



Oregon Wood Innovation Center

Connecting People, Ideas, Resources

New Green Building Rating System

Coming OWIC events:

December 3-6: [How to Dry Lumber for Quality and Profit](#) Corvallis, OR

February 24-27: [Forest Products Management Development](#) Corvallis, OR

April 24-25: [Selling Forest Products](#) Corvallis, OR

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The National Association of Home Builders will launch a new green building scheme, the NAHB National Green Building Program, at the NAHB International Home Builder's Show in Orlando, Florida in February 2008. Under the new program, dozens of state and local NAHB affiliate organizations' green building programs will be linked with a national certification tool. Additionally, the new scheme will include an online registry of green homes and builders certified under NAHB.

Approximately 100,000 homes across the United States have been built to meet local builders association environmentally sustainable benchmarks. Existing local green programs which meet quality assurance benchmarks and performance criteria can join the national program without being subjected to additional costly certification fees.

Also debuting at the 2008 International Builder's Show are NAHB's designation for Certified Green Professionals and educational offerings for green builders, developers, and remodelers. In addition to requiring 24 hours of course work, the Certified Green Professional designation will require regular continuing

education credits.

The standard was developed through collaboration between NAHB and the International Code Council. The program will be based on the National Green Building Standard, which provides a model for residential construction and renovation. The National Green Building Standard was written by builders, architects, environmentalists and product experts. This program provides the basis for green building programs created by state and local home builders associations across the country.

Many factors, including lot preparation, use of resources, water efficiency, energy efficiency, and ease of maintenance will be used to rate buildings as bronze, silver, or gold. The program will also take into account regional differences in climate.

A big push of this program is to minimize costs in an attempt to make green building mainstream. While developers would have to pay a fee for a third party site inspection, it is not clear what the entire certification process will cost.

The NAHB National Green Build-

ing Program will be based at the NAHB Research Center, which is also instrumental in the residential green building standard development process. The American National Standards Institute (ANSI) standards has certified the process. The NAHB Research Center is an accredited developer for ANSI.

In contrast to the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) which only awards points for wood certified by the Forest Stewardship Council, the draft of the NAHB National Green Building Scheme awards points for use of wood certified under the Sustainable Forestry Initiative (SFI). The inclusion of wood certified under the SFI scheme in the NAHB program will likely expand the demand for wood in the green building marketplace.

More information on the NAHB National Green Building Program can be found on the NAHB website at <http://www.nahb.org/generic.aspx?genericContentID=80110>.



USDA Multi-Use Laboratory

In August The United States Department of Agriculture Forest Products Laboratory began construction on a new multi-use laboratory facility in Madison, Wisconsin. State-of-the-art equipment will be housed in the new 90,000 square foot, \$36 million facility. The facility will be used for focusing in four major research areas: wood preservation, durability, engineering mechanics, and com-

posite sciences.

The facility, scheduled to be completed in January 2010, was designed to address critical safety needs, update outdated and insufficient facilities, and greatly improve scientific capabilities. The multi-use laboratory will house one-of-a-kind equipment, including a custom-made stainless steel weathering

chamber featuring the ability to mimic real world climatic conditions, including temperature, humidity, sunlight, wind, and rain.

More information on the Forest Products Laboratory Multi-Use Laboratory can be found at http://www.fpl.fs.fed.us/notices/events/multi_use_lab_brochure.pdf.

New Fire Building Codes in California

Beginning January 2008 California will be instituting new building fire regulations, to address urban wild-land interface fires. Under the new regulations, residential construction in very high fire hazard severity zones would be required to meet new fire performance criteria for walls, eaves, decks, and windows.

The CAL FIRE website contains a map of areas designated as very high fire severity at: www.fire.ca.gov/wild-land_zones.php.



Fires in San Diego, CA. (<http://www.signonsandiego.com/news/fires/weekoffire/>)

The new requirements include ignition-resistant materials which are intended to prevent burning embers from entering and igniting buildings.

The American Wood Council and California-based wood associations worked with the State Fire Marshal's Office to minimize the impact these new building codes would have on wood products. Based on these discussions, the California Fire Marshal's Office also made changes to the proposal to allow time for adjustment to the new provisions. Negotiations are ongoing in an effort to minimize the restrictions on wood products usage in these areas of high fire severity.

Featured Researcher: Camille Freitag

The featured researcher for the month of November is Camille Freitag. Camille is a Senior Faculty Research Assistant in the Department of Wood Science and Engineering and has been at OSU for 27 years, with 23 years in her current job.

new products and to diagnose wood decay in poles. Her specialty is mycology, so she isolates and identifies wood inhabiting fungi from poles or other samples sent by industry or the public. She also performs chemical analysis on wood from poles and other treated products. She is currently trying to determine the amount of various chemicals, both alone and in combinations, that are required to prevent soil fungi from attacking wood in ground contact. Other than her work with the pole coop, she works with companies to provide wood preservative testing.

A new focus of her research is to extract fungal DNA directly from wood and identify the fungi present without ever seeing them.



The bulk of Camille's work is for the Utility Pole Research Cooperative (<http://www.cof.orst.edu/coops/utilpole/startpage.html>). The coop does research on remedial treatment, specifications, performance and environmental consequences of utility poles. Camille's role is to conduct laboratory scale tests of

More information on Camille's work can be found on the Utility Pole Cooperative website at <http://www.cof.orst.edu/coops/utilpole/startpage.html>.

Ask the Expert



Have questions related to wood? The faculty of the Wood Science and Engineering Department at OSU have the expertise to handle almost any question about wood. Simply submit your question using the Ask the Expert form (<http://owic.oregonstate.edu/askexpert.php>). Please be as specific as possible.

The following are examples of recent 'Ask the Expert' questions:

Question: I am looking for a chart that shows the rates of wood movement at various humidity levels by species of wood. In particular, I need a chart that shows the differences between how much certain species of boards used in furniture will move through the seasons in various parts of the country as compared to the amount of movement one can expect from other species.

Answer: The spreadsheet at <http://owic.oregonstate.edu/woodxlsform.php> allows you to choose from a list of over 100 wood species and compare 3 species at a time. You can either enter the initial and final moisture content or simply choose the ambient conditions (temperature and relative humidity). You will also need to enter the board thickness, width, and grain orientation (flatsawn or quartersawn). The US Forest Service produced a report on equilibrium moisture content of wood in outdoor locations

that might also be of interest to you. See <http://owic.oregonstate.edu/pubs/emc.pdf>

Question: We are preparing to take down several hybrid poplar trees that line our driveway and have become too large. We have cut the limbs off the lower parts for years and these trees are large enough and quality enough to become lumber but we don't know who buys them. Might you be able to help?

Answer: You can check the Oregon Forest Industry Directory to see if some of the firms listed there might be interested in the logs. The direct link to companies that have listed hybrid poplar in their list of species is: <http://www.orforestdirectory.com/results/log-buyers/hybrid-poplar>. The search reveals 29 companies.

Question: We are having a problem with powderpost beetle infestation in myrtlewood lumber. What can we do to solve this problem?



Powderpost beetle

Answer: There are several methods you can use to effectively control powderpost beetle infestations. The first method is kiln drying the wood to 150°F for a minimum of 4 hours. The second method is to freeze the wood. The interior of the piece of wood will

need to be frozen for a minimum of 48 hours. Depending on the size of the piece of wood, this may take several weeks. A final method for solving the infestation is to use chemicals through surface treatments or fumigation. Surface treatments can be effective against emerging adults. Fumigation will require the assistance of a certified pest control specialist. Painting or finishing the wood in some way can be an effective control against reinfestation.

Question: I recently had a question regarding the natural decay resistance of bay laurel heartwood (pepperwood, myrtlewood, etc.). I always thought decay resistance was low, as you indicated on your website. I came across Alden's book 'Hardwoods of North America' (FPL-GTR-83) which says the heartwood is very resistant to decay. Do you know the history of how this difference in rating came about? I don't see California laurel in the Wood Handbook, so assume you (OSU) have the test data ... Thanks for your help.

Answer: The answer to your question is that we are not sure. We will soon begin some research to determine the decay resistance of myrtlewood. As soon as the research is completed, we will publish the results on the Oregon Wood Innovation Center website.

Events of interest

November 13-15, 2007

Durability of Wood-Framed Housing: Lessons Learned from Natural Disasters
Beau Rivage Resort and Casino
Biloxi, Mississippi
<http://www.forestprod.org/durability07bro.pdf>

December 3-6, 2007

How to Dry Lumber for Quality and Profit
Oregon State University
Corvallis, OR
<http://oregonstate.edu/conferences/lumberdrying2007/index.html>

December 4-6, 2007

Advanced Statistical Seminars for Forest Products Manufacturers
The University of Tennessee Forest Products Center
Knoxville, Tennessee
http://web.utk.edu/~tfpc/Intelligent/SPC_Training/SPC%20trainingmain%20page.htm

February 24-27

Forest Products Management Development
Oregon State University
Corvallis, OR
<http://oregonstate.edu/conferences/forestproductsmanagement2007/index.html>

April 26-27

Selling Forest Products
Oregon State University
Corvallis, OR
<http://www.cof.orst.edu/cof/fp/faculty/hansen/Extension.htm>

If you have an event you would like to include, please submit it to Chris.Knowles@oregonstate.edu.

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