North American Forest Industry

European Forest Week
Metsä 2013
10 December, 2013
Rovaniemi, Finland
Sustainable Forestry in Oregon:

- *Forest Practices Act covering private forests*
- *Resource protection regulations*
- *Species and habitat rules*
- *Reforestation*
Principal timber regions in North America

- Coastal BC
- Interior BC
- Central Canada
- Eastern Canada
- Lake States
- Northeast US
- Southeast US

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Homebuilding and the lumber market
Homebuilding drives North American production

[Bar chart showing housing starts and lumber production from 2003 to 2012. The chart compares housing starts in Canada and the US, as well as softwood lumber production in Canada and the US.]
North American wood products
2012 annual volume

Softwood lumber: 51 BBF, 55% US

Plywood & OSB panels: 28 BSF, 71% US

Glu-lam beams: 226 MMBF

I-joists: 556 MMLF

US produces 73% of NA engineered wood

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US 2011 timber harvest
300 MM M³

Douglas fir and pine forests in western US account for 45% of lumber, and 40% of plywood panel industry. Access to domestic and Asian markets. Harvesting is greatly constrained in Federal Forests.

Fast growing Southern pine plantations with low operating costs. 50% of US softwood lumber production, pine and hardwoods used for pulpwood and OSB panels. Abundant private saw timber supply will support growth in lumber production.

Lake States and Northeast forests predominantly hardwood with some softwoods. Large pulp and paper, lumber and OSB panel production. Forest ownership industry and small landowner.
US regional forest ownership

Western US forests: 147 million hectares
- 69% Private forests
- 31% Gov't forests

Eastern US forests: 156 million hectares
- 83% Private forests
- 17% Gov't forests
Forest resources in the Western US

Source: State Forestry Div & AFRC
U.S. National forests in crisis:
Timber Sold vs. Fire Trends

Volume of Timber Sold (MBF) | Wildfires (Acres)
---|---
1990 | 2,000,000
1995 | 4,000,000
2000 | 6,000,000
2005 | 8,000,000
2010 | 10,000,000

Courtesy of American Forest Resource Council
Western US federal forests

- National forests include 66 million hectares in the western US
- Over the past two decades management policy has been driven by protection of old forest habitat
- Drought and poor forest health → lightning → wildfire
- Habitat loss of early forest species is widespread
- Less than 25% forest mortality is recovered
- Loss of sawmill and logging infrastructure across the western US places forest health in peril

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Western US production

[Graph showing MBF Volume over years from 2003 to 2012 for US West Softwood Lumber, US West Harvest, and Fiber Consumption.]
US Regional log & lumber price trends

West Coast Douglas fir region = $100 / M³

Southern pine region = $60 / M³
Hardwood industry: 125 million M³ log equivalent in US 2011

- Valuable and productive species
- West: Red Alder
- East: Maple, Oak, Birch
- Cabinets, panels, flooring, molding and furniture
- 1.5 million M³ US exports to China in 2012.
- Red Oak prized by Chinese buyers
- Pulpwood production in eastern US
Canadian harvest and production
2011 Canadian regional timber harvests – 149 MM M³

- BC Interior, 34%
- Eastern Canada, 33%
- Prairie Provinces, 20%
- BC Coast, 13%

Long-term harvests in the BC interior will decline post MPB clean-up

Quebec harvests subject to new regulations, allowable annual cut will decline

BC Coast: delicate balance between log exports, sawmills and costly operations

MPB threat to boreal forests, short-term harvest increase, long-term?

Canadian regional timber harvests – 149 MM M³

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Canada’s long-term harvest trend declining

Source: Canstats
Canadian lumber and panel production

Source: Natural Resources Canada
Canada: a leading lumber exporter

US housing recession and falling US $
Asian forest products exports
China’s appetite for North American wood in 2012

- 4.5 million M³ logs
- 8.7 million M³ lumber
Western US log exports to Asia: perspective

Break bulk shipments only

Source: US Dept of Commerce, State Statistics

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Asian forest products exports

• Most shipments from Pacific Coast ports
• China is a growing market for logs and lumber
• Japanese and South Korean demand is stable but much smaller and more specialized
• US and Canadian lumber manufacturers meet desired export standards for Asian
• Western US and Canadian operators have been prime beneficiaries of China’s surge in growth
• Chinese demand will continue; there will be pricing tension as US homebuilding rebounds
North American pulp & paper industry
US Pulp & paper: regional fiber sources differ

- **Pacific Northwest**
  - Whole log %
  - Residual %

- **US South**
  - Whole log %
  - Residual %

- **US Northeast and Lake States**
  - Whole log %
  - Residual %

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US regional wood chip cost

Chip cost per BDT

South
Northwest
Midwest

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North American pulp and paper

- Container board, packaging and consumer products are a healthy business and will improve with economic rebound
- US & Canada are the 2nd & 3rd ranked wood pulp exporters to China
- Demand is waning for newsprint and writing paper
- Northern hardwood pulpwood is high cost fiber, putting pressure on mills in the region
- Closure of older, less efficient, high cost mills across North America
- Improved volumes of Pacific Northwest residual wood chips and pulpwood will cap regional fiber prices
- Southern US industry is efficient, has ample raw material, makes desirable products and well positioned for NA and worldwide export

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Wood fuels and energy
Bio mass wood energy

• Forest bio mass material is generally underutilized in North America; some areas in the US South as high as 30%
• Burning wood biomass to generate electricity is common in the NE region of US
• Western US biomass wood energy is mostly limited to co-generation for process heat and power
• Inexpensive power rates and natural gas challenge western US development of bio mass
• Abundant forest by-products are available in the western US, economics of collection and transportation are difficult
• Forest owners are very interested in the promotion of bio-fuels, but presently production is limited
• Canada and Southern US are major wood pellet producers for export to EU
• China and South Korean market potential for Pacific coast pellets
• As demand and price for wood energy improve, much more material will be recovered and utilized
Principal Suppliers of Wood Pellets to EU (1000 MT)
Concluding thoughts:

• US housing starts will reach 1.2 to 1.4 million by 2015, stimulating markets
• Significant increases in lumber production are underway to meet domestic housing demand
• Shortage of harvest contractors and limited labor pool for skilled woods and mill workers will distress recovery in all regions!
• China will continue as an important market for North American wood products
• Rising North American demand will challenge China to seek lower cost alternatives
• Western US timber supply is constrained, many producers are not vertically integrated. Western timber markets have benefited greatly from China’s expansion
• Much of Canada will face long-term harvest declines due to pine beetle kill and changes in allowable harvest policy
• US South lumber production and harvests will increase: abundance of timber, many sellers, only a modest gain in log prices. The US South will be the major beneficiary of improved housing
• Container board business will be good, paper for printed communication is declining
• The southern US has an efficient paper industry and sufficient raw material to meet improved demand
• Solid wood and pulp industries in South America have capacity for exports to US and worldwide markets
• Continued EU bio-energy production from coastal regions of the US south, is there potential for Pacific Coast Asian pellet exports?
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- Proprietary transaction level sales and cost data
- Publications

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Gordon Culbertson  
PNW Region Manager

(541) 302-8010  
Gordon.culbertson@forest2market.com

Forest2Market®  
1200 Executive Parkway, Suite 255  
Eugene, Oregon 97401

www.forest2market.com
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