

NEWSLETTER

Fall 2003



Director's Message

Richard Vlosky

We have been very busy since you last heard from us in the Spring Newsletter. Our Outreach/Awareness Initiative is moving ahead full steam. Faculty from the Louisiana Forest Products Development Center (LFPDC) visited LSU AgCenter regional offices around the state to make presentations about what we do and how we can work together with AgCenter folks in the field to promote sustainable forest products industry development in Louisiana. A new LFPDC brochure and fact sheet have been distributed in every parish.

One important part of our outreach strategy is the collaborative partnership the LFPDC has forged with the LSU AgCenter's Community Economic Development (CED) team. CED professionals are located around the state to serve the citizens of Louisiana in urban and rural economic development. In this issue of our newsletter you will find an article on rural development by Dr. Deborah Tootle, leader of the CED team.

The LFPDC has also developed a strong partnership with Louisiana Economic Development, a state cabinet-level agency. Specifically, Mr. Kelsey Short, director of Agriculture, Forest and Food Technology Cluster

(continued on page 11)



LFPDC Has First and Second Place Wood Award Winners

Cheng Piao is the first place award winner for this year's Wood Award sponsored by the Forest Products Society, and Ronnie Vun is the second place winner. The Forest Products Society's Wood Award (first and second place) recognizes and honors the most outstanding research in the field of wood and wood products

conducted by graduate students.

The First Place Award winner receives a \$1,000 honorarium and an engraved plaque; the Second Place Award winner receives a \$500 honorarium and an engraved plaque. Both receive complimentary registration to the Society's annual meeting, where the awards are presented, and both are offered an opportunity to present their research findings in a technical forum.



From left are Todd Shupe, Cheng Piao, Bob Blackmon, Ronnie Vun and Qinglin Wu.

The first Wood Award was presented in 1948 and, with the exception of the years 1951 and 1952, it has been given annually since its inception. This is the first time in the history of the Wood Award that the first and second place winners have been from the same university. Also, this is the first time that either a first or second place winner for the award has been from Louisiana State University. Congratulations to Cheng and Ronnie!

Engineered Wood Composite Program on the Run

Dr. Qinglin Wu received a \$111,000 grant from the U.S. Department of Agriculture's National Research Initiative Competitive Grants Program to manufacture oriented strand board - commonly called OSB - and other wood strand composites in the laboratory from small diameter trees. The study will involve using various processing techniques and then evaluating the results.

Foresters harvest small trees as part of their management programs to thin and improve stands. But small trees don't make good lumber. The project is looking at ways to improve the performance of oriented strand board made with wood from these smaller trees.

The composites are formed by arranging flakes (or strands) in a mat and bonding them together with adhesives under heat and pressure. The reconstitution process (continued on page 7)



Wood Products Extension Programming Todd Shupe

According to the most recent available data, the Louisiana wood products industry produces only \$0.97 of value-added product for every \$1.00 of lumber created by sawmills, compared to the southern average of \$2.13 of value-added for \$1.00 of sawmill product produced.

Improvement of industry competitiveness can add more value to Louisiana's forest resource and increase the potential for jobs creation and resource use. Research has shown that if Louisiana could reach the southern average of wood value-added production, 5,500 new jobs would be created.

Therefore, key clientele groups of the wood products extension program are primary and secondary forest products industries. Other related clientele groups are artisans and hobbyists, who may be interested in learning more about wood but may not necessarily be interested in operating a business. The other major clientele group is homeowners.

To help the industry attain its full potential, various wood science and business issues are being addressed. Several workshops have been organized and conducted to educate individuals working in the Louisiana wood industry as well as those considering entering this industry sector. Workshop content has included wood science technical issues as well as business and marketing skills, all of which must be properly addressed for a wood-based business to be successful.

The wood science issues include wood identification, quality control, lumber grading, lumber drying and storage and wood preservation. Business issues are critical to the success of a secondary wood business so workshops have targeted sound business practices, marketing, regulatory compliance, workers' compensatory insurance, business plans, obtaining a loan and Internet resources. This multi-faceted approach will make the Louisiana woodbased industry more competitive in the global economy.

These workshops are offered throughout the state in conjunction with numerous cosponsors. The topics, locations and duration are all client driven. Please contact Todd Shupe at tshupe@agcenter.lsu.edu or (225)578-6432 to discuss scheduling an educational program in your area.

Homeowners are a growing clientele base. The emergence of the Formosan subterranean termite has heightened homeowner awareness and concern regarding wood decay causes and controls. More than 500 Louisiana homeowners received wood products educational information last year. This group is reached, as are the other groups, through many forums such as e-mail, onsite visits, telephone and publications.

Many wood science and marketing publications are available upon request. A biannual newsletter, Louisiana Dry Kiln Club, highlights current research efforts related to lumber drying, educational workshops, and causes and control of wood decay. The publications are available at http://www.lsuagcenter.com/enr/Publications/index.asp.

A major on-going thrust is to conduct more wood products educational programming using the Internet. The Wood Products section on the Extension Natural Resources Web site, http://www.lsuagcenter.com/enr/index.asp, is constantly updated with information on developing topics and issues, upcoming meetings and conferences, frequently asked questions and concise information for those interested in learning more

about wood, wood products and wood processing. Please check the site often.

The wood products extension program is pleased with the participation and feedback of workshop participants. To date, 20 workshops have been held and attended by more than 500 individuals. On average, participants have indicated that attendance at a workshop has earned or saved their business about \$1,000. More than half of the participants indicate that they now plan to add at least one employee to their company as a result of the knowledge learned by participating in a workshop. This is noteworthy, since 75% have 10 or fewer employees and 50% have four or fewer. Current data is expected to suggest an increase in the value-added wood products production in Louisiana. Please feel free to contact me at tshupe@agcenter.lsu.edu or (225)578-6432 with any questions regarding wood. A big thank you goes to all who have contributed to the success of the wood products extension program!

Meet the LFPDC Advisory Board

The new advisory board of LPFDC is a group of distinguished and respected individuals from a variety of backgrounds including industry, academia, state and federal government, economic development organizations and industry associations. We are fortunate to have these people on our team to advise and guide the LFPDC as we move forward.

Elizabeth Mansager Higgins

Director, Center for Rural Development, Louisiana Tech University

Mike Buchart

Forest Products, Office of Marketing Louisiana Department of Agriculture & Forestry

Diana M. Simek

Vice President, Ark-La-Tex Regional Export & Technology Center, Inc., Manager, Metro/Regional Business Incubator

George Woodson

Technical Manager of Composites, Weyerhaeuser Company

Joe Elder

President, Elder Wood Processing Co.

Ned Guilbeau

President, Lafayette Wood Works

Jonathan Martin

President, Roy O. Martin Lumber Co.,

Jack C. Siekkinen

Executive Director, Louisiana Furnishings Industry Association

Buck Vandersteen

Executive Director, Louisiana Forestry Association

Ogbonnava John Nwoha

Assistant. Professor, Agricultural Economics, Department of Agricultural Sciences, Louisiana Tech University

Vince Almond

President, Almond Brothers Lumber

Les Groom

Project Leader, USDA Forest Service, Southern Research Station

Kelsey Short

Director, Agriculture, Forest and Food Technology Cluster Development, Louisiana Economic Development

Bryan Strickland

Technical Service Representative, Dynea Corporation

C. J. Smith, C.P.I.M.

Director of Business Development, Manufacturing Extension Partnership of Louisiana (MEPoL), Metro-Regional Business Incubator

Anthony Campo

President, Forest Millworks, Inc.

Robert Crosby III

President, Crosby Land & Resources

Larry Kinlaw

Assistant to the Governor, Executive Director of Office of Community Programs ■

49th Annual Hardwood Log, Lumber and Tree Grading Workshop

This workshop will be held at Louisiana Tech University in Ruston in late March or early April. Participants can earn 24 CFE credits (Category I). Registration fee is \$400. For more information, contact Mark Gibson, workshop coordinator, at (318) 257-3392, fax (318) 257-5061 or by e-mail at mgibson@LaTech.edu.

LSU AgCenter to offer three lumber workshops

Three separate lumber-related workshops targeting different audiences will be offered on May 6-8 at the Grant Walker 4-H Educational Center in Pollock.

The first workshop, set for the evening of May 6, is "Solar Drying Wood for Hobbyists." Its target audience is hobbyists, craftsmen and small secondary manufacturers of wood interested in drying small quantities of wood for value-added purposes.

The second workshop, "Advanced Hardwood Lumber Drying," is May 7. It is a daylong workshop designed to provide current technology and advanced training to hardwood kiln operators.

The third workshop, "Sawing, Edging and Trimming of Hardwood Lumber," is May 8. This daylong workshop will feature traditional and current technology useful to hardwood sawmill operators.

The speaker for all workshops is Dr. Gene Wengert, who has more than 40 years of experience in the forest products industry and is well known for his ability to translate the complex into easily understood, practical operating procedures. He has managed a mill in Virginia and has taught practical hardwood sawing, edging and trimming for 15 years. He has written numerous texts and magazine articles and columns and is the technical advisor to the Sawing and Drying Discussion Board at www.woodweb.com. Dr. Wengert was an extension specialist at the University of Wisconsin and Virginia Tech for 25 years and with the U.S. Forest Service for 15 years.

For more information about registration and fees, please contact Todd Shupe at tshupe@agcenter.lsu.edu or telephone (225) 388-6432. ■

E-Commerce Opportunity for Wood Products

John Nwoha

Project Director, Delta E-Commerce Connection at Louisiana Tech University Mark D. Gibson

Professor and Associate Director, School of Forestry, LFPDC at Louisiana Tech University

George Grozdits

Research Associate, LFPDC at Louisiana Tech University

The technologies available for lumber production with small one- or two-man sawmills have improved to a level where their sawing, drying and surfacing (planing, shaping and gluing) processes produce quality products that match or surpass product qualities produced by large industrial operations. These small lumber operations provide supplies for niche and local lumber markets. These markets use small quantities of specialty products, like cypress bevel siding, knotty pine paneling, stock for fish-traps, clear hardwood lumber and made to order softwood lumber. Accordingly the number of privately owned small mills operating in Louisiana has increased. Most produce lumber for in-house and local need and market their products through barter exchange. A few produce specialty products and market nationwide.

These owner-operated businesses (wood products entities) supply a definite need in the economy at an affordable price and often use underutilized timber resources. Their business potential, however, is curtailed by the marketing infrastructure and the public perception of the quality of lumber produced by these small mills.

The use of the Internet is one marketing mode to improve the business potential of these small wood product businesses. The availability and potential use of e-commerce are described here. The public perception on quality and consumer confidence was addressed in the Spring 2003 *LFPDC Newsletter*, and they are continuously gaining public acceptance.

The Internet is available to more than one in five Americans and has no demographic limits. E-commerce is a promising marketing tool for rural and small business. Sales via the Internet are steadily increasing, partly because the Web provides one of the least expensive marketing tools.

There is substantial government support to small business development. After all, most of the economic success of the last decade has been attributed to small businesses. The government and other agencies have developed initiatives to encourage ecommerce for rural businesses. One of these initiatives, **Delta E-Commerce Connection**, helps small rural businesses to sell their products on the Internet. Delta E-Commerce Connection is operated by the Department of Agricultural Sciences and the Center for Rural Development at Louisiana Tech University to facilitate the adoption of e-commerce for small/rural businesses in the Lower Mississippi delta area.

Businesses wishing to benefit from the project are expected to attend a four-hour e-commerce seminar where they have the opportunity to apply for technical support. Businesses meeting grant profiles are provided free e-commerce consultation, Web site design and maintenance, one year of Web hosting and two years of domain name registration. The real value of this program to a business is that people can learn and evaluate how e-commerce can affect and increase business. The Delta E-Commerce Connection developed an "E-Commerce Roadmap" and can develop a customized Web site for small lumber businesses. For details, see www.deltaecom.latech.edu/. For information, contact John Nwoha, 318-257-3275, mwww.deltaecom.latech.edu/. For information, contact John Nwoha, 318-257-3275, mwww.deltaecom.latech.edu/. Mark Gibson, 318-257-3392, mgibson@latech.edu; or George Grozdits, 318-257-4898, grozdits@latech.edu.

Visit our Web site at: www.rnr.lsu.edu/lfpdc



4 An Overview of the LSU AgCenter's Extension Natural Resources Program

Hallie Dozier, Mike Dunn, Jerald Horst, Brian LeBlanc, Don Reed, Leroy Shilling and Todd Shupe

Because of the overwhelming value of Louisiana's natural resources, both economically and environmentally, the LSU AgCenter, in 2000, expanded its forestry project into the Extension Natural Resources Program (ENR). ENR is a more fully integrated program that addresses education, information, leadership and policy issues surrounding natural resource management in Louisiana.

ENR uses a unique approach to delivering programming in Louisiana. Five professorial faculty members are housed on the main LSU campus in Baton Rouge, two more professorial ranked faculty members are housed in field offices, and five area agents are posted throughout Louisiana. The area agents are the frontline forces of education and service for ENR.

What follows is some information about the areas of responsibility for each of the ENR faculty members.

Dr. Charles L. Shilling (telephone 225-578-4192; e-mail cshilli@lsu.edu) officially began his Extension duties in the fall of 2001, exchanging his research appointment for an Extension appointment. Shilling's primary responsibility is continuing education for professional natural resource managers in Louisiana. He accomplishes this by coordinating and leading the Continuing Education in Natural Resources (CENR) program. This program, begun in 1997, has conducted more than 50 workshops for natural resource management professionals and government agency employees. To date, more than 2,000 have participated in these workshops that have ranged in topic from managing forests for water quality to intensive forest management.

Dr. Todd Shupe's area of expertise is wood products, and his main clientele groups are primary and secondary forest products companies, homeowners and wood-working hobbyists. He joined the ENR program in 1996. He has developed workshops and programs throughout the state to educate individuals working in the Louisiana wood industry as well as those considering entering this industry sector. These workshops typically include information about such issues as wood identification, quality control, lumber grading, drying and storage, as well as business management workshops. He also produces the Louisiana Dry Kiln Club newsletter. He may be reached at 225-578-6432 or tshupe@agcenter.lsu.edu.

Forestry and wildlife management are two closely related activities in which landowners in our state are greatly involved. Dr. Don Reed (telephone 225-578-2374; e-mail dreed@agcenter.lsu.edu) works with landowners throughout Louisiana, giving them the ability to get the most benefit from these resources. Teaching the principles of forestry and wildlife management through Extension educational programs enhances the land-based wildlife resources of the state. Many hours of travel time and on-the-ground land management assistance are provided to these landowners so that they can manipulate their forest and marshlands to achieve the desired results for targeted species. Reed is also involved in education on management of nuisance wildlife. He is also active in environmental and resource-related youth education programs.

Dr. Hallie Dozier works closely with clientele concerned with forests and trees in urban environments. She recently initiated a continuing education program for Louisiana arborists. This program, certified by the Louisiana Department of Agriculture and Forestry, is responsible for providing education to Louisiana's approximately 500 arborist professionals. She

assists with in-house agent training on landscape tree issues and education. She works with a variety of landowners in urban settings, assisting them with diagnoses of tree problems and helping county agents better understand issues associated with trees in the urban landscape. She is also involved with issues surrounding invasion of non-native plant species in Louisiana. Her telephone number is 225-578-7219, and her e-mail address is hdozier@agcenter.lsu.edu.

Jerald Horst, associate professor of fisheries, is at the LSU AgCenter Jefferson Urban Center in Jefferson Parish. Horst focuses on the development of original information and the review of technical literature for the delivery of educational programs in these areas: 1) the critical role of defining essential fish habitat, 2) the emerging development of management agency policies and regulations to protect essential fish habitat, 3) the biological condition of fish stocks so that harvesters can plan sustainable use, 4) the situation and role of fishing effort trends, 5) the gear, time and location alternatives to harvest of fisheries resources, 6) the review of and identification of impacts from alternative controlled access approaches to management, 7) the facilitation of the underwater obstruction removal process, 8) the rebuilding of fish stocks designated as overfished, inclusive of means such as creation of marine reserves and bycatch reduction, 9) the use of electronic vessel monitoring systems in agency management programs and 10) the furtherance of growth in coastal tourism linked to natural resources with specific reference to charter fishing guide services. He can be reached by telephone at 504-838-1170 or jhorst@agcenter.lsu.edu.

Dr. Brian LeBlanc joined ENR in 2002. His primary role is to study and conduct appropriate outreach on effective methods for the reduction and control of non-point source pollution from various sources, primarily agriculture, marinas/ boatyards, recreational boating and urbanization. He is leading an efficacy study of two separate dairy waste effluent treatment systems. Additionally, he is helping to implement the AgCenter's Master Farmer Initiative. Brian is located in the AgCenter's Southeast Regional Office in Covington, but will move in the next few months to the Hammond Research Station. His telephone number is 985-543-4129; his e-mail address is bleblanc@agcenter.lsu.edu.

Dr. Mike Dunn joined the ENR faculty in 1998. He has a split appointment between research and extension. His extension duties include coordinating all ENR faculty, including area agents, as well as developing resource economics and policyrelated extension materials. He also collects all forestry-related economics data for the annual Louisiana Summary. He can be reached at 225-578-0344 or mdunn@agcenter.lsu.edu.

Our five area agents also work with clientele throughout the state. Their names and contact information follow.

Ricky Kilpatrick, Area Agent, Northwest Louisiana. Telephone: 318-965-2326. E-mail <u>rkilpatrick@agcenter.lsu.edu</u>.

Steven Hotard, Area Agent, Northeast Louisiana. Telephone: 318-644-5865. E-mail shotard@agcenter.lsu.edu.

Barry Crain, Area Agent, Central Louisiana. Telephone: 318-473-6605. E-mail bcrain@agcenter.lsu.edu.

Tom Strawn, Area Agent, Southwest Louisiana. Telephone: 337-256-3406. E-mail tstrawn@agcenter.lsu.edu.

Brian Chandler, Area Agent, Southeast Louisiana. Telephone: 225-683-3101. E-mail bchandler@agcenter.lsu.edu.

Reducing Forest Fuels: An Economic Opportunity?

From watching the news, one could get the impression that forest fires are a western problem, but wildfires also are a problem in Louisiana. Any fire has to have fuel. With the speed that plants grow in Louisiana, many forests grow excessive amounts of vegetation in just a few years. These small trees and brush form fuel that feeds wildfires.

Where prescribed burning is not a good option (such as woods with houses interspersed), machines can reduce this excess forest fuel to the ground, but the treatment is expensive. At the Louisiana Forest Products Development Center, we think forest managers can have more options, and we want to help them create these options. With funding from the U.S. Forest Service and the Louisiana Office of Forestry, we are looking at ways to remove those excess fuels from the forest and, once we get that material out, how to make useful products from it.

We are starting with a look at some current fuel reduction schemes. One operation on the Kisatchie National Forest is using a tracked machine with a masticating drum head. The drum has carbide teeth. As the drum rotates and the machine drives between large trees, it reduces all the vegetation in front of it to ground level, where the vegetation rots more readily. The operation costs \$150 to \$200 per acre; a machine can treat roughly one acre per hour. Because this operation may need to be repeated every few years, this obviously gets expensive.

Another operation on the Kisatchie is a two-skidder logging operation with the addition of two in-woods chippers. The chippers produce paper chips and fuel chips for a paper mill. Since the chips produce revenue, it costs only a few dollars per acre to thin the underbrush and small trees; however, the operation is too large to work efficiently

on the property of a typical small forest landowner.

Thus, there is a need for the development of a fuel-reduction operation that is small enough to fit comfortably on small parcels of land while remaining affordable to a landowner.

The next step in this process will be to develop some concepts that may be useful to a small landowner. One possibility is to look at agronomic implements such as combines for concepts to develop forestry equipment that is more efficient at handling multiple stems.

We are also looking at the properties of panel products made from small-diameter timber.

If you want to know more about this project, contact Niels de Hoop (cdehoop@lsu.edu) or Ramsay Smith (wsmith@lsu.edu) of the Louisiana Forest Products Development Center (225-578-4255). ■



This forestry mulcher is used in forests with heavy underbrush to reduce fire danger. Louisiana Forest Products Development Center researchers want to help Louisiana companies use the downed material.

Rural Development - New Horizons



Deborah Tootle, Ph.D. Dept. of Agricultural Economics and Agribusiness, Leader, Community Economic Development, LSU AgCenter

Ask just about anyone living in a rural Louisiana community and he or she will probably tell you that the sun appears to be setting on our rural economy. To be sure, many of our rural communities are struggling in the new economy. What we have to remember, though, is that appearances can be deceiving. Where there are challenges, there are also opportunities, or new horizons, for those who dare to embrace these challenges.

The rural economy in Louisiana has traditionally relied on agriculture and manufacturing. In today's rapidly changing global economy, however, traditional agricultural enterprises and industrial recruitment can no longer be depended on to bring jobs to rural Louisiana. Socioeconomic forces that once encouraged industry to relocate to the rural South now lure manufacturing out of the country. Prices for agricultural commodities are at historically low levels while production costs have continued to increase. The rural economy, traditionally driven by agriculture and manufacturing, depends increasingly on retail trade and services. Those activities that encouraged rural development 10 or 20 years ago are not very effective today. It is time to rethink rural development and expand our horizons.

Scientists refer to these new ways of thinking as "paradigm shifts." We are in the midst of a major paradigm shift in rural development. Research on rural development suggests that we need to (1) approach rural development more comprehensively, (2) build on the existing strengths in rural areas and (3) consider new and innovative rural development strategies.

A Comprehensive Approach

Rural development can be defined in many different ways. At one end of the spectrum is a definition often used by business interests. According to this perspective, rural economic development is defined as activity relating to either industrial development or some form of economic growth in rural areas. This is a narrow definition of rural development, a concept that implies progress, because economic growth alone can occur without regard to human development and welfare.

At the other end of the spectrum lies the broader, more comprehensive definition. Rural development, according to this definition, refers to goal-oriented economic activity designed to improve the quality of life in rural areas. It generally involves some type of structural change in a community or other geographic area (parish, state) that enables that economy to respond positively to rapid changes in the environment. This comprehensive approach to rural development provides the groundwork for increased equity and access to economic opportunities. This second definition is consistent with the mission of the LSU AgCenter.

Rural development is sustainable when it is progressive and contributes to (rather than depletes) the resources on which it depends. Sustainable rural and economic development does not sacrifice the needs of the future for the needs of the present. Under this even broader definition, sustainable rural development can be perceived as activity that builds and maintains the following elements of an economic system:

- Agriculture
- Industry
- Workforce
- Physical infrastructure
- Human capital
- Social and civic infrastructure
- Natural, cultural and historical resource base

Building on Strengths

Traditional rural development strategies typically relied on identifying weaknesses or deficiencies in the local economy and recruiting businesses and industries that could fill these needs. One of the problems with that approach is that it can provide a quick, but not sustainable, fix. In today's global economy, capital is mobile and the "easy come, easy go" philosophy prevails. It is also an expensive approach to rural development. State and local govern-

ments throughout the United States spend an average of \$4,000 per job when they recruit industries. Most state and local governments today are hardpressed to find those kinds of funds for industrial recruitment.

More recently, rural development practitioners have turned toward building on the strengths and assets that already exist in rural communities. This approach acknowledges the value of diversity in our rural areas. All rural areas have unique resources which can be employed for rural development. These unique resources can be thought of in terms of those seven elements listed in the previous section. Rural Louisiana, for instance, is particularly rich in natural amenities and heritage resources. Research from the U.S. Department of Agriculture indicates that today those rural communities that are growing are those that are rich in natural amenities. **Innovative Rural Development**

Strategies

Thinking outside of the box is a phrase that we hear frequently in the business world. It means to see things differently and to think about things in novel and creative ways. Those who can think outside of the box are embracing paradigm shifts. They are creative and innovative. Throughout the United States, we are seeing civically engaged rural communities that are thinking outside of the box. In some places, communities have improved their quality of life and the local business environment by building electronic villages. Entrepreneurs are emerging in those rural communities providing the appropriate social and civic infrastructure. "Lone eagle" entrepreneurs from urban America are moving into those rural areas with an abundance of amenities. Many are growing their enterprises. Producers in rural areas are becoming entrepreneurs, initiating value-added activities and adopting direct marketing strategies. Small manufacturers are working together in networks to capture the economies of scale previously available only to larger manufacturers. In other areas, farmers are working together with community groups in food systems marketing alliances and other cooperative ventures. The demand for eco and agri-tourism opportunities is exploding. Tourists don't want to visit artificially contrived attractions; they want authentic educational experiences,

(continued on page 7)

The Louisiana Economic Development Agriculture/Forestry/Food Cluster



Kelsey Short
Director, Agriculture, Forest and Food
Technology Cluster Development,
Louisiana Economic Development

The Agriculture/Forestry/Food (AFF) cluster/sector is estimated at \$13 billion or about 10% of the Louisiana economy. The mission of the AFF cluster is to provide leadership that will allow for business development collaboration among business, academia and government. The success of cluster efforts should ultimately be reflected in increased capital investment and the creation of jobs.

What is a cluster? A cluster is a network of compatible or interrelated competitive companies working together to strengthen an industry. The more focused and specialized a cluster, the better the chances for meaningful business development. Participants with tightly based common interests will achieve meaningful objectives.

Because of the inherently broad nature of Agriculture/Forestry/Food, the cluster must be broken down into subclusters. Based on input from industry professionals and an analysis of the economic data, the following subclusters have been identified: Food Processing, Coffee, Nutraceuticals, Horticulture, Secondary Wood Products,

Pulp and Paper, Aquaculture, Equine and Bio-Energy. Louisiana Economic Development will work with any local or regional group that would like to form a specialized sub-cluster.

A common characteristic of all the AFF sub-clusters is the presence of value-added economic activity. Value-added economic activity applies to raw agricultural and natural resources that generate income and jobs for Louisiana.

Key determinants for allocating time and resources to the development of subcluster opportunities include: 1) the size of the sub-cluster, 2) the growth trends of the sub-cluster, 3) profitability of the sub-cluster. Ultimately, the growth of any sector is driven by profitability. If a sector is profitable or projects to become profitable, then new investment and job creation will occur.

Why should anyone join a cluster or contact Louisiana Economic Development? What is the value proposition? Someone might appropriately ask, "What's in it for me?" The benefits from participation include:

Networking with like-minded professionals who have a similar business interest.

Linkages to markets, suppliers, financing, technology and training. Louisiana Economic Development (LED) offers a variety of programs and incentives to assist with business startup, expansion or recruitment. If LED does not have the program that suits a particular project, then the necessary resources will be located to make a project successful.

If you are a businessperson, looking to expand and develop your business and industry, you are encouraged to contact us for a rewarding collaboration among government, academia and business. We can be reached at short@led.state.la.us. We look forward to hearing from you.

Engineered Wood Composite Program

(continued from page 1)

disperses natural defects in the wood, resulting in more consistent and uniform mechanical and physical properties and more efficient use of the fiber resource. The performance of these products is governed by the properties of wood strands, adhesive, manufacturing strategy and production process. As a result, significant opportunities exist for refinement and optimization of the mechanical and physical properties of the composites through controlling the production process.

The overall goal of the project is to characterize quality attributes of structural wood composites made of smalldiameter material and low-valued trees in the South. In this interdisciplinary research, OSB and OSL panels from southern wood species will be manufactured under various processing conditions. Panel strength and internal structures will be characterized using advanced analytical techniques (computer tomography and finite element modeling). The work will lead to the development of processing technology and fundamental information for the manufacture of durable wood panel products with sound structural performance for the U.S. housing market.

Dr. Wu is also completing an enhancement project funded by the Louisiana Board of Regents. An integrated system of Differential Scanning Calorimeter (DSC) and Thermogravimetric Analyzer (TGA) was purchased and installed in the composite laboratory for advanced thermal analysis of wood and polymer materials.

For more information on this composite program, please contact Dr. Wu at 225-578-8369 or qwu@agcenter.lsu.edu. ■

Rural Development – New Horizons (continued from page 6)

recreational opportunities and adventures. In all of these cases, which illustrate only a few of the new strategies, rural residents and rural communities dared to think outside of the box and be innovative.

New Horizons for Louisiana

Yes, today rural communities are struggling in Louisiana. We acknowledge the challenges we face. Yet, tomorrow, these same rural communities could be engaged in some exciting rural development activities because opportunities are always embedded within these challenges; however, we cannot identify and implement the new opportunities until we make some changes in the way we think about rural development. First, we have to envision rural development in a broad sense, and we must bear in mind the importance of the quality of life in our rural communities. Second, we have

to build on the existing strengths in our rural communities. Third, we need to dare to be creative and innovative. The LSU AgCenter is ready and willing to help you and your community see and create new horizons. For more information about the activities of the LSU AgCenter's Community Economic Development Team, contact me at (225) 578-2367 or dtotle@agcenter.lsu.edu.



Treated Wood Research Series

Drs. Richard Vlosky and Todd Shupe are conducting research that examines perceptions, attitudes and awareness about treated wood from a variety of stakeholder perspectives. Here are brief abstracts of recent studies. For more information about these studies and others conducted in this area, contact Vlosky at rvlosky@agcenter.lsu.edu or Shupe at tshupe@agcenter.lsu.edu.

Playground Equipment Manufacturers' Perceptions and Sales Patterns Related to Treated Wood Use in Children's Playground Equipment

A survey of a census of all 188 manufacturers of children's playground equipment in the United States by 2002 sales was conducted. Forty-eight percent of respondents fabricate outdoor play equipment with treated wood. Fourteen percent of respondents had an extremely negative perception of treated wood, and an additional 18% had a somewhat negative perception. Eighteen percent had a somewhat positive perception, and just over a quarter (27%) had a very positive perception.

Minimization of chemicals and health risks are the most important criteria to respondents when considering the materials they use to manufacture children's playsets. These are closely followed by performance, cost and years of service. Resistance to wood-destroying insects was highest ranked in the South, and ranked seventh overall. Of the respondents that manufactured playground equipment with treated wood, 12% were concerned about legal or liability issues. Related concerns were health risks to children, lack of knowledge on long-term effects of human exposure and replacement costs.

U.S. Home Builder Perceptions about Treated Wood

In this study, we looked at what homebuilders think about treated wood. Homebuilders are important influencers for wood products demand, including treated wood. The research objectives were: 1) to ascertain homebuilder attitudes and preferences for various home building construction methods (including treated wood) and 2) to discern awareness and concern regarding treated wood. The sample frame for the study was the 500 largest U.S. homebuilders as measured by 2001 sales. Only 1% of respondents had an ex-



tremely negative perception of treated wood, and 38% had a somewhat positive perception; thirty-two percent had an extremely positive perception. Sixty-one percent of respondents felt that treated wood is safe for humans in outdoor applications and it is safe if handled and disposed of properly. Fifty-one percent said it is safe for builders to use. Further, 42% believed it is safe for children's outdoor play equipment, and 38% believed treated wood is safe for pets or farm animal exposure. Finally, 55% of respondents desired additional information on treated wood.

Consumer Attitudes and Preferences for Building Materials With An Emphasis on Treated Wood Products

This research was conducted to better understand consumer attitudes and preferences for building materials with particular emphasis on treated wood products. The results indicate that homeowners have a generally positive opinion of the safety and performance of treated wood. Most respondents indicated a positive overall perception of treated wood in that they are willing to use the product in or at their homes. The major reasons of those unwilling to use treated wood are livability and health concerns. Respondents indicated that individual wood products companies are the least trusted to provide consumers with treated wood safety and handling information, and environmental organizations are the most trusted.

Buyer Perceptions and Purchasing Patterns Related to Treated Wood Use in Children's Playground Equipment

In recent years, there has been negative publicity in the media about potential hazards to human health from exposure to CCA-treated wood. In particular, children have been targeted as an at-risk population to exposure from playing on outdoor playground equipment constructed from treated wood. In this study, we examined children's playground equipment buyer perceptions about treated wood. The research objectives were to better understand attitudes of children's outdoor play equipment buyers and buying patterns for treated wood. A mail survey of a national random sample of 2,800 users of children's playground equipment was conducted. User groups included preschools, daycare centers, municipal parks and K-8 schools. Thirty-nine percent of buyer respondents have outdoor play equipment fabricated with treated wood, and 61% do not. Thirtythree percent had either a somewhat or very positive perception about treated wood, and 41% of respondents fell at the midpoint, indicating a neutral position. Of the respondents that have purchased playground equipment fabricated with treated wood, 40% were concerned about health risks to children. When put in context of other materials used to fabricate playground equipment that respondents plan to purchase, treated wood ranks a distant fourth after plastic, steel and aluminum.



News at the Center

Todd Shupe

Grants

Wood quality assessment using near infrared scanning. USDA Forest Service. \$77,121.

Wood quality research. USDA Forest Service. \$2,000.

Mold testing of OSB panels. Huber Corp. \$6,000.

Formosan subterranean termite wood durability research. LSU AgCenter Special Grant. \$29,000.

Market potential for high valueadded products manufactured from forest fuels from Louisiana forests. USDA RREA. \$6,000.

Lumber drying audit and workshop. Roy O. Martin Corp. \$5,000.

Long-term wood decay and rot testing. CraftMaster. \$10,000.

News

Sang Yeob Lee and Yanfeng Zhang have recently become Ph.D. and M.S. students, respectively. They work under Dr. Shupe's direction.

Dr. Shupe was recently elected vice president of the LSU chapter of The Honor Society of Phi Kappa Phi, a 104-year-old organization whose mission is "to recognize and promote academic excellence in all fields of higher education and to engage the community of scholars in service to others." The organization has 285 chapters located in the United States, Puerto Rico and the Philippines, which together induct more than 30,000 members each year. Since the organization's inception in 1897, more than 1 million have joined the organization.

Dr. Shupe recently received two awards from the Southern Region of the Cooperative Extension Service. He received the Exceptional Programming in International Project Award for "Honduras Hurricane Forestry and Wood Products Relief Efforts." He was also recognized for Exceptional Programming in Journal Publication with a paper that he co-authored with several others that was featured in the Forest Products Journal. It was titled "After the Hurricane: Forest Sector Reconstruction in Honduras."

Dr. Shupe has been elected to the position of Fellow of the Institute of Wood Science. The institute was incorporated in 1955, is limited by guarantee and was registered as a charity in 1998. The institute, based at Hughenden Valley near High Wycombe in Buckinghamshire, UK, is the professional body for the timber and allied

industries. The IWSc promotes and encourages a better understanding of timber, wood-based materials and associated timber processes.

Recent Publications

Shupe, T.F, Q. Wu, and I.D. Hartley. 2002. Moisture meter correction factors for several southern hardwood species. Forest Products Journal. 52(7/8):59-62.

Dunn, M.A., T.F. Shupe, and R.P. Vlosky. 2003. Homebuilder attitudes and preferences regarding southern yellow pine. Forest Products Journal. 53(4):36-41.

Qinglin Wu

Grants

Characterization of engineering properties of strand-based composites using x-ray tomography and finite element techniques. USDA NRI. \$110,000

News

Dr. Ronnie Vun and Dr. Ziqiang Lu recently completed Ph.D. degrees in wood composites under Dr. Qinglin Wu; both are postdoctoral researchers at the LFPDC.

Dr. Guangping Han, associate professor, Northeast Forestry University, Harbin, China, joined Dr. Wu's research program early this year as a visiting scientist. Dr. Han is working on various projects in engineered wood composites.

Dr. Xinfang Duan, associate professor, Chinese Academy of Forestry, Beijing, China, returned to China in July. Dr. Duan worked with Dr. Wu as a visiting scientist in the field of chemical protection of engineered wood composites.

Recent Publications

Lee, S., Q. Wu, and W.R. Smith. 2003. Formosan subterranean termite resistance of borate-modified strandboard manufactured from southern wood species: a laboratory trial. Wood Fiber Sci. 35(4):505-518.

Wu, Q., J.N. Lee, and G. Han. 2003. The influence of voids on the engineering constants of oriented strandboard: a finite element model. Wood Fiber Sci. 35(3):480-493.

Vun, RY., Q. Wu, and C.J. Monlezum. 2003. Ultrasonic characterization of horizontal density variations in oriented strandboard. Wood and Fiber Science 35(4): 450-465.

Vun, R.Y., Q. Wu, M. Bhardwaj, and G. Stead. 2003. Ultrasonic characterization of structural properties of oriented strandboard: Direct-contact vs. Non-contact methods. Wood and Fiber Science 35(3): 381-396.

Wu, Q., S. Lee, J.N. Lee, and

K.Lian. 2003.Borate-modified oriented strandboard as a durable structural panel for home construction. Page 331-338 *In* Better Utilization of Wood for Human, Earth, and Future edited by H.H. Lee and S.S. Jang (*ISBN:89-87603-01-6-94540*). The Korean Society of Wood Science and Technology, Seoul, Korea.

Wu, Q. 2003. Finite element modeling of the influence of voids on the engineering constants of oriented strandboard. Page 762-769 *In* Better Utilization of Wood for Human, Earth, and Future edited by H.H. Lee and S.S. Jang (*ISBN*:89-87603-01-6-94540). The Korean Society of Wood Science and Technology, Seoul, Korea.

Wu, Q., S. Lee, and J.P. Jones. 2003. Decay and mold resistance of borate modified oriented strandboard. CD-ROM: IRG/WP03-40260. In Proc. 34th Annual Conference for the International Research Group on Wood Preservation, Brisbane, Australia. May 12-17, 2003.

Niels de Hoop — Recent Publications

Lefort, A.J.,Jr., C.F. de Hoop, J.C. Pine and B.D. Marx. 2003. Characteristics of Injuries in the Logging Industry in Louisiana, USA: 1986-1998. International Journal of Forest Engineering

14(2):75-89.

de Hoop, C.F., and A.J. Lefort, Jr. 2003. Loggers and Bureaucrats: A Strategic Partnership Creates Better Accident Summaries and Safety Education. *In:* Yoshimura, T., *ed.*, Proceedings of the Seminar on New Roles of Plantation Forestry Requiring Appropriate Tending and Harvesting Operations September 29 - October 5, 2002. International Union of Forestry Research Organisations (IUFRO) Tokyo 2002 Seminar and Japan Forest Engineering Society. Tokyo. P.376-384. *ISBN 4-9901-493-0-0*.

Lefort, A.J., C.F. de Hoop, J.C. Pine and B.D. Marx. 2003. Characteristics of Injuries in the Logging Sector of the Forest Products Industry for Louisiana: 1986 to 1998. *In:* Yoshimura, T., *ed.*, Proceedings of the Seminar on New Roles of Plantation Forestry Requiring Appropriate Tending and Harvesting Operations September 29 - October 5, 2002. International Union of Forestry Research Organisations (IUFRO) Tokyo 2002 Seminar and Japan Forest Engineering Society. Tokyo. P.536-539. *ISBN* 4-9901-493-0-0.

de Hoop, C.F., W.R. Smith and A. Hanumappa Reddy. 2003. Reduction and

News at the Center

Utilization of Forest Fuel Loading in Louisiana. Proceedings of the Annual Meeting of the Council on Forest Engineering held at Bar Harbor, Maine. Corvallis, OR. 5pp. www.cofe.org.

Greene, W.D., J.H.Mayo, M.L. Clutter, N. deHoop and A.F. Egan. 2003. Causes and Costs of Unused Logging Production Capacity in the USA South and Maine. Proceedings of the 2nd Forest Engineering Conference held in Växjö, Sweden 12-15 May 2003. Forestry Research Institute of Sweden.

Dinkins, C.C., IV, and C.F. de Hoop. 2003. Some Legal Aspects of Timber Sale Contracts. Working Paper #60, Louisiana Forest Products Development Center; School of Renewable Natural Resources; Louisiana Agricultural Experiment Station, Louisiana State University Agricultural Center, Baton Rouge, LA. July 3. 6 pp.

de Hoop, C.F., and N.J. Lalonde. 2003. Some Measured Levels of Noise Produced by Logging Equipment in 1998. Working Paper #58, Louisiana Forest Products Development Center; School of Renewable Natural Resources; Louisiana Agricultural Experiment Station, Louisiana State University Agricultural Center, Baton Rouge, LA. June 5. 8 pp.

de Hoop, C.F. 2003. Sign-up time with OSHA's Strategic Partnership is November & December. The Louisiana Logger 8(4):8. Louisiana Logging Council, Alexandria, LA.

de Hoop, C.F. 2003. Louisiana records first 2003 fatality – a heads-up for maintenance and training. The Louisiana Logger 8(4):17. Louisiana Logging Council, Alexandria, LA.

de Hoop, C.F. 2003. Noise and Hearing Loss. The Louisiana Logger 8(3):8+. Louisiana Logging Council, Alexandria, LA.

de Hoop, C.F. 2003. Louisiana Logging Fatalities: A sawhand dies in 2001 and another in 2002. The Louisiana Logger 8(2):16. Louisiana Logging Council, Alexandria, LA.

de Hoop, C.F. 2003. 2002 Strategic Partnership Accidents. The Louisiana Logger 8(2):14. Louisiana Logging Council, Alexandria, LA.

de Hoop, C.F. 2003. Trials of a Gentler Timber Harvesting System. Research Brief # 32, Louisiana Forest Products Development Center, School of Renewable Natural Resources; Louisiana Agricultural Experiment Station, Louisiana State University Agricultural Center, Baton Rouge, LA. 2pp. February. de Hoop, C.F. 2003. Strategic Partnership Provides Better Insight into Louisiana's Logging Accidents. Research Brief # 31, Louisiana Forest Products Development Center, School of Renewable Natural Resources; Louisiana Agricultural Experiment Station, Louisiana State University Agricultural Center, Baton Rouge, LA. 2pp. January.

Ramsay Smith -

Grants

Wood Durability. Industry. \$13,200 Treated Wood Durability Kop Coat Inc. \$2,500

Termite Research. State of Louisiana. \$29,000

Industrial Processes. Roy O. Martin Lumber Company. \$7,000

Recent Publications

Smith, W.R. and A.B Smith. 2003. Feature Article. France: A Comprehensive Wood-Based Community. Forest Products Journal, 53(7-8).

Smith, W.R. 2003. Structural Board Research at the Louisiana Forest Products Development Center. Abstract. Structural Board Association Annual Meeting Workbook, Scottsdale, AZ, May 2003.

Smith, W.R. A.O. Rapp, C. Welzbacher, J.E. Winandy, M. Voitier. 2003. Formosan Subterranean Termite Resistance to Heat Treatment of Scots Pine and Norway Spruce. Abstract in Biographies & Abstracts, Forest Products Society 57th Annual Meeting, Madison, Wis.

Smith, W.R., M.C. Triboulot, M.F. Thevenon, and A. Jermannaud. 2003. Wood Durability Issues and Research in France. Abstract in Biographies & Abstracts, Forest Products Society 57th Annual Meeting, Madison, Wis.

Smith, W.R. 2003. Sabbatical at the Ecole National Supérieure des Technologies Et Industries du Bois. LFPL Newsletter, Spring 2003. Louisiana Forest Products Laboratory, SRNR, LSU AgCenter, Baton Rouge, La.

Smith, W.R. 2003. Wood Products Research in Hardwoods. Poster Presentation, Hardwood Manufacturers Association Annual Meeting, Charleston, SC.

Smith, W.R., C.F. deHoop, T. Shupe, R. Vlosky, and Q. Wu. 2003. Wood Durability Research at the Louisiana Forest Products Development Center. Poster Presentation, American Wood-Preservers' Association, Spring Meeting, Boston, Mass.

Smith, W.R. A.O. Rapp, C. Welzbacher and J.E. Winandy. 2003.

Formosan Subterranean Termite Resistance to Heat Treatment of Scots Pine and Norway Spruce. IRG-WG Proceedings, Annual meeting, Brisbane, Australia. May 2003.

Smith W.R., T.L. Amburgey, G. Henderson, and D.R. Ring. 2003. Field Tests Facility on Coptotermes formosanus at LSU Agricultural Center. IRG-WG Proceedings, Annual meeting, Brisbane, Australia. May 2003.

de Hoop, C.F., W.R. Smith and A. Hanumappa Reddy. 2003. Reduction and Utilization of Forest Fuel Loading in Louisiana. Proceedings of the Annual Meeting of the Council on Forest Engineering held at Bar Harbor, Maine. Corvallis, OR. 5pp.

Richard Vlosky — Grants

Treated Wood Use in Home Framing: A Study of US Homebuilders and Homeowners. Forintek Canada Corporation. \$29,100.

Development of a Louisiana Web-Based Forest Sector Virtual Community and Directory. Louisiana Economic Development. \$6,000.

Use of Treated Wood Use in Children's Outdoor Play Equipment. Industry Support/ USDA CSREES RREA (Renewable Resources Extension Act). \$8,000.

Home Builder, New-Home Home Owner and Realtor Perceptions and Attitudes about Mold. Industry Support. \$17,500.

Recent Publications

Vlosky, Richard P. and Timothy Smith. 2003. "*eBusiness in the U.S. Hardwood Lumber Industry*." Forest Products Journal. 53(5): 21-29.

Dunn, Michael, Todd Shupe and Richard Vlosky. 2003. "Home Builder Attitudes and Preferences Regarding Southern Yellow Pine." Forest Products Journal. 53(4):36-41

Lohnde, Suresh and Richard P. Vlosky. 2003. "An Overview of the Value-Added Wood Products Industry in South Carolina." Forest Products Journal. 53(3):22-27.

Ozanne, Lucie K. and Richard P. Vlosky. 2003. "Certification from the U.S. Consumer Perspective: A Comparison of 1995 and 2000." Forest Products Journal. 53(3):13-21

Dunn, Michael A., Richard P. Vlosky and Arturo Chavez. 2003. "A Facilitated Prioritization Process: An Application in the Forest Sector in

News at the Center

Honduras." Journal of Extension. 41(1) February.

Vlosky, Richard P. 2003. "Line Extension: Providing Bar-coding Products and Services to the Wood Products Industry-A Case Study." Forest Research Laboratory Teaching Case Study Series #4. Oregon State University. Corvallis, Oregon.

Bhandari, Doleswar, Krishna Paudel, Michael A. Dunn, Richard Vlosky, Kurt Guidry. 2003. "Economic Analyses of Homeowners' Attitudes Toward Formosan Subterranean Termite Control Programs in Louisiana." Proceedings of the American Agricultural Economics Association's annual meeting in 2003. March. Montreal, Canada.

Freeman, Michael H, Todd F. Shupe, Richard P. Vlosky and H.M. Barnes. 2003. "Past, Present, and Future of the Wood Preservation Industry." Cover and Feature Article. Forest Products Journal. 53(10):2-9.

Vlosky, Richard P. 2003. "Where SWST Stands and Where Should it Go":

Providing Member Value." Invited Editorial. Wood and Fiber Science. 35(3):231.

Vlosky, Richard P. 2003. "SWST MemberServices Survey Results." Invited Paper. Wood and Fiber Science. 35(3):478-480.

Vlosky, Richard P., Rado Gazo, and Daniel Cassens. 2003. "What do Manufacturers Think About Certification?" FDM Magazine. September.

Vlosky, Richard P., Michael A. Dunn, Arturo Chavez, Pamela A. Monroe, Todd F. Shupe and Denese Ashbaugh Vlosky. 2003. "Participatory Forest Sector Economic Development: From Conceptual Framework to Application in Honduras." Proceedings of the XII World Forestry Congress. Quebec, Canada. Paper #0208-A1. September 21-28. http://www.fao.org/DOCREP/ ARTICLE/WFC/XII/0208-A1.HTM

Donkor, Ben N.and Richard P. Vlosky. 2003. "A Review of the Forest Sector in Ghana." Working Paper #61. Louisiana Forest Products Development

Center. LSU Agricultural Center. Baton Rouge, LA. August 27.

News from Louisiana Tech Mark Gibson —

Dr. Gibson has been nominated to run for vice chairperson of the Mid-South Section of the Forest Products Society for 2003-2004.

Beginning July 1, 2003, Dr. Gibson became associate director of the School of Forestry at Louisiana Tech University. This date also marked the completion of his tour of duty as interim director of the School of Forestry, a position he had held since September 2001.

George Grozdits

Dr. Grozdits organized, invited speakers for the Pulp & Paper Technical Session at The 57th Annual Meeting of the Forest Products Society, Bellevue, WA. June 22, 2003.

Dr. Grozdits & Dr. Gibson have been invited to participate again as presenters at the Annual Oklahoma Forestry Conference in April 2004.

Dr. Grozdits is elected to the Board of Trustees of the Mid-South Section of the Forest Product Society. ■

Vlosky to Lead UNECE Marketing Team

Dr. Richard P. Vlosky, professor of Forest Products Marketing and director of the Louisiana Forest Products Development Center, has been elected chair of the Team of Specialists on Forest Products Markets and Marketing (ToSFPMM), a subgroup of the United Nations Economic Commission for Europe/Food and Agriculture Organization (UNECE/FAO) Timber Committee based in Geneva, Switzerland.

The ToSFPMM, represented by 27 nations including the United States and Canada, provides for the exchange of information on the forest products markets in the UNECE region and reports on market-related topics to the UNECE Timber Committee and the FAO European Forestry Commission.



Gheorghe Florian Borlea (left) of Romania, chairman of the UNECE Timber Committee, talks with Richard Vlosky, chair of the UNECE Team of Specialists on Forest Products Markets and Marketing, about mutual interests.

Director's Message

(continued from page 1)

Development, has been instrumental in promoting the forest sector and the LFPDC's efforts. Much has been accomplished in the past six months, in great part from Kelsey's efforts. His article in this newsletter describes the cluster concept and what his department does for the state in economic development.

Finally, in this issue we highlight Ms. Patricia Lefeaux, the Center's administrative assistant. Pat has been an instrumental member of the Center since its inception 10 years ago. We are proud to have her on the team and to share a little about her with our readers.

For more information about the Louisiana Forest Products Development Center, please visit our Web site: http://www.rnr.lsu.edu/lfpdc.

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Patricia Lefeaux Keeps **LFPDC Running Smoothly**

In most organizations that function well, there is typically someone working behind the scenes to see that things run smoothly. The Louisiana Forest Products Development Center (LFPDC) is no exception. We are most fortunate to have Patricia Lefeaux, our administrative assistant, to help us all be as productive as we can be.

She manages our office and provides support for five faculty members and 20 graduate students, research associates, post docs and visiting professors. Pat maintains reporting on

the Center's budget and expenditures and for 40 grants obtained by faculty members (currently totaling nearly \$2 million).

Pat has lived in Brusly, across the Mississippi River from Baton Rouge, all of her life. She graduated from Brusly High School and Spencer Business College before embarking on a 29-year (and counting) career with the State of Louisiana. She spent nine years with the Louisiana Department of Highways before coming to the LSU AgCenter to work in the Dairy Improvement Center. Pat has been with the LFPDC since its inception in 1993.

Pat and her husband, Jules, were married in 1966 after he received his degree from LSU. In June of that year he was drafted into the Army. After training, he was sent to Germany, and Pat was able to go with him. While there, they visited many countries. Their daughter, Patti, 31, works as a medical review analyst at Woman's Hospital in Baton Rouge and their son, Jonathan, 24, is a police sergeant in Brusly. There are no grandchildren (yet), but their little Pomeranian dog, Fancy, brings lots of joy to their lives. Pat's hobbies are growing and arranging flowers, reading and cooking.

We at the LFPDC are well aware of Pat's contributions. So is Louisiana. She was awarded the LSU Staff Outstanding Service Award and the Charles Dunbar Award, which is given to the top 24 state civil service employees out of 120,000 each year.



LFPDC FACULTY & STAFF

LSU

Rich Vlosky - Director and Forest Products Marketing

W. Ramsay Smith - Wood Durability Issues Niels de Hoop - Environmental and Safety Qinglin Wu - Wood Processing

Todd Shupe - Material Properties Pat Lefeaux - Administrative Assistant

LA Tech

Mark Gibson - Material Properties George Grozdits - Research Associate

Louisiana State University Agricultural Center

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Richard Vlosky, Director

Renewable Natural Resources Building

Baton Rouge, LA 70803-6202

Tel (225) 578-4155 Fax (225) 578-4251 www.rnr.lsu.edu/lfpdc

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