FPL NEWS

Recent developments from the Forest Products Laboratory



Nobel Prize-Winning Efforts by FPL Researcher

Ken Skog, project leader and scientist for the Economics and Statistics Research group at the Forest Products Laboratory, participated on teams for two projects for the United Nations Intergovernmental Panel on Climate Change (IPCC), which was awarded the 2007 Noble Peace Prize along with former U.S. Vice President Al Gore. Skog has been involved with the IPCC since 1998 and his work contributed to the publication of two reports, Good Practice Guidance for Land Use, Land Use Change and Forestry, published in 2003, and the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

In-Service Moisture and Temperature Conditions in Wood-Framed **Buildings Summary Available Online**

"Review of In-Service Moisture and Temperature Conditions in Wood-Framed Buildings" by Samuel Glass, research physical scientist and Anton TenWolde, research physicist, is now available in full text online. Funded by the American Forest and Paper Association, this review summarizes available information about in-service moisture and temperature conditions in wood framing and sheathing members in floors, walls, and roofs of buildings, as well as exposed wood decks and permanent wood foundations. This General Technical Report (FPL-GTR-174) can be viewed at http://www.fpl.fs.fed.us/documnts/fplgtr/fpl_gtr174.pdf

Patent Issued to FPL Researcher

A U.S. Patent was issued for "Xylose-Fermenting Recombinant Yeast Strains" invented by FPL microbiologist Thomas W. Jeffries, Haiying Ni, and Jose Miguel LaPlaza. The patent discloses xylosefermenting recombinant yeast strains, as well as methods of fermenting xylose to obtain ethanol using the yeast strains. This invention is an important step in developing alternative energy sources to reduce U.S. dependence on foreign oil and nonrenewable energy.

Facility Updates Result in More Than \$80,000 in Energy Savings

In response to the Presidential Executive Order stating governmental units should be "enhancing governmental performance through effective environmental, energy, and fleet management," FPL's Research Facilities Engineering staff implemented updates that resulted in \$80,143 in energy savings for Fiscal Year 2007. Updates include increased energy efficiency through improved laboratory equipment, light fixtures, roofing, and air conditioning; increased water conservation through water utility changes and improved restroom fixtures; and reduced greenhouse gases by using renewable energy in the form of wind power provided by Madison Gas and Electric.

Core Fire Caucus Workshop a Success

A successful Core Fire Caucus Workshop, organized by research general engineer Mark Dietenberger, was held at FPL on September 18-19, 2007. A keynote presentation by Michael Hilbruner, Forest Fire Systems Research National Program Leader, discussed the outcome of the Fire Strategic Program Area review that took place in June 2007. Caucus participants focused on interfacing core fire sciences with ecology, meteorology, and Wildland Urban Interface (WUI). Workshop sessions covered dynamics of fire plumes, effects of moisture content and organic decomposition on wildland fuel, interrelationships between the physical fire process and fire ecology, modeling WUI fires, and combustibility of vegetation and building materials.

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Long-time FPL Employees Retire

Rajai Atalla began his career at FPL in 1989 as head of chemistry and pulping research, and was promoted to pioneering scientist in 2005. Rajai's research focused on improving the papermaking process by developing new pulping and bleaching methods, and he was a recipient of the Forest Service Chief's Distinguished Scientist Award.

Roland Hernandez, research engineer, has left FPL after 17 years to join one of the Lab's cooperators, TECO, as a senior engineer. During his time at FPL, Roland's research focused on glulam beams, finger-jointed lumber, and other engineered wood products and structures.

Jean Livingston has retired after 37 years of Federal service. Jean came to FPL from the USDA Agricultural Research Service in 1980, and most recently worked as the communications specialist for the State and Private Forestry Technology Marketing Unit. Jean played a pivotal role in the development of FPL's research demonstration house and worked to promote new roundwood construction technologies using small-diameter material, most notably through two demonstration structures built for the 2002 Winter Olympics in Ogden, Utah.

After 21 years at the Forest Products Laboratory, **Jim Muehl** has retired from his position as forest products technologist in FPL's Engineered Composite Science unit. Jim has earned an international reputation for his work related to the processing of both wood- and agricultural-based composites and wood-plastic composites.

Roger Rowell has retired after 41 years of service at FPL. Roger was a research chemist who served as project leader for the Modified Lignocellulosic Materials unit until being promoted to pioneering scientist in 2005. Roger's work focused on developing advanced composite materials from chemically and physically modified wood-based resources. In carrying out his visionary program of research, Roger developed many high quality national and international cooperations and had an outstanding publication record. Among his many notable innovations and achievements was a patented process leading to very tough and durable acrylic-infused wood flooring marketed as WearMaster by Bruce Hardwood Flooring.

After 27 years of service at the Forest Products Laboratory, **Anton TenWolde** has retired. Anton began his career as a member of the Thermal/Moisture/Acoustics in Buildings team and went on to serve as project leader beginning in 1988 until finishing his career as team leader for the Building and Moisture Durability Team in the Durability and Wood Protection Unit. Anton's dedication to moisture control in buildings has earned him national recognition in this field.



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