries and 35 of the United States.

As was the case last year, the Corrugated Containers Division continues to focus on printing, but this year gave significant interest to quality and energy conservation as well. The 1992 conference also provided considerable discussion of modification of corrugators for better heat transfer and reduction of crushing. Another workshop this year revolved around the production of high-performance grades of containerboard and the problems these grades create in converting. Human resources also received emphasis, with a workshop on sexual harassment in the workplace and training to reduce on-the-job injured. Once again, however, printing was the subject of an extended workshop. The

technical session featured two papers from the United Kingdom, underscoring the international flavor of TAPPI's corrugated containers function.

The division once again sponsored a popular competition for box and display design called CORRPAK. (See article and sidebar, p. 32–37.)

A table-top trade fair with 149 corporate participants featured the 15 new concepts presented in the "What's New" sessions and many more fresh ideas for improved productivity and quality.

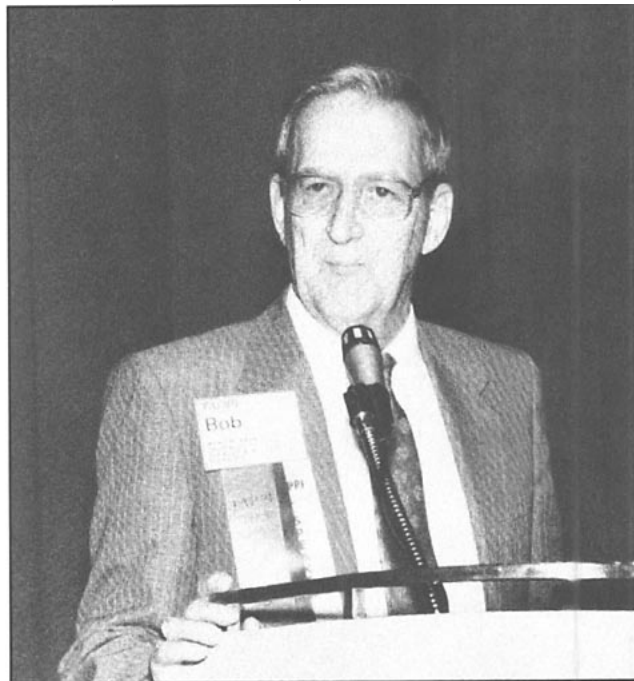
Awards

One of the division's highest honors, the Division Award and the accompanying Harry A. Bettendorf Prize, was presented to Alfred G. Down, senior project engineer of the Stone Container Corp., by TAPPI Director John Walker of Longview Fibre Co. Alfred Down is an engineering specialist on corrugators. He was the

Alfred G. Down and his wife, **Marjorie**, are all smiles after Al was presented the Division Award and Harry A. Bettendorf Prize.



Robert W. Elfner was given the Division Leadership and Service award for his 20+ years of active participation and leadership.



principal author of the TAPPI Technical Information Sheet on corrugator steam systems, one of the division's Engineering Committee projects which appeared in the October issue of *Tappi Journal*. A graduate (along with your editor) of that football powerhouse, Northwestern University, with a bachelor of science in mechanical engineering, Down has been with Stone Container and its predecessor, Continental Can, for over 30 years.

Walker also presented the division's Leadership and Service Award to Robert W. "Bob" Elfner, now president of his own company but a long-time project specialist for the Weyerhaeuser Corp. Elfner was active in the division's Printing Committee for over 20 years, serving as its chairman in 1975. In addition, he chaired the special subcommittee on barcode printing on which subject he reported during the conference's technical session. The paper will appear in a later issue of *Tappi Journal*. Like Down, Elfner was also recognized for his contributions to corrugator design for improved quality and productivity. He earned an engineering mechanics degree from Central Piedmont College of Charlotte, NC.

Certificates of Appreciation were presented to outgoing Division Chairman David A. Carlson of Stone Container Corp. and outgoing Committee Chairmen William S. Thayer of United Containers Machinery Group, engineering; James H. Williamson of American Corrugated Machine Co., productivity improvement; Ervin R. Schatz of Longview Fibre Co., production; Guy R. Asher of International Paper Co., process and quality control; Newell K. Hill of Love Box Co., human resources development; Stanley L. Goodrich of Chesapeake Paper Products Co., Carbortec; and Robert A. Morgan of the George M. Martin Co., suppliers advisory. Gary M. Alexander of Harper Corp. of America, Richard J. Croker of Georgia Pacific Corp., and Davide R. Friedman of General Mills Inc. were honored with Special Certificates of Merit. Recognized as being division members for 25 years were George Maltenfort (the division's only TAPPI Gold Medalist) and Jim Stevenson, both TAPPI Fellows.

Production roundtable

The ever-popular Production Roundtable focused on questions regarding quality. During the first session on the corrugator, there was lengthy discussion on corrugator belts, especially modifications to the hot plate section for increased productivity—but, more importantly, to eliminate the crushing and leaning flutes imparted to the board by conventional hot plate systems and their ballast rolls. The exchange was of such great interest that the session chairman, Erv Schatz of Longview Fibre, had to close the discussion in order to consider some of the other subjects. Hot plate deflection studies were described by several converters. Converters related their experience with soft covered ballast rolls and air plenums. All reported significant increases in caliper and flat crush. Additionally, several converters talked about replacement of the glue machine rider rolls to eliminate crush. The results among this group were all positive.

The second session—on printing, diecutting, and joining—

again focused on quality issues with discussions on drying between units for quality printing, the use of thinner plates for better graphics, and in-house manufacture of inks. Statistical process control was the big interest last year, with real interest in one-box setups. This time more converters reported success.

Elliot Rhode, chairman of the Productivity Survey Subcommittee, summarized what has been learned from the 1992 Productivity and Waste Survey and what information is available in the newest report. Information has been expanded to include corrugator wet-end and side trim spoilage and sheet waste on the corrugator. This allows calculation of controllable waste. Adding this to customer paid waste (diecut waste, flap trim waste, etc.) gives total waste and permits a comparison with the baled waste figure. The difference is what is called "ghost waste." The survey is available in both British and metric units of measurement from TAPPI.

Technical session

Four strong papers were presented at the single technical session. Andrew Lau, research assistant at Loughborough University of Technology in the United Kingdom, presented the paper written jointly with Trevor Davies on case making process optimization. This was a statistical study of the variables contributing to the quality of the final (printed, slotted, scored, folded, and glued) box blank from the flexo. Fishtailing, or lack of squareness, was found to be most influenced by the amount of adhesive applied, although interaction of glue application and squaring was also found to be critical. Contrary to expectations, machine speed and depth of scoring were not found to be highly significant in fishtailing.

Another paper from the United Kingdom was "Saturation technology for corrugated containers." R. N. Jopson, head of application development at PIRA International in Surrey, gave a presentation which was essentially a review of the technology available for impregnation of corrugated board and its applications. This paper will be published in an issue of *Tappi Journal* in the near future.

Elfner's presentation on the work he has done for several years as part of a special subcommittee of the division's Printing Committee will also be published in the journal early in 1993. Elfner made a strong case for establishing comprehensive specifications for printing distribution barcodes directly on corrugated board.

Finally, Jim Thorpe, research associate at the Empire State Paper Research Institute at SUNY/Syracuse, presented a paper on linear strain analysis in corrugated container compression. This paper summarizes work he jointly authored with Doeung Choi, now with International Paper Co. The technology was described in two papers by the same authors published in the October 1991 and July 1992 issues of *Tappi Journal*.

Workshops

Workshops are a key element of any Corrugated Containers Conference, and this year five were held. Once again the topic of

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Outgoing Division Chairman **David A. Carlson** is flanked by TAPPI Board Representative **John C. Walker** (left) and new Corrugated Containers Division Chairman **Joseph P. Trungale** (right). Carlson was honored in appreciation for his leadership of the Division.



printing was in the forefront. Three separate workshops were sponsored by the division's Printing Committee in conjunction with the Flexographic Technical Association. These workshops began before 8:00 a.m. and ran to the end of the day. The workshops dealt with the current state of the art, in which both preprinting and postprinting were presented by converters specializing in each field plus a summary of the advantages of each by a prominent consultant. Discussed subjects included new developments and trends in:

- The ink distribution systems
- chrome anilox rolls
- laser engraving of the anilox roll
- today's precision inks

- doctor blades.

A workshop entitled "The Corrugated Industry Prepares for the Next Century" included discussions on corrugated printing plates, present and future; how new presses will maximize productivity while improving quality; and how new equipment can improve profitability.

The final session was titled "Getting maximum benefit from today's corrugated box finishing machinery."

This workshop, which was sponsored jointly by Corbortec and the Production and Engineering Committees, utilized an innovative structure devised by moderator Robb Trippsmith of Jefferson Smurfit. Attendees at "The use of diagnostic tools on a corrugator and their use in solving problems caused by the new high-performance materials" workshop were divided into small discussion groups and, at the conclusions of each, a summary was read by the table moderators. This process permitted consideration of many more subjects than would have been possible in the session as a whole. It was generally felt that this was an exciting format to be considered for use of future conferences.

The final workshop, sponsored by the Human Resources Development Committee, treated the important and timely subjects of sexual harassment in the workplace; employee selection; and how to minimize pains, strains and back problems using simplified biomechanics.

Next year

The 1993 Corrugated Containers Conference, which will again be international in scope and will include CorrExpo, is scheduled for November 1-3 at the Loew's Anatole Hotel in Dallas. Prospective speakers, or those individuals with program ideas, are encouraged to submit them to the 2nd vice chairman: Robert H. Quick, project manager at Weyerhaeuser Paper Co., 5324 195th Ave. E, Sumner, WA 98390. The deadline for receipt of titles of the papers is Jan. 8, 1993. The deadline for receipt of abstracts is Feb. 19, 1993, and for completed manuscripts is June 30, 1993. **[1]**