“Wood is the most technologically advanced material I can build with, it just so happens that Mother Nature holds the patent.” – Micheal Green

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Upcoming Events  
N.A. Softwood Trends  
New Members  
Member News  
Life Cycle Analysis Favors Wood  
New Versus Recycled Statistics  
Putting the Fizz Back into Wood  
Moisture Mayhem!  
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Northwest Hardwoods alder pallet components exceed the NWPCA uniform standards. Our consistent precision milling is the industry benchmark and our on-time delivery puts it in your yard when you want it. Northwest Hardwoods pallet stock: an easy choice to make.

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jeff.carr@northwesthardwoods.com 877-345-1421 or 541-485-0377
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North American Softwood Prices

Weekly softwood lumber prices to February 17, 2015 are shown below, sourced at http://www.nrcan.gc.ca/forests/industry/13309.

Upcoming Events

Promat Show
Chicago, Illionois
www.promatshow.com

5/10/2015 - 5/11/2015
CWPCA Annual Meeting
Toronto, Ontario
www.canadianpallets.com

5/11/2015 - 5/15/2015
Ligna Hannover world Trade Fair for Forestry and Wood Industries
Hannover, Germany
www.ligna.de

Featured Meeting

NWPCA 2015 Annual Leadership Conference
Tucson, Arizona
www.palletcentral.com
WPA Welcomes New Member

Walter Russell  
PECO Pallet  
PO Box 82481  
Baton Rouge, LA  70884  
ph: (914)364-8406  
web: www.pecopallet.com  
email: wrussell@pecopallet.com

sponsor: Jody Saylor, Pallet Central Enterprises

Keep the WPA Membership Drive Alive

Why not get started early this year on your quest to winning the Membership Competition cash prize, and this year, for the first time, the membership trophy!

Alternatively, how about just recruiting a single new member? Every new member helps build momentum.

A regular influx of new members helps maintain the strength of the WPA, as well as to build on our reputation of being "the friendliest Association in pallets."

New members can join and pay on the website. Here is the link:: www.westernpallet.org
**Industrial Lumber Products**

All 3 Products are Utility & Better and Stickered for Moisture and Mold Control.

**Timbers (PET) -- Great for Custom Thickness**

**LOW GRADE PANELS**

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"Delivering the Goods From the Woods"

Contact: Sales@SouthwestForestProducts.com

February 2015
Viking Turns 40!

Viking Engineering & Development is celebrating its 40th anniversary in 2015. Since the company produced its first Viking Duo-Matic in 1975, Viking has been manufacturing nailing machines that have revolutionized the wooden pallet industry in North America and around the globe. Several customers shared insights about their positive relationships with Viking in Pallet Enterprise.

AMS Automated Repair Line Provides Benefits

The Pompano Beach location of Pallet Consultants has experienced a productivity boost since investing in its automated solution from AMS. Read more.

Palnet Focuses on National Accounts

This national service provider seeks to reshape the pallet industry perceptions of customers by offering accountable pallet counts, data management and activity tracking. Read more.

TP Physical Lab Continues Expansion

The Timber Products Physical Lab continues to expand its operations.

Also of note, TP has also joined the International Safe Transit Association (ISTA) and performs tests to a variety of these standards as well. The information generated from the lab can be extremely beneficial to a company's sales and marketing efforts, TP reports.

Whether it's testing to established or proprietary standards, Timber Products has the flexibility to meet your needs and we welcome the opportunity to be of service to you. For more information contact Darin Thompson, Physical Lab Manager at 678-262-7271 or email to dthompson@tpinspecection.com.

(See images from the lab on facing page)

United Pallet Services Featured at RPA Website

United Pallet Services and Pallet Point Guard Business Development Manager Callen Cochran was interviewed in late January at the Reusables.org website about the Pallet Point Guard. You can read that interview here.
Members in the News

Photos from the TP Physical lab

At left, sled used to test pallet fork-tine incline impact to ASTM D1185 standards.

At right, Large sled used to simulate shipping container movement for performing impact testing to ASTM D880 standards.

At left, vibration testing table used to perform vertical and rotary motion of shipping containers to ASTM D999 standards.
WPA Membership Drive Competition

This is the time of year when the competition for the membership drive really starts to heat up. Just to make things a little more interesting, the winner of last year’s contest and membership committee chairman, Tyrone Konecny, put all of his winnings back in the pot for this year.

A regular influx of new members helps maintain the strength of the WPA, as well as to build on our reputation of being “the friendliest Association in pallets.” New members can join and pay on the website. Here is the link: www.westernpallet.org

Life Cycle Analysis Favors Wood, Says Dutch Pallet Association

Wooden pallets have an environmental impact of 25 percent less than that of plastic pallets, according to a study undertaken by the Dutch Institute for Building Biology and Ecology (NIBE). The study was sponsored by the Dutch Packaging and Pallet Industry Association (EPV).

The group noted that the plastic pallet has been presented in the Dutch market for years as an alternative to traditional wood pallet, with advantages cited as lighter weight, longer life and reduced environmental impact. Noting that a real comparison at the latter aspect had never really made in the Netherlands, EPV commissioned NIBE to perform a Life Cycle Analysis (LCA) to compare the environmental impact of wood pallets and plastic HDPE (high density polyethylene) pallets. Best performing wooden euro pallets were compared with best performing plastic pallets. Plastic pallets analyzed included units manufactured of 100 percent new resin, 100 percent recycled resin, and recycled resin with steel reinforcement.

The different phases of the life cycle were included in the LCA. The result showed up to a 25 percent reduced impact for wood pallets.

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February 2015
Things Looking Up for Wood

Wood continues to gain favor as a material of choice—especially for direct food contact. The most recent example of this trend is Carlsberg’s intention to develop a wood fiber beer bottle.

In what will be a three-year project, the company hopes to create what it calls the Green Fiber Bottle, a beverage container made from sustainably sourced wood fiber. The Green Fiber Bottle will break down on its own rather than spending a few hundred years in the landfill.

And while the Carlsberg Group sold 36 billion bottles of beer in more than 150 markets in 2013, it does not see the new bottle as a blanket solution. “The idea would be to have the Green Fiber Bottle as one packaging option,” said a Carlsberg spokesperson. “It’s important to give consumers a range of options that are both sustainable and convenient, according to their needs. Here in Denmark, for example, the returnable glass bottle is also a sustainable solution. It is very well integrated in everyday life and culture, with glass beer bottles often being washed and re-used more than 30 times before they are eventually recycled, so we’d like to offer both options to our customers.”

In the United States, the Green Fiber Bottle might be a better solution because only 28 percent of glass was recycled in 2012, according to the EPA. (Continued on Page 14).

"This a very powerful slide," said Phil Araman of the U.S. Forest Service, speaking at the 2015 WPA Annual Meeting. The slide compares new pallets with pallets recovered, repaired, rebuilt and sold to pallet users. The latter category has grown rapidly over the years.

How important is reuse? According to Phil, it avoided the consumption of 61 million trees in 2011, saving them for future use.

Watch for more pallet statistics in future issues of Pallets West.
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In the United States, the Green Fiber Bottle might be a better solution because only 28 percent of glass was recycled in 2012, according to the EPA. (Contined on Page 14).
Another area of increasing popularity is for building. Wood structures are increasingly being looked at as providing a positive psychological environment. One Finnish report says that wood is valued for its calming properties in buildings such as schools and hospitals.

Michael Green, a Vancouver, BC based architect, says that he sometimes sees people wanting to hug beautiful wood structures. He says that this is an emotional reaction, something that does not happen with other building materials.

Green has campaigned for the increased use of wood in tall residential structures as a means to solve the global housing shortage while mitigating the climate crisis. Wood skyscrapers have a lower carbon footprint to build than with steel and concrete, while sequestering carbon in the completed structure.

“When the Eiffel Tower was built, nobody thought it could be done. Now it’s a symbol of Paris,” Green told the Vancouver Sun. “Projects like it really triggered an innovation on how cities were built. Man moves by innovation and [by] striving for the moon.”

The TED Talent Search winner also teaches and mentors at the University of British Columbia’s School of Architecture and Landscape Architecture (SALA).

“Wood is the most technologically advanced material I can build with, it just so happens that Mother Nature holds the patent.” – Micheal Green

Green wants to meet global housing needs in a way that best mitigates global warming.
“The key areas of preventing mold all start with water,” explained Ralph Rupert, Manager Unit Load Technology, Millwood Incorporated, speaking at the 2015 WPA Annual meeting. Ralph emphasized that spores can be found everywhere in the environment.

While spores are all around us, in order for mold to grow, it requires oxygen, a food source, and moisture. In terms of practicality, the easiest way to limit mold growth is through restricting moisture, although chemical treatment approaches can also be effective.

Ralph commented that mold continues to be one of the leading technical issues for wood. “Mold can be a health issue, and it can be a visual issue,” he commented. “It can only grow when there is free water in the cells of the wood.”

Given the growing importance of food safety and the role of pallets in the supply chain, mold found on pallets has come under increased scrutiny. In industries such as pharmaceutical and food, the demand for mold-free wood pallets and packaging has intensified.

How Water Is Found in Wood

“Wood is a hygroscopic material,” Ralph explained, noting that as such, wood absorbs moisture from its surrounding environment. This is a characteristic that leads to issues - not only to mold but as well as to dimensional issues as wood cells shrink with drying. “Moisture causes more problems with wood than all other issues combined.” (Continued on Page 16.)
“Moisture causes more problems with wood than all other issues combined.”

Idea for Controlling Moisture Content

Ideas for Controlling Moisture Content

In order to prevent mold, Ralph recommends keeping the moisture content of wood below the fiber saturation point, that being in the 20 - 25 percent moisture content range or lower. Achieving this goal involves keeping pallets dry and preventing exposure to rain, humidity and other sources of moisture. Inside storage is recommended.

Other ideas include:
- Utilizing kiln dried (KD) or air dried lumber.
- Unloading and loading trucks as quickly as possible. Do not leave pallets exposed to moist environments.
- Ensuring the area is ventilated. Rupert stressed that only a little air movement is required, noting that stagnant air is detrimental to surface moisture evaporation. If the surface becomes saturated, then mold can germinate. "Air flow as little as two feet per second is all that is needed in a storage environment."

- Not storing pallets on trailers. Rupert commented that rather than storage trailers, such vehicles should be referred to as "incubators" because of the humid, "stagnant conditions inside that are amenable to mold growth.
- Ensuring that pallets and lumber are stored off of the ground.
- Regularly taking moisture content readings.

The Mold and Heat Treatment Myth

Rupert stressed that contrary to the beliefs of a surprising many, heat treatment, the preferred method for eradicating wood pests that can hitchhike in wood pallets and packaging, is not an effective treatment for mold. In fact, heat treatment draws moisture to the surface, and as such can actually create conditions that promote mold growth and which will exasperate the problem.

Water may reside in wood in one of the following forms:
- Free water — liquid water in cell lumens
- Water vapor — water vapor in cell lumens
- Bound water — water inside cell wall
- Fiber saturation point – No free water, bound water at maximum. (28-30 percent moisture content or MC)
(Continued from Page 16)

Chemical Treatments to Prevent Mold

While the discussion above is centered on eliminating free water that can result in mold growth, chemical treatments take different approaches, according to Rupert. One leading product, X-Mold, works on the encapsulation aspect. It creates a barrier that prevents oxygen from being available for mold formation. Other chemical treatments are copper formulations or others that act as moldicides, inhibiting mold growth. As environmental conditions can range, it is best to discuss your application with a provider, and perform testing. The effectiveness of chemical applications can range from a few weeks to as much as 90 days, depending on the situation.

In summary, Rupert emphasizes that moisture control is the key to mold control, and that surface moisture should be maintained below the fiber saturation point, in the 20-25 percent range. Keep free water off of the wood surface, and maintain proper storage.

Drying Accreditation Received

Unit Pallets, a subsidiary of James Jones, recently became the first pallet business in the UK to be accredited to the new Timcon ‘premium’ drying standard for timber pallets. The premium standard guarantees that the pallets are air dried, under cover, for a minimum of 14 days and that the supplier is achieving 95%+ conformity.

“This new standard is a major step forward for the timber pallet sector and Unit staff were very much involved in conducting studies on drying batches of new pallets at UPL’s Golborne factory,” stated Gil Covey, Managing Director. "In all, over 15,000 moisture content readings were taken during the study!"