

# MADISON'S LUMBER REPORTER



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Annual Subscription Prices  
E-mail/Fax: US\$408.45  
Discounts available for multiple  
subscriptions

Published 50 times a year



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V6B 3W7 Canada



In Canada, add GST or HST

ISSN 0715-5468

Printed in Canada © 2015

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## News & Updates

### US Home Builders Coalition Formed

The National Association of Home Builders (NAHB) announced this week it has formed an alliance as to provide the American consumers with a stable and reliable supply of lumber and building materials, once the Softwood Lumber Agreement expired in October 2015. In addition to the NAHB, founder members of the American Alliance of Lumber Consumers (AALC) include the National Retail Federation and the National Lumber & Building Material Dealers Association.

The current share of Canadian imported lumber in the US market is 28 per cent (three-year average), and any new trade agreement has the great potential to disrupt the stability of the market and reduce the current share of imports.

AALC believes restrictive trade agreements that impose, quotas, tariffs and other border tax measures have the potential to create large and unpredictable swings in the cost and supply of lumber and other key building materials, which hurts housing affordability. [READ MORE here](#)

### Canada Requests WTO Consultations on US Paper Duty

Ottawa has asked the World Trade Organization for a review, by a binational panel under the North American Free Trade Agreement, into US countervailing duties of up to 20 per cent on almost \$1 billion in annual exports of supercalendered paper from Canada.

Exports of supercalendered paper from Canada to the United States were valued at \$959 million in 2014.

### Railcar Loadings, Canada and US

The volume of rail freight carried in Canada totalled 27.5 million tonnes in January, up 3.7 per cent from the same month last year, according to Statistics Canada Wednesday. Freight originating in Canada increased 6.4 per cent to 25.0 million tonnes. **CONT'D PAGE 6**

### Post-Fire Carbon Dynamic Study

A new study released by the *Canadian Journal of Forest Research* March 22, estimated change in woody carbon pools as a function of crown fire severity as indicated by a post-fire index, years since fire, pre-fire woody carbon, forest type group (hardwood vs. softwood), elevation, and climate attributes. **CONT'D PAGE 7**

### US Residential Construction Spending: February 2016

Private residential construction spending reached the highest rate since November 2007, said the National Association of Home Builders Friday. **CONT'D PAGE 8**

### Nanotechnology: Plastic Made From Cellulose

In the recent past, the immense financial and technical support from government bodies and research organizations for exploring nanocellulose usage has primarily driven the global nanocellulose market. **CONT'D PAGE 9**

Douglas Fir green #2&Btr 2x4 January 2014 - April 2016



## Canada Railcar Loadings: January 2016

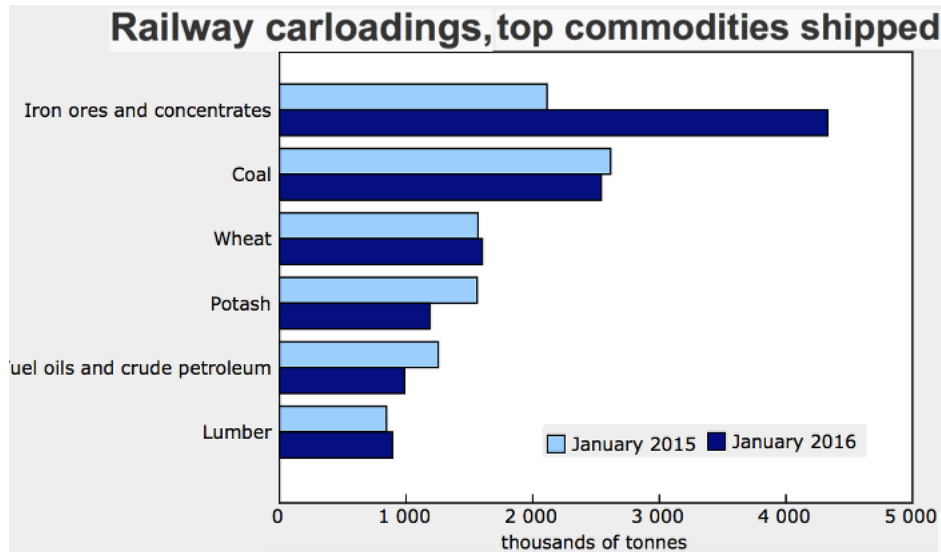
For the second consecutive month, the tonnage of coal, potash, and fuel oil and petroleum shipped by rail declined year over year, according to the latest data released by Statistics Canada Wednesday.

Freight originating in Canada increased 6.4 per cent to 25.0 million tonnes. These shipments are composed of both non-intermodal and intermodal freight.

Non-intermodal freight rose 5.9 per cent to 273,000 carloads. The amount of freight loaded into these cars totalled 22.3 million tonnes in January, up 6.8 per cent from the same month last year. The rise reflected an increase in freight loadings of iron ores and concentrates, up 2.2 million tonnes..

Intermodal freight loadings rose 5.6 per cent to 178,000 units in January. In terms of weight, intermodal traffic grew 3.3 per cent to 2.6 million tonnes as a result of an increase in containerized cargo shipments.

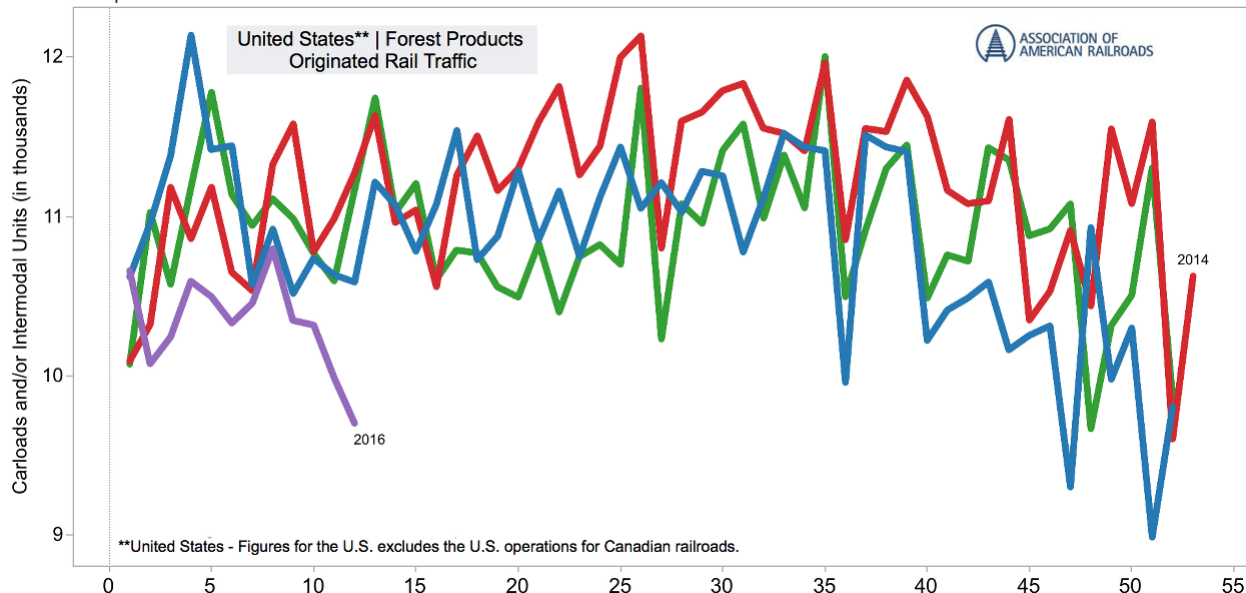
Freight traffic received from the United States fell 17.8 per cent to 2.5 million tonnes as a result of a decrease in both non-intermodal and intermodal shipments.



## US Railcar Loadings: Week of March 26, 2016

The Association of American Railroads (AAR) also Wednesday reported US rail traffic for this week: total US weekly rail traffic was 470,271 carloads and intermodal units, down 16.5 per cent compared with the same week last year.

Total carloads for the week ending Mar. 26 were 232,348 carloads, down 18.5 per cent compared with the same week in 2015, while US weekly intermodal volume was 237,923 containers and trailers, down 14.5 per cent compared to 2015.





	This Week	Last Week	Change	Month Ago	Change	Year Ago	Change
<small>Prices are in U.S. dollars per 1,000 fbm (net FOB mill)</small>							
WSPF KD R/L 2x4	310	302	+8	276	+34	280	+30
WSPF KD R/L 2x6	290	284	+6	268	+22	280	+10
SYP KD R/L East Side 2x4	420	410	+10	395	+25	405	+15
SYP KD R/L East Side 2x6	320	315	+5	295	+25	335	-15
ESPF KD R/L 2x4	395	385	+10	365	+30	380	+15
WSPF KD PET 2x4 Stud	240	240	0	230	+10	280	-40
WSPF KD PET 2x6 Stud	205	205	0	210	-5	290	-85
Douglas Fir Green R/L 2x4	347	342	+5	322	+25	300	+47
Douglas Fir Green R/L 2x10	420	410	+10	380	+40	340	+80
ESPF KD 2x4 8ft Stud	320	315	+5	300	+20	350	-30
OSB Ontario 7/16" (CDN\$/msf)	315	305	+10	320	-5	220	+95
CSplywood Toronto 3/8" (CDN\$/msf)	390	396	-6	380	+10	417	-27

## Madison's Weekly Softwood Lumber News

### California Post-Fire Study

CONT'D FROM PG 2 Canadian and US researchers examined the dynamics of aboveground forest woody carbon pools — live trees, standing dead trees, and down wood — during the first 6 years following wildfire across a wide range of conditions.

Their analysis relied on 130 US national forest inventory plots measured before and 1 year after fire, with one additional remeasurement within 6 years after fire. There was no evidence of net change in total wood carbon, defined for this study as the wood in standing trees larger than 12.7 cm diameter at breast height and down wood larger than 7.6 cm in diameter, over the post-fire period in any of the three severity classes.

[READ MORE here](#)

### Nova Scotia Accepts Land as Payment

The Nova Scotia government is picking up 3,242 hectares of forestry land in western Nova Scotia in exchange for debts owed the province by family-owned lumber company Freeman and Son of Greenfield, according to the *Chronicle Herald* Thursday.

The land, in 19 blocks scattered across Kings, Lunenburg, Shelburne, Queens, and Annapolis counties, is owned by the long-time Queens County sawmill.

Collectively, the parcels include about 12.5 kilometres of lake water-

front. About 55 per cent of them have not been logged.

Of the 5.3 million hectares of land in Nova Scotia, about one-third is owned by the province. In other provinces, the Crown owns half to 90 per cent.

The province did not say whether the sale covers all of the debt owed.

According to a paper submitted to the province to help form a new Natural Resources Strategy, Freeman and Son is among the oldest family businesses in Nova Scotia, having operated sawmills in Greenfield, Queens County since 1832.

The company owns more than 10,000 hectares of woodland, and is the county's second largest employer, with 120 year-round direct employees and significant economic benefits in Halifax and Western Nova Scotia.

The paper estimated the company produces 65 million board feet of lumber and value-added lumber products annually.

### Boise Cascade Closes

Boise Cascade Company, out of Boise, ID, announced Friday that it has completed the acquisition of Georgia-Pacific LLC's engineered lumber production facilities located at Thorsby, Alabama and Roxboro, NC for US\$215 million including closing date estimated working capital of US\$25 million which is subject to final adjustment. The Company used US\$90 million of its cash and US\$130 million in new borrowing to pay for the transaction and closing-related expenses.

### Seneca Completes

The Seneca Sawmill in Eugene, OR, is nearing the completion of a US\$60 million upgrade project, said KVAL March 26.

Due to more demand for dry lumber, and less for "green" lumber over the last 10-12 years, Seneca is upgrading and installing new kilns, which use steam to dry out the wood.

The company has also added new edgers and planers with scanning technology to maximize the efficiency of every log. Each individual log is scanned and then automatically cut into different types of boards based on the structure and shape of that log.

## Calendar

May 2016

### International Pulp Week 2016

May 1 - 4, 2016 – Vancouver, BC  
<http://www.forestproductssummit.com>

### PwC's 29th Annual Global Forest, Paper & Packaging Industry Conference

May 4, 2016 – Vancouver, BC  
<https://www.pwc.com/ca/en/industries/forest-paper-packaging/publications/annual-global-forest-paper-industry-conference.html>

## US Private Residential Construction Spending: February 2016

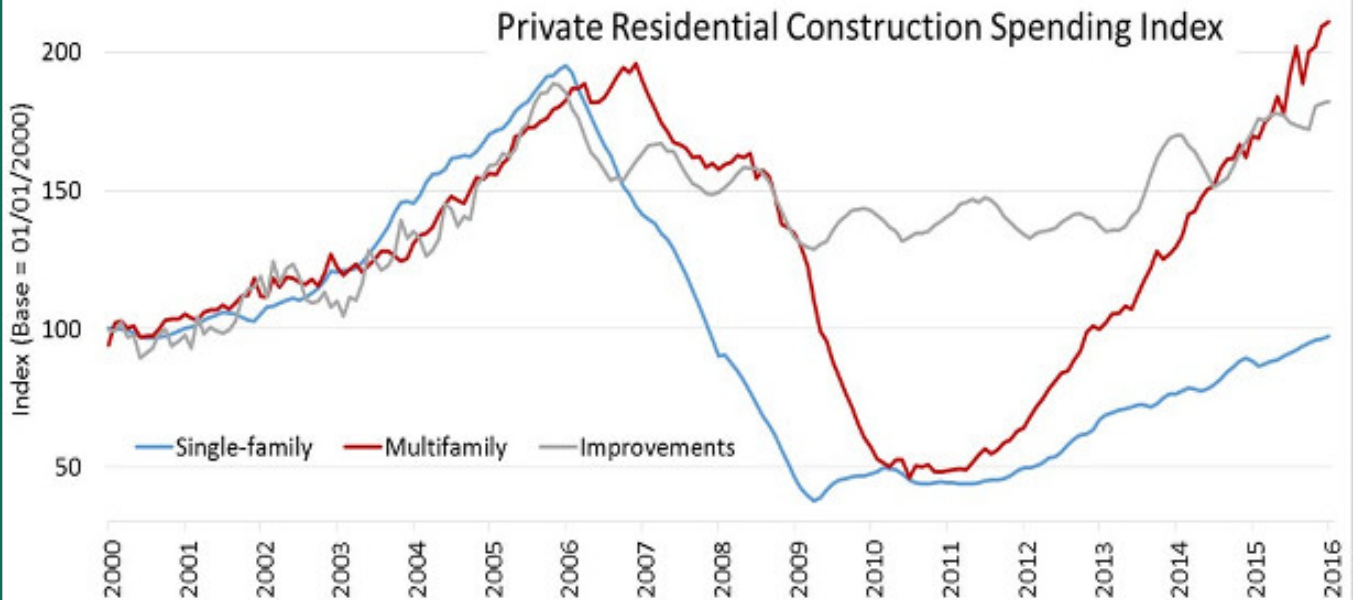
NAHB analysis of Census Construction Spending data shows that total private residential construction spending for February increased to a seasonally adjusted annual rate of US\$448 billion, up by 0.9 per cent over January's revised estimate.

Meanwhile the nonresidential construction spending slipped 1.4 per cent after a huge increase in January.

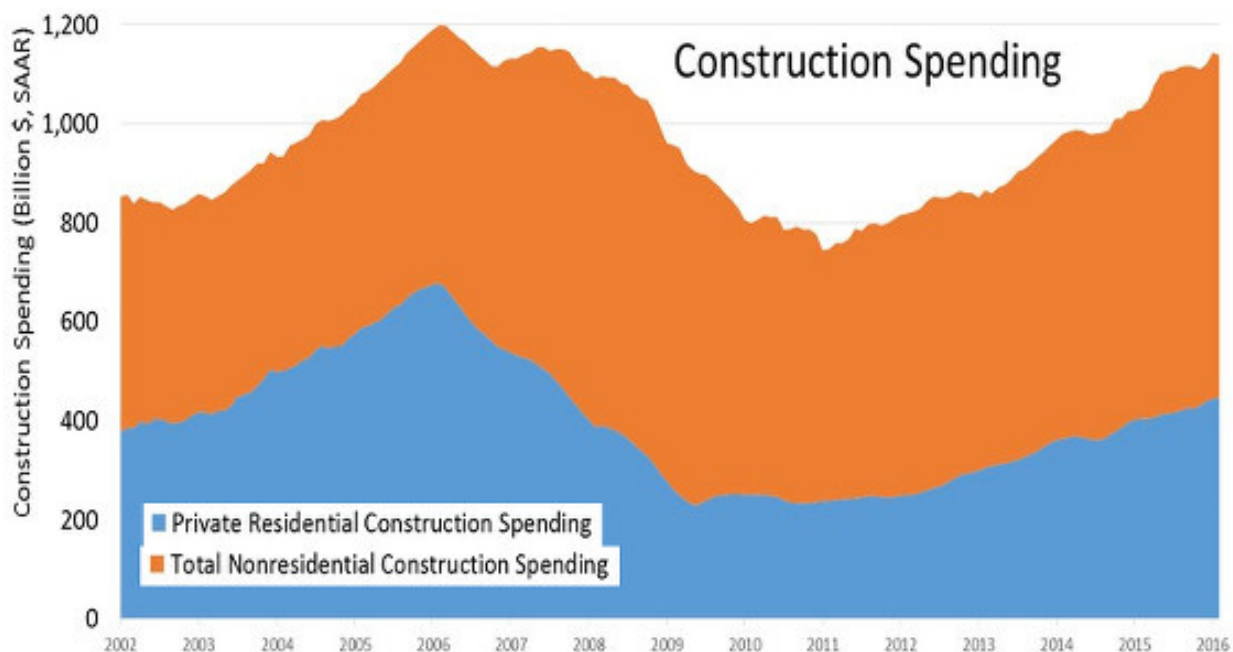
Within the private residential construction spending, single-family spending stood at US\$235 billion, up by

1.2 per cent from last January estimate and 10.6 per cent higher annually. Multifamily spending continued its strong growth and reached US\$59.7 billion, exceeding the January record of US\$59.2 billion. This was a 24.2 per cent increase from the February 2015 estimate. Private construction spending on home improvements rose slightly to a seasonally adjusted annual rate of US\$153 billion.

Year-over-year, this adds up to a steady 6 per cent increase.



The pace of total nonresidential construction spending retreated from a huge increase in the January estimate. It slipped down 1.4 per cent on a monthly basis, but was 10 per cent higher than the February 2015 estimate. The largest contribution to this year-over-year nonresidential spending gain was made by the class of lodging (30 per cent increase), followed by office (40 per cent increase) and highway and street (25 per cent increase).



# NanoCrystalline Cellulose (NCC)

CONT'D FROM PAGE 2

Researchers at the Department of Energy's Oak Ridge National Laboratory have made a better thermoplastic by replacing styrene with lignin, a brittle, rigid polymer that, with cellulose, forms the woody cell walls of plants, said *Nanotech Now* March 24.

They have invented a solvent-free production process that interconnects equal parts of nanoscale lignin dispersed in a synthetic rubber matrix to produce a meltable, moldable, ductile material that's at least ten times tougher than ABS. The resulting thermoplastic--called ABL for acrylonitrile, butadiene, lignin--is recyclable, as it can be melted three times and still perform well. The results, published in the journal *Advanced Functional Materials*, may bring cleaner, cheaper raw materials to diverse manufacturers.

## **Tougher Plastic Made with 50 Per Cent Renewable Content**

The technology could make use of the lignin-rich biomass byproduct stream from biorefineries and pulp and paper mills. With the prices of natural gas and oil dropping, renewable fuels can't compete with fossil fuels, so biorefineries are exploring options for developing other economically viable products. Among cellulose, hemicellulose and lignin, the major structural constituents of plants, lignin is the most commercially underutilized. The ORNL study aimed to use it to produce, with an eye toward commercialization, a renewable thermoplastic with properties rivaling those of current petroleum-derived alternatives.

To produce an energy-efficient method of synthesizing and extruding high-performance thermoplastic elastomers based on lignin, the ORNL team needed to answer several questions: Can variations in lignin feedstocks be overcome to make a product with superior performance? Can lignin integrate into soft polymer matrices? Can the chemistry and physics of lignin-derived polymers be understood to enable better control of their properties? Can the process to produce lignin-derived polymers be engineered?

## **Technology Research Funding**

University of BC research into forest renewal, quantum computer nanotechnology, solar power, high-tech manufacturing, forestry products and the subarctic ocean climate got a boost of \$3.5 million last month from the federal Natural Sciences and Engineering Research Council of Canada (NSERC).

UBC will partner with the B.C. Ministry of Forests, Lands and Natural Resource Operations and Brinkman Group.

"NSERC's support of these exciting projects not only furthers scientific research, but also helps strengthen science and technology across Canada," added John Hepburn, vice president, research and international at UBC. "The Strategic Partnership Grants enable our researchers to build important, constructive partnerships with industry and government."

## **Nanocellulose Market**

Nanocellulose is a cellulose derived product that offers higher structural, mechanical, and rheological properties compared to its counterparts. Its unique properties include low gas permeability, high tensile strength, biodegradability, rheological modification, and high water vapor transmission rate. Nanocellulose is employed in numerous end-user industries such as composites, paper processing,

food & beverages, paints & coatings, and oil & gas. North America and Europe are the leading regions in terms of demand for nanocellulose. These regions are expected to maintain their leading positions during the forecast period.

The report includes Porter's Five Forces Model to determine the degree of competition in the nanocellulose market. The report comprises a qualitative write-up on market attractiveness analysis, wherein end-users and countries have been analyzed based on attractiveness.

## **Europe's First Pilot NCC Facility**

A pilot facility for the production of nanocrystalline cellulose is being planned by MoRe Research, with the Swedish pulp and paper company Holmen, and SP Technical Research Institute of Sweden. The facility will be the first of its kind in Europe and represents an important step, allowing interested companies to develop nanocrystalline cellulose from cellulose-based material on a large scale.

The pilot plant will be based on technology developed by an Israeli start-up company Melodea. Melodea is developing an industrial process for the extraction of nanocrystalline cellulose (known as NCC or CNC) from the sludge produced by pulp and paper mills. A major component of the sludge is tiny cellulose fibers that are washed away during paper manufacturing. Melodea says its technologies allow the recovery of these fibers and convert them to NCC product. The company is also developing unique technologies to assemble the NCC into ecologically friendly foams.

Melodea's NCC production process incorporates controlled acid hydrolysis. It can also produce NCC from bleached pulp, and other cellulose sources such as flax and hemp fibres.

## **Large Spectrum Applications**

The use of nanocellulose in numerous end-use industries is growing due to its contribution to reducing carbon footprint due to it being a renewable source. The high socio-economic benefits of nanocellulose will result in the global nanocellulose market expanding at a magnificent 33.8 per cent CAGR from 2015 to 2023, increasing the market's valuation from US\$54.9 mn in 2014 to US\$699.6 mn by 2023.

Derived from wood pulp or plant cellulose, nanocellulose offers exceptional mechanical, rheological, thermal, and structural advantages over other cellulose-based derivatives and nanomaterials. Commonly known as cellulose, the shape of the material varies from ribbon-shaped to thread-shaped to short rod-shaped, depending on its source and manufacturing process. Nanocellulose is useful for a wide spectrum of applications--this ranges from blocking oxygen in packaging films to rheological modification use in oilfield chemicals.