# **SWST Newsletter**

**November-December 2000** 

SOCIETY OF **WOOD** SCIENCE AND TECHNOLOGY



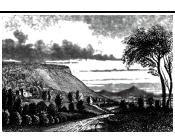
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# **Editor's Note**

Dear Readers:

We experience large climatic shifts between October and December in Maine!



As I write, the temperature is hovering in the mid-twenties (-5° C), and the ponds and streams are skimming over with ice. Can ice fishing be too far off? The Board meeting in Marco Island was productive, and some of us had a chance to visit the Everglades prior to the meeting. Yours truly disturbed a few alligators with well-aimed stones! At one point, we stopped to walk on a nature trail, but we didn't get too far because of the mosquitoes. I just have to mention that the Florida mosquitoes seem much more aggressive than their northern counterpart (ask Phil Steele). Unfortunately, we never made it to Stan's for dinner.

Last month, I had the good fortune of being made an Honorary Member of the Union of Wood Processing Manufacturers of the Slovak Republic

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### **News Items**

# **SWST Policy Position Statements Guidelines for Process and Action**

#### **Purpose and Goals**

SWST Policy Position Statements provide science-based information to policy makers and the public at the rational level and articulate reasoned opinions of the professional wood-science-and-technology community on national and international issues of interest and expertise.

SWST Policy Position Statements further the Society's goals to articulate the value and understanding of wood science and technology to varied publics and to strengthen SWST as an effective professional society.

This article sets forth principles and guidelines by which Society objectives may be achieved through developing and promulgating information and opinion in Position Statements. These guidelines provide a basis for identifying issues and topics, for developing Statements and gaining membership affirmation or approval of them, and for managing the dissemination of the results.

#### What are SWST Policy Position Statements?

An SWST Policy Position Statement is a carefully prepared representation of the SWST professional view on an issue or policy. Three types of Position Statements may be developed and promulgated:

- a) an **Advocacy Position** that supports a particular course of action dealing with a wood-science or forest-products issue:
- b) an **Informational Position** that is educational or analytical in scope and includes information and discussion about, or technical evaluation of, a wood-science or forest-products issue (normally, a specific course of action is not directly identified);
- c) a **Facilitative Position** that seeks to promote resolution of a wood-science or forest-products issue.

### Criteria for SWST Policy Statement Issues

As a professional society, SWST has a responsibility to its members and to the public to anticipate, identify and define wood-science or forest-products issues that are of general interest and importance and to respond appropriately. The following questions are to be used as criteria in selecting an issue for which the Society may develop a position:

a) Is the issue likely to be of major significance to the

public or the profession?

- b) Is the issue within the knowledge and skills of the wood-science and forest-products profession and of the Society membership?
- c) Is the issue of broad enough interest to the membership to invest time and energy?
- d) Is there time for SWST to effectively respond to the issue so as to have a significant impact on resolution?
- e) Does the Society have the human and financial resources to act responsibly on the issue?

# Process for Selecting and Developing SWST Policy Position Statements

Issues for potential SWST Policy Position Statements may be recommended by any member of the Society to the Chair of the Policy and Critical Issues Committee (P&CI). Potential issues may also be recommended by P&CI or by the SWST Executive Board. Proponents of a potential Position or Policy Statement should provide answers to the selection criteria and may be asked to champion the development of the Position Statement.

Procedures for development and review are as listed below.

- 1. The Chair of P&CI will, for each recommended issue, submit brief answers to the selection criteria to the Executive Board for its consideration and approval to begin the development process.
- 2. If approved by the Executive Board, the P&CI will form a task group to study and define the issue, collect necessary information and, if appropriate, develop a draft Position Statement and action plan. Normally, the chair of this task group is a champion for a Statement on the issue. Any member in good standing may serve on the task group. One member of the task group will be a member of P&CI and serve as liaison.

If the issue is not approved for development by the Executive Board, then it may be dropped or returned to P&CI for revision.

- 3. The task group work products, including background information, draft Statement and action plan, must be reviewed and approved by a majority of P&CI before being submitted to the Executive Board.
- 4. The Chair of P&CI will send to the Executive Board the Committee recommendation for a Position Statement, explanatory information and, if appropriate, a draft Statement and action plan.
- 5. The Executive Board will expeditiously consider the proposed Statement and act upon it using the procedures described below.
- 6. If the Board approves adoption of the Statement,

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then P&CI, with support from the Executive Director, will immediately implement the approved action plan.

### Adoption of Position Statements

- 1. Position Statements shall be adopted by an affirmative vote of two-thirds of the Executive Board. Statements approved by the Board will be published to the membership for a minimum comment period of 30 days before they are finalized. The Board must consider all comments received during that period and may revise, rescind or affirm the Statement.
- 2. If the Executive Board doubts whether there would be general agreement on a proposed Position by general membership, or if the Board chooses, a proposed Position Statement may be balloted to the membership. The ballot may take place by mail or at the Annual Meeting of the Society. Membership approval shall be by the affirmative vote of two-thirds of those members voting. Successful Statements become effective immediately after the ballot results are made official.

#### **Contents of Position Statements**

An SWST Position Statement is normally 1-2 pages in length and shall contain a plan of action for use of the Statement as described below.

- A. For Advocacy Positions
- 1. a concise summary of the position
- 2. statement of the issue
- 3. factual background, which may be a summary and identify a reference document
- 4. recommended course of action based on the prevailing informed agreement of the members
- 5. probable consequences of the course of action, and
- 6. expiration date for the Position Statement
- B. For Informational Positions
- 1. a concise summary of the position
- 2. statement of the issue
- 3. factual background, which may be a summary and identify a reference document
- 4. alternative courses of action with probable consequences of each, and
- 5. expiration date for the Position Statement
- C. For Facilitative Positions
- 1. a concise summary of the position

- 2. factual background
- 3. identification of interested parties.
- 4. recommended means to coordinate activities that lead to resolution of the issue
- 5. methods to develop additional information about the issue, and
- 6. expiration date for the Position Statement.

### Action Plans for Approved Statements

Each proposed Position Statement must be accompanied by an action plan that details how the Position Statement will be used to further Society objectives.

At a minimum, the action plan will do the following:

- a) contain specific plans for publication and dissemination through electronic, paper and other media, including the SWST Web site;
- b) identify specific target audiences;
- c) identify leadership and necessary human resources for implementation;
- d) include a time line for activity with identified critical dates; and
- e) have an estimated budget.

# Review, Expiration and Recision of Position Statements

- 1. Adopted Position Statements shall expire five years after the date of their adoption.
- 2. Before Statement expiration, member comments on the expiring Statement will be solicited. Position Statements will be reviewed by P&CI for possible revision and re-adoption, or recision.
- 3. Position Statements may be rescinded by the Executive Board at any time.

Approved by SWST Executive Board June 2000 9/13/00

### SWST Participates in RNRF Sustainability Meeting

The Renewable Natural Resources Foundation (RNRF) held a *Congress on Promoting Sustainability in the* **21**<sup>st</sup> *Century* in Portland, Oregon, from September 69, 2000. Of the 115 participants, Howard Rosen (the SWST representative to the RNRF Board and a member of the Congress Program Committee), Vicki Herian (our SWST Executive Director), and Jim Bowyer (leader of one of the Working Groups for the meeting) represented

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SWST. The goals of the Congress were, first, to provide an interdisciplinary forum to explore the tools and strategies of community and regional planning for sustainability, and second, to examine the evolving role of resource managers in the 21<sup>st</sup> century.

After the presentation of talks defining sustainability and an overview of population and growth development patterns, regional and local case-studies were presented for three heavily challenged regions of the United States—the Pacific Northwest, South Florida, and Southern California. The effectiveness of various tools and strategies for sustainability was described in these studies. The final presentation discussed the evolving role of resource professionals. In the last part of the meeting, the attendees broke into discussion groups to formulate and recommend inputs into a Congress Report on "the evolving role of resource professionals" and "the tools and strategies for sustainability."

Forestry and forest products were represented well in this meeting by such speakers as Hal Salwasser, Dean of the College of Forestry at Oregon State University; and Cassie Phillips, Director of Forestry for Western Timberlands for Weyerhaeuser Company. Also, the Congress sponsored a field trip along the Columbia River. The trip included a visit to a community that has been impacted economically by the Northwest Forest Plan and lack of timber harvested in our National Forests.

# Renewable Natural Resources Foundation's (RNRF) Annual Meeting of the Board of Directors November 28, 2000, in Potomac, Maryland

SWST is one of fourteen member organizations in RNRF, an organization whose purpose is to increase public awareness and understanding of the major issues and needs associated with the future of renewable natural resources. SWST has been very active in this organization, and I remain on the five-member executive committee, as well as on several other committees. As the need arises, I have called on our members to provide input and assistance in many areas.

The highlights of the meeting included the following:

- bestowal of the Sustained Achievement Award on William J. "Bud" Carroll of Pasadena, CA, for his long-term contribution to sustainable development and for globally promoting the wise use of water and renewable energy sources;
- bestowal of the Outstanding Achievement Award on Bruce Batt from Ducks Unlimited in Memphis, TN, for the

"Snow Goose/Arctic Ecosystem Education Initiative";

- recognition of the tremendous success of the 2000 Congress on Promoting Sustainability in the 21<sup>st</sup> Century in Portland, OR, in September 2000 (Vicki Herian, Jim Bowyer, and I attended this meeting);
- establishment of an Excellence in Journalism Award;
- election of David Moody, American Water Resources Association, as Chairman and Al Grant, Public Interest Member, as Vice-Chairman for the next two years.

Howard Rosen

RNRF Board of Directors Member for SWST

# International Professional Visitations by Society of Wood Science and Technology Members

The Society of Wood Science and Technology (SWST) is providing international travel grants for the professional growth of two members each calendar year. These grants are to enhance the members' international perspective and networking with scientists, technologists, and engineers from other countries that are so vital to the Society's future success. Successful candidates are also to bring colleagues from their home country into the networks they establish.

**Amount:** \$2,000 for each grant to help cover travel expenses (two grants per year).

**Qualifications:** The applicant must have been an SWST voting member in good standing for at least the past three years. Preference will be given to applicants with limited international experience.

**Requirements:** Successful members are to visit foreign laboratories, industrial firms, and academic institutions as outlined in their proposals. The visits are to last from 2-4 weeks. At the conclusion of each trip, a report is to be filed with SWST noting the visits, addresses of all contacted, and information obtained. The contacts are to be publicized for the use of other SWST members.

#### Proposals:

- Proposals are to be submitted to the SWST Executive Director, SWST, One Gifford Pinchot Drive, Madison, WI 53705, by January 15 of each year.
- Proposals are to include an itinerary which lists in detail places and people to be visited and how these visits will enhance the proposer's professional career and SWST.
- Specific mention of what is expected to be learned during each visit and how this information will be shared with the SWST membership is required.

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- Further, plans must be submitted on how to foster the new network of scientific and technical exchange.
- The applicant's resume and a proposed budget must be part of the proposal.

**Time Requirements:** The visits are to take place within 18 months of the time the awards are given. The awards will be announced at the SWST Annual Meeting, held in June.

In order to participate in the SWST International Professional Visitation Travel Grant Program, you must submit your proposals to Vicki by January 15!

## \* **Nominations Sought for DSA**

The Distinguished Service Award (DSA) is given by SWST to individuals who have made unusually significant contributions to the profession of Wood Science and Technology. The recipient need not be a member of SWST, but any nomination must be endorsed by SWST members. The Past Presidents' Council, chaired by Tom McLain, is asking members to submit nominations for 2001 and future awards. Please see the awards section of our Web site, www.SWST.org, for details about the award and past recipients. Contact Tom at 541-737-4224 or thomas.mclain@orst.edu with your suggestions.

### **Doug Gardner Visits Mississippi State** University

Doug Gardner participated in the SWST Visiting Scientist program at the Mississippi State University Forest Products Laboratory on Oct 25 and 26. He met with various researchers and discussed work in the areas of housing durability, fire-retardant treatments, wood machining, and Volatile Organic Compound (VOC) emissions from wood processing. He also had a chance to see the new computer-controlled hot press in action. Doug presented a seminar on "Adhesive Bonding of Wood with Vinyl Ester Resin." He notes that both the lab and Starkville have grown considerably since his days as a graduate student. It should be mentioned that both Mississippi State and SWST funded this visit.

\*\*\*\*\*\*\*\*\*\*\*\*\* **New Structural Component Strengthening** 

# **Technique Developed at AEWC Center**

Building owners and contractors who need to strengthen existing floors, roofs, and other structural components may find that a new technique developed at the University of Maine's AEWC Center is the right tool for the job.

Center Director Habib J. Dagher and graduate student Benjamin Foster have developed a Fiber-Reinforced-Polymer (FRP) composite strip that can be used for this purpose.

While this strip is not yet commercially available, arrangements to use it on a limited trial basis can be made with the Center. Dagher notes that increasing structural strength may be particularly important when insulation is added to reduce energy bills.

This research recently received national recognition at the Composite Fabricator's Association (CFA) annual conference in Las Vegas, attended by over 5,000 people. There, Dagher received the Best Technical Paper Award for his description of an efficient method of repairing or strengthening in-service wooden beams by bonding FRP strips to their undersides.

"This is an increasingly common problem as much of our building infrastructure continues to age, including schools and municipal buildings," says Dagher. "Owners and policy makers are often faced with the choice of tearing out a structure or finding an efficient and safe way to repair it." On a cautionary note, Dagher adds that "adding insulation above a ceiling or renovating a structure to accommodate a new use can mean that beams must carry a heavier load. There are known occasions in Maine and other northern states where roofs of older buildings have collapsed in a major snowstorm soon after they have been insulated."

Dagher and Foster conducted full-scale tests showing that beams sawn almost in half can be restored to full strength. The researchers bonded strips to the undersides of 30 beams intentionally damaged by sawing through three quarters of the depth. These beams were then structurally tested in the lab to the breaking point. Test results showed that the reinforcing strip had restored the beams to their initial strength.

The strip typically extends twice the depth of the beam to either side of the damaged area. Dagher notes that "this technology presents a practical, efficient way to save a roof or floor rather than replace it."

# Conferences and Events

### **Upcoming Conferences from FPS**

FPS-Sponsored Technical Forum at the 35<sup>th</sup> International Particleboard/Composite Materials Symposium; April 25, 2001; Washington State University; Pullman, Washington, USA

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- 6<sup>th</sup> International Conference on Woodfiber-Plastic Composites; May 15-16, 2001;The Madison Concourse Hotel; Madison, Wisconsin, USA
- FPS 55<sup>th</sup> Annual Meeting; June 24-27, 2001;Omni Inner Harbor Hotel; Baltimore, Maryland, USA
- FPS-Sponsored Technical Seminars at the Forest Products Machinery & Equipment Exposition; July 19-21, 2001; Georgia World Congress Center; Atlanta, Georgia, USA
- FPS 56<sup>th</sup> Annual Meeting; June 23-26, 2002; Monona Terrace Convention Center; Madison, Wisconsin, USA
- FPS 57<sup>th</sup> Annual Meeting; June 22-25, 2003; DoubleTree Hotel; Bellevue, Washington, USA
- FPS 58<sup>th</sup> Annual Meeting; June 27-30, 2004; Amway Grand Plaza Hotel; Grand Rapids, Michigan, USA

# The Society of Wood Science & Technology Presents

"Education: Kids & Teachers"

Sunday, June 24, 2001 Omni Inner Harbor Hotel Baltimore, MD

8:00-8:15 Introduction & Welcome

H. Michael Barnes, President-elect

8:15-8:45 How Do Different Age Groups Learn—
An Educator's View

Susan G. Magliaro, VPI

8:45-9:15 Educating Teachers
Kathy McGlauflin, Project Learning Tree

9:15-9:45 Woods Walk, Woods Talk

Allan Houston, University of Tennessee

9:45-10:15 Educating Kids (& Teachers)-The Wood Magic Science Fair Concept R. Daniel Seale, Mississippi State University

10:15-10:45 Measuring Educational Impacts

Patricia Morrell, University of Portland

## **Publications**

### Wood and Cellulosic Chemistry, Second Edition, Revised, and Expanded

**Edited by:** David N.-S. Hon, Clemson University, South Carolina; and Nobuo Shiraishi, Kyoto University, Japan; 11/01/2000. In Press, Hardcover, 928 Pages, Illustrated

ISBN: 0-8247-0024-4

World Price: \$ 250.00

Reviews:

International praise for the first edition...

"...It is easy to recommend this volume to both the wood chemistry expert and to any other interested scientist."

—Chemistry & Industry

"This encyclopedic work covers...more aspects of the chemistry of wood and cellulose than have been available before in a single volume....This will be the 'bible' of wood chemistry for the foreseeable future. Essential for any institution involved in wood chemistry."

—Choice

"Considered as a whole, the work offers a very good, upto-date, and in some parts detailed survey of the specialized subject of wood and cellulose chemistry....The book can be recommended for everyone in research and teaching who seeks an up-to-date account of the present state of knowledge regarding the chemistry of renewable raw materials, natural polymers, wood, and cellulose."

—Angewandte Chemie

"...The rich source of references and the broad scope of the book make this collection a suitable addition for the library of both the experienced practitioner and those who are new to the field."

—Journal of the American Chemical Society

- "...Success in [the problem of complex upgrading of e-newable resources] may be reached only by a thorough knowledge of the complex aspects of accessibility, composition, chemical modification and properties. In this respect, the book is recommended to all those involved in such activities, as well as to researchers and students specializing in wood's chemistry and biochemistry, and in technologies for its chemical and mechanical processing, as well."
- Cellulose Chemistry and Technology

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"This book should be compulsory reading for members of the SERC Chemistry Committee."

—Chemistry in Britain

#### Description:

Reflecting the increasing importance of biotechnology and predicting its influence as one of tomorrow's megatechnologies, the long-awaited Second Edition of Wood and Cellulosic Chemistry continues to detail exhaustively the principal concepts and latest developments in wood science, chemistry, and technology. Seeking to make biobased products and bioenergy cost competitive, this thorough reference summarizes the extensive knowledge of wood, cellulose, paper, lignin, and hemicelluloses.

It also continues to relay Japanese advances into English!

Wood and Cellulosic Chemistry, Second Edition includes new chapters on the chemical synthesis of cellulose and its cutting-edge technology; preservation of wood resources and the conservation of waterlogged wood; potential for creating biodegradable polymers from lignocellulosics; recycling of wood and fiber products; and pulping chemistry; as well as continued coverage of the fundamentals of wood formation and structure; solid chemistry and chemistry of individual wood components; chemical and physical analyses of wood parts; the chemical modification and characterization of wood, cellulose, and lignin; critical phases of plasticization, degradation, photochemistry, and discoloration and much more!

Written by twenty recognized international experts and supplemented by over 3,700 literature references, drawings, photographs, x-rays, tables, and equations—more than 700 new to this edition—*Wood and Cellulosic Chemistry*, Second Edition is an integral resource for polymer and organic chemists; forest-products researchers; wood, paper and pulp, materials, energy, and plant scientists; foresters; wood technologists; biochemists; biotechnologists; and upper-level undergraduate and graduate students in these disciplines.

# **Positions Available**



The professor to be appointed will represent the field of wood technology in teaching and research. The position requires an excellent scientific background with interna-

tionally recognized research in the field of wood technology, as well as good knowledge of the fundamentals of materials science and of the development of wood and wood products in civil engineering. Candidates must be able to direct high-standard-interdisciplinary and international-research-and-development projects, as well as to cooperate successfully with research institutions and other partners on a national and international scale.

The successful candidate will be responsible for courses in wood technology for students of forest sciences, civil engineering and architecture.

Please submit your application with a curriculum vitae, a list of publications and an outline of current and future research goals to the **President of ETH Zurich**, **Prof. Dr. O. Kübler, ETH Zentrum, CH-8092 Zurich, no later than February 28, 2001.** The ETHZ specifically encourages female candidates to apply, with a view towards increasing the proportion of female professors.

#### **Editor's Note**

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during their board meeting on November 23. This honor was bestowed on me for helping the Union prepare for its trade mission in the US during October and November 1999. Since the meeting was held in Zvolen, I had an opportunity to visit the Technical University and delivered several presentations on wood-products research being done at UMaine. This was my fourth visit to Slovakia since 1993, and I find greater improvements in the country with every visit. Many students are studying wood science at the Technical University, and I feel that it is an untapped resource for potential graduate students.

It's not too early to begin thinking about the annual meeting, to be held in Baltimore. The topic for the 2001 symposium is "Forest Products Education for Kids and Teachers" (please see page 6 of this issue). This is an important topic for the future of our profession. The paucity of students choosing forestry or forest-products-related careers hit home with me recently. Students for the Forestry 101 class were touring the AEWC Center, and I learned that only 22 students in the freshman class are studying for a career in forest resources, which includes forestry and parks and recreation, as well as wood science! A rather sobering wake-up call.

Happy holidays to everyone!

Respectfully submitted,

Doug Gardner

The **SWST Newsletter** is published six times a year by the Society of Wood Science and Technology, One Gifford Pinchot Drive, Madison, WI 53705, USA.

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**SWST** is a technical and professional organization for scientists and engineers working in academia, government, consulting and the forest-products industries and is dedicated to providing education and expertise regarding better ways to use and produce wood products.

Items for the newsletter may be sent to Doug Gardner, at the above Society address.

### Society of Wood Science and Technology

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