

## Director's Message



Richard Vlosky  
Director, Louisiana Forest Products  
Development Center, School  
of Renewable Natural Resources

We have been busy since you last heard from us in the Fall/Winter 2006-2007 Newsletter. We strengthened our extension/outreach/awareness program by hiring Dr. Charles Clément as extension specialist on the LFPDC faculty. Charles will work with LFPDC researchers and extension faculty to develop a value-added wood products extension program; lead in technology transfer of research in utilization of wood products and innovative new products and processes to the value-added industry; and organize and conduct workshops, seminars and continuing-education programs for value-added wood products industries in Louisiana.

We also welcomed Ms. Linda Jeansonne to the LFPDC team as our new administrative coordinator. You can learn more about Linda in an article in this issue. Linda's joining is an instrumental part of the LFPDC's administration of 75 budget accounts totaling \$2.5 million.

I'd like to end this short message by wishing you all the best for the New Year. For more information about the Louisiana Forest Products Development Center, visit our website: <http://www.rnr.lsu.edu/lfpdc>.

## Rutherford Named New Director of the School of Renewable Natural Resources

Congratulations to Dr. D. Allen Rutherford for accepting the position of director of the School of Renewable Natural Resources. After a long and arduous search, the school is pleased to welcome Allen to the position. Recently named as the Bryant A. Bateman Distinguished Professor in Renewable Natural Resources, Allen has served as a professor of fisheries and coordinator of graduate studies and research in the school during the past 22 years at LSU.

He has authored many scientific and technical publications, advised numerous graduate students, secured more than \$8 million in grants and contracts, and taught several courses including Natural Resource Ecology, Ichthyology and Biology of Fishes. His primary research and teaching interests have been in topics relating to larval, juvenile and adult fish ecology.

Because of Allen's long and dedicated history of participation in the school, he brings a unique knowledge and understanding of the school's inner workings. His experience will be invaluable for the future success of the school in teaching, research and extension. The School of Renewable Natural Resources is pleased to have Allen assume the leadership position of director. His position became effective July 1, 2007.



Allen Rutherford

## Vlosky Participates in Forest Products Marketing Capacity Building in Europe

Dr. Richard Vlosky, director of the Louisiana Forest Products Development Center in the LSU AgCenter, helped coordinate and made presentations at a number of conferences across southeastern Europe.

Dubrovnik, Croatia, was the site for an international seminar, "Marketing in Forestry and Wood Processing," held in

December 2006. Organized by a partnership of the United Nations Economic Commission for Europe/Food and Agriculture Organization (UNECE/FAO) Tim-

*(Continued on page 2)*

## Vlosky Participates in Forest Products Marketing Capacity Building in Europe

(Continued from page 1)

ber Section, the faculty of forestry of the University of Zagreb, Croatia, and the Center for Marketing and Development in the Wood Industry, the meeting was targeted at professionals to improve their understanding of forest products marketing and how it might help their business, education program or government agency.

In April 2006, the UNECE/FAO Timber Section, the Universities of Belgrade, Serbia and Montenegro, and the LSU AgCenter co-sponsored a workshop, "Forest Products Marketing – from Principles to Practice," in Novi Sad, Serbia and Montenegro. Attracting more than 40 people from Albania, Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia and Romania as well as Serbia and Montenegro, this four-day workshop examined marketing principles and reviewed markets in the region and beyond before considering marketing tools and how they may be used. The workshop allowed expertise and information to be shared and was helped by the participation of expert speakers from around the world.

After the conference, Vlosky gave graduate student seminars at the University of Belgrade in Serbia and Montenegro and at the Department of Horticulture & Forestry at Banat University of Agricultural Sciences and Veterinary Medicine in Timisoara, Romania. Shortly after this visit, department forestry faculty and the dean voted to make Vlosky an associate professor.

In October 2005, Vlosky participated in a similar workshop held in Prague and Krtiny, Czech Republic. This workshop, titled "Capacity Building in Sharing Forest and Market Information," was attended by government, academic and industry representatives from Armenia, Azerbaijan, Georgia, Kyrgyzstan, Mongolia, Turkey and Uzbekistan. In December 2007, he returned to Sarajevo, Bosnia, to help coordinate and present at a workshop titled "Third Annual Regional Wood Products Marketing Seminar."

Vlosky is also the leader of the team of specialists on forest products markets and marketing, UNECE/FAO in Geneva, Switzerland, and deputy leader of the International Union of Forest Research Organizations (IUFRO) Research Group on Forest Products Marketing and Business Development.



Dr. Vlosky (left) and Dr. Ed Pepke, Secretariat to the UNECE/FAO Timber Committee, at a tree planting ceremony to commemorate the workshop in Krtiny, Czech Republic.

## LFPDC Receives \$170,000 Grant To Build Extrusion Capability

The Louisiana Board of Regent through its equipment enhancement program funded a \$170,000 grant submitted by Drs. Qinglin Wu and Richard Vlosky at the LFPDC for developing a state-of-the-art twin-screw extrusion line for research, education and services in fiber-reinforced thermo-plastic composites. The extrusion technology is essential to developing advanced fiber-based polymer composite materials and in teaching students the fundamental concepts of composite manufacturing.

The current market for wood/natu-

ral fiber plastic composites is growing at an astounding rate with production reached 1.3 billion pounds and products valued at more than \$700 million in 2006. Subsequently, unique methods for mixing, devolatilizing and extruding these materials have been developed in an attempt to increase manufacturing efficiency and to optimize products properties.

By far, the most dominant device in the wood/natural plastic composite extrusion industry is the twin screw extruder. The combination of the twin screw's superior feeding, devolatilizing and mixing capacities makes it an ideal tool for this

demanding application.

The profile extrusion equipment will be combined with existing production and testing capability to form an advanced composite material research facility at LSU AgCenter, unique to the Southeast. The facility will serve LSU faculty at large and will permit the Louisiana Forest Products Development Center to develop a competitive edge over other universities for research, teaching, and services in engineered bio-composites. For more information, contact Dr. Qinglin Wu at 225-578-8369 or wuqing@lsu.edu.

# Value-Added Wood Products Extension

## In the Louisiana Forest Products Development Center

Charles Clément, Extension Specialist

### What is Value-Added?

Value-added is an important indicator of industry health and success and is often defined as “a measure of manufacturing activity derived by subtracting the costs of materials, supplies, containers, fuel, purchased electricity and contract work from the value of shipments for the products manufactured.” In other words, value-added equals the value of shipments minus intermediate production inputs and represents the resources available for wages, salaries and profits in an industry. This is a better indicator of industry activity than value of shipments because value-added excludes the costs of inputs of other industries. In simpler terms, value-added is the increased value at each stage of a manufacturing assembly process.

Those activities or steps that add to or change a product or service as it goes through a process are what the market views as important and necessary. This is because they add net economic value. This value can be added through manufacturing and/or marketing.

Value-added wood products typically require more employees than primary products, leading to more jobs. They usually require more than one mill to complete the process; that means more companies. The added processing means higher-valued products, providing greater retention of resource value in the local economy.

### Value-Added Forest Products

Many people wonder what value-added wood products are. Secondary or value-added wood products are those that have been converted from lumber, plywood or other outputs from primary manufacturers. Primary products are raw material inputs for value-added manufacturing. This includes ANY further manufactured wood product such as pulp, paper, moldings, windows, cabinets, furniture, chairs, fixtures, bridges, bulkheads, docks, crafts, gazebos, boats, boat decks, cable spools, timbers, pilings and toys. Other characteristics of value-added wood products are:

- Often target “niche” markets, not mass markets
- Are often specialty products
- Customer perception of Quality: Price=VALUE should be high
- Create employment opportunities
- Have higher downstream multiplier effects than primary products
- Capture higher prices than commodities in the marketplace

In addition to traditional value-added products and services such as furniture, cabinets, flooring, kiln drying, wood preservation and molding/millwork, as technology improved, engineered wood products, composite products and panels were introduced because they better met the needs of the market and they made better use of woody fiber.

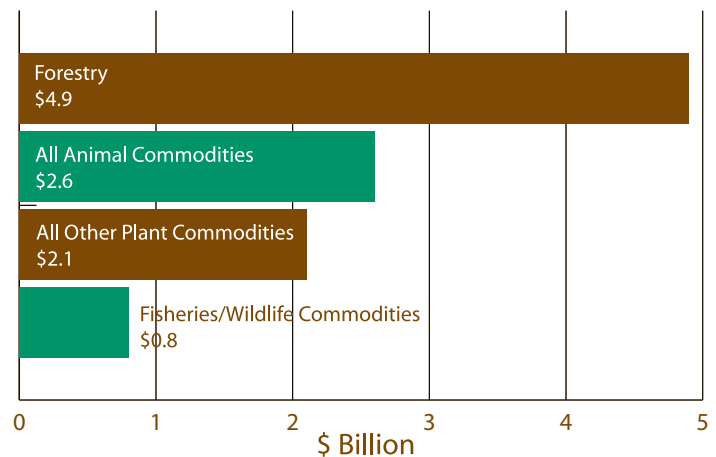
With the recent energy crisis and the general raise in environment awareness, industry has discovered new markets for alternate uses of the forest resource. Bio-based energy, bio-based wood products, wood-strand composites, wood-plastic composites, certified wood products, recycling wood residues, eco-tourism, non-timber forest products have come as a result of industry initiatives to supply new markets with innovative and novel products.

### Opportunities for Louisiana

According to the Louisiana Forestry Association (2006), Louisiana has approximately 14 million acres of forests, divided into pine (52 percent) and hardwoods (48 percent).

The industry comprises roughly 150 primary manufacturers and 750 secondary manufacturers. This represents Louisiana’s second-largest employer, creating 19,700 manufacturing jobs and 8,000 jobs in harvesting/transportation. Figure 1 indicates the forestry sector’s economic contribution to Louisiana in 2006. The forestry sector is by far the largest agricultural contributor to the state’s economy. At \$4.9 billion, its contribution is nearly equal to all other agricultural sectors’ combined contributions (\$5.5 billion).

Figure 1. Louisiana Agricultural Commodity Economic Contribution (2006) (LSU AgCenter)



### Value-Added Wood Products Extension

In light of the importance of the forest sector in Louisiana and the excellent existing research capabilities at the Louisiana Forest Products Development Center, Dr. Paul Coreil, vice-chancellor and director of the Louisiana Cooperative Extension Service in the LSU AgCenter, took the initiative to create an extension specialist position in the LFPDC to facilitate technology transfer, improve manufacturing processes and provide industry new production options that have not been fully developed.

Overall, my role will be to:

- Understand current Louisiana manufacturer transformation processes
- Determine client needs from their perspective
- Understand the dynamics of the supply chain for Louisiana wood products
- Identify business opportunities for traditional and emerging forest products
- Communicate opportunities to clients using appropriate means of dissemination

Following are the broad objectives and activities I have planned for the next year.

#### Establish Relationships

Meeting with industry and encouraging new ventures is one thing, but without support from government decision makers, initiatives for change will have difficulty flourishing. It is

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## Value-Added Wood Products Extension In the Louisiana Forest Products Development Center (Continued from page 3)

important to establish relationships with policy makers and associations to assure are aware of technology and market developments. Outreach will be made to the following:

- State, regional, parish and local policy makers, including
  - Louisiana Department of Agriculture & Forestry
  - Louisiana Economic Development
- Associations
  - Louisiana Forestry Association
  - Southern Forest Products Association
  - Louisiana Furnishings Industry Association

### Develop an Extension Program

The main objective of the extension specialist is to assist existing industry adapt to changing market demands and conditions. To do so, he will use his wood science and industrial engineering knowledge and experience to:

- Improve processing techniques
- Link LFPDC research with Louisiana clients
- Work closely with LFPDC faculty members to disseminate information in client-appropriate venues and activities
- Coordinate activities with other extension faculty
  - Forestry
  - Natural Resources
  - 4-H/Youth

### Knowledge Transfer

Different people learn in different ways; therefore, to reach the most diversified groups, communication will employ the following tools:

- Regional workshops and seminars
- On-site company visits
- Parish forestry meetings
- LFPDC newsletter contributions
- LFPDC publications
- LFPDC and AgCenter Web sites

### Summary

- The forest sector is a major contributor to Louisiana's economy.
- Opportunities exist for adding value to Louisiana's forest resources.
- A value-added forest products extension program should be innovative and have a rational, systematic, strategic approach.

Please send any questions or comments to: Charles Clément, Extension Specialist, Louisiana Forest Products Development Center; Phone: (225) 578-4158; Fax: (225) 578-4251; Email: cclement@agcenter.lsu.edu.

## New Post-docs

Dr. Peng Tian, Dr. Hongzhi Liu and Dr. Weihua Wang joined the composite program as post-doc researchers working with Dr. Qinglin Wu. They are working on polymeric and carbon shell nanoparticle formation and modification, and advanced polymer composites.

## LFPDC Hires New Value-added Extension Faculty

The Louisiana Forest Products Development Center, with the LSU AgCenter recently named Charles E. Clément as its value-added forest products extension specialist and instructor. Clément will work with LFPDC researchers and extension faculty to develop a value-added wood products extension program focusing on technology transfer of research in utilization of wood products and innovative new products and processes to the Louisiana industry.



Charles E. Clément

His education includes a Ph.D. in forest products and industrial engineering from Purdue University and bachelor's and master's degrees in wood science from Laval University.

Clément has a wealth of experience as a private consultant as well as previous employment with the Texas Forest Service, the Tennessee Forest Products Center at the University of Tennessee-Knoxville and Forintek Canada Corporation. Contact: cclement@agcenter.lsu.edu.

## Vlosky Named to Louisiana Forestry Association Board

Rich Vlosky, LFPDC director, has been elected to the Louisiana Forestry Association board of directors. Vlosky, who is also a professor of forest products marketing at LSU, will serve for three years on the board. Based in Alexandria, the association is a statewide, private, nonprofit association made up of more than 3,500 members, mostly large and small landowners along with foresters, employees of forest products industries, wood suppliers, loggers and related industries.



Rich Vlosky

# Fragmentation Challenging Louisiana Forests Owners

Rick Bogren, LSU AgCenter Communications

Exurbanization – the movement of people out of cities and suburbs onto lands farther out – is leading to new housing developments that contribute to fragmented forests. In Louisiana, that's primarily happening on the northern shore of Lake Pontchartrain as people move north from New Orleans and Jefferson Parish.

"This is a real challenge to deal with," said Dr. Mike Dunn, a resource economist with the LSU AgCenter. "Our best approach is education – helping people come up with solutions."

One aspect of the educational process was the Louisiana Natural Resources Symposium, which was held Aug. 13-14 in Baton Rouge. The program developed by the LSU AgCenter's School of Renewable Natural Resources brought national and international experts to a day-and-a-half meeting that addressed various aspects of forest fragmentation.

Topics included fragmentation's effects on water quality, animal species, forest management and rural society, as well as land ownership. The program was designed for people in the business to learn what's happening and to hear about some of the measurable effects scientists are seeing, said Dr. Todd Shupe, who is in LSU AgCenter's Forest Products Development Center and was one of the organizers of the symposium.

Dunn said forest fragmentation and exurbanization are challenges the LSU AgCenter is addressing through education – both for individuals involved in the forest industries and for people moving from cities into rural areas. The LSU AgCenter expert said fragmentation is often driven by the division of land among heirs when a landowner dies. This often creates absentee owners who may not understand forest management.

"We need to provide information and education to help them devise a plan for the future to make the land work for them," Dunn said. "We need a manageable-sized forest – not broken pieces – to help maintain both the ecology and economic viability of our forested ecosystems."

The economist said urbanites moving into forested areas also need to learn more about management and sustainability of those systems. "Their expectations of what forests should look like do not necessarily mesh with the goals of the actual owners of the forest," Dunn said. "When people buy a lot and build within a forested system that they don't own, they have to realize it's not their woods. When landowners thin or cut down their trees, that's when the problems start. Managed forest systems don't stay the same. They're constantly changing."

Changing forests in Tangipahoa Parish was one of the reasons that brought Keith Frazier to the symposium. A consulting forester in Kentwood, Frazier said the Northshore area is losing timberland by the day. Land that has been harvested is "not going back to timber," he said.

Craig Loehle of the National Council for Air and Stream Improvement Inc. in Naperville, Ill., talked about how forest "islands" surrounded by pasture, farmland or developments are causing a number of animal and bird species to decline because the woodlands aren't large enough to maintain a population. They're too small for viable habitat.

Fragmentation caused by development is "creating patchy holes in forests," Loehle said. "Homes and golf courses can affect forest diversity." He cited habitat change, domestic predators (mostly cats), introduced species and reduced hunting as factors contributing to changing habitats. For forest landowners, development leads to increased transportation costs, increased management restrictions, changing aesthetics and traffic problems.

Ownership transfer can lead to fragmentation or accumulation, said L. Keville Larson, chairman of Larson & McGowin Inc. forest managers and consultants in Mobile, Ala.

"Any time land changes hands, it's going to someone who wants it more or may take care of it better," Larson said. "We've had fragmentation since Adam. Society determines if use can change through laws and regulations," he said.

"Public policy would be to make forest landownership attractive and keep Louisiana's forest industry financially healthy. Some fragmentation and parcelization is natural and needed to provide for the nonforestland needs of a growing population and to provide the opportunity of forestland ownership to a large part of the population."

"Fragmentation is a problem or an opportunity, depending on where you live and how you earn a living," said Harry L. Haney Jr., emeritus professor of forestry at Virginia State University in Blacksburg, Va. "As a society, can we afford to keep land in forests if it has a higher use?" Haney asked. "If you want to allow landowners options so they don't fragment their land, pay them." Haney cited such factors as aesthetics, clean water, clean air and animal habitat as reasons for forestlands to be maintained, even in the face of urban sprawl. "Fragmentation reflects economic adjustment at the margin to accommodate growth," he added. He suggested society might reward landowners for maintaining open spaces.

By the end of the symposium, Louisiana forest industry representatives came away with an expanded understanding of the challenges of fragmented forestlands on the state's forest industry.

"The program spoke directly to lay people, everyday foresters interested in the topics," said A.W. Reed of GR Forestry Inc. in Amite. He added that the program met requirements for continuing education for certified foresters.

The meeting provided the latest information on up-and-coming forest issues, said Buck Vandersteen, executive director of the Louisiana Forestry Association. It allowed attendees to interact with colleagues and leaders from around the country. "We heard about things that will change practices as we know them today – insights in cutting-edge issues that affect forestry in Louisiana," Vandersteen said. "The speakers helped us understand how to manage fragmentation and take advantage of new uses of land."

Contact: Mike Dunn at (225) 578-0344 or mdunn@agcenter.lsu.edu.

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## New Faculty at Calhoun Research Station

The Calhoun Research Station is developing a new program on closed-loop recycling of decommissioned preservative-treated wood. Two new LSU AgCenter faculty members have recently



*Cheng Piao, Assistant Professor of Wood Science*

been hired into the program. The focus will be to develop environmentally-friendly and economically viable products and methods to recycle decommissioned preservative-treated wood. Although not a part of the Louisiana Forest Products Development Center, the Calhoun faculty members will interact closely with the LFPDC in Baton Rouge and Ruston, La.

Dr. Cheng Piao joined the Calhoun Research Station's faculty on February 1, 2007, as an assistant professor of wood science. He specializes in recycling decommissioned preservative-treated wood into structural wood composites that can be widely used in outdoor industrial applica-

tions. Dr. Piao is an LSU alumnus and received his master of forestry, master of system science, and doctor of forestry degrees under Dr. Todd Shupe in the LFPDC. Before attending LSU, he

earned his bachelor's and master's degrees in wood science from Northeast Forestry University in China.

Dr. Hui Pan joined the Calhoun Research Station October 1, 2007, as an assistant professor of wood chemistry. She has conducted research on wood liquefaction for four years during her Ph.D. study with Dr. Todd Shupe. She received her bachelor's and master's degrees from Northeast Forestry University in China and her Ph.D. from LSU this fall.

Pan's research at Calhoun will focus on recycling preservative-treated wood by thermochemical and hydrothermal methods. She also is working on the development of high-value-added products from recycled preservative-free wood, such as wood adhesives, chemicals and bio-fuel.

Both scientists look forward to working with all sectors of the forest products industry and invite interested parties to stop by the Calhoun Research Station or call them at (318) 644-2662.



*Hui Pan, Assistant Professor of Wood Chemistry*

## Linda Jeansonne New Administrative Coordinator

In December 2006, Linda Jeansonne joined the Louisiana Forest Products Development Center as administrative coordinator. Linda was born in Baton Rouge but later moved to Beaumont, Texas. Linda enjoyed visiting family and friends in Baton Rouge during her childhood and had so much fun that she moved back after high school graduation. Her parents, two brothers and two sisters remain in Beaumont.

Linda married Mark Jeansonne in 1983 and has a step-daughter, Lori, who lives in Atlanta. Lori, a practicing social worker, is married and expecting her first baby in April. Linda has a daughter, Elaina, who will attend Baton Rouge Community College in spring 2008 with future plans to transfer to LSU. She also has a son, André, who attends high school in Baton Rouge.

Linda worked in accounting until she began raising a family. During



*Linda Jeansonne*

those years, Linda was involved in volunteer work, including being a docent at the Baton Rouge Zoo and participating in Volunteers in Public Schools, Girl Scouts of America and children's programs through local church organizations.

As her children grew older, Linda was a substitute teacher before return-

ing to a full-time career. She also took classes at Baton Rouge Community College and earned a certificate of computer operations & programming from the Baton Rouge School of Computers.

Her position with the LFPDC is her first job with the State of Louisiana. She accepted this over other offers because she wanted to work in an educational environment.

In her free time, Linda enjoys spending time with her six (yes six!) cats – Boo-Boo, Schrodinger, Vera Lynn B.K., Tiger and Athena – two dogs and a Senegal parrot named Bijoux. Linda also enjoys traveling, drawing, flower gardening, exploring the outdoors, listening to music, reading, bicycle riding and playing both the flute and piano.

Linda can be reached at (225) 578-4255 or by email at [ljeansonne@agcenter.lsu.edu](mailto:ljeansonne@agcenter.lsu.edu).



## News From Louisiana Tech

### 2007 Hardwood Log, Lumber and Tree Grading Workshop

The South Campus of Louisiana Tech University was the site of the 52nd Annual Hardwood Log, Lumber and Tree Grading Workshop held at the School of Forestry's sawmill on March 27-30, 2007. George Screpetis, consultant, and John Martel of the Louisiana Department of Agriculture and Forestry's Office of Forestry were the instructors. Their combined years of experience in the hardwood industry contributed to the "hands on" field sessions at the sawmill.

Lincoln Timber Company in Dubach, La., helped by unloading 21 oak logs that Anderson-Tully Company in Vicksburg, Miss., trucked over to Ruston. Kitchens Brothers Manufacturing Company in Monroe, La., provided red oak lumber for the lumber grading exercise.

Fourteen participants from three states and nine companies/agencies were trained in the basics of hardwood lumber, log and tree grading. They also learned to recognize log and lumber defects that affect those grades. Later, participants followed the logs they graded the previous afternoon through the sawing process, while Notton Jones, sawyer and supervisor of Anderson-Tully Company's Mill K in Vicksburg, Miss., operated the circular saw.

Charlie Anderson of ACT Kiln Company in Olla, La., owner and lumber grader, assisted everyone with the final grading of the lumber. The workshop ended after a short visit to a hardwood bottom near campus where standing trees were graded and the knowledge gained during the week was applied.

In addition to the sponsors listed above, the Louisiana Forest Products Development Center and the School of Forestry at Louisiana Tech hosted the event. If you are interested in participating in the 2008 workshop during the month of March, contact Mark Gibson at [mgibson@latech.edu](mailto:mgibson@latech.edu) or call (318) 257-3392 for more information.



## Grozdzits Recognized for Invention

Last October Dr. George Grozdzits was one of 20 inventors recognized at the Louisiana Tech University Inventor's Recognition Event for his joint invention called "Polyelectrolyte Nanocoating Process for Effective Paper Recycling and Mill Waste Broke Recycling." This invention was a direct result of his work in nanotechnology applied to pulp and paper in cooperation with Louisiana Tech's Institute for Micromanufacturing.

# New Web Site Promotes Louisiana Forest Industries

The LSU AgCenter's Louisiana Forest Products Development Center (LFPDC) recently launched a new Web site designed to promote economic development in Louisiana's forest sector.

The forest products industries site allows users to search more than 1,000 companies by product, parish or company name, said Richard Vlosky, director of the LFPDC.

The location of any company selected is identified on a Louisiana map powered by Google software. Company contact information appears when a map icon is clicked, Vlosky said.

Developed by Vlosky and Fred Piazza, AgCenter chief information officer,

the project was funded by the Louisiana Department of Agriculture and Forestry and Louisiana Economic Development.

"This is an example of how collaboration between the LSU AgCenter and state government agencies can facilitate development of an innovative tool to power economic development," Vlosky said.

"In addition to being a valuable business and promotional tool for the industry, the Web site information will identify spatial company clustering, which is a useful tool for economic development planners, as clusters tend to have efficiencies and scale economies that attract additional industry," he added.

Visit the website at:

[www.lsuagcenter.com/forestindustries](http://www.lsuagcenter.com/forestindustries)

The Web site won a gold award for the best innovative use of communication technology from the International Association for Communication Excellence in Agriculture, Natural Resources and Live and Human Sciences. ACE is the professional association for communications and information technology professionals in higher education.

The forest sector is the largest segment of Louisiana agriculture, according to the LSU AgCenter's annual Ag Summary. Including solid wood and pulp and paper, the forest products industry contributed nearly \$4.9 billion to the Louisiana economy in 2006.

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additional information

Demographics  
Extension Parish Offices  
Forest Inventory  
Labor & Employment  
Louisiana Ports  
Parish Government  
Parish Maps

**Welcome to Louisiana's Forest Products Industries Web Site**

Thank you for your interest in Louisiana's forest products industry. This website was developed by the Louisiana Forest Products Development Center, Louisiana State University Agricultural Center with funding from the Louisiana Department of Agriculture and Forestry and the Louisiana Department of Economic Development.

The website will help you identify and locate forest products companies in Louisiana. The companies have been categorized by product sector.



## Mark Gibson & George Grozdits Louisiana Tech

### Publications

Lvov, Y., G. A. Grozdits, S. Eadula, Z. Zheng, and A. Lu. 2006. Layer-by-layer nanocoating of mill broken fibers for improved paper. *Nordic Pulp & Paper Research Journal* 21(5):552-557.

Csoka L., G. Grozdits, and Y. Lvov. 2007. Nanotechnologia alkalmazása a papíriparban. *Papír- és Nyomdaipari Műszaki Egyesület Folyoirata*. 51(2):47-52.

Lu, Z., S. Eadula, Z. Zheng, K. Xu, G. Grozdits, and Y. Lvov. 2007. Layer-by-layer nanoparticle coatings on lignocellulose wood microfibrils. *J. Colloids and Surfaces A: Physicochemical and Engineering Aspects* 282(1):56-62. See documentation at <http://dx.doi.org/10.1016/j.colsurfa.2006.06.008>.

Bantchev, G. B., Z. Lu, S. Eadula, M. Agarwal, G. Grozdits, and Y. Lvov. 2006. Layer-by-layer modification of lignocellulose fibers for better paper. General Session A, 62nd Southwest Regional Meeting of the American Chemical Society, Houston, TX, October 19, 2006. See documentation at <http://acs.confex.com/acs/swrm06/techprogram/P36692.HTM>.

Gibson, M. D. and G. A. Grozdits. 2007. Louisiana Tech's Hardwood Log, Lumber, and Tree Grading Workshop – 52 Years of Log and Lumber Grade Yield Data. Page 28, In: *Biographies & Abstracts, FPS 61st International Convention*, Knoxville, TN, June 11, 2007

L. Csoka, A. Lorincz, G.A. Grozdits, Y.M. Lvov and A. Winkler. Fiber and consequent paper properties of wheat straw - effect of sonification and fiber nanocoating. Page 24, In: *Biographies & Abstracts, FPS 61st International Convention*, Knoxville, TN, June 13, 2007.

Gibson, M. D. and G. A. Grozdits. 2007. Plantation Grown and Possible Modification of Southern Wood and Fiber Supplies. Page 24, In: *Biographies & Abstracts, FPS 61st International Convention*, Knoxville, TN, June 13, 2007.

Y. Lvov, G. Grozdits, M. Agarwal, and Q. Xing. 2007. Lignocellulose fibers functionalizing with LbL nanocoating: polyelectro-

lytes, enzymes, and nanoparticles. Page 21. In: *Abstract Book, TAPPI 2007 International Conference on Nanotechnology for the Forest Products Industry*, Knoxville, TN, June13-15, 2007.

Q. Xing, Z. Zheng, G. Grozdits, M. Agarwal, and Y. Lvov. 2007. Layer-by-Layer Nanoassembly on Wood Fibers for Fabrication of Bioactive and Conductive Nanoparticles. Page 70. In: *Abstract Book, TAPPI 2007 International Conference on Nanotechnology for the Forest Products Industry*, Knoxville, TN, June13-15, 2007.

G. Grozdits, Y Lvov, J. Chapman and M.Gibson. 2007. LbL Nanocoating for fiber recycling. Page 71. In: *Abstract Book, TAPPI 2007 International Conference on Nanotechnology for the Forest Products Industry*, Knoxville, TN, June13-15, 2007.

### Outreach/Extension

52nd Annual Hardwood Log, Lumber, and Tree Grading Workshop, School of Forestry, Louisiana Tech University, March 27-30, 2007. Hosted 14 participants from three states and nine companies/agencies.

## Niels de Hoop LSU AgCenter

### Publications

de Hoop, C.F. 2007. Ideas exchange at international logging safety conference. *The Louisiana Logger* 12(3):8. Louisiana Logging Council, Alexandria, La.

de Hoop, C.F. 2007. OSHA Partnership report: maintenance and truck dismounting. *The Louisiana Logger* 12(2):7. Louisiana Logging Council, Alexandria, La.

de Hoop, C.F. 2007. Safety in Louisiana Logging: A Review. *The Louisiana Logger* 12(1):9+. Louisiana Logging Council, Alexandria, La.

de Hoop, C.F., S.J. Chang, G.A. Breitenbeck, R.D. Hendrick, F. Piazza and C. Theegala . 2007. Development of a Database of Renewable Biomass Resources in Louisiana. *Forest Products Society 61st International Convention* held in Knoxville, Tenn. Madison, Wisc. June 12.

### Presentations

Keynote Address: de Hoop, C.F., and S.J. Chang. 2007. Developing biomass utiliza-

tion in Louisiana, USA: educating policy-makers, assessing supply and demand, and integrating with forest management. *Austro2007/FORMEC'07: Meeting the Needs of Tomorrows' Forests: New Developments in Forest Engineering*. Vienna, Austria. October 10.

Invited: de Hoop, C.F. 2007. BioEnergy in Louisiana. *Southeastern BioEnergy Conference 2007*. Tifton, Ga. August 2 (564 attendees).

Invited: de Hoop, C.F. 2007. Why Loggers Shun Small Tracts. *18th Annual Florida Parishes Forestry Forum*. Hammond, La. March 23 (90 attendees).

## Todd Shupe LSU AgCenter

### Publications

Piao, C., T.F. Shupe, R.C. Tang, and C.Y. Hse. 2006. Mechanical properties of small-scale laminated wood composite poles: Effects of taper and webs. *Wood and Fiber Science*. 38(4):633-643.

Mejía, M.A., R.P. Vlosky, T.F. Shupe, and F. X. Aguilar. 2006. Análisis participativo de las fortalezas, oportunidades, debilidades y amenazas de la pequeña y mediana industria transformadora de la madera en Siguatepeque y San Pedro Sula, Honduras. *Recursos Naturales y Ambiente*. 46-47:158-165.

Via, B.K., L.G. Eckhardt, C.L. So, T.F. Shupe, L.H. Groom, and M. Stine. 2006. The response of visible/near infrared absorbance to wood staining fungi. *Wood and Fiber Science*. 38(4):717-726.

Shupe, T.F., D. Ring, A. Morgan, G. Henderson, and Q. Wu. 2006. Use preservative-treated wood and integrated pest management when rebuilding. *Southern Regional Extension Publication*. SREF-WP-001:1-5.

Shupe, T.F., L.H. Groom, T.L. Eberhardt, T.G. Rials, C.Y. Hse, and T. Pesacreta. 2006. Mechanical and physical properties of composite panels manufactured from Chinese tallow tree furnish. *Forest Products Journal*. 56(6):64-67.

Saxe, J.K., E.W. Wannamaker, S.W. Conklin, T.F. Shupe, and B.D. Beck. 2007.

Evaluating landfill disposal of chromated copper arsenate (CCA) treated wood and

potential effects on groundwater: evidence from Florida. *Chemosphere*. 66:496-504.

Li, X.B., T.F. Shupe, C.Y. Hse, G.F. Peter, and T. L. Eberhardt. 2007. Anatomical and chemical composition changes with maturation of bamboo species *Phyllostachys pubescens*. *Journal of Tropical Forest Science*. 19(1):6-12.

Gao, H., T.F. Shupe, and T.L. Eberhardt, and C.Y. Hse. 2007. Antioxidant activity of extracts from the wood and bark of Port-Orford-cedar. *Journal of Wood Science*. 53:147-152.

Eberhardt, T.L., X. Li, T.F. Shupe, and C.Y. Hse. 2007. Chinese Tallow Tree (*Sapium sebiferum*) utilization: Characterization of extractives and cell wall chemistry. *Wood and Fiber Science* 39(2):319-324.

Pan, H., T.F. Shupe, and C.Y. Hse. 2007. Characterization of liquefied wood residues from different liquefaction conditions. *Journal of Applied Polymer Science*. 105:3739-3746.

Lee, S., T.F. Shupe, L.H. Groom, and C.Y. Hse. 2007. Wetting behaviors of phenol- and urea-formaldehyde resins as compatibilizers. *Wood and Fiber Science*. 39(3):482-492.

Lee, S., T.F. Shupe, L.H. Groom, and C.Y. Hse. 2007. Thermomechanical pulp fiber surface modification for enhancing the interfacial adhesion with polypropylene. *Wood and Fiber Science*. 39(3):424-433.

Via, B.K., C.L. So, L.H. Groom, T.F. Shupe, M. Stine, and J. Wikaira. 2007. Within tree variation of lignin, extractives, and microfibril angle coupled with the theoretical and near infrared modeling of microfibril angle. *IAWA J.* 28(2): 189-209.

Pan, H., T.F. Shupe, and C.Y. Hse. 2006. Mechanical and physical properties of bio-composites from wood fiber and liquefied wood/phenol/formaldehyde co-condensation resin. In: *Wood Adhesives 2005*. Forest Products Society. Madison, WI. ISBN 1-892529-45-9. pp. 257-262.

Vlosky, R.P. and T.F. Shupe. 2007. A survey of the U.S. treated wood manufacturing industry. In: *Wood Protection 2006*. Forest Products Society. Madison, WI. ISBN 1-892529-48-3. pp. 271-276.

Piao, P. and T.F. Shupe. 2007. When its done, is it really over for wood poles? 2007. In: (H.M. Barnes, ed.) *Proceed-*

ings Southeastern Utility Pole Conference. Southern Forest Products Society. Madison, WI. ISBN 1-892529-43-2. pp. 165-172.

### Grants/Contracts

Shupe, T.F. and Q. Wu. 2006. Unrestricted gift. McIntyre and Associates. \$6,875.

Shupe, T.F. and Q. Wu. 2006. Mold testing. Oil Dri Corporation of America. \$1,000.

Shupe, T.F. 2006. Equipment donation. Special Boron. \$10,000.

Shupe, T.F. and Q. Wu. 2006. Wood durability testing. Truss Joist – A Weyerhaeuser Business. \$6,250.

Shupe, T.F. and Q. Wu. 2007. Wood durability testing. Protective Chemistries, Inc. \$3,750.

Shupe, T.F. and Q. Wu. 2007. Wood durability testing. Hoover Treated Wood Products, Inc. \$5,250.

Shupe, T.F. and Q. Wu. 2007. Unrestricted gift. Phibro-Tech, Inc. \$12,219.

Shupe, T.F. 2007. Louisiana Natural Resources Symposium. Louisiana Cooperative Extension Service. \$2,000.

Shupe, T.F. 2007. Louisiana Natural Resources Symposium. LSU AgCenter. \$3,000.

Shupe, T.F. 2007. Louisiana Natural Resources Symposium. LSU School of Renewable Natural Resources. \$3,000.

Shupe, T.F. 2007. Louisiana Natural Resources Symposium. The Nature Conservancy of Louisiana. \$1,000.

Shupe, T.F. 2007. Louisiana Natural Resources Symposium. Louisiana Department of Agriculture and Forestry. \$500.

Shupe, T.F. 2007. Louisiana Natural Resources Symposium. Louisiana Department of Economic Development. \$500.

Shupe, T.F. 2007. Louisiana Natural Resources Symposium. Louisiana Forestry Association. \$300.

Shupe, T.F. 2007. Louisiana Natural Resources Symposium. Southern Regional Extension Forester. \$2,500.

Shupe, T.F. 2007. Louisiana Natural Resources Symposium. Louisiana Society of

American Foresters. \$300.

Shupe, T.F. 2007. Louisiana Natural Resources Symposium. USDA Forest Service. \$10,000.

Shupe, T.F. 2007. Louisiana Natural Resources Symposium. US Fish and Wildlife Service. \$3,000.

Shupe, T.F. and W.J. Catallo. 2007. Hydrothermal processing of Chinese privet. Idlewild Research Station, LSU AgCenter. \$12,000.

Shupe, T.F. and Q. Wu. 2007. Wood durability testing. Trus Joist – A Weyerhaeuser Business. \$9,375.

Shupe, T.F. 2007. Wood quality assessment using near infrared scanning. USDA Forest Service. \$89,700.

Shupe, T.F. and Q. Wu. 2007. Wood durability testing. Protective Chemistries, Inc. \$3,750.

Shupe, T.F. and Q. Wu. 2007. Wood durability testing. Osмосе. \$24,375.

Shupe, T.F. and Q. Wu. 2007. Wood durability testing. Forestwood Industries, Inc. \$24,375.

Shupe, T.F. 2007. Patent option agreement. Private Industry. \$6,000.

Shupe, T.F. and Q. Wu. 2007. Wood durability testing, Part I. Weyerhaeuser. \$6,563.

Shupe, T.F. and Q. Wu. 2007. Wood durability testing. Phibro-Tech, Inc. \$2,000.

Shupe, T.F. and Q. Wu. 2007. Wood durability testing. Oregon State Univ. \$1,000.

Shupe, T.F. and Q. Wu. 2007. Wood durability testing, Part 2. Weyerhaeuser. \$6,563.

Shupe, T.F. and Q. Wu. 2007. Wood durability testing. Nisus Corp. \$8,000.

DeHoop, C.F. and T.F. Shupe. 2007. Educating Wildland-Urban Interface Property Owners in the Florida Parishes about Wildfire Fuels Management. Louisiana Department of Agriculture and Forestry. \$126,000.

Shupe, T.F., Q. Wu, and D. Ring. 2007. Effect of temperature on Ambrosia beetle mortality. Amerities Holdings, LLC. \$5,000.



# News at the Center

Shupe, T.F., Q. Wu, and D. Ring. 2007. Wood durability testing. Diversified Wood Crafts. \$2,000.

Shupe, T.F. and Q. Wu. 2007. Wood durability testing. Sostram Corp. \$9,375.

## Richard Vlosky LSU AgCenter

### Publications

Paudel, Krishna P, Michael A Dunn, Doleswar Bhandari, Richard P Vlosky and Kurt Guidry. 2007. "Alternative methods to analyze the rank ordered data: a case of invasive species control." *Natural Resource Modeling*. 20(3):451-471.

Kodzi, Emmanuel, Rado Gazo and Richard P. Vlosky. 2007. "Commonality of Machine Centers: Opportunities for Product Line Extension." *Forest Products Journal*. 57(5):41-49

Aguilar, F. X. and R. P. Vlosky. 2007. "Consumer willingness to pay price premiums for environmentally certified wood products in the U.S." *Forest Policy and Economics* 9(8): 1100-1112.

Vlosky, Richard P. and Todd F. Shupe. 2006. "An Overview of the U.S. Treated Wood Preserving Industry." *Proceedings of Wood Preserving 2006*. Sponsored by the Forest Products Society. New Orleans, Louisiana.

Arian, Amin, Richard P. Vlosky and Mohammad Koushki Zamani. 2007. "The Wood Products Industry in Iran." *Cover and Feature Article*. *Forest Products Journal*. 57(3):6-13.

Perera, Priyan, Richard P. Vlosky, Hiran Amarasekera and Nirmal De Silva. 2006. "Forest Certification in Sri Lanka." *Forest Products Journal*. *Cover and Feature Article*. 56(11/12):4-11.

Vlosky, Richard P. and Michael A. Dunn. 2007. "A Regional Comparison of Scholarship and Service in Cooperative Extension". *Louisiana Forest Products Development Center Working Paper #82*. November 8.

Domson, Odoom and Richard P. Vlosky. 2007. "A Strategic Overview of the Forest Sector in Ghana." *Louisiana Forest Products Development Center Working Paper #81*. May 24.

Kallioranta, Sanna M. and Richard P. Vlosky. 2007. "Inter-Organizational Information and Communication Technology (IICT) in the Customer Interface." *Louisiana Forest Products Development Center Working Paper #80*. April 5.

Kallioranta, Sanna M., Richard P. Vlosky and Scott Leavengood. "On-line Communities Support Extension Professionals." *ExtensionNet Newsletter*. School of Natural and Rural Systems Management. The University of Queensland. Gatton. Australia. 14(1):1-4. August 2006.

Vlosky, Richard P. 2006. *Forward to the UNECE/FAO Forest Products Markets Annual Review 2005-2006*. Geneva Timber and Forest Study Paper 21, ECE/TIM/SP/21. Geneva, Switzerland.

### Grants/Contracts

Wu, Qinglin and R.P. Vlosky. *Advanced Profile Extrusion Facility for Fiber-Reinforced Thermoplastic Composite Research and Development*. Louisiana Board of Regents-Enhancement Program. \$170,000.

Vlosky, R.P. and Q. Wu. *Market Demand for Treated Structural Panels in New Home Construction in the U.S. South*. Industry Support. \$14,000

## Qinglin Wu LSU AgCenter

### Publications

Lei, Y., Q. Wu, C. Clemons, F. Yao, and Y. Xu. 2007. Influence of Nanoclay on Properties of HDPE/Wood Composites. *Journal of Applied Polymer Science* (Accepted)

Chen, Y., L. Sun, I. Negulescu, Q. Wu, and G. Henderson. 2007. Comparative Study of Hemp Fiber for Nonwoven Composites. *Journal of Industrial Hemp* 12(1):27-45.

Lee, S.Y., G.H. Doh, I.A. Kang, and Q. Wu. 2007. Influence of Hwangto on the mechanical properties of wood flour reinforced high density polyethylene (DPE) composites. *Mokeyhae Konghak* 35(2): 10-15.

Cao, Q. and Q. Wu. 2007. Characterizing wood fiber and particle length with a mixture distribution and a segmented distribution. *Holzforchung* 61:124-130.

Lei, Y., Q. Wu, F. Yao, and Y. Xu. 2007. Preparation and Properties of Recycled HDPE/Natural Fiber Composites. *Composite Part A*. 38:1664-1674.

Lu, J.Z., C.J. Monlezum, Q. Wu, and Q. Cao. 2007. Fitting Weibull and lognormal distributions to wood fiber length. *Wood Fiber Sci*. 39(1):82-94.

Han, G., Q. Wu, and J.Z. Lu. 2007. The Influence of Fines Content and Panel Density on Properties Of Mixed Hardwood Oriented Strandboard. *Wood Fiber Sci*. 39(1):2-15.

Wu, Q., Y. Lei, F. Yao, Y. Xu, and K. Lian. 2007. Properties of HDPE/Clay/Wood Nanocomposite. *Proc. Inter. Conference and Exhibition on Integration and Commercialization of Micro and Nanosystems (MNC2007-21603)*. Sanya, Hainan, China. January 10-13, 2007.

Lian, K. and Q. Wu. 2007. Using Biomass as templates to make Unique Copper/Carbon Core/Shell Nanoparticles and their Applications. *Proc. Inter. Conference and Exhibition on Integration and Commercialization of Micro and Nanosystems (MNC2007-21432)*. Sanya, Hainan, China. January 10-13, 2007.

Negulescu, I.I., J. Chen, Q. L. Wu, K. Rusch, X. Zhang, B. Stevens, M.T. Gutierrez-Wing, and D. V. Parikh. 2007. Biodegradation of composite nonwovens made of natural fibers and synthetic polymers. In. *Proc. 2007 Beltwide Cotton Conferences - Technical Conference on Nonwovens*, New Orleans, La. January 9-12.

### Grants/Contracts

*Advanced Profile Extrusion Facility for Fiber-Reinforced Thermoplastic Composite Research and Development*. Louisiana Education Quality Support Fund. Q. Wu. 2007 - 2007. **\$170,000**.

*Wood Durability Testing (With Dr. Todd Shupe)*. Industry Support. 2007. \$55,374.

### Outreach/Extension

Part of the team for developing Termite Demonstration Program at LSU AgCenter's Coastal Area Research Station.

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