

INTRODUCTION
SOCIETY OF WOOD SCIENCE
AND TECHNOLOGY
TEACHING UNIT 1

SWST

Welcome to the Society of Wood Science and Technology's introductory teaching unit. This unit is intended for classroom use in high school science classes to introduce forest products and wood science, the material science of the forest products industry.

The following presentations are included in this unit:

- 1) Slide Set No. 1, "**Made in the USA - From Wood**". This set of 29 slides and images gives an overview of the tremendous variety of products derived from wood.
- 2) Slide Set No. 2, "**Structure of Wood**". In this set of 53 slides and images, the structure of wood is surveyed from the macroscopic down to the molecular levels of structure. A number of striking scanning electron micrographs clearly illustrate the fascinating three-dimensional structure of wood. This set provides a basis for further study of wood anatomy and identification.
- 3) Slide Set No. 3, "**Wood Identification: Equipment and Technique**". This is a brief introduction to hand lens identification of wood and contains 22 slides. A set of 6 wood samples (six different species) and a hand lens accompanies this set and is available separately. Contact SWST to purchase the wood blocks and lens prior to attempting slide set 3.

This teaching unit was a project of the Education Committee of the Society of Wood Science and Technology. Jim L. Bowyer, University of Minnesota, produced most of set number one. Set number two was the result of the combined efforts of Richard S. Dodd, University of California at Berkeley, Frederick A. Kamke, Virginia Polytechnic Institute and State University, Blacksburg, William T. Simpson, U.S. Forest Products Laboratory, Madison, WI, Douglas D. Stokke, Michigan Technological University, Houghton, K.C. Yang, Lakehead University, Thunder Bay, Ontario Canada, and Audrey Zink-Sharp, Virginia Tech, Blacksburg, VA. Other committee and SWST members have contributed ideas and suggestions. Set number three was prepared by Audrey Zink-Sharp, Virginia Tech.

Images in slides 10 and 29 of slide set two are used with permission from Forest Products and Wood Science: An Introduction, third edition, by J.G. Haygreen and J.L. Bowyer (c) 1996 by Iowa State University Press, Ames, IA.

The following images in slide set two were provided by the N.C. Brown Center for Ultrastructure Studies of S.U.N.Y. - College of Environmental Science and Forestry, Syracuse, NY: slides 3, 5, 16, 17, 19, 20 right, 22-25, 27, 34, 39-43, and 49.

Images in slides 1, 4, 6, 8, 12, 14, 18, 20 left, 21, 26, 31-33, and 35-37 in set two were provided by Audrey Zink-Sharp, Va Tech, Blacksburg, VA.

Images in slides 47, 49, and 50 in slide set two were provided by Chip Frazier, Va Tech, Blacksburg, VA.

All images in set three were provided by Audrey Zink-Sharp, Va Tech, Blacksburg, VA.

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The logo for SWST, consisting of the letters 'SWST' in a bold, white, sans-serif font with a slight drop shadow, set against a dark green rectangular background.

SWST

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