

## Who Have We Helped in Louisiana???

The Louisiana Forest Products Laboratory interacts daily with many stakeholders who include governmental policymakers, other academic institutions, associations and industry. Not only do we interact, we act. We'd like to share a few success stories of helping our industry constituents.

**Roy O. Martin Lumber Co.;** A study analyzing a new product to help dimensionally stabilize OSB to greatly reduce thickness swell.

**Louisiana Pallet Manufacturers;** The International Plant Protection Convention, Food and Agriculture Organization of the United Nations, Rome, Italy, established international standards for wood packaging material used in international trade. These new regulations require any wood packaging material to be heat treated and certified before shipment. Information was assembled and distributed to Louisiana pallet manufacturers to provide them with knowledge of the new regulations and how they can comply. More than 40 companies were contacted.

**Challenge Cabinets & Millwork Inc.** The company makes overlaid particleboard doors for offices, etc. Severe warp developed in some panels. We examined the panels and concluded that it was caused by imbalance in panel construction.

**Acadian Cypress and Hardwoods.** Helped the company with information on kiln drying, kiln troubleshooting and preventing cup in wide boards.

**Acadia Board Co.** Helped the company establish bagasse particleboard properties as marketing data.

*(continued on page 5)*

## How We Touch Louisiana

### Richard Vlosky

*Interim Director, Louisiana Forest Products Laboratory*

Though timber is the No.1 agricultural crop in Louisiana, many of the logs and much of the lumber leave the state to be made into more valuable products, such as furniture and kitchen cabinetry. And with them goes the money from value-added industries. For this reason, the LSU Agricultural Center established the Louisiana Forest Products Laboratory (LFPL), which began functioning in 1994, to provide technical assistance and help in development of value-added processing. The goal of the LFPL is to aid the state's economy, especially in the rural areas near the timber, where revenues and employment are needed most.

In this issue, I'd like to share with you some of the many activities we are involved in to support these goals. When I compiled information for this overview, I was surprised at the breadth of activities we have been involved in and the extent that the Lab touches the people of Louisiana. I hope you are as impressed as I am. Please feel free to contact us at the Lab for more information on these activities.

### Forest Products Research

#### ● Longleaf pine wood quality.

Louisiana at one time had vast acreages of longleaf pine forests, but they have since been replaced with faster growing loblolly pine. Longleaf pine has inherent ecological advantages over loblolly pine. This research is targeted at improving the wood quality of longleaf and increasing planted acreage.

● **Soybean adhesives.** Louisiana is a major soybean-producing state. Soy-based adhesives for the wood products industry can reduce costs for the industry as well as provide value-added benefit to soybean farmers.

● **Treated wood recycling.** Louisiana is a major U.S. transportation center. As such, there are substantial amounts of poles, ports and crossties to accommodate shipping of goods. Also, there is treated wood for residential uses. A closed-loop recycling system with zero discharge into waste streams can economically and environmentally deal with treated wood that inevitably is taken out of service. There are substantial rural economic advantages to such a system.

● **Natural wood preservatives.** Louisiana is under attack by the Formosan termite and other pests. The industry is looking for a substitute preservative for CCA, which has been phased out by the EPA. Natural wood preservatives derived from cedar and other species hold great promise.

● **Composite products from bamboo.** Bamboo is a fiber source with inherent rapid growth in Louisiana and good strength properties, which make it an ideal material for products requiring high strength. The successful development of bamboo-based products will reduce the need for woody fiber, diversify the forest products industry and provide income for bamboo growers in Louisiana.

● **Hardwood value-added processing.** Value-added processing of wood products in Louisiana lags behind most other states, particularly for hardwood processing. Fundamental research is conducted to develop high-value wood-based composites from low-value Louisiana hardwoods.

● **New caul system for wood composites.** Louisiana has a significant wood composite industry. Traditionally,  
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to produce wood composites, the furnish must be dried to about 2% moisture content to provide proper bonding. The drying requires energy and time. A new caul system is being developed that would allow particles with a moisture content as high as 20% to be properly dried. This would save the industry time and money.

- **Wood plastic composites.** Louisiana has a vibrant plastics industry. Preliminary research has shown that plastic can be added to the wood composite furnish and not substantially decrease panel properties. This can provide a new market for Louisiana plastic and reduce the demand for woody fiber.

- **Agricultural residue composites.** Particleboard has been produced with good properties with as much as 50% of the furnish being comprised of a Louisiana agricultural residue such as rice husks, rice straw, bagasse or cotton stalks. This can provide a market for Louisiana agricultural residues and reduce the demand for woody fiber.

### Forest Products Outreach and Extension

- **Drying Workshops.** Drying workshops have been conducted for Louisiana companies; more than 80 people attended. Workshop topics are “Basics of Lumber Drying” and “Drying Lumber for Quality and Profits.”

- **Wood Products Extension Program.** The wood products extension program is housed in the Louisiana Forest Products Lab. More than 2,000 people received wood products educational information by either attending workshops, receiving a quarterly newsletter, on-site visits, e-mail or telephone correspondence. The total self-reported value of the 2001 workshops to the individuals who attended was a half million dollars. More than half of the participants plan business expansions either in the form of hiring additional employees or additional equipment and facilities.

- **Louisiana Educational Workshops.** Numerous workshops for wood products industry personnel, professional foresters and loggers have been held throughout Louisiana. The topic, length, duration and location of the workshops are all client driven. In 2001, a survey determined the impact of the 16 programs offered since 1997. The average attendance per workshop was 20. According to the survey, the average value of a workshop attended was \$8,860. Sixteen of the 31 (51.6%) respondents reported adopting practices they learned. In addition, 20 Continuing Forestry Education and 5 Continuing Logger Education workshops were organized from 1998-2000 in collaboration with the LCES and LFA, respectively. These workshops were well received, with an average value of \$1,000 per participant reported in post-workshop evaluations.

- **Dry Kiln Club Newsletter.** The Louisiana Dry Kiln Club newsletter highlights wood-moisture relationships such as lumber drying and wood decay. Published quarterly, it reaches a growing audience of more than 1,000 in Louisiana and North America. The program also educates wood business owners on sound business practices such as record keeping and marketing. In addition, homeowners are educated on proper end-use utilization of wood and wood products in and around the home, farm or ranch.

### Business Development and Marketing

- Since its inception, \$206,205 in outside grants and contracts was received to conduct business development and market research for Louisiana. More than 80 Louisiana companies were visited as part of these research projects.

- More than 40 presentations have been made by LFPL in Louisiana on forest sector business development and marketing topics to 600 people. Topics included:

- Value-added Forest Sector Development Opportunities in Louisiana
- An Overview of the Secondary Wood Products Industry in Louisiana
- The Importance of Forest-sector Development in the Columbia Port Region
- Macon Ridge Economic Development Region Forest Products Sector Development
- A Market-based Strategy for Rural Development in Northwest Louisiana
- An Overview of the Governor’s Task Force on Forest Industry Development in Louisiana
- Wood Products Industry Business Issues – Gaining the Competitive Advantage
- Web-based Information Resources
- The Importance of Forestry and Forest Products
- What Homeowners Think About Treated Wood
- Using the Internet for eBusiness in Forestry
- The Importance of Trees in Society
- The Role and Importance of Forestry
- An Overview of Forest Products Marketing
- An Overview of Certification in the United States
- Forest-based Economic Development Programs: Success Factors and Methodology
- Certification and Non-industrial Private Forestland Owners in Louisiana
- Forest Products Certification Research at the Louisiana Forest Products Laboratory
- From Analysis to Action in Workforce Development: A Case Study
- Wood Products Marketing and Economic Development ■

## WebSite Improvements Made

### Richard Vlosky

Have you visited our Web site lately? If not, go to <http://www.rnr.lsu.edu/lfpl> to see the improvements we have made to better serve our stakeholders in Louisiana and elsewhere. The first thing you’ll notice is the improved format developed by Chirag Dekate, a graduate

student working under the direction of Dr. Niels DeHoop.

Are you aware of the breadth of expertise represented at the Lab? Click on “People” and you might be surprised. Need information? Go to publications to see the extensive list of reports, working papers and research briefs that you can download free of charge. On the Re-

search page, you will find additional reports that can be ordered from our secretary, Pat Lefeaux.

Over time we will continue to improve the Web site. We’d love to hear your suggestions or comments. Please contact Rich Vlosky by e-mail at: [rvlosky@agcenter.lsu.edu](mailto:rvlosky@agcenter.lsu.edu) ■

Visit our Web site at: [www.rnr.lsu.edu/lfpl](http://www.rnr.lsu.edu/lfpl)

## Expertise Spans Many Areas

Are you aware of the breadth of expertise represented by researchers at the Louisiana Forest Products Laboratory? Below is a list of faculty and our areas of specialization. If you have a question or might want us to speak to a group on these topics, please do not hesitate to contact us. We look forward to hearing from you.

### **Dr. Cornelis deHoop,** *Associate Professor*

Expertise: Worker accidents and safety, environmental aspects of wood products processing, wood residue use and operations research/expert systems/GIS applications to the forest products industry. Room 136, Phone: (225) 578-4242; E-mail: cdehoop@agcenter.lsu.edu



### **Dr. Todd F. Shupe,** *Associate Professor*

Expertise: Effects of intensive forest management on properties of solid wood, wood fiber, and wood composites. Wood properties of under-used timber species of Louisiana. Mechanical properties of composite transmission poles from plantain wood and recycled poles. Perceptions of architects regarding the quality of fast-grown Southern pine lumber. Room 111; Phone: (225) 578-6432; E-mail: tshupe@agcenter.lsu.edu



### **Dr. W. Ramsay Smith, Professor** *and Program Leader*

Expertise: Forest products trade and world markets, industry competitiveness, international wood construction, physical properties of wood and wood products and energy from biomass. Room 107, Phone: (225) 578-4155; E-mail: wsmith@agcenter.lsu.edu



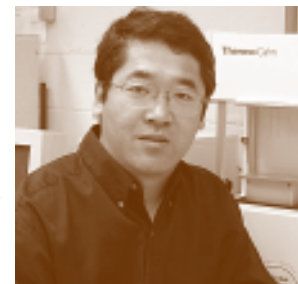
### **Dr. Richard P. Vlosky, Professor**

Expertise: Internet eBusiness/eCommerce, domestic and international wood products marketing; technology applications to improve wood products business competitiveness; marketing applications to economic development; environmental certification and marketing; value-added product opportunities. Room 108; Phone: (225) 578-4527; E-mail: rvlosky@agcenter.lsu.edu



### **Dr. Qinglin Wu, Associate Professor**

Expertise: Wood composite, wood moisture relations, wood drying, mechanical properties and dimensional stability of wood-based materials. Room 107; Phone: (225) 578-8369; E-mail: wuqing@agcenter.lsu.edu ■



## Information Delivery and the LFPL/ENR Linkage

### **Michael A. Dunn** *Associate Professor,* *Resource Economics* *Program Leader, Extension Natural Resources Program*

Forest products and the forest industry comprise the most economically important agricultural product in Louisiana. We have long heard of the benefits in terms of value added and employment that this industry brings to our state. The truth is, however, we could always do better. In Louisiana, we don't come close to realizing our full potential.

Louisiana is blessed with an abundance of natural resources, and wood is close to the top of the list. We must strive to do more with our resource. We must develop our industry (particularly our secondary wood products industry) here, at home, rather than ship much of our raw materials and primary wood products to other states or countries for further developments. This is a challenge we need to meet if the industry is to

remain a viable, competitive and vibrant component of the Louisiana economy.

The land-grant university has a role to play as well. Land-grant universities such as Louisiana State University are charged not only with educating students and conducting research, but also with disseminating applied research to the citizens of the state. It is our duty and responsibility to maintain a strong liaison with stakeholders in the state. In this case, the Louisiana Forest Products Laboratory (LFPL) and the Extension Natural Resources Program (ENR) and the LSU School of Renewable Natural Resources are charged with conducting research and educational programs designed to benefit natural resource managers, landowners, forest products industry and small independent wood products-related businesses with their information and technology needs.

We strive to accomplish this through a variety of means. Researchers in LFPL work with specialists in ENR to develop practical research of interest to the forest

products industry. Once the research is completed, we work to disseminate this information through a variety of means, such as presentations, publications and on Web sites. We also have a variety of workshops on topics such as small business management, wood identification and lumber drying. These are just activities that apply to the wood products industry. We also deliver programming through these same mechanisms to our other stakeholder groups as well.

It is an ongoing effort, and we never relax at trying to do better. We in Louisiana have a major challenge ahead of us. How do we keep this industry flourishing in Louisiana? How do we confront the major issues surrounding forestry and forest products (resource use, sustainability, certification, foreign competition, labor force issues)? Can we in the university continue to provide a vital service to our stakeholder groups? The answer is yes, now more than ever. ■

## Combined Efforts Develop Termite Field Site

Dr. Ramsay Smith with the Louisiana Forest Products Laboratory, Dr. Gregg Henderson with the Department of Entomology and Dr. Dennis Ring with the Louisiana Cooperative Extension Service have combined efforts to develop a large testing field site to investigate the long-term efficacy of wood-based products when subjected to Formosan subterranean termites, *Coptotermes formosanus* Shiraki. Dr. Terry Amburgey with the Forest Products Laboratory, Forest & Wildlife Research Center, Mississippi State University has also been cooperating with the design and layout of the site.



*Testing wood-based products for effectiveness against Formosan subterranean termites at the LSU AgCenter Citrus Research Station*

Formosan subterranean termites were discovered in a building on the LSU Agricultural Center Citrus Research Station, Port Sulphur, La. On further investigation with pest control operators in the area, it was found that this termite has already heavily infested Plaquemines Parish. With the need to develop a testing site in the United States mainland, this was the logical choice. The site is secure, has room for development of an excellent testing facility and is surrounded by existing Formosan subterranean termites. This 10-acre site will allow controlled field-testing of

wood-based products. It contains a series of stations with discrete termite colonies that will allow within and between colony replications for basic and highly technical investigations. It is becoming a world class testing facility and will greatly facilitate the development of wood-based materials for use in harsh climates like we have in Louisiana. An added benefit: It also can be used to test the material's ability to resist decay and mold.

The Formosan subterranean termite was first discovered in New Orleans in 1966 and has caused serious losses in the New Orleans area for 30 years. It is a devastating pest in several parishes, with estimates of losses reaching \$1 billion per year in the United States. This includes \$500 million per year in Louisiana with \$300 million occurring in New Orleans. It is the most destructive insect in Louisiana, negatively affecting the economy and wealth of the state. This insect is expanding its range by the actions of humans and natural means.

This aggressive termite species frequently finds other sources of water when the soil is treated and builds carton nests above ground in walls. It eats the centers of creosote treated railroad ties, wharves and telephone poles. This insect goes through thin sheets of soft metal, mortar, PVC pipe, electric power lines and telecommunications lines. The Formosan subterranean termite also infests live trees. The weakened trees are susceptible to being blown over in high-speed winds and possibly falling on homes, structures, cars, other properties, roads or people.

*For information, please contact Ramsay Smith, [wsmith@agcenter.lsu.edu](mailto:wsmith@agcenter.lsu.edu), Gregg Henderson, [grhenderson@agcenter.lsu.edu](mailto:grhenderson@agcenter.lsu.edu) or Dennis Ring, [dring@agcenter.lsu.edu](mailto:dring@agcenter.lsu.edu) ■*

## WARP: A Computer Software for Designing Warp-resistant Laminate Furniture Panels

**Qinglin Wu**  
*Associate Professor*

Each year, a tremendous number of wood-based composite panels are produced in the world to meet the market demand for wood-based furniture. The lamination, which combines different materials (wood veneer, particleboard, MDF, high pressure laminate, etc.) in a layered structure as one solid panel, has been done on a trial-and-error basis. This practice often leads to wastes in raw materials and poor product quality cause by panel warping.

An interactive computer software, WARP, has been developed to provide a design tool for the manufacture of warp-resistant laminated wood composite panels. The program is based on combining several mathematical theories in predicting material properties, equilibrium moisture content, transient moisture distribution and panel warping. These theories are implemented in a user friendly computer programs using visual basic and database software.

The program is capable of creating new panels, searching existing panels in the database, performing equilibrium and transient warp analysis, and displaying the results graphically. Example panels were created and built into the programs for demonstration purposes. The program predicted well-expected trend on panel's warpage as influenced by layer thickness, orientation, moisture content change, panel width and moisture gradient. The software could be a useful training and designing tool for wood composite laminate manufacturers to produce high quality laminates.

For more information, please contact: Dr. Qinglin Wu at 225-578-8369. ■

**"Martco has benefited greatly from the work done in the LSU Forest Products Laboratory. Benefits have been realized as a result of research done specifically for Martco and research done in the lab in the form of publications. It is a giant benefit to our industry to have such a facility, with personnel attuned to various Louisiana industry needs, located in the central part of our state. Thanks for the support you have given Martco.**

*Jerry Buckner, Vice President, Research and Development, Martco Partnership*

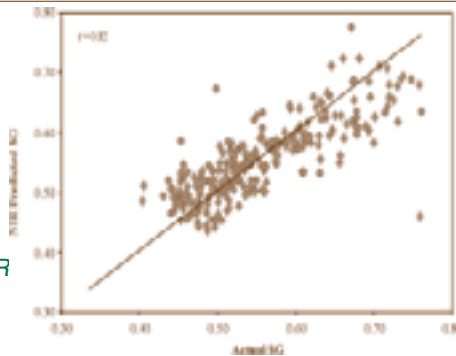
# Using Near Infrared Spectra to Link Wood and Genetic Properties

Todd Shupe

Longleaf pine is one of the most distinctive and important of southern conifers. Although it is not the primary southern yellow pine (SYP) species, it is generally considered one of the five most economically and ecologically important SYP species. Longleaf pine offers unique ecological benefits that are not possessed by other SYP species. It has superior resistance to fusiform rust disease and to southern pine bark beetles, which are, respectively, the most important disease and insect problems for all SYP species. It can be effectively managed in uneven-aged systems and regenerated by shelterwoods. It also is the most fire resistant of the SYP species and is the only pine that does well with frequent summer fires, which leads to plant understory communities that are very different from those found under other SYPs. Longleaf pine has long been valued as a higher quality wood species than the other SYP species. Its form and density make it preferred for utility poles.

It is well known that genetics influence wood properties. A major problem in determining the relationship between genetics

*Actual specific gravity values ascertained with x-ray diffraction from loblolly pine compared to predicted values generated from a model based on NIR spectra.*



and wood properties is the time necessary to assess important wood properties. Recent research has established that near infrared spectra can be used rapidly and accurately to predict and model several wood properties (anatomical, mechanical, chemical and physical). Research that correlates the components of genetic variation with wood properties has tremendous implications for the forest products industry, private landowners and all consumers of wood fiber. Moreover, methodology to assess these properties rapidly will increase the potential of the research.

The near infrared method of wood property determination shows great promise based on preliminary investigations. One application of NIR technology includes the rapid analysis of trees for breeding programs. Another application could be

*Experimental apparatus for acquiring NIR spectra of wood specimens*



applied to wood and wood-based composite processing plants to continuously analyze on-line processing. The relationships established from this study will allow for the rapid and accurate assessment of wood properties from a standing tree, solid wood or wood product. The implications to the forest products industry for such technology are enormous. Prairie land in southwest Louisiana once had vast acreages of longleaf pine. The wood property and ecological advantages of longleaf pine are numerous. Louisiana is well positioned to take advantage of any increased planting of longleaf pine if its inherent problems, primarily slow early growth, can be minimized.

Preliminary results are very encouraging from this study "Influences on Genetic Variance on Wood Properties Assessed Using Near Infrared Spectra" Agreement No. 2001-35103-10908 by T. Shupe, M. Stine and L. Groom funded by the USDA NRICGP. This is a cooperative research effort with the USDA Forest Service, Southern Research Station. Good correlations have been established between NIR spectra and several wood properties. "This research will provide important and useful information about patterns of genetic variability in wood properties to the scientific and wood utilization," said Jim Roberds, Project Leader, USDA Forest Service Institute of Forest Genetics.

For more information, contact Todd Shupe (225) 578-6432 or tshupe@agcenter.lsu.edu ■

**"Todd Shupe has done a heck of a job for our business. The sawmill business is extremely competitive, especially for a small to medium size company like ours. He has shown us ways to increase production, cut costs and explore developing value-added markets. I hate to think what our business would be like without his assistance and expertise."**

*Gene McNabb, Owner, McNabb Sawmill, Pine Grove*

## Who Have We Helped

*(continued from page 1)*

**Martco OSB and Hardwood Sawmill.** Helped the company study how water storage affects hardwood lumber quality and yield.

**Travis Taylor, Logger.** Conducted an analysis of the first trials of a Ponsse cut-to-length timber harvesting system in Louisiana. We determined the productivity and cost of the system, collected data on soil and residual stand damage. Based on our research, a decision was made on whether to purchase these machines.

Member companies of the **Wood Supply Research Institute** including Georgia-Pacific, International Paper, Temple-Inland, WestVaCo and Weyerhaeuser. Conducted an industry efficiency study by collecting daily and weekly information on logging production and wood procurement activities.

**Louisiana Logging Council.** Analysis of logging accidents to help industry leaders understand the accidents and improve safety programs. Results incorporated into every logging safety workshop conducted by the Louisiana Logging Council since 1994. Logging fatalities in Louisiana declined from an average of four annually to one in 2001. ■

**Dr. Richard Vlosky**, Professor, Renewable Natural Resources, has been named

Interim Director of the Louisiana Forest Products Laboratory and Interim Program Leader of Forest Products while Dr. Ramsay Smith is on a six-month sabbatical in France. He assumed these duties September 1.

**Dr. Ramsay Smith**, while on sabbatical, will be with the University of Nancy at its wood research institute in Epinal, France. This institute, the Ecole Nationale Supérieure des Technologies et Industries du Bois (ENSTIB), has more than 280 students in wood science and engineering including undergraduates and graduates. He is collaborating with professors there as well as with other European experts to work on environmentally sensitive and safe wood treatments for wood-based components used in residential construction. He also will investigate research methodologies, techniques and strategies used in Europe to test wood-based products used in residential construction that provide resistance to termites, decay and mold. This includes treatments, construction techniques and environmental standards. With this he will develop a better understanding of the stringent European standards required for testing wood-

## News at the Lab

based materials in Europe and incorporate them into the testing program at the Louisiana Forest Products Laboratory. The long-term effort is to help enhance the durability of wood products and help wood compete successfully with the increasing supply of wood substitutes.

Dr. Guangben Du, Professor and Dean, Faculty of Wood Science and Technology, Southwest Forestry Col-

lege, Kunming, China, was a recent visitor. **Dr. Quinglin Wu** and Dr. Du discussed future cooperation between our two institutions.

**Dr. Niels DeHoop** received the U.S. Department of Labor's Team Impact Award "In Recognition of Exceptional Team Contributions to the Successful Implementation of a Partnership between OSHA, Workplace Safety, the Louisiana Logging Council, and the Louisiana Forestry Association." This award also was given to the key people in the other



From left are Dr. Bob Blackmon (Director of School of RNR), De Hoop, Greg Honaker (OSHA Compliance Safety & Health Officer) and John J. Deifer (Area Director, head of federal OSHA in Louisiana).

## Louisiana Forest Products Lab Connects With Children

### Richard Vlosky

How can we help our children reach informed and balanced opinions on the multitude of issues and ideas that are collectively called "environmentalism"? asks Patrick Moore, founder of Greenpeace and currently Executive Director of Greenspirit.

This question became particularly relevant to me when, years ago, I was asked to discuss "what I do for a living" to my son's kindergarten class. When I was introduced as a forestry professor, immediately a small hand shot up. I was pleased at the eagerness in the desire to ask a question before I even started talking. The child asked me if I worked for the people that are destroying our forests. Gut check, switch gears. My canned presentation went out the window. I spent the next hour talking about how important forestry and forest products are to the world. I consider myself to be fairly objective when it comes to discussing the forestry profession and, by the end of the hour, more than a few small minds were rethinking what they had been led to believe.

Fast forward to May 2002. Once again, I was asked to visit my son's 5<sup>th</sup> grade class and talk about forestry and trees. Same kids. Different views. Once again, I spoke for a short time about the importance of forests and their products to our society. The balance of the period was spent in an open discussion. It was remarkable how thoughtful the students were. And balanced. Not all students agreed with me, but at least they were reflective in formulating their opinions. In addition to the 50 letters of appreciation I received from the students, following is an excerpt from a note I received from Ms. Emily Young, the 5<sup>th</sup> grade teacher at the Louisiana State University Laboratory

School, who hosted the event.

"As a regular user of Forestry 's Project Learning Tree<sup>1</sup> lessons yours was right at the top. The students were spellbound with your knowledge, wisdom and wit. Their attentiveness is the key ingredient we are trained to look for in a fine presentation. Their focus on environmental and forestry issues was amazing for 52 students jammed into such a small area. Thanks again for sharing."

The experience reinforced my position that the place to educate folks about forestry and other renewable natural resources is when they are in elementary school. By the time they are in middle and high school, opinions are established, whether they are based in fact or not. At the end of the day, it is important to provide balanced information to children so that they can develop an educated perspective toward the environment.

As part of our outreach program, the Louisiana Forest Products Laboratory is contributing to this effort. ■

<sup>1</sup> Probably the best formal educational program that accomplishes this is Project Learning Tree (PLT). PLT began in 1973 when natural resource managers and educators from the American Forest Institute (now the American Forest Foundation) and Western Regional Environmental Education Council (now the Council of Environmental Education) formed a partnership to develop an unbiased, educationally sound program for elementary and secondary students and their teachers. PLT is now a grassroots network of 3,000 active volunteers and state coordinators who have trained more than 300,000 educators to reach students.

mentioned organizations. It is signed by John L. Henshaw, the Assistant Secretary of Labor for Occupational Safety and Health (head person in OSHA). The OSHA Strategic Partnership is a combined effort between federal and state government, industry and academia to improve workplace safety in the logging industry in Louisiana. The LSU AgCenter analyzes accident data and helps design safety training that focuses on accident prevention.

Two forest products faculty members were promoted July 1. **Dr. Todd F. Shupe** was promoted to Associate Professor and **Dr. Richard P. Vlosky** to Professor. Congratulations!

**"The information developed at LSU about our 5-ply, 6-ply and 7-ply plywood, targeted for the furniture market, not only helps us understand the performance characteristics of these new products, but it also helps convince our customers to buy our products."**

*Audry Osborne,  
Marketing and Export Manager  
Roy O. Martin Lumber Co., Mandeville*

**Dr. Richard Vlosky** was named Division V representative of the International Union of Forest Research Organizations (IUFRO) to participate in the IUFRO Information Technology Forest Sector Task Force. He is on the Governing Board of the International Cultural Center at LSU and serves as faculty advisor to the International Student Association. He received the 2002 Gamma Sigma Delta, LSU Chapter Research Award of Merit. In the international realm of his research, Dr. Vlosky was keynote speaker at two conferences in Peru this year. His presentation "Forest Certification and Market Opportunities for Peru" was delivered in Lima at a meeting co-sponsored by the Peru Council on Forest Certification (CP-CFV) and the Center for Wood Technology and Innovation. The second conference was in Pucallpa and co-sponsored by CP-CFV and the Institute for Agroforestry Development in the Amazon.

**Dr. Todd Shupe**, Associate Professor of Forest Products, is on the Board of Directors of the Society of Wood Science and Technology and Chair for the Regional Programs Committee, one of eight new Strategic Issues Standing Committees in the Forest Products Society. He has also been asked to participate in a \$250,000 project titled "Advanced Wood Science and Technology for the 21st Century - 948 Project," which was funded by the Ministry of

## News at the Lab

Forestry of People's Republic of China. The Chinese Academy of Forestry in Beijing, China, is a key collaborator of the project. Shupe was part of a team of LSU AgCenter faculty members that signed a Memorandum of Understanding for research collaboration with CAF in 1999.

**Indah Kusuma**, Ph.D. candidate studying with Dr. Richard Vlosky, participated in the Gates Leadership Training Program. This program trains people in leadership positions in Indonesia with regard to culturally appropriate learning methods, effective leadership and management. Indah met with other program participants in Baltimore, Md. The project is funded by the Gates Foundation and is administered through Johns Hopkins University.

**Dr. Chi So** recently accepted the position of postdoctoral researcher under the guidance of Dr. Todd Shupe, Associate Professor in the School of Renewable Natural Resources and Louisiana Forest Products Laboratory. Dr. So received his Ph.D. in 1999 in Polymer Science & Technology from the University of Manchester Institute of Science and Technology in Manchester, UK, so has substantial research experience with near infrared scanning of wood and wood fibers. Near infrared scanning has tremendous implications for the forest products industry as a tool to rapidly assess and accurately predict many fundamental wood properties, which are important for optimal processing and use.

**"As an industrial developer, I understand that successful communities understand their customers and their products. It is imperative that communities have a product to sell. Dr. Richard Vlosky and the Louisiana Forest Products Lab, with its secondary wood products study, have provided the communities of the Macon Ridge Economic Development Region the product knowledge needed for successful marketing efforts. The Louisiana Forest Products Lab continues to be a full partner in economic development in Northeast Louisiana."**

*Buddy Spillers, Executive Director  
Ouachita Economic Development  
Corporation*

## Patents

Lin, L., C.Y. Hse and T.F. **Shupe**. A process for detoxification of CCA-treated wood and recycling of the chromated copper arsenate and the detoxified wood. U.S. patent pending.

## Refereed papers

- Vlosky**, R.P. and T.F. **Shupe**. 2002. Homeowner attitudes and preferences for building materials with an emphasis on treated wood products. *Forest Products Journal*. 52(7/8):90-95.
- Shupe**, T.F., Q. **Wu**, I.D. Hartley. 2002. Moisture meter correction factors for several southern hardwood species. *Forest Products Journal*. 52(7/8):59-62.
- Vlosky**, Richard P. and Thomas Westbrook. 2002. "eBusiness Between Home Center Retailers and Their Forest Product Suppliers." *Forest Products Journal*. 52(1):38-43.
- Vlosky**, Richard P. and Yeo-Chang Youn. 2002. "A Cross-National Study of Internet Adoption in the Forest Products Industry in the United States and South Korea." *Korean Journal of Forest Science*. 91(2):182-192.

**"I can attest that the lab has been a tremendous source of information, technical assistance and plain old let's figure out how we can tackle this problem attitude. The Lab has never refused a challenge I have presented before any of the staff. The Lab has been the recipient of several grants I have procured of which each was completed professionally and satisfactorily."**

*Michael E. Buchart, Director,  
Forest Product Marketing,  
Utilization and Industrial Development,  
Louisiana Department of Agriculture  
and Forestry*

## Grants

- Vlosky**, R.P. and T.F. **Shupe**. 2002. Home builder perceptions of treated wood. Various industry sponsors. \$7,500.
- Hse, C.Y., B.S. Bryant, and T.F. **Shupe**. 2002. Development of formaldehyde-based wood adhesives with co-reacted phenol/soybean flour. USDA Forest Service. \$67,000.
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## Recent Developments in the Elvin Choong Lecture Series

Last year the Louisiana State University Agricultural Center and School of Renewable Natural Resources Fisheries established the Dr. Elvin T. Choong Endowed Lecture Series to honor the distinguished academic career of Professor Choong. The lecture series provides a forum for world-renowned experts to share their research findings and insight on forest sustainability and wood science, topics Professor Choong devoted his distinguished career investigating. An endowment will be established through the LSU Foundation once sufficient funds have been raised. Dr. Todd Shupe, Assistant Professor of Forest Products, is coordinating the lecture series.

"I am very pleased with the level of support that we have gotten so far for the lecture series. Elvin touched the lives of people throughout Louisiana and the world with his zest for research and life," said Shupe. Further contributions are needed to establish the endowment and can be sent to Shupe.

"Thanks to all of you who have already contributed," said Shupe. "We look forward to seeing you all at the inaugural lecture."

For more information or to make a donation, contact Dr. Shupe. (Checks should be made payable to "LSU Foundation" with "Elvin Choong Lecture Series" on the memo line.) ■

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