

Dear subscribers,

I am pleased to announce the addition of Tim Gammell to the team here at Wood Resources International. Tim will be taking over as the editor of the North American Wood Fiber Review, as well as assisting with consulting projects and multi-client studies as on a needed basis, and as such will be able to contribute valuable knowledge gained through his many years of work within the Forest Resource Association (FRA). In particular, he will closely be monitoring the biomass market in North America, which is now the most rapidly expanding segment in the forest sector.



Tim's education is grounded in forest resource management and procurement, and has been solidified by years of hands-on experience in the field. Early on, he spent a decade in the Pacific Northwest learning log buying and appraisal on the solid wood side, and then later, several years in the Northeast working in the pulp and paper side of forest management. In between the West and East coast stints, he also worked for several years doing reforestation work in East Africa. Over the years, he has had the pleasure of developing close business relationships with Canadians in British Columbia, Alberta, and the Maritime Provinces, as well as making numerous contacts (and trading stories) with colleagues in the US Southern states. And finally, for the past 16 years, he has worked as Region Manager for the FRA (formerly the American Pulpwood Association).

I have known Tim for over ten years and have the utmost confidence that having him onboard will add greatly to the work we do at WRI.

As 2010 fast approaches, it is likely that the use of traditional wood products in North America will begin to rebound. In addition, there is a surging interest in utilizing wood for bioenergy. These changes are a result both of domestic and international governmental policies encouraging such growth, as well as new social norms, which are placing more value on clean alternative fuels. We plan to establish a sizeable component in the 2010 Review tracking prices for these emerging and existing bioenergy transactions and we will also continue to diligently track wood fiber prices across the continent. Starting from this issue, we will cover wood pellet markets in North America and other regions of the world which may be of interest to our readers.

Both Tim and I would like to emphasize an "open phone" relationship with each of you. If you have suggestions or comments regarding the North American Wood Fiber Review, or our sister publication, the Wood Resource Quarterly, please feel free to contact us.

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## North American Wood Fiber Market Update

### December 2009

#### **Total tax credit for the US pulp industry may reach over eight billion dollars**

The black liquor tax credit continued to impact fiber sourcing decisions for many pulp companies in the US during the 4Q. A number of companies have reported that they were running a higher share of virgin wood fiber rather than recycled fiber as a result of the tax credit. Some pulp mills have also been running at higher operating rates than planned thanks to the subsidy.

During the first nine months of the year, publicly traded pulp companies received \$4.7 billion dollars from the US government. The largest beneficiaries have been International Paper (\$1.6 billion), Smurfit-Stone (\$470 million), Domtar (\$335 million), MeadWestvaco (estimated \$300 million), Weyerhaeuser (\$230 million), New Page (\$210 million) and AbitibiBowater (\$200 million).

Many companies have made more money from the IRS checks than from selling actual forest products this fall.

#### **With the termination of the tax credit wood chips prices are expected to decline in 2010**

There has been no indication from the US Senate regarding an extension of the black liquor tax credit beyond the original closing date of December 31, so from January 1, 2010 many pulp companies in the US can no longer rely on a tax credit worth US\$125-200/ton of pulp produced. Had it not been for the tax credit, it is likely that wood fiber costs would have been lower in many regions of the US in the 4Q.

Demand for wood chips and pulpwood is likely to decline in the 1Q/2010, and wood fiber costs can be expected to decline in some markets.

#### **Pulplog prices were up 5-10% in the 4Q because of tight supply of residual chips and wet weather conditions**

Wood chip prices were flat in most regions of North America in the 4Q, but roundwood prices were higher as the result of limited supply of both sawmill residuals and roundwood. Pulplog costs increased in the **US South** this fall because of heavy rain in October and November, which kept loggers out of the woods. In the South Central states, both pine and hardwood pulplog prices were up about ten percent from the 3Q. Despite the recent increases, wood fiber costs in the South are 5-10% lower than a year ago.

The pulp industry in the **Northeast US** is entering the most active harvesting season of the year with adequate inventories of softwood logs and a somewhat tight supply of hardwood pulpwood. As a result, softwood log prices have stayed practically flat from the previous quarter while mixed hardwood prices were up about 10% in the 4Q.

Pellet mills in the Northeast, which are oriented towards the domestic market, are not operating at capacity. Most biomass plants are only producing pellets required for their core contracts.

In **Canada**, wood prices did not change much in Canadian dollar terms but were up about five percent in US dollar terms as the result of a strengthening Canadian dollar.

#### **Prices for softwood chips exported to Japan 2H/09 (US\$/BDU, FOB):**

Douglas-fir, U.S.	\$133.50	133.50 (2Q/09)
SPF, Canada	150	162 (1H/09)
Pine, Australia	\$140-150	140-150 (1H/09)



## North American Biomass Market Update December 2009

### Will the new federal scheme in the US increase the supply of biomass?

The Biomass Crop Assistance Program (BCAP), the new federal program in the US that is intended to increase the usage of renewable energy by covering some of the costs related to the collection of woody biomass and agricultural residues, has been in effect for a few months and has created much interest, as well as confusion, within the forest industry.

As of December 15th, it was not yet determined how much funding the program will have for the entire 2010. So far, \$517 million has been allocated for the period January 1 through March 31, 2010. Other questions include: will the program be extended after two years, which biomass categories (e.g. black liquor) will be eligible, and how wood fiber costs for pulp mills and composite board mills may be impacted.

There have been loud protests from pulp and composite board industry organizations in both North America and Europe who are concerned that the BCAP will unfairly favor US energy companies and that sawdust and wood chip costs will go up as the result of the program. With the first payments from the government being distributed in mid-December, it is still too early to conclude how much the biomass energy subsidy will impact prices for wood chips, shavings, sawdust and hog fuel in the coming months.

### Over 300 conversion plants have qualified for the BCAP

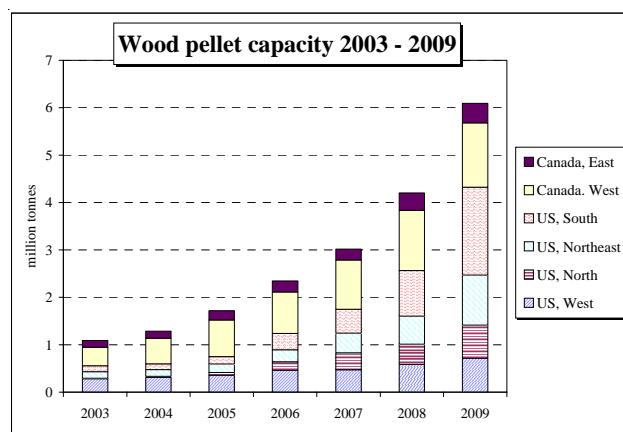
The BCAP program is available for producers/sellers of biomass for a period of two years, and both the seller and the conversion facility have to apply to participate in the program. As of December 15, 2009, 306 conversion facilities had qualified. A majority of the registered facilities are located in the US South (37%) and on the West coast (27%).

At this point, it seems unlikely that the BCAP program will have anything near the impact that the black liquor tax credit has had (an estimated 8-9 billion dollars was transferred to the US pulp industry).

It may very well be that in the end, the BCAP program will not add as much biomass to the market as was intended. In fact, most of the biomass supply that will enter the market in the coming years would likely have been available even without the subsidy. The only difference is that biomass consumer may benefit from lower fiber costs and suppliers will increase their profits from the sales of forest and agricultural residues.

### Wood pellet capacity in North America will reach over 6 million tons in 2009

There has been a rapid expansion in wood pellet capacity in North America the past five years, from just over one million tons in 2003 to over six million tons in 2009, according to a recent report from the USDA Forest Service (USDA-FS). British Columbia was the first region to take advantage of inexpensive sawmill residues and to produce wood pellets for a fast growing European market (see graph).



Capacity in the western province of Canada has not grown much the past few years, so in 2009, it is likely that the US South will take over as the leading pellet-

## North American Biomass Market Update December 2009

producing region in North America. Much of the investments in pellet capacity in the US South have been driven by the export market in Europe. On the other hand, the second largest producing region in North America, the Western US, has so far only sold pellets into the domestic market.

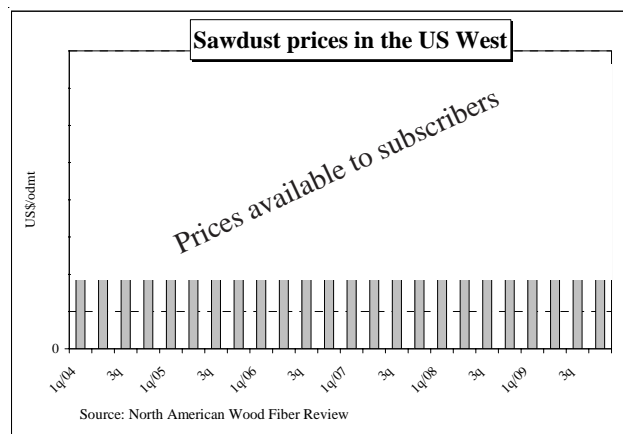
In 2004, the pellet industry was practically nonexistent in the US South, but this sector has grown and will reach a capacity of almost two million tons in 2009. Although these capacity numbers may sound impressive, the actual operating rates have been surprisingly low both in the US and Canada. In 2008, production was at about 66% of capacity in the US and 81% of capacity in Canada, estimates USDA-FS. The major reasons for the low rates have included start-up problems for newly built plants, financial difficulties for some companies, low prices of fossil fuels and a lack of affordable wood fiber supply.

### **Sawdust prices have increased substantially the past five years because of the rapid expansion of wood pellet capacity**

Another aspect of the emerging pellet mill industry is its narrow interest in sawdust as a preferred ready-made processed material. As the USDA-FS report indicates, nearly 70% of fiber used is sawdust, but a switch to other fiber sources, even pulp quality chips, is not always simple or cost effective, as the chips must be reprocessed into suitable size and form. With increased demand for wood fiber, pellet manufacturers have increasingly had to accept higher-cost wood fiber sources than the commonly used sawdust from local sawmills.

More pellet companies are now using wood chips that traditionally had been used by the pulp industry. Prices for wood chips, sawdust and woody biomass have tended to go up in many local markets of the US the past year, partly as a result of expansion in the biomass sector.

In the US Northwest, sawdust prices have gone up substantially the past five years. In 2004, average sawdust prices were US\$20/odmt as reported by the North American Wood Fiber Review. These prices reached a peak of US\$74/odmt in late 2008 and have since fallen, averaging US\$62/odmt in the 4Q/09. The price increase trend that occurred in the Western US



is likely to be seen in other regions experiencing rapid expansion of their pellet industries.

The currently low prices for both natural gas and oil have reduced the domestic demand for wood pellets in both Canada and the US this winter season, and resulted in high inventories at many plants producing pellets for the residential market. At the same time, slow demand for wood fiber in other market sectors has provided pellet mills somewhat unexpected opportunities to purchase their fiber of choice. As evidence of the volatile and fragile balances in an industry often operating at 55-75% of capacity, the competition for fiber by pellet mills in North America against pulpmills has softened in the 4Q.

Demand for wood pellets will probably increase in 2010 as a result of higher prices for fossil fuels. This predicted development may very well coincide with improved markets for pulp and composite board which could result in tighter wood fiber markets in the later half of next year.





## Global Biomass Market Update December 2009

### **Costs for forest residues are going up in Sweden and energy companies are accepting biomass with higher moisture content**

Demand for renewable energy in the form of woody biomass and wood pellets is steadily increasing in Sweden, both for residential and industrial uses. The higher demand for wood fiber in different forms from the energy companies has resulted in the need to explore new and/or unexpected sources. Forest companies are now starting to extract the entire stump for energy; research has shown that almost 20% of the total fiber in a tree is in the stump that is currently being left after harvest.

As a result of higher demand for biomass, energy companies are also starting to accept green forest residues with high moisture contents, something they never had to use earlier. In the past, forest residues, including branches and tops were left to dry after the trees had been felled both so the needles would fall off and to reduce the moisture of the wood fiber. Unfortunately, energy companies no longer have the luxury to pick and choose their fiber furnish but instead have to accept what is available and make adjustments at the energy plant.

### **Wood pellet prices up 15% in Sweden this year**

Wood pellets prices for the residential market in Sweden have gone up by about 15% in the local currency the past 12 months. Prices were quite stable during 2007 and most of 2008, but they started climbing last fall and they reached a record-high of about US dollars in September this year. Pellet prices were also slightly higher in Germany and Austria in the 3Q in anticipation of increased demand for the winter season.

### **South Korea plans to increase wood pellet consumption to five million tons in 10 years**

The South Korean government is considering an ambitious goal of reducing green house gases by 30% in 2020. As part of that plan, the country will reduce its dependence on fossil fuel (mainly coal) and increase the usage of wood pellets from a very low level to about five million tons of pellets in ten years. Approximately 80% of the future pellet needs are likely to be imported

from other countries in Asia and Oceania. The Korean Forest Service is involved in assisting in the establishments of large plantations overseas and it has already secured 900,000 hectares in nine countries including Indonesia, Cambodia, Vietnam and New Zealand.

### **New plantations established for pellet production in Indonesia**

Indonesia has recently attracted increased attention from energy companies in both Europe and Asia. In October, the government approved construction of a new wood pellet plant with a capacity of 200,000 tons per year to the country's largest private energy company. It is not clear if the pellets will be exported or if most will be consumed domestically. A South Korean company has also received approval for the establishments of plantations, which will produce wood fiber for new wood pellet plants. The production from these plants will be exported to South Korea.

### **Australia - a new supplier of wood pellets to Europe**

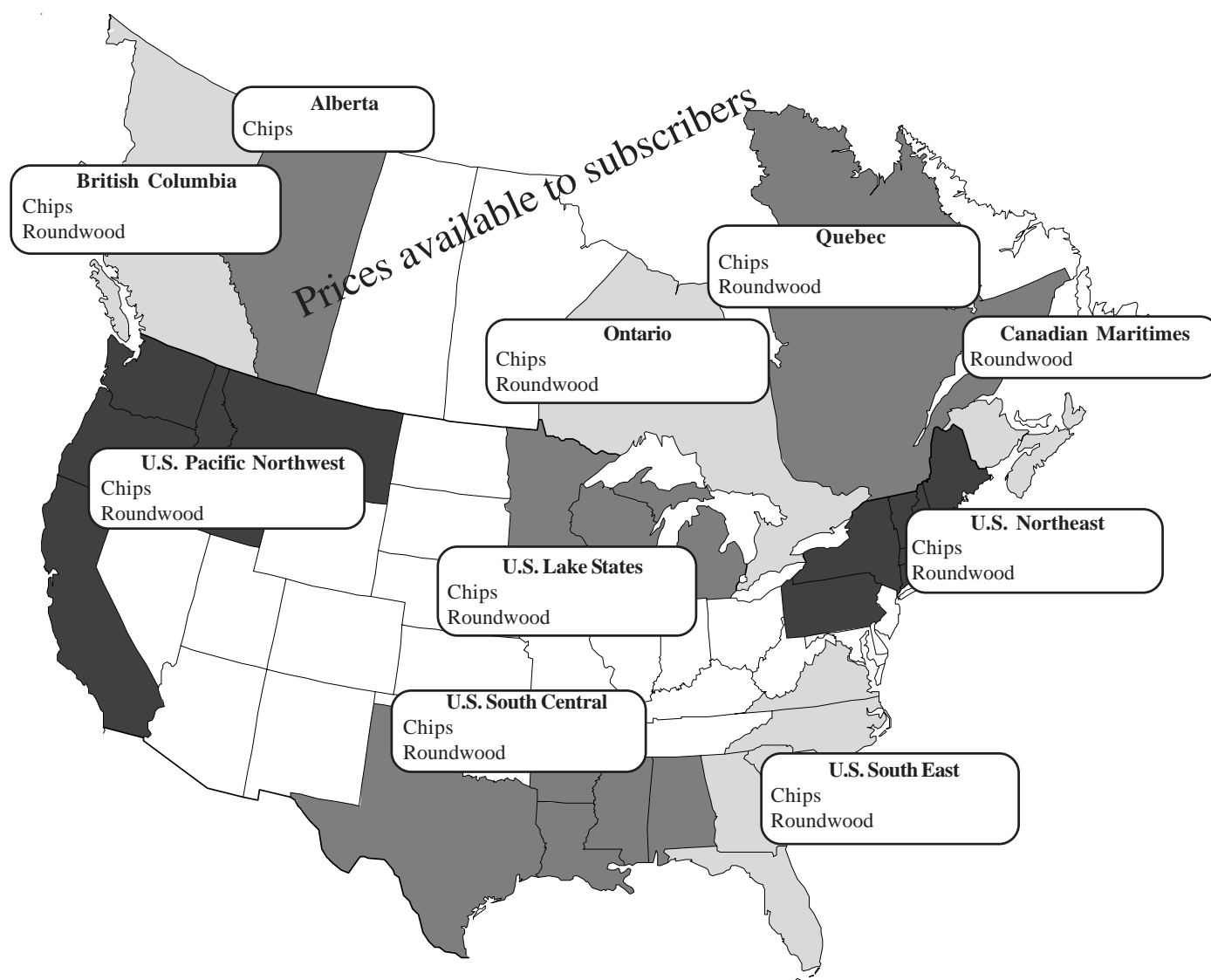
As another sign of how trade in wood pellets and biomass is becoming global, the first shipments of wood pellets from Australia to Europe left the dock in Albany in Western Australia in October. This summer, a new plant with a production capacity of 125,000 tons, the first large-scale wood pellet plant in Australia, was just opened by the Perth-based company Plantation Energy Australia. The company has signed two long-term contracts with energy companies in Europe worth about US\$130 million dollars. The company also has plans to expand capacity to 1.5 million tons in the coming two years with new manufacturing plants in both western and southeastern Australia. In addition to sales into the European market, Australian pellet producers are likely to diversify their exports to Asia in the coming years, including to the South Korean and Japanese markets.

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*For more detailed price and market information for Europe, please refer to our sister publication, the Wood Resource Quarterly.*



## Conifer Wood Fiber Costs in North America Fourth Quarter, 2009



### Notes.

Units in US\$/odmt (delivered). 1 odmt (oven-dry metric ton) equal to 1.102 short tons or 2204 lb

Roundwood prices are delivered to pulpmill or chipping facility

Chip prices are for residual chips and do not include chips manufactured from roundwood

Exchange rate: Can\$ 1.06/US\$ (Average 4Q/2009)

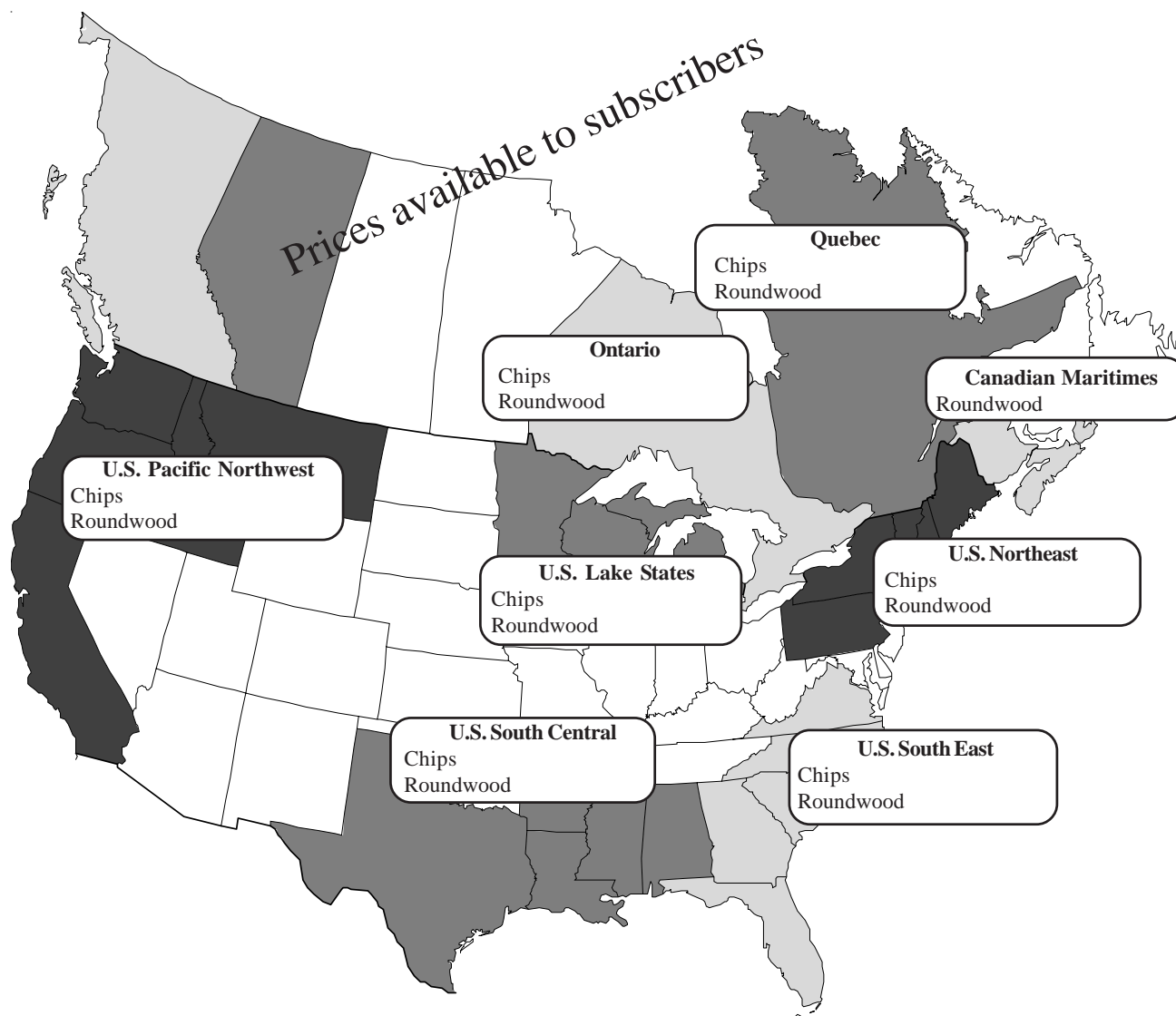
### Sources.

US - Lake States  
All other regions

WRI sources and the Timber Mart-North published by Prentiss & Carlisle Management Co.  
Data collected by Wood Resources International and WRQ sources



## Non-Conifer Wood Fiber Costs in North America Fourth Quarter, 2009



### Notes.

Units in US\$/odmt (delivered). 1 odmt (oven-dry metric ton) equal to 1.102 short tons or 2204 lb

Roundwood prices are delivered to pulpmill or chipping facility

Chip prices are for residual chips and do not include chips manufactured from roundwood

Exchange rate: Can\$ 1.06/US\$ (Average 4Q/2009)

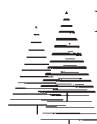
### Sources.

US - Lake States

All other regions

WRI sources and the Timber Mart-North published by Prentiss & Carlisle Management Co.

Data collected by Wood Resources International and WRQ sources



## Wood Fiber Costs in North America

### Fourth Quarter, 2009

#### Wood Chips

Avg      Min    Max  
US\$/odmt (delivered)

#### Roundwood

Avg      Min    Max  
US\$/odmt (delivered)

### Conifer

#### U.S.

Northwest  
Lake States  
Northeast  
South East  
South Central

#### Canada

British Columbia  
Alberta  
Ontario  
Quebec  
Maritimes

Prices available to subscribers

### Non-Conifer

#### U.S.

Northwest  
Lake States  
Northeast  
South East  
South Central

#### Canada

Ontario  
Quebec  
Maritimes

#### Notes.

All prices in US dollars in US\$ /

odmt (oven-dry metric ton). 1 odmt equal to 1.102 short tons (dry weight) or 2204 lb.

Roundwood prices are delivered to pulpmill or chipping facility.

Chip prices are for residual chips and do not include chips manufactured from roundwood.

Exchange rate: Can\$ 1.06/US\$ (average 4Q/2009).

#### Sources.

US - Lake States    WRI sources and the Timber Mart-North published by Prentiss & Carlisle Management Co.

All other regions    Data collected by Wood Resources International and WRQ sources





# Wood Fiber Costs in North America

## 4Q/08 - 4Q/09

	Wood Chips						Roundwood					
	US\$/green tons (delivered)						US\$/green tons ob (delivered)					
	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	Change y/y (%)	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	Change y/y (%)
<b>Conifer</b>												
U.S.												
Northwest												
Lake States												
Northeast												
South East												
South Central												
Canada												
British Columbia												
Alberta												
Ontario												
Quebec												
Maritimes												
<b>Non-Conifer</b>												
U.S.												
Northwest												
Lake States												
Northeast												
South East												
South Central												
Canada												
Ontario												
Quebec												
Maritimes												

Prices available to subscribers

### Notes.

All prices in US dollars per green tons (2000 pounds) or equal to 0.907 metric tonnes.

Roundwood prices are delivered to pulpmill or chipping facility.

Chip prices are for residual chips and do not include chips manufactured from roundwood.

Exchange rate: Can\$ 1.06/US\$ (average 4Q/2009).

### Sources.

US - Lake States

All other regions

WRI sources and the Timber Mart-North published by Prentiss & Carlisle Management Co.

Data collected by Wood Resources International and WRQ sources

## Western U.S. Wood Fiber Market Update December 2009

### Wood fiber demand in the US Northwest reduced by 15% as pulp mills close

The past year has been a very tough year for the pulp and paper industry in the Pacific Northwest. One pulpmill closed earlier this year and another two will close in January 2010. The three in question are Smurfit Stone (Montana), Boise Cascade (Northwest Oregon) and International Paper (Western Oregon). The facilities were deemed non-competitive because of obsolete equipment, product mix, and high wood fiber costs as compared to other facilities within the three companies.

With the closure of the plants, total wood fiber demand in Western US can be expected to be about 15% less next year as compared to this year. In addition, there are likely to be pulp mills that will reduce their consumption of wood fiber and consume more recycled fiber in 2010 as a consequence of the termination of the black liquor tax credit from January 1, 2010. The wood fiber costs will probable be lower for many pulp mills next year both as a result of reduced prices for residual chips and because of lower volumes of the higher cost whole-log chips.

In the 4Q/09, the consumption of whole-log chips reached a record 49% of the total fiber consumption in the Northwest, according the Forest Resource Association's monthly fiber survey. This can be compared to an average roundwood share of 43% last year and 26% three years ago. With the expectation that the supply of residual chips from sawmills will increase and that the wood fiber demand will decline next year, demand for costly roundwood chips will be quite a bit lower in 2010.

### Wood fiber prices stable in the 4Q but substantially lower than a year ago

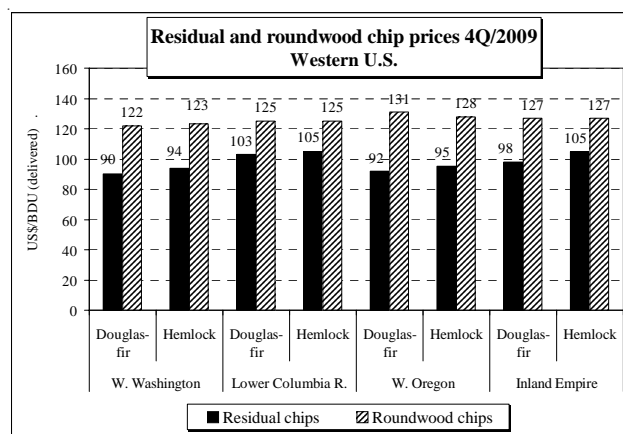
In the 4Q/09, residual chip prices stayed practically flat from the previous quarter, ranging from an average of US\$92/BDU (US\$84/odmt) in Western Wash-

ington to US\$104/BDU (US\$95/odmt) in the Lower Columbia River regions (see graph). Compared to the same quarter last year, prices have fallen between 15-20% in all regions of the US Northwest, except Western Oregon where residual chip prices are down less than five percent.

Prices from roundwood chips are currently \$25-35/BDU (\$22-32/odmt) higher than that of residual chips, which is the lowest price discrepancy in a year. Earlier this year, chips from roundwood were about \$30-40/BDU (\$27-36/odmt) more expensive than residual chips, so consequently any reduction in the use of roundwood chips will positively impact total fiber costs for a pulp manufacturer.

### Unusually high wood fiber inventories this fall

The total inventory of wood chips and roundwood in November this year was, with the exception of last year, at the highest level in 10 years for the month of November. Coming into the fall, there was much uncertainty in the near-term availability of residual chips. This resulted in fairly high deliveries of whole-log chips to the pulp mills as they wanted to ensure secure sufficient supply for the winter season. With many sawmills in the region taking less downtime than anticipated during the fourth quarter, the supply of residuals was higher than planned and fiber inventories climbed faster than expected.



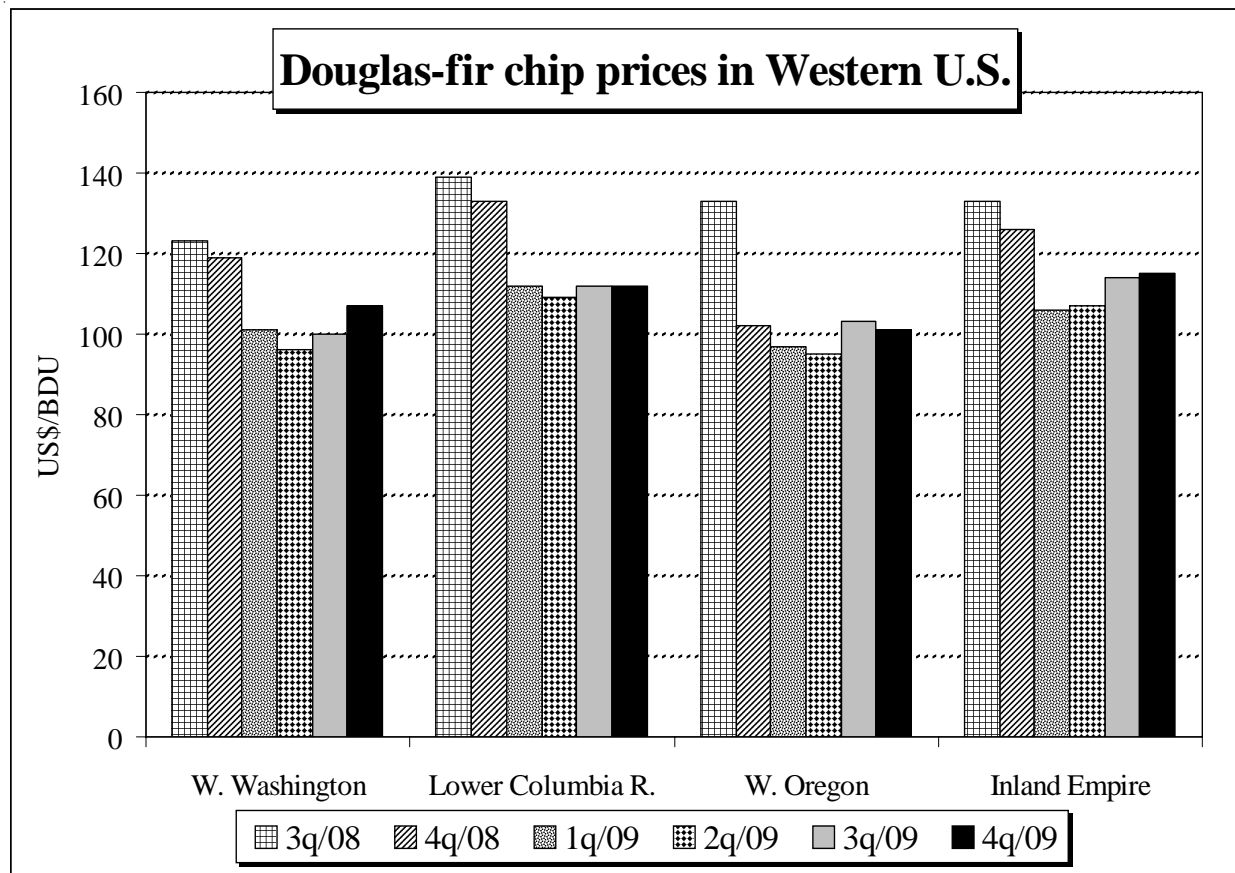
# WOOD CHIP PRICES - Western U.S.

October - December 2009

North American  
Wood Fiber  
Review



	Douglas-Fir		Hemlock		Cedar		Hardwood	
	Ave	Range	Ave	Range	Ave	Range	Ave	Range
<b>Washington</b> Northwest (Puget Sound)	107	75 - 145	110	75 - 150	79	66 - 92	See US West average	
<b>Lower Columbia River</b> (SW WA + NW OR)	112	78 - 150	114	78 - 150	84	69 - 104	See US West average	
<b>Oregon/California</b> (Willamette Valley)	101	78 - 156	100	76 - 156	81	71 - 92	na	
<b>Inland Empire</b> (E. WA, Idaho, Montana)	115	69 - 161	118	69 - 179	na		na	
<b>US West, weighted average</b>	<b>109</b>	<b>69 - 161</b>	<b>112</b>	<b>69 - 179</b>	<b>81</b>	<b>66 - 104</b>	<b>136</b>	<b>102 - 165</b>

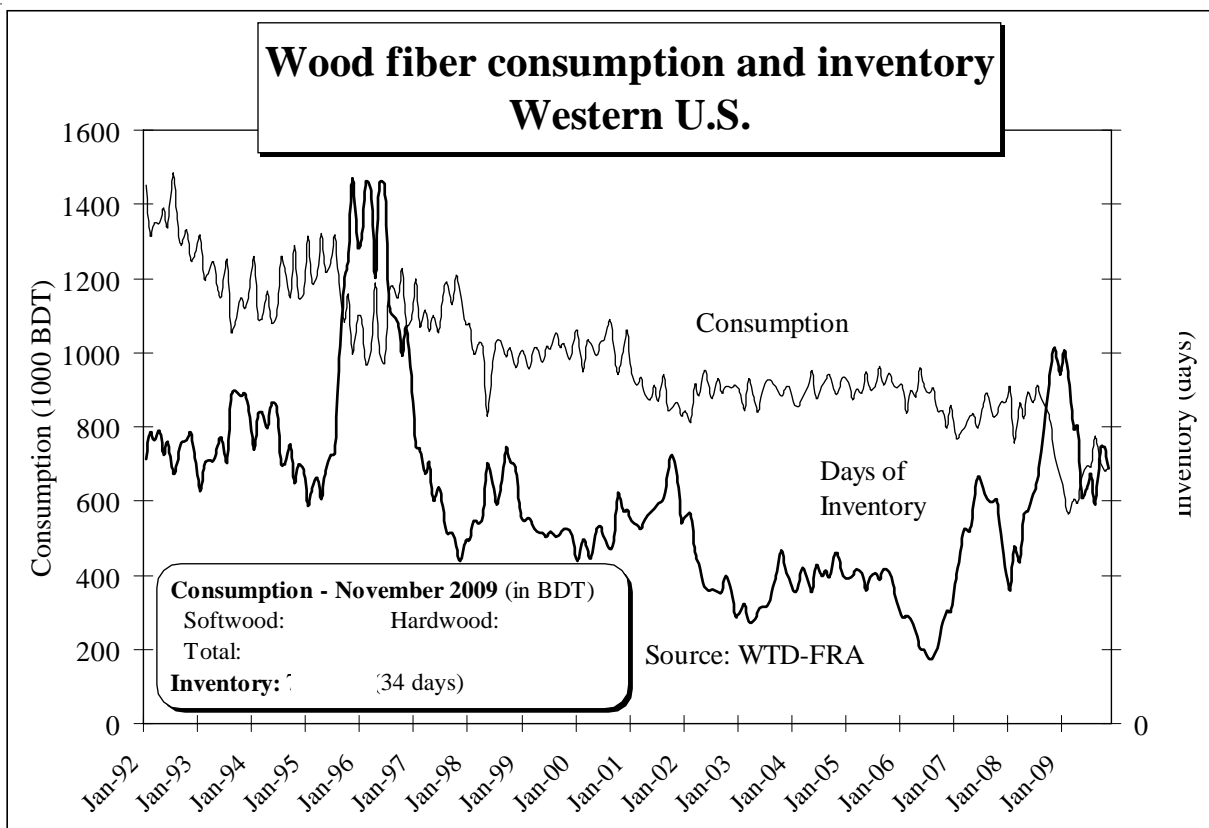
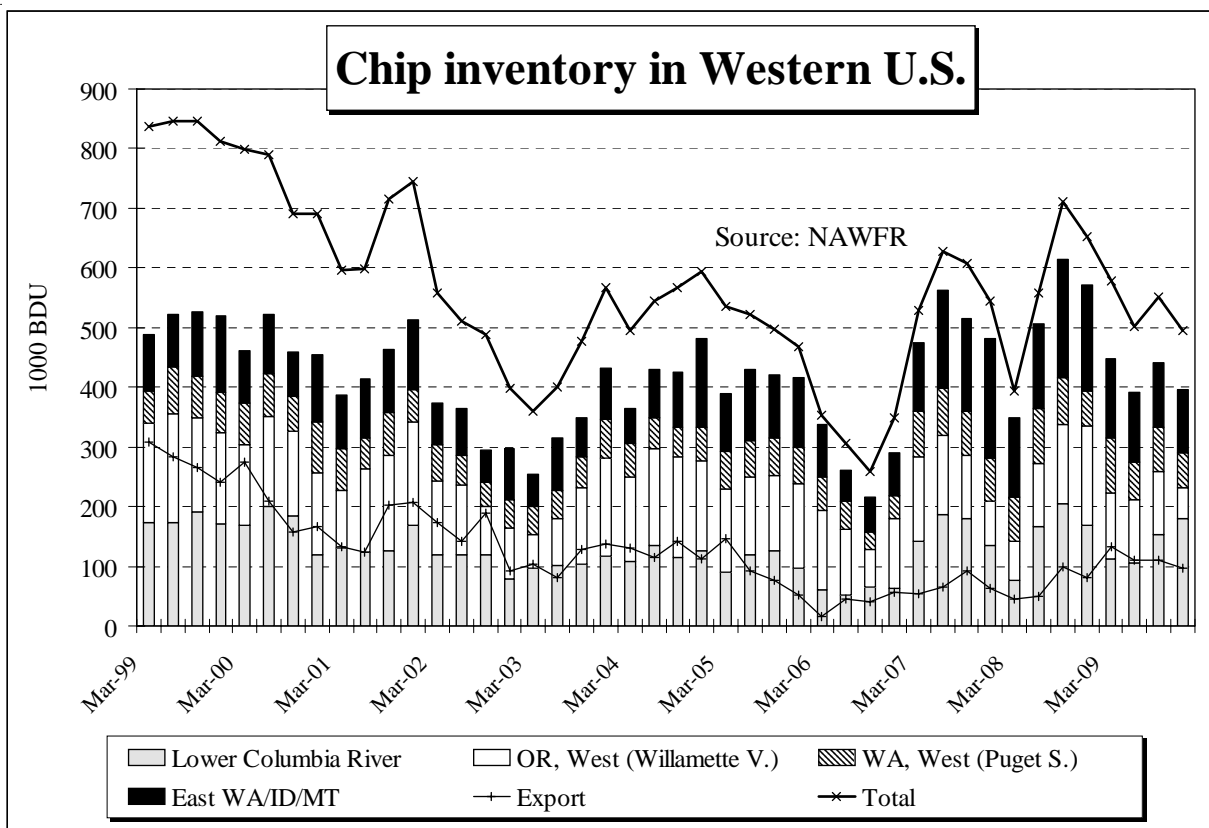
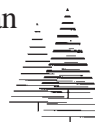


**Notes.** Wood chip prices in above table and graph include both residual chips and chips manufactured from roundwood. Prices are in US\$/BDU delivered to domestic pulpmills. 1 BDU= 2400 lb. = 1.09 metric ton (dry weight), 1 BDU = 1.2 BDT

## WOOD CHIP INVENTORIES - Western U.S.

Company	Location	Dec-08	Mar-09	Jun-09	Sep-09	Dec-09
(1000 BDU)						
<b>Blue Heron Paper Co.</b>	Oregon City, Or	3	2	2	2	1
<b>Boise Cascade Corp.</b>	Wallula, Wa	58	45	40	17	35
<b>Cascade Pacific Pulp LLC</b>	Halsey, Or	40	10	25	32	12
<b>Clearwater Paper Corp.</b>	Lewiston, Id	51	46	33	56	32
<b>Georgia Pacific Corp.</b>	Camas, Wa/Wuana, Or	65	37	13	32	48
	Toledo, Or	24	12	10	20	12
	Coos Bay, Or	4	8	6	1	3
<b>Inland Empire Paper Co.</b>	Spokane, Wa	6	5	1	6	4
<b>International Paper</b>	Albany, Or	70	55	40	32	5
	Springfield, Or	22	20	18	18	20
<b>Kimberly Clark</b>	Everett, Wa	33	25	21	25	30
<b>Longview Fibre Co.</b>	Longview, Wa	47	42	56	94	84
<b>Nippon Paper Industries</b>	Port Angeles, Wa	1	1	1	1	1
<b>Oregon Chip Terminal</b>	Coos Bay, Or	41	42	40	46	32
<b>Ponderay Newsprint Co.</b>	Usk, Wa	4	3	3	2	3
<b>Port Townsend Paper Corp.</b>	Pt Townsend, Wa	14	7	10	10	3
<b>Roseburg Forest Products</b>	Coos Bay, Or	40	90	70	65	65
<b>Simpson Paper Co.</b>	Tacoma, Wa	11	58	40	37	25
<b>Smurfit-Stone Container</b>	Missoula, Mt	60	30	39	28	32
<b>SP Newsprint Co.</b>	Newberg, Or	3	3	3	0	0
<b>Weyerhaeuser Co.</b>	Longview, Wa	47	33	38	28	47
<b>TOTALS, Western U.S.</b>		<b>653</b>	<b>574</b>	<b>509</b>	<b>552</b>	<b>494</b>
<b>Change Y/Y (%)</b>		20	46	-9	-23	-24

**Note.** Inventories in the above table include both wood chips and sawdust.



**Note.** 1 BDT=2000 Lb= 0.907 odmt

1 BDU = 1.20 BDT





### UTILITY LOG PRICES - Western U.S.

October - December 2009

	<b>Douglas-fir</b>		<b>Hem-fir</b>		<b>Hardwood</b>	
	Ave	Range	Ave	Range	Ave	Range
<b>Washington, West</b>	30	24-34	29	22-34	30	25-35
<b>Lower Columbia River</b> (SW WA + NW OR)	28	25-34	31	27-34	34	30-40
<b>Oregon, West</b>	32	26-38	32	26-38	37	32-42
<b>Inland Empire</b>	36	25-48	36	25-48	.....	.....
<b>Weighted Average</b>	<b>31</b>	<b>(24-48)</b>	<b>32</b>	<b>(22-48)</b>	<b>33</b>	<b>(25-42)</b>

### SAWMILL RESIDUE PRICES - Western U.S.

October - December 2009

	<b>Shavings</b>		<b>Sawdust</b>		<b>Hog fuel</b>	
	Ave	Range	Ave	Range	Ave	Range
US\$/BDT (delivered)						
<b>Washington, West</b>	.....	.....	66	36-74	37	25-58
<b>Lower Colombia River</b> (SW WA + NW OR)	.....	.....	61	46-78	38	13-60
<b>Oregon, West</b>	62	46-78	60	44-80	32	13-60
<b>California</b>	.....	.....	.....	.....	44	28-56
<b>Inland Empire</b>	61	40-80	57	30-88	49	25-70
<b>Weighted Average</b>	<b>61</b>	<b>(40-80)</b>	<b>60</b>	<b>(30-88)</b>	<b>42</b>	<b>(13-70)</b>

**Note.** Prices are in dollars per BDT (eq. 2000 lb or 0.907 metric ton)



## Canadian Wood Fiber Market Update December 2009

### Good and bad news about pulp mills in British Columbia in the 4Q

Tembec decided to resume operations at their pulp-mill in Chetwynd, which lies in the northeast corner of the province, in January 2010. The CTMP mill, which has been down since February this year due to weak pulp markets, consumes only aspen logs and therefore does not compete for wood raw-material with any other pulp mills in British Columbia or Alberta.

The West Fraser Timber Company has announced the closure of its pulp and paper mill in Kitimat on January 31, 2010. The mill is located on the north coast and produces linerboard and kraft paper, both product segments that have experienced substantial price cuts the past few years.

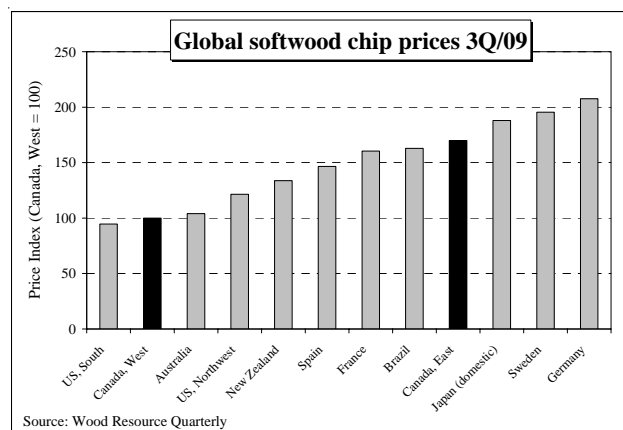
Historically, the plant has consumed mostly low-cost sawmill residue. However, as nearby sawmills are projected to reduce production capacity, the forest company was faced with the rather bleak situation of being forced to consume more expensive chip from roundwood to produce low-grade paper products.

With the closure of the Kitimat plant, other pulp mills in Prince George and Quesnel will be able to utilize to procure larger volumes of residual chips and will thus be able to avoid using high cost chips from roundwood, which will reduce their total fiber costs in 2010.

### Wood chip prices in British Columbia close to the lowest in the world

Residual chip prices in British Columbia have increased slightly in US dollar terms the past three quarter both as a result of higher market pulp prices to which they often are linked, and due to a stronger Canadian dollar. Earlier this year, BC chip prices were at their lowest point in over three years. With the exception of the US South, BC pulp mills have the lowest wood chip prices of all major pulp-producing regions in the world. For example, as compared to BC, Brazil had 60%

higher prices last quarter, Eastern Canadian price were 70% higher, and prices in Germany and Sweden were about twice as high (see graph).



### Pulp mills in the Eastern provinces are among the least competitive in the world

Wood chips and pullog prices have been very stable in Ontario and Quebec this year (in Canadian dollar terms). Chip prices are typically set on an annual basis and are currently being negotiated for 2010. Expectations are that they will decline by C\$10-20/odmt for next year because of reduced demand and slightly higher supply than this year.

The biggest change this year in the eastern provinces has been the reduced demand for wood fiber because of both temporary and permanent mill closures. With the supply of softwood residual chips being fairly stable the past six months, some pulp mills have had the opportunity to switch from roundwood chips to less costly sawmill chips.

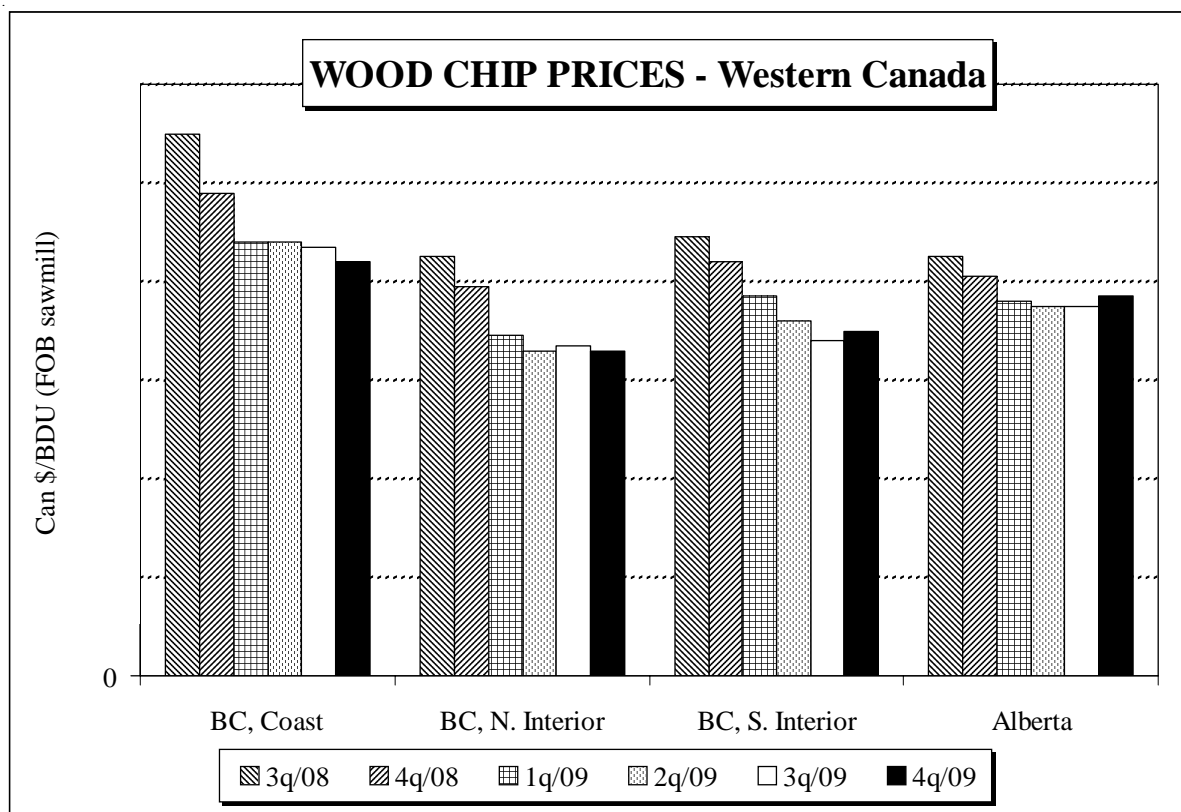
Pulp mills in Eastern Canada continue to have very high wood fiber costs, making them some of the least competitive mills in the world, according to the Viability Index from Fisher International ([www.fisheri.com](http://www.fisheri.com)).



## WOOD FIBER PRICES - Western Canada

### October - December 2009

<b>WOOD CHIP</b>								
Can\$/BDU (FOB sawmill)								
	<b>Douglas-Fir</b>		<b>Hem-fir</b>		<b>Spruce/pine/fir</b>		<b>Cedar</b>	
	Ave	Range	Ave	Range	Ave	Range	Ave	Range
<b>British Columbia</b>								
North Interior	.....		66	59-76	66	59-76	.....	.....
South Interior	60-72		70	62-77	70	62-77	53	48-58
Coast	75-98		89	82-103	.....	.....	60	53-66
<b>Alberta</b>	.....	.....	.....	.....	77	54-103	.....	.....
<b>ROUNDWOOD</b>								
Can\$/m3 ub (delivered)								
<b>British Columbia</b>								
North Interior	.....	.....	32	25-40	32	25-40	.....	.....
South Interior	27	24-29	27	24-29	27	24-29	.....	.....
Coast	30	26-32	40	37-42	.....	.....	.....	.....



#### Notes.

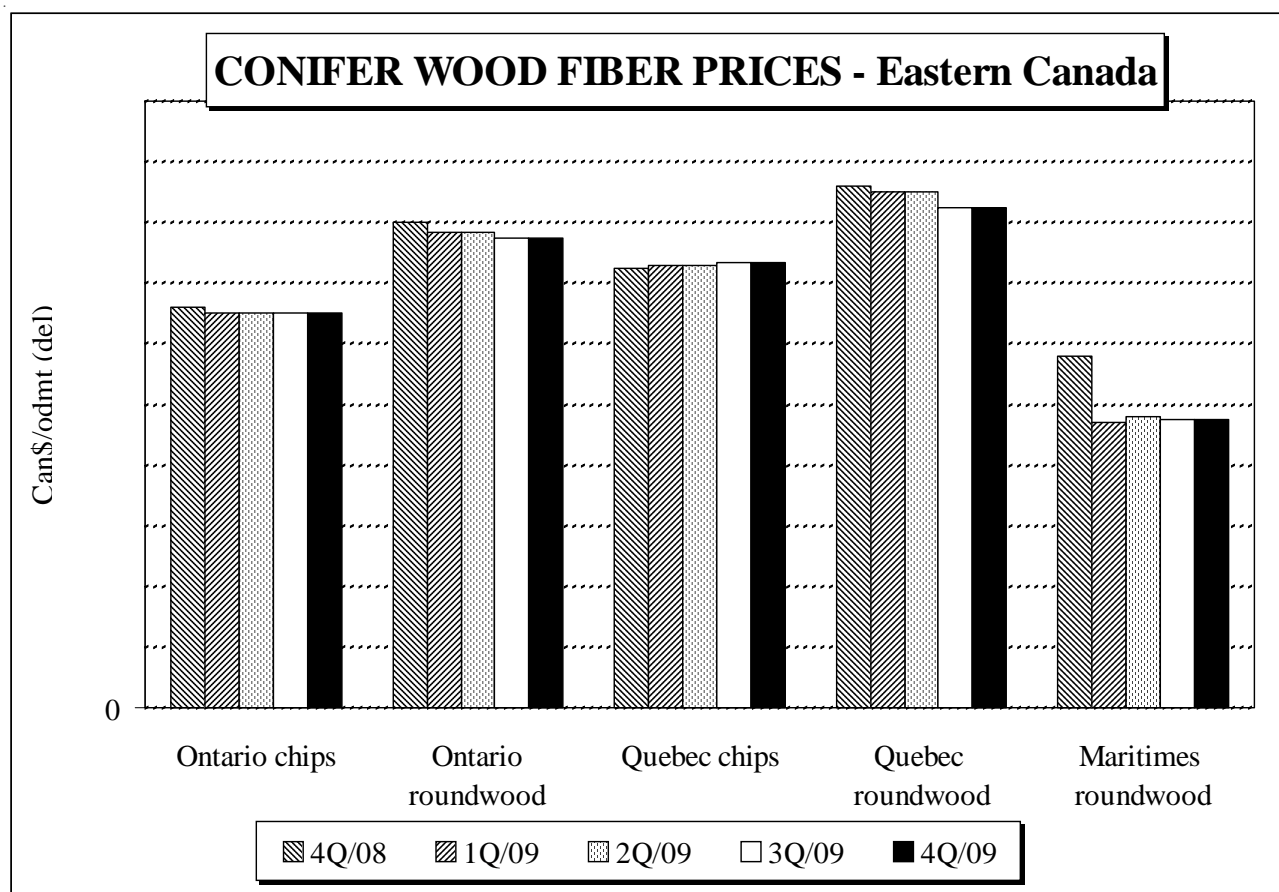
Domestic residual chip prices in Can\$ per BDU at sawmill  
Domestic log prices in Can\$ per m3 (delivered to pulpmill or chipmill)  
1 BDU = 2400 Lb. = 1.09 metric ton (dry weight)  
Exchange rate: Can\$ 1.06/US\$ (Average for 4Q/2009)



## WOOD FIBER PRICES - Eastern Canada

### October - December 2009

	WOOD CHIPS				ROUNDWOOD			
	Can\$/odmt				Can\$/odmt			
	Conifer		Non-conifer		Conifer		Non-conifer	
	Ave	Range	Ave	Range	Ave	Range	Ave	Range
<b>Ontario</b>	130	100-150	82	76-96	155	115-183	92	80-110
<b>Quebec</b>	147	115-170	87	77-100	165	125-188	98	80-114
<b>Maritime Prov.</b>	na	na	na	na	96	65-121	85	69-108



#### Notes.

Domestic residual chip and log prices in Can\$ per odmt (delivered to pulpmill or chip plant)

1 odmt (dry weight) = 1.102 short tons (dry weight) = 2204 lb

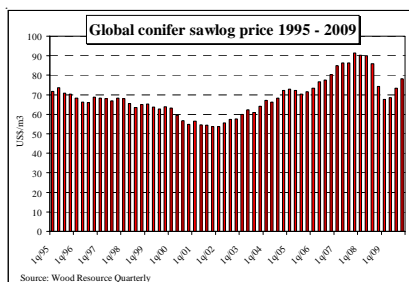
Exchange rate: Can\$ 1.06/US\$ (Average for 4Q/2009)

Sources: Industry contacts and the Wood Resource Quarterly (WRI, LLC)

## The Global Forest Industry this Quarter

### Global saw timber markets

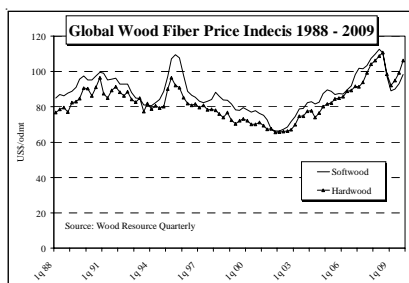
In the 3Q/09, the Global Sawlog Price Index (GSPI) had the highest quarter-to-quarter jump in the 15-year history of the Index. The GSPI, which is based on conifer sawlog prices in 19 key regions worldwide, was US\$73.30/m<sup>3</sup> in the 3Q, up 7.6% from the previous quarter. Much of the increase was because of the weakening of the US dollar against most currencies in the WRQ regions but there were also higher log prices in Europe in the local currencies.



### Global pulpwood price

The average softwood fiber costs for the global pulp industry jumped three dollars per odmt in the 3Q to US\$93.12/odmt. Much of the increase occurred because of the US dollars weakened against all 14 currencies in the countries tracked by the WRQ. The biggest increases were seen in Germany, Brazil, New Zealand and Australia.

Hardwood fiber costs were up \$4.23/odmt, reaching \$99.15/odmt in



the 3Q/09 mainly as a result of higher wood costs in Brazil, Australia, Russia and Sweden. The global average hardwood fiber price is now over six dollars higher than for softwood fiber, a historical first.

### Global pulp markets

World production of market pulp was down 12% the first 8 months this year. The biggest decline occurred in Western Europe.

Latin American pulpmills have increased production by 6% this year mainly as a result of high demand for Eucalyptus pulp in China.

The worldwide operating rate for pulp producers has gone up from 83% to 92% in August.

Softwood pulp prices have gone up faster in Europe than in the US the past six months. The price discrepancy between the US and Europe continued to narrow in the 3Q.

The high demand for hardwood pulp in China has pushed prices close to the same prices as those in the US and Europe in October.

### Global lumber markets

Softwood lumber markets continue to be weak in Japan and the US, while they have improved in Europe and surprisingly, northern Africa.

With the increase in demand from the export market, lumber prices in the Nordic countries have gone up by over 20% in four months.

During the first eight months, production in Japan was 15% lower than last year, and it is not expected

that there will be much improvement in the 4Q.

**China** is consuming record-volumes of lumber this year and the country's thirst for lumber has not only been met by higher production at the country's sawmills, but also from an increase in the importation of lumber. China will import more lumber than Japan in 2009, a historical first.

The **US** lumber market improved for a short period in June and July. Softwood lumber prices were higher this fall than in the spring when prices reached record lows.

### Global biomass markets

There has been a rapid expansion in wood pellet capacity in North America the past five years, from just over one million tons in 2004 to over six million tons in 2009.

A new federal program in the US, called BCAP, is likely to change the market dynamics for both forest biomass and sawmill residues. The will provide matching payments to the seller to cover the costs for the harvest, collection, storage and transportation of renewable biomass.

Wood pellets prices for the residential market in Sweden have gone up by about 15% in the local currency the past 12 months.

As another sign of how trade in wood pellets and biomass is becoming global, the first shipments of wood pellets from Australia to Europe left the dock in Western Australia in October.





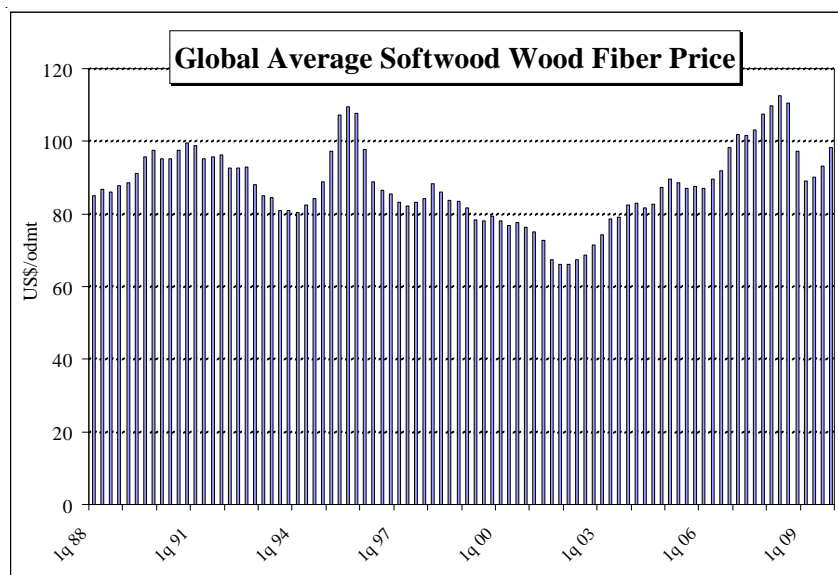
## Wood Resource Quarterly

### Global Average Wood Fiber Price (US\$/odmt)

The average softwood fiber costs for the global pulp industry jumped three dollars per odt in the 3Q to US\$93.12/odmt. Much of the increase occurred because of the US dollars weakened against all 14 currencies in the countries tracked by the WRQ. The biggest increases were seen in Germany, Brazil, New Zealand and Australia.

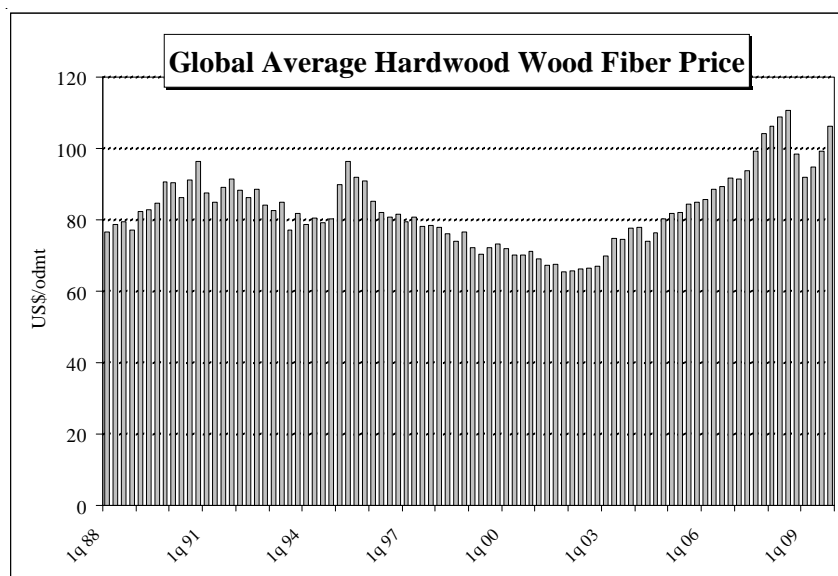
Hardwood fiber costs were up \$4.23/odmt, reaching \$99.15/odmt in the 3Q/09 mainly as a result of higher wood costs in Brazil, Australia, Russia and Sweden. The global average hardwood fiber price is now over six dollars higher than for softwood fiber, a historical first.

**Note.** The Global Average Wood Fiber Price is a weighted average of delivered wood fiber prices for the pulp industry in all regions tracked by the publication **Wood Resource Quarterly**. These regions together account for 85-90% of the world's wood-based pulp production capacity. The price is based on current quarter average prices, and country/regional wood fiber consumption data. The global average for conifer and non-conifer is calculated in nominal US\$ per oven-dried metric ton of wood fiber.



#### Average Softwood Price

1q/2007	101.76
2q	101.57
3q	103.26
4q	107.50
1q/2008	109.67
2q	112.53
3q	110.43
4q	97.32
1q/2009	89.00
2q	90.01
3q	93.12

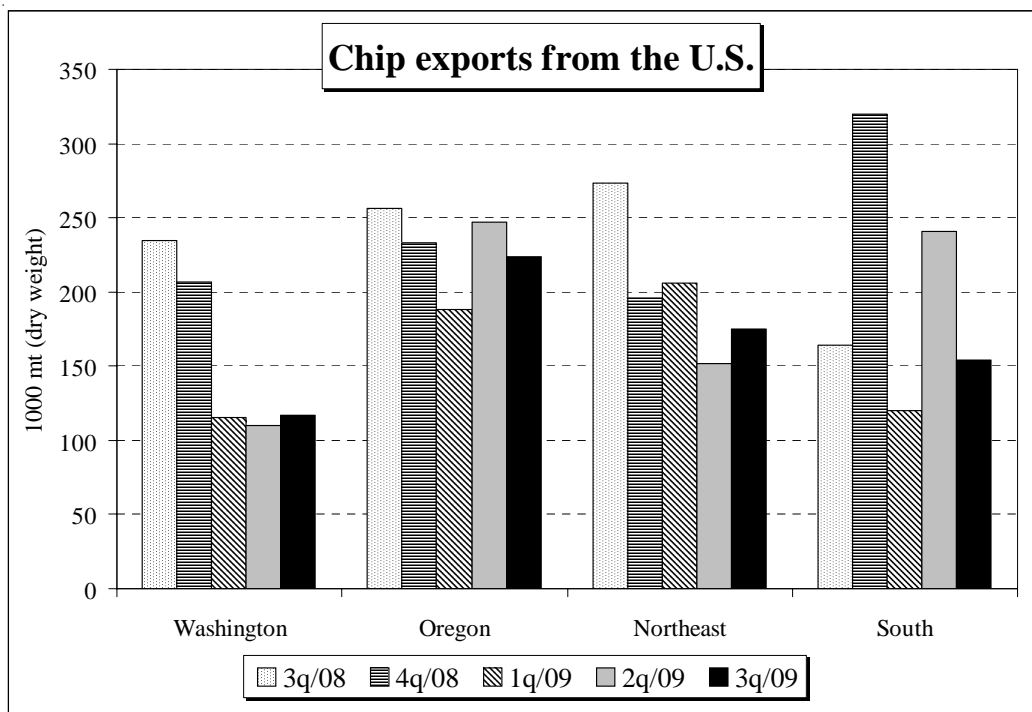


#### Average Hardwood Price

1q/2007	91.47
2q	93.83
3q	99.22
4q	104.17
1q/2008	106.11
2q	108.77
3q	110.71
4q	98.38
1q/2009	91.99
2q	94.92
3q	99.15

## WOOD CHIP EXPORTS United States

3Q 2009	WA	OR	Other West	North	South	Total, U.S.	Change (%)	
							Q/Q	Y/Y
Conifer Chips								
Japan	0	152	0	0	0	152	-38	-41
Canada	110	0	3	84	0	197	28	-52
Other	0	72	0	0	112	184	-6	349
Total	110	224	3	84	112	533	-11	-24
Change Q/Q (%)	0	-9	0	105	-43	-11		
Non-Conifer Chips								
Japan	0	0	0	0	42	42	-7	-66
Canada	1	0	0	91	0	92	-17	-24
Other	0	0	0	0	0	45	0	0
Total	1	0	0	91	42	134	-14	-45
Change Q/Q (%)	na	na	na	-18	-7	-14		
TOTAL	111	224	3	175	154	667	-11	-30
Change Q/Q (%)	1	-9	0	15	-36	-11		

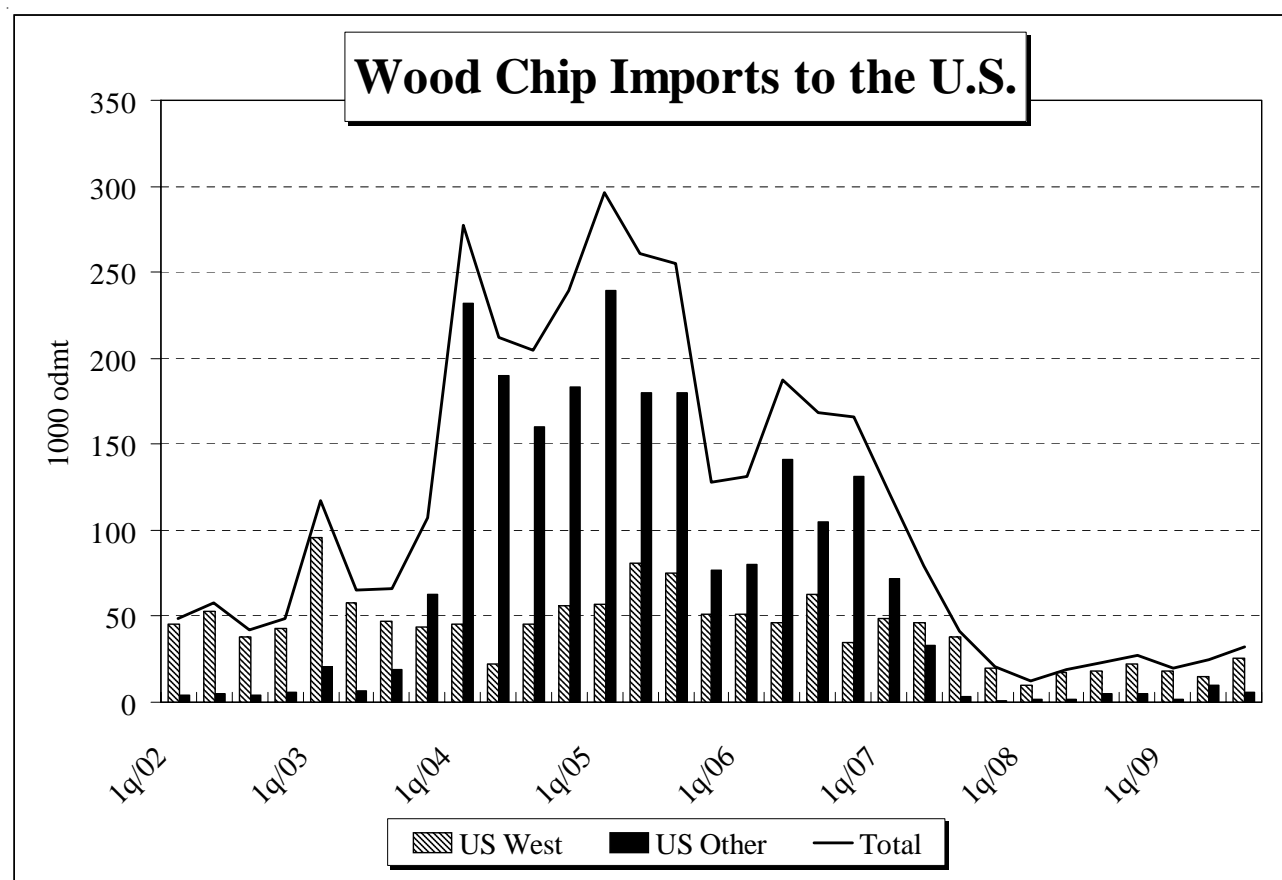




## WOOD CHIP IMPORTS United States

Origin 1000 odmt	1q/08	2q/08	3q/08	4q/08	1q/09	2q/09	3q/09	Change (%)	
Canada, BC	10	17	18	22	18	15	26	73	44
Canada, other	2	2	5	5	2	10	6	-40	20
<b>Total</b>	<b>12</b>	<b>19</b>	<b>23</b>	<b>27</b>	<b>20</b>	<b>25</b>	<b>32</b>	28	39
Change Q/Q (%)	-43	54	24	15	-25	25	28		

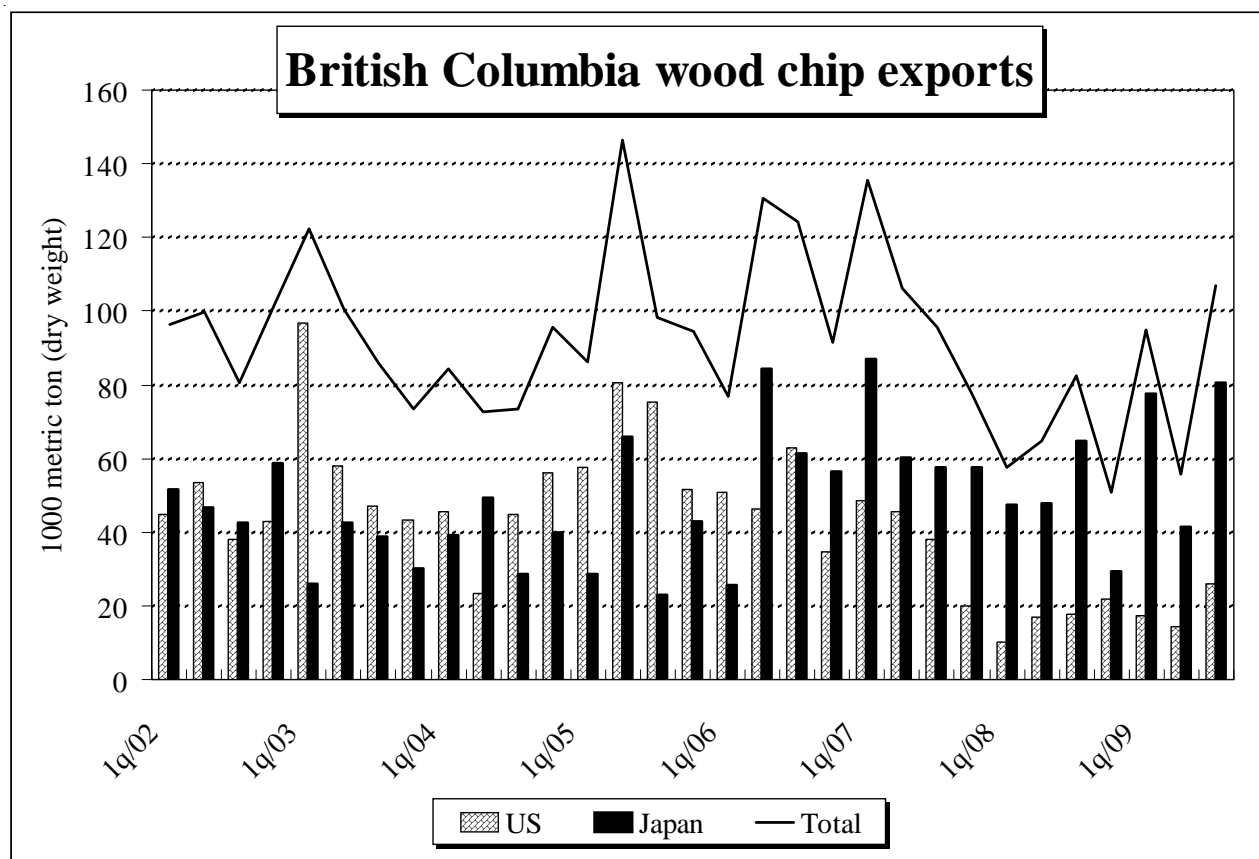
Sources: U.S. Department of Commerce, Statistics Canada and Industry Sources.





## WOOD CHIP EXPORTS Canada

Origin	British Columbia			Other Provinces				Total
1000 odmt								
Destination	U.S.	Japan	Total	US	Turkey	Other	Total	All
3Q/08	18	65	83	5	58	30	93	176
4Q/08	22	29	51	5	28	28	61	112
1Q/09	18	77	95	2	0	0	2	97
2Q/09	15	41	56	10	0	31	41	97
3Q/09	26	81	107	6	0	87	93	200
Change, Q/Q (%)	73	98	91	-40	na	181	127	106
Change, Y/Y (%)	44	25	29	20	-100	190	0	14

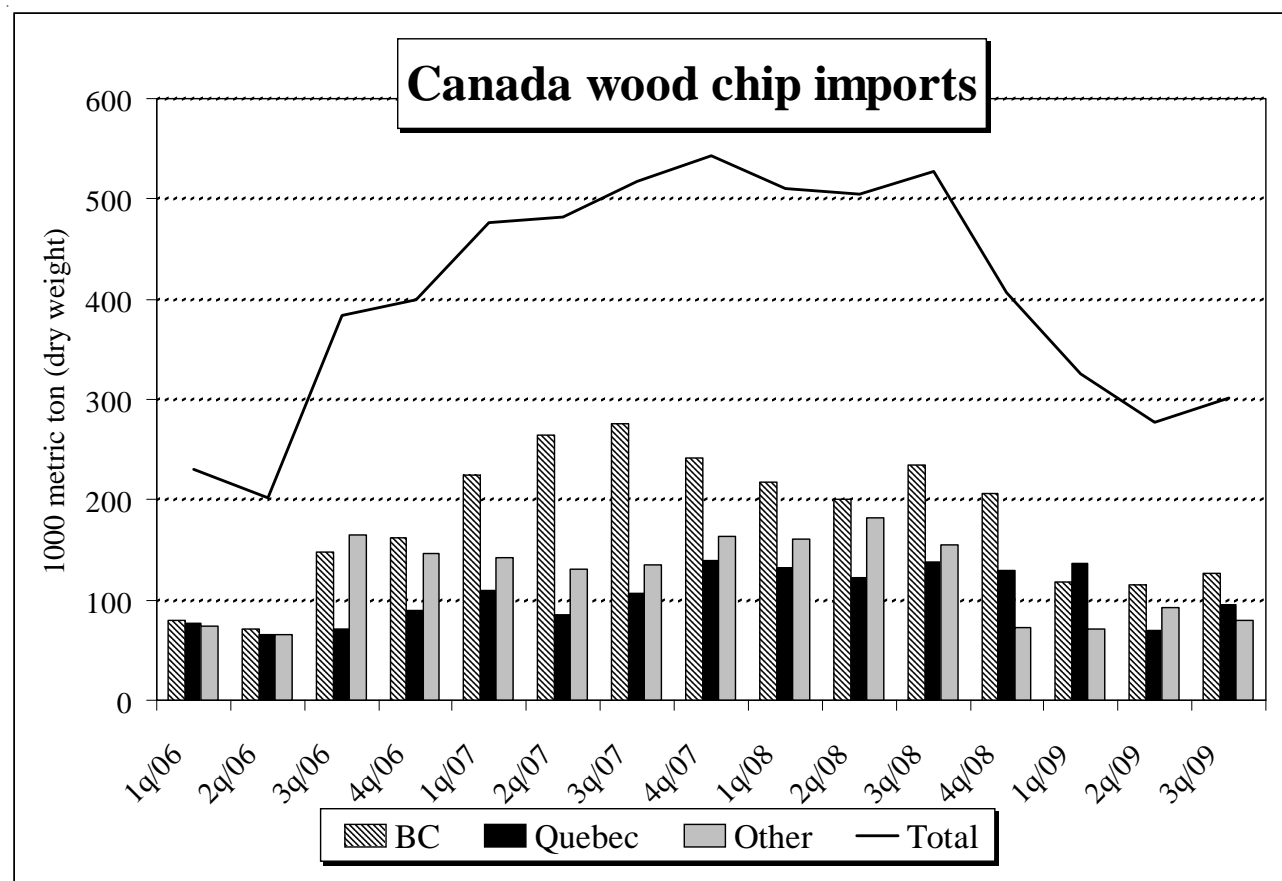


Sources: B.C. Ministry of Forests, Statistics Canada and Industry Sources.



## WOOD CHIP IMPORTS Canada

Destination	British Columbia			Ontario	Quebec	Other	Total
1000 odmt							
Origin	WA	Other	Total	Total	Total	Total	Total
3Q/08	234	21	255	65	138	69	527
4Q/08	206	5	211	37	129	30	407
1Q/09	115	3	118	30	136	41	325
2Q/09	114	2	116	36	69	57	278
3Q/09	116	10	126	33	95	47	301
Change, Q/Q (%)	2	400	9	-8	38	-18	8
Change, Y/Y (%)	-50	-52	-51	-49	-31	-32	-43



Sources: Statistics Canada, B.C. Ministry of Forests and Industry Sources.



## Subscription Information

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