Madison's Lumber Reporter

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News & Updates

Madison's Investment Rx

The March issue of *Madison's Investment Rx* went out to subscribers at the beginning of this week. The latest lumber production, rail traffic, and cargo container data is examined.

Contact us any time to receive this vital and timely information.

Tembec Sells Skookumchuk

Tembec Inc Tuesday reached an agreement to sell its NBSK pulp mill in Skookumchuck, BC, to Paper Excellence Canada, a subsidiary of the Indonesian pulp and paper giant, for $89 million, which includes working capital.

Closing of the transaction is expected to occur in 2Q 2013.

"This transaction supports the continuing transformation of the Company and the reshaping of its business portfolio," stated Tembec President and CEO James Lopez in a press release.

This mill, where 290 employees currently work, started up in 1968.

USW Ordered to Pay Severance

The United Steelworkers union was ordered Wednesday to pay severance owed to workers laid off from the Flavelle sawmill in Port Moody, BC, when it was sold by Interfor in 1999. The Labour Relations Board found that the union, then the IWA, had entered into a settlement agreement with Intefor, but failed to obtain group severance pay for the 62 workers affected, according to the *Canadian Press*. READ MORE

Stella-Jones Reports

Stella-Jones, based in Quebec, is increasing its dividend 25 per cent following record annual sales and profits last year and the prospects of benefiting from a North American recovery in 2013. READ MORE

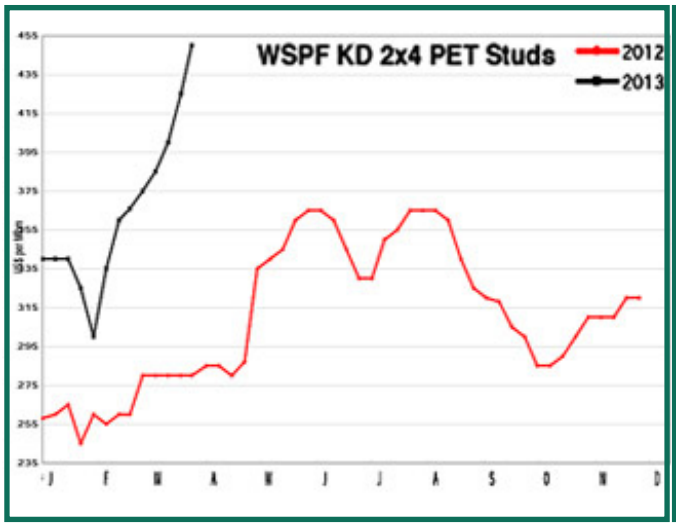
BC Prescribed Burns

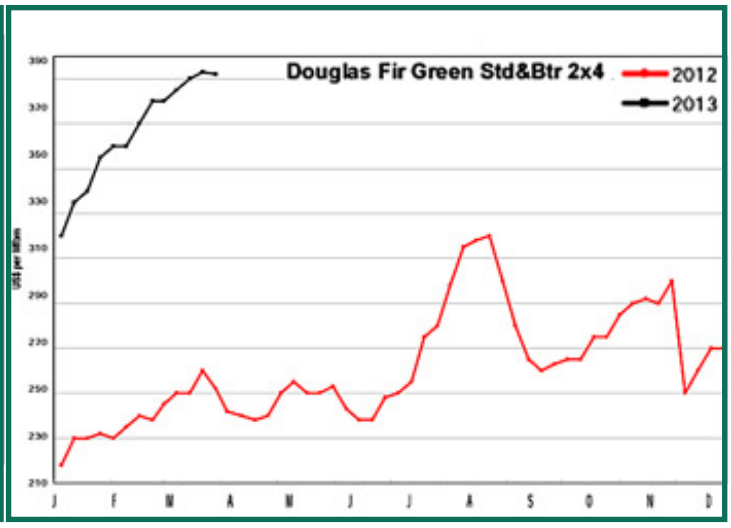
British Columbia is planning on conducting prescribed burns in the following areas, the Ministry of Forests, Lands and Natural Resource Operations said Tuesday:

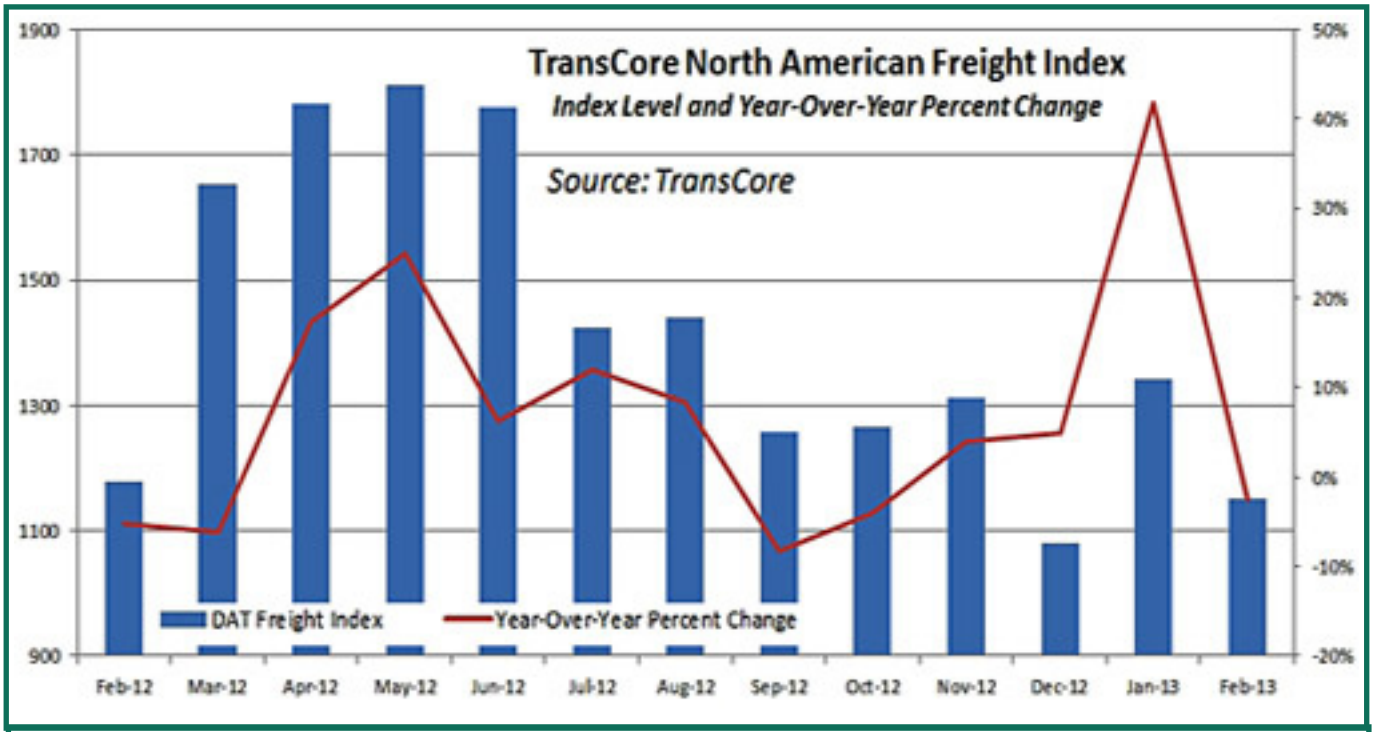
- Bald Range area – 150 ha, approximately 11 km west of Summerland;
- Satellite Hill – 36 ha, approx. 6 km south of Lumby and Highway 6;
- Woodward Creek – 16 ha, approx. 20 km west of Lumby; and,
- South Fork – 32 ha, approx. 12.5 km east of Cherryville. READ MORE

Mountain Pine Beetle Genome Decoded

A team of Canadian researchers this week announced they have decoded the entire pine beetle genome. Put together with previous research mapping the genes of the fungus which lives on the beetle, and that decoding express genes in pine trees, this latest breakthrough will provide vital tools to fight the mountain pine beetle infestation across North America. READ MORE







Lumber production, shipments and stocks, by Canada and provinces

Lumber production by sawmills increased 25.1 per cent from December, to 4,909 thousand cubic metres in January. Compared with January 2012, lumber production increased 9.9 per cent.

Sawmills shipped 4,.369 thousand cubic metres of lumber in January, up 13.9 per cent from December.

SOURCE: Statistics Canada

Standard Classification of Goods	2012				2013
	Sept	October	November	December	January
Total softwood and hardwood, production	4,693.0	5,192.7	4,891.9	3,925.8	4,909.4
Total hardwood, production	111.0	119.6	132.7	101.5	108.8
Total softwood, production	4,582.1	5,073.1	4,759.2	3,824.3	4,800.5
Spruce, pine and fir, production	3,923.7	4,378.4	4,133.8	3,376.7	4,163.7
Total softwood excluding spruce, pine and fir, production	658.4	694.7	625.5	447.6	636.8
Lumber, total shipments	4,319.0	5,082.2	4,640.3	3,836.9	4,369.3
Total softwood and hardwood, stocks	6,125.2	6,065.1	6,032.9	6,010.6	6,464.3
Total hardwood, stocks	F	F	F	F	F
Total softwood, stocks	5,998.8	5,927.0	5,909.7	5,876.1	6,355.8
Spruce, pine and fir, stocks	5,099.3	5,043.1	5,042.1	5,063.7	5,452.0
Total softwood excl spruce, pine and fir, stocks	899.5	883.8	867.6	812.3	903.8

Canada Industrial Product Price Index, 12-month change

Compared with February 2012, the IPPI increased 1.0%, after edging down 0.1% in January.

Compared with the same month a year earlier, the advance of the IPPI was largely a result of petroleum and coal products (+3.6%), specifically diesel fuel (+5.0%) and gasoline (+3.4%). The IPPI excluding petroleum and coal products was up 0.7% on a year-over-year basis.

With a 9.7% increase, lumber and other wood products also made a substantial contribution to the year-over-year increase of the IPPI. Higher prices for lumber and ties (+18.1%) were largely responsible for the increase. Prices for lumber and other wood products continued the upward trend observed since February 2012.

Prices are in U.S. dollars per 1,000 fbm.

Key Prices

	This Week	Last Week	Change	Month Ago	Change	Year Ago	Change
WSPF KD R/L 2x4	**408**	408	0	390	+18	280	+128
WSPF KD R/L 2x6	**394**	394	0	386	+8	288	+106
WSPF KD R/L 2x8	**374**	374	0	374	0	272	+102
WSPF KD R/L 2x10	**408**	408	0	400	+8	314	+94
WSPF KD PET 2x4 Stud	**450**	425	+25	375	+75	285	+165
WSPF KD PET 2x6 Stud	**425**	405	+20	375	+50	245	+180
Douglas Fir Green R/L 2x4	**392**	393	-1	380	+12	252	+140
Douglas Fir Green R/L 2x10	**415**	415	0	390	+25	290	+125
ESPF KD 2x4 8ft Stud	**500**	495	+5	420	+80	355	+145
OSB Ontario 7/16" (CDN$)	**412**	420	-8	440	-28	220	+192
CSPlywood Toronto 3/8" (CDN$)	**394**	395	-1	423	-29	350	+44

Weekly News

Sawmill Worker Severance

CONTINUED More than 80 former mill workers retained lawyers, said *CP*. The union had made extensive efforts to obtain severance for the workers but ultimately failed in the courts.

USW Local 1-3567 President Brian Harder explained to *Madison's* in a phone interview Thursday that changes to the labour code prevented the union from collecting benefits from the employer for their members.

"Ultimately the government changed the laws since 1999, and backdated them," said Harder. "The amount of the payout has not been settled yet. We should find that out in 12 weeks."

Stella-Jones Year-End, 4Q

CONTINUED Stella-Jones reported year-end 2012 net income of $73.1 million, up 31.2 per cent from the previous year. Sales were up 12.1 per cent to $717.5 million.

For 4Q 2012, Stella-Jones said net earnings were $16.5 million, on sales of $159.3 million. That was up from $13.4 million, on sales of $147.5 million in the final three months of 2011.

Stella-Jones' existing business decreased about nine per cent due to lower advanced delivery of railway ties in the quarter and a planned reduction in the tie recycling business.

The company is spending about US$11 million to a new railway wood treating facility in Georgia that will serve railways in the fast-growing Florida and Atlanta, GA, areas.

Prescribed Burns, BC

CONTINUED The burns will be conducted some time between March 28 and May 15, depending on weather conditions, said the BC Ministry of Forests, Lands and Natural Resource Operations Tuesday.

These burns will assist with ecosystem restoration and will occur in several phases during this period.

Historically, grasslands and open forests in the Okanagan have been renewed through frequent, low-intensity ground fires.

The reintroduction of managed, low-intensity ground fires to these grasslands and open forests is intended to restore and maintain plant communities that are native to these areas.

Domtar Closes Line

Domtar's A-line pulp machine in Kamloops, BC, shut down at the end of the work Monday, the company said in a press release.

The final number of jobs lost will be 125 once the phase-out concludes this spring. Thirty jobs have already been cut.

The unionized workers rejected the company's transition and layoff plan in a vote on January 31. Although both sides continue to meet regularly, a transition plan has not been agreed upon.

It appears likely that employees with seniority will be able to bump junior employees from the mill's B-line.

Domtar announced this closure in December. The shutdown of the A-line will result in a permanent curtailment of Domtar's annual pulp production by approximately 120,000 air-dried metric tons of sawdust softwood pulp.

The Kamloops pulp operation will continue to operate its remaining pulp manufacturing B-line with an annual capacity of approximately 350,000 air-dried metric tons of softwood kraft pulp and employ approximately 300 people.

Cascades Announces . . .

Mario Plourde has been named as the successor to Alain Lemaire, as President and CEO of Cascades, the company announced Tuesday.

Plourde is currently Cascades' COO. The transfer will take place on May 9, following a two-year transition period.

Lemaire will continue to serve as Chair of the Board of Directors. Alain Lemaire's brothers, Bernard and Laurent, will also remain active in the company, continuing to serve on the Board of Directors and the Executive Committee, and participating in the company's strategic planning.

Calendar

April 2012

Council of Forest Industries Annual Convention
April 4 to 5 - Prince George, BC
http://www.cofi.org/

IWPA 57th Annual Convention
April 17 to 19 - Vancouver, BC
https://m360.iwpawood.org/

May 2012

International Pulp Week 2013
May 5 to 8 - Vancouver, BC
http://www.internationalpulpweek.com/

26th Annual Global Forest & Paper Industry Conference
May 9 - Vancouver, BC
http://www.pwc.com/ca/

Mountain Pine Beetle Genome

Successfully Decoded

The devastating mountain pine beetle infestation, which has already destroyed more than 18 million hectares of lodgepole pine forest in BC as well as significant forestland in Colorado, Montana and other US states, seems poised to keep moving eastward through central Alberta. Scientists and forest rangers in Alberta have been fighting a multi-front battle to prevent the beetle jumping from the predominantly lodgepole forests of western Alberta to the jack pine which dominates the east of that province, and indeed the vast Boreal forest covering most of Canada. An important new tool has just been discovered to help in this fight.

by Kéta Kosman

The genome of the mountain pine beetle has been decoded by researchers at the University of British Columbia and Canada's Michael Smith Genome Sciences Centre. This is a first for the mountain pine beetle and only the second beetle genome ever sequenced. The genome is described in a study published Tuesday in the journal *Genome Biology*.

Scientists can now take a clear look into how the beetles can cause so much devastation, and why.

Christopher Keeling, research associate at UBC's Michael Smith Laboratories, told the Globe and Mail Wednesday that decoding the beetle's genome will allow scientists to uncover some of the pine beetle's secrets – such as how it can survive the bitter cold. He said the information can also be used to help manage the epidemic in the future. This breakthrough opens up research for not only pine beetles, but for all beetles and weevils.

The research revealed a large gene variation among beetles that is almost four times greater than that of humans.

Please refer to the April 22, 2011 issue of your *Madison's Lumber Reporter* for background on the Tria Project's work decoding the pine beetle, fungus, and jack pine genomes. The Tria Project is an interdisciplinary group which was formed in 2008 by researchers at the University of British Columbia, the University of Northern British Columbia, the University of Alberta, and the Canadian Forest Service.

"The fundamentals of the Tria Project are to map the genetic landscape of all three," explained Keeling to Madison's in a phone interview Thursday. "The genetic makeup of the fungus which lives on the beetle [and causes the blue stain] had previously been discovered. Now we have the bark beetle genome. As for the trees, members of our research team are looking for the expressed genes, those genes turned on in specific tissues like the bark and the phloem, rather than working on the entire genome."

Incredibly, conifer genomes are five times bigger than that of humans, said a UBC press release Tuesday.

"This discovery is important for us to understand how the beetle can adapt to new environments," continued Keeling. "The beetle's natural habitat ranges from New Mexico right up to the BC/Yukon border. There are great variations of environment and climate between these areas, so now we can identify which beetles are more suited to surviving in new environments. For example we can target the beetles which would be more vulnerable to the cold winters of Saskatchewan.

"This is the beginning of more work that can be done to fight the pine beetle using genetic information. We have no idea what will happen in Alberta; jack pine is a naive species when it comes to the pine beetle, jack pines were never infested by mountain pine beetles before."

Barry Cooke, Research Scientist in Spatial Dynamics of Insect Populations at Natural Resources Canada, has been working on target modelling, to predict how the beetle is going to move east.

"There are three main elements to the work we, at NRCan have been doing," said Cooke to Madison's in a phone interview Thursday. "We had access to some of the new genome data as Chris Keeling's group were making their discoveries. One of the things we can use this genome information for is epidemiological spread modelling. Using the genome test, we are screening various beetle populations, genotyping to characterize individual sequences. This tells us something about the likelihood of a beetle population dispersal, like the one from BC into Alberta, happening again. Population dispersal is a major random variable in fighting infestation.

"We have confirmed that an entire generation of mountain pine beetles have reproduced in jack pines. The Tria Project research to identify the genome markers in pine trees will help us better fight beetle migration because the markers tell us specific details about both with the beetles and the trees.

"The probability of a mountain pine beetle outbreak depends on a small population getting a foothold on a tree. In fighting the beetles' spread, details start to matter tremendously. So targetting specific genes can get very precise information about mates, hosts, the ability of adult beetles or eggs to detoxify the tree's resin, and more. We already know a lot of this about lodgepole pines but not about jack pine. We don't know what the outcomes are going to be in jack pine, we can't just transfer the knowledge we have about the BC beetles in lodgepole pine to Alberta beetles in jack pine."

"Once the genome is sequenced, screening will find the gradient," continued Cooke. "For example, with adaptive functionality. Different populations of beetles will adapt differently to cold temperatures."

When speaking to Keeling, Madison's asked if this knowledge could be put toward the efforts in Alberta to use pheromones to draw migrating beetles into traps.

"Yes, understanding the beetle's genome could potentially be used to target the olfactory sense," replied Keeling. "At this point what we have is essentially the gene encyclopedia of the bark beetle. We can now start to understand reproduction, development, host colonization, and more.

"We could target the antennae, we could release something into the environment at low levels which would turn off the beetle's antennae or olfactory sense."

Cooke also mentioned pheromones.

"There are eight different growth rates which we now have the ability to predict what will happen," said Cooke. "One of these are chemo receptors [or pheromones]. With targetting specific genes we can identity the specific points in the genome to block the senses, both for the trees and for the beetles. Researchers have identified and been using attracting and repelling chemicals in BC and Alberta. With this genome information, these efforts can now be incredibly specific. We can make it difficult for the beetle to find a host or to find a mate, for example."

Since this research was publicly funded in Canada, the genome information was freely filed at the GenBank Tuesday when the Tria Project's report was released. That means that any chemical or pesticide company can use it to develop a tool made specifically to fight the mountain pine beetles' progress across North America. The Genome Biology journal is open access. Link: http://genomebiology.com/2013/14/3/R27

While efforts to stop the beetles' spread eastward across Canada are currently being fought in Alberta, this work has many applications for the future of BC's forests as well.

"In the long term, the beetle population in BC could come back," explained Keeling. "Right now the younger trees are vulnerable. And in 60 years, as the forest regrows, there will be danger because the trees will be of generally the same age."

As the pine beetle infestation grow to epic proportions in BC, the similar-species, similar-age of the second growth made it very easy for the beetle to spread quickly.