

# MADISON'S LUMBER REPORTER

**Publisher**  
KetaDesign Productions  
**Editor**  
Kéta Kosman  
**Market Analyst**  
Zara Heartwood

Annual Subscription Prices  
E-mail/Fax: C\$364  
Discounts available for multiple  
subscriptions  
Published 50 times a year

www.madisonsreport.com  
madrep@shawcable.com  
604 984-6838  
PO Box 2486 Vancouver, BC  
V6B 3W7 Canada

In Canada, add 5% GST  
ISSN 0715-5468

Printed in Canada © 2008

All material contained within is the property  
of KetaDesign Productions Inc. Reproduction  
or retransmission is expressly forbidden.



## News & Updates

### Canada to Collect Remaining Additional Duty

As of September 1, Canada will begin collecting the 10 per cent duty imposed last year on softwood lumber imports to the US from four Canadian provinces. Currently US customs documents require the additional 10 per cent duty on Canadian lumber. Funds collected will be distributed back to the provinces of Ontario, Quebec, Manitoba and Saskatchewan.

The export charge stems from a February 2009 London Court of International Arbitration ruling under the Softwood Lumber Agreement, that Canada had breached its 2006 softwood lumber trade deal with the US. The tribunal said Canada should collect a 10 per cent tax on the value of its softwood lumber shipments from the four provinces until the \$68.3 million fine was collected.

### Housing Starts US

US housing starts fell more than expected in June to their lowest level in eight months. The Commerce Department said housing starts dropped 5 per cent to a seasonally adjusted annual rate of 549,000 units.

However, a 2.1 per cent rise in building permits helped temper the negative impact of the headline reading. May permits had fallen 5.9 per cent. [READ MORE](#)

### West Fraser, Interfor, Norbord Report 2Q Results

West Fraser Timber posted a 2Q profit of \$63.3 million compared with a loss of \$39.1 million a year ago. International Forest Products reported a net loss of \$2.6 million, while Norbord Inc. posted a 2Q profit of \$37 million. [READ MORE](#)

### CN Rail Reports

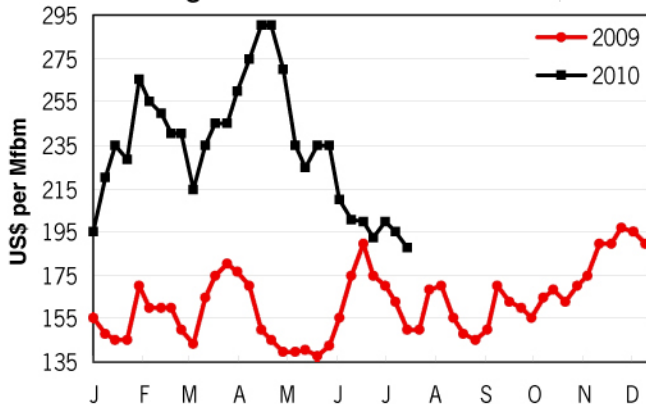
Canadian National Railway reported Thursday 2Q net income of \$534 million, a 38 per cent jump in quarterly profit, and raised its full-year forecast based on its strong results over the past six months. [READ MORE](#)

### North American Forestry Exports

Researchers at FPInnovations have developed a process to take the production of nanocrystalline cellulose out of the laboratory. Using funding from Canada's Pulp and Paper Green Transformation Program, Natural Resources Canada and Quebec's Natural Resources and Wildlife Ministry, FPInnovations, in partnership with Domtar Corp, formed a new joint venture company to build the world's first one metric ton per day commercial-scale nanocrystalline cellulose demonstration plant at the Domtar Windsor, QC, pulp and paper mill site.

Nanocrystalline cellulose (NCC) is a renewable, recyclable and abundant nanomaterial made from the cellulose fibres produced in the wood pulp manufacturing process. Potential applications include optically-reflective films, high-durability varnishes, and innovative bioplastics of interest to a variety of sectors and markets such as the aerospace, automotive, chemical, textile and forestry industries. [READ MORE](#)

Douglas Fir Green Std&Btr 2x4



### U. S. HOUSING STARTS

	Jun-10	May-10		Jun-10	May-10
<b>Starts</b>			<b>Permits</b>		
Actual	54,200	55,300	Actual	59,000	51,000
SAAR*	549,000	578,000	SAAR*	586,000	574,000
1 Unit	454,000	457,000	1 Unit	421,000	436,000
2-4 Units	(s)	(s)	2-4 Units	20,000	18,000
5+ Units	88,000	109,000	5+ Units	145,000	120,000
<b>Starts by Region</b>			<b>Permits by Region</b>		
Northeast	63,000	71,000	Northeast	86,000	65,000
Midwest	94,000	101,000	Midwest	91,000	102,000
South	281,000	288,000	South	285,000	294,000
West	111,000	118,000	West	124,000	113,000

\*Seasonally adjusted annual rate

Source: U.S. Census Bureau

## Key Prices

	This Week	Last Week	Change	Month Ago	Change	Year Ago	Change
WSPF KD R/L 2x4	218	218	0	189	+29	174	+44
WSPF KD R/L 2x6	219	210	+9	195	+28	185	+34
WSPF KD R/L 2x8	270	260	+10	208	+62	215	+55
WSPF KD R/L 2x10	300	290	+10	240	+60	320	-20
WSPF KD PET 2x4 Stud	220	220	0	200	+20	195	+25
Douglas Fir Green R/L 2x4	188	195	-7	200	-12	150	+38
Douglas Fir Green R/L 2x10	300	290	+10	270	+30	230	+70
ESPF KD 2x4 8ft Stud	290	290	0	300	-10	277	+13
OSB Ontario 7/16" (CDN\$)	230	230	0	230	0	220	+10

## Weekly News

### US Real Estate

CONTINUED Single-family housing starts slipped 0.7 per cent. Apartment construction fell harder.

May's housing starts were revised down to show a 14.9 per cent decline, which was previously reported as a 10 per cent drop. Compared to June last year, starts were down 5.8 per cent, the biggest decline since November. There was a 2.1 per cent rise in applications for building permits to a 586,000-unit pace in June.

Purchases of existing houses dropped 5.1 per cent to a 5.37 million annual rate, figures from the National Association of Realtors showed Thursday.

Meanwhile, sales of new homes are seen rising by about 6.7 per cent to a 320,000 unit annual rate in June from 300,000 in May, according to a Reuters forecast released Friday. Sales plummeted 32.7 per cent in May to the lowest since record-keeping started in 1963. Forecasts from 57 economists polled by Reuters range from 290,000 to 350,000 units.

As for home prices, the S&P/Case-Shiller 20-city index is seen up 4.0 per cent in May from a year earlier, compared with a 3.8 percent annual increase reported for April, a Reuters survey found.

### Lumber Producer 2Q Results

CONTINUED West Fraser benefited from a short, but strong, rally in lumber prices and growing sales to Asia this year as it managed the solid quarterly profit. The Vancouver-based company shipped 18 per cent of its Canadian lumber in the quarter primarily to Japan and China, versus 12 per cent in the same quarter last year.

Interfor's Lumber production increased 7 per cent quarter-over-quarter

to 277 million board feet, representing approximately 69 per cent of rated capacity. Lumber sales, including wholesale volumes, totalled 270 million board feet, an increase of 6 million board feet versus the first quarter.

Canadian wood-based panels producer Norbord profits compared with a loss of \$18 million a year earlier. The company said it remained confident of the future, sending its shares up 12 per cent. Overall demand outstripped the ability of both OSB producers and distributors to increase supply, resulting in the surge in prices, which peaked at over US\$300 msf in May, before retreating to more sustainable levels. Net sales for Norbord, which also manufactures plywood and a range of other engineered wood products, rose 60 percent to \$278 million.

### CN Rail Expectations

CONTINUED CN revenues were up smartly, by 18 per cent, and carloads increased a hefty 27 per cent. The mix of manufactured goods and commodities it

carries to customers across North America is a pretty reliable gauge of economic activity.

Freight volumes were higher in all major markets and some sectors were red hot: automotive shipments were up 52 per cent, coal deliveries increased by 49 per cent and metals and minerals were up 46 per cent.

Operating expenses were limited to a modest 7 per cent increase in the quarter, largely due to higher fuel costs. CN's operating ratio, a measure of expenses relative to revenue, improved six points from a year ago to 61 per cent (the lower the number the better).

The strong first half and the expectation of a continued recovery led CN to revise upwards its guidance to investors. The railroad now expects to achieve 25 per cent growth in earnings per share in 2010 and expects free cash to top \$1 billion.

And its market outlook remains bullish, despite some uncertainty about the strength of the economy south of the border.

### In Memoriam

J. E. (Jack) Irving, 78, one of three sons of the late empire builder K.C. Irving, died Wednesday morning after a brief illness. The Irvings' remarkable business success began with a family sawmill in Bouctouche, NB, in 1881.

Kenneth, the son of 79-year-old Arthur Irving, the middle brother of K.C.'s sons, will assume more autonomy in Irving Oil. Similarly, the two sons of the oldest brother, 82-year-old J. K. (James) Irving, are poised for greater independence on the forest products side.

### Calendar

September 2010

#### AFPA 68th AGM and Conference

September 22 to 24 – Jasper, AB  
<http://www.albertaforestproducts.ca/home/default.aspx>

#### 2010 CIF-IFC AGM and Conference

September, 26 to 29 – Jasper, AB  
<http://foothillsresearchinstitute.ca/pages/home/cif2010jasper.aspx>

October 2010

#### 2010 NHLA Annual Convention and Exhibit

October 13 to 16 – Vancouver, BC  
<http://www.nhlaconvention.com/>

# Nanocrystalline Cellulose

## Demonstration Facility

CONTINUED There are also a broad range of potential commercial uses that include paints and coatings, films and barriers, textiles, composites, paper (retention aids and binders), excipients (a material used in the pharmaceutical industry as a binder in tablets), cosmetics and other advanced materials.

by Kéta Kosman

“We have isolated a unique nano-particle,” explained FPInnovations’s research team leader Richard Berry to *Madison’s* in a phone interview. “This material is eight times stronger than steel. When dispersed through a matrix, NCC can impart this strength to, for example, various polymers including bio-plastics. Starting with cellulose from chemical pulp, which already has the lignin and hemicelluloses removed, we liberate the crystalline particles.

The importance of this demonstration plant,” Berry continued, “is that it will provide the opportunity test the process steps and to produce enough material for commercial development of applications that have been identified through R&D work. FPInnovations already has had a pilot plant for 3 years that has been producing kilo-quantities of material, so that those working on developing applications for NCC could have enough material for their own research and development. People get excited about using NCC, and find their own uses, specific to their industry.”

As an example, Berry points to work going on at McGill University using NCC as a catalyst substrate to improve the performance of nano particles of platinum in hydrogenation reactions which are critical in many industrial processes. “Many nanoparticles have a tendency to aggregate,” Berry explained. “NCC has the advantage that it can be kept disaggregated and in this catalyst application it ensures that the nanoparticles of platinum remain dispersed and active.”

The new joint venture will be working with major commercial companies in joint development agreements to further develop, for example, coating formulations. The end result will be a marrying of the NCC production with wide-ranging, potentially lucrative, commercial applications.

“As with petroleum products, where a significant amount of value comes from converting a small amount of petroleum to chemical products, we will be creating

greater value by converting a small amount of the cellulose into higher value products. The volumes of NCC produced will be small compared to Domtar’s pulp production, but the new material will be used further up the value chain,” said Berry.

*Madison’s* did a quick search in Google Scholar for “nanocrystalline cellulose uses” then narrowed down to reports published in 2010 only, to come up with 600 results. Potential uses range from; improving the performance of starch film, to synthesis of platinum nanoparticles using cellulosic reducing agents, to the use of cellulose nanocrystals as biobased nucleation reagents, to the production of ultrathin carbon film electrodes from vacuum-carbonised cellulose nanofibril composite, and more. Much more.

“This announcement is exciting because it is truly ground breaking,” Domtar’s VP of Corporate Communications and Investor Relations, Pascal Bossé, told *Madison’s* in a phone interview. “This is the first demonstration plant of NCC in the world. Domtar’s chemical separation of pulp makes a very pure, high quality NCC, which can be used as a filler in a lot of applications. The material is so strong that it can be used in many potential new applications, beyond the paint and adhesives that is already known.

Domtar’s core business will continue to be coated freesheet. However North American demand has been decreasing by 4 per cent per year since 2000. Opening this plant will increase Domtar’s revenue stream. The company is continually repositioning assets, in order to be exposed to growth. Domtar CEO John Williams was out west but made a special trip back to Quebec for this announcement. That’s how much he likes the risk/reward of our project,” Bossé said.

Berry and Bossé agree that, as things stand right now, NCC production will not likely replace curtailed pulp capacities in North America. However the new technology will augment revenues beyond pulp sales. *When Madison’s* puts together the various technologies developed in the past two years by FPInnovations, the UBC Wood Sciences Department, the University of Northern British Columbia, the Alberta Research Council, among others in new uses for wood, new wood preservation techniques, biomass fuel production, structural improvements in panel board, to mention just a few, the combined new potential sources of revenue and improved value streams can not be ignored.

“We immediately saw two or three applications in the short term,” said Berry. “That gave us the belief that we could base load a pilot facility. However, there turned out to be more uses, much more interest, than we initially thought. There is also potential for applications in engineered wood structures and various wood-plastic composites.”

*Madison’s* likes the idea of a new technology from cellulose that can be used to improve existing lumber remanufacturing processes.

In terms of monetary value, both Berry and Bossé say its too soon to put a dollar figure on NCC.

“We’re not putting a value per ton on the material, we are building up an industry which allows forest products to move up the value chain,” said Berry. “We’re building a new business model which we expect to eventually position us as having a competitive advantage globally. The forest sector will be more easily seen as innovative.”

“Once we see success we will know the true market value for the product,” Bossé explained. “NCC could bring in a very high mill net, or higher margins.”

