

Forest Industry Circumstances & Trends

Implications For Woodlot Owners

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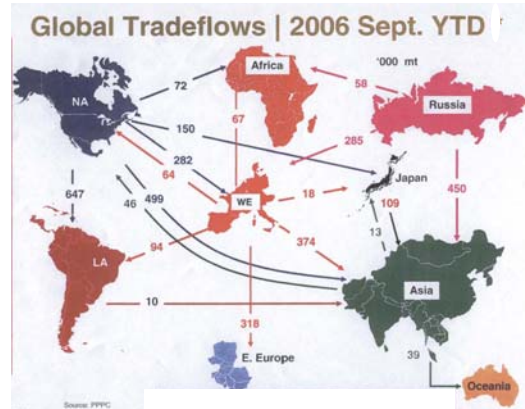


Presentation Overview

- Major Trends In Forest Industries
 - Changing patterns of demand for key products
 - Changing relative values of currencies
 - Changing relative values of energy
- Impacts And Implications For Woodlot Owners And Operators
- Future Directions



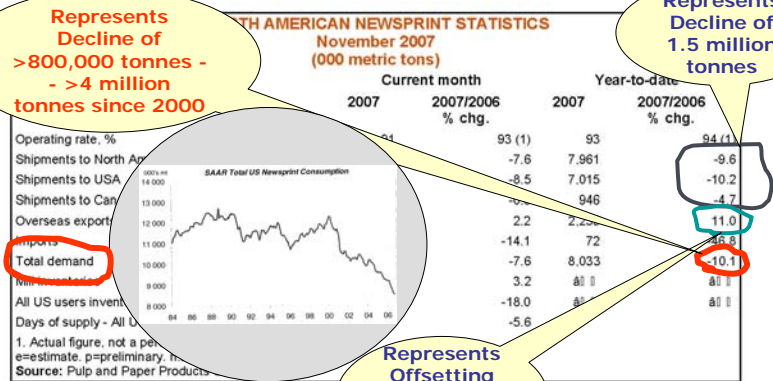
Market Trends - Globalization



Major Trends – Changing Demand / Supply Relationship

- Decline in North American demand for newsprint accelerating – year over year drop now almost 13%
 - Supply continues to exceed demand
 - \cong 1 million tonnes of excess supply in North America
- NA Newsprint price decline > USD 75 / tonne in past 12 - 16 months
 - From peak of USD 650 / tonne summer 2006 to <USD 550 - 575 today
- New newsprint capacity in growing markets – notably Asia
 - Individual machines \cong 440,000 tonnes / yr
 - Most Eastern North American machines in range of 150,000 – 200,000 tonnes / yr
 - Opportunity for NA mills to shift surplus product to those markets constrained
- Newest pulp mills – in South America – >2 million tpy eucalyptus pulp
 - Smooth Rock Falls – recently closed by Tembec – 150,000 – 200,000 tpy NBSK

Market Trends – Changing Demand



Major Trends – Declining Home Starts

- New home construction down by > 20% over past two years
 - Demand for S-P-F lumber down by nearly 20% over two years
 - Average S-P-F price down by approximately 40% past two years
- Renovation spending has remained reasonably buoyant
 - But softening US economy likely to lead to declines
- Sub-prime mortgage 'rate resets' - > 1.5 million in 2008
 - Another 500,000 in 2009
 - Significant percentage will result in foreclosures - increasing inventory of unsold homes
- Optimists look for lumber market recovery late 2009
 - Could easily be well into 2010 before recovery takes hold
- Derivative impacts - mill shut downs, reduced harvesting, lower residual product output

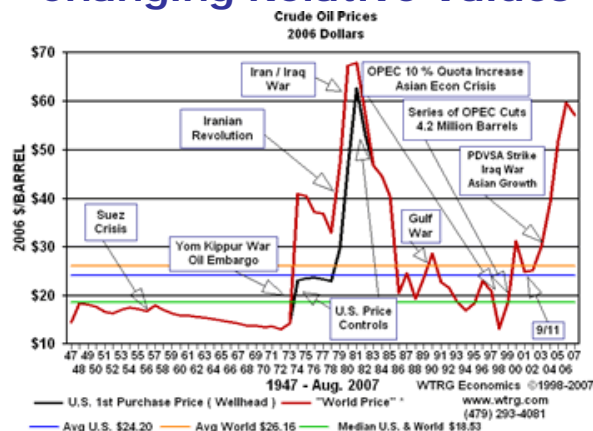
Major Trends – Changing Relative Values

- Currencies –
 - CAD vs. USD – 58.7% increase from low in 2003
 - Revenue loss of \$150 million for typical 400,000 tpy newsprint mill
 - Loss about \$180 million when price impact included
 - Result – mill / machine shutdowns
 - At least two major companies may need bankruptcy protection
 - CAD vs. Other Currencies (eg. £ €) – about 10 – 15% increase
 - Manageable change for producers shipping to those markets
 - However, very large focus / dependency on US market

Major Trends – Changing Relative Values

Hydrocarbons more expensive –
but not as dramatic
as you might think

Change since 2003
in USD 225% – in
CAD 103%



Major Trends – Changing Relative Values

- However –
 - Hydrocarbon prices // GHG emissions impacts driving research on alternative fuels
 - Eg. focus on ethanol
 - Market and other challenges facing conventional forest products driving research into alternative product opportunities
 - Eg. viewing trees / forests as storehouses of chemicals

Impacts – Implications For Woodlots

- Weakness in traditional products /markets results in reduced demand for fibre – reduced harvesting activity and woodlot sales
 - Can be offset by changing situation in adjacent jurisdictions
 - Eg. AAC reduction in Québec mitigated local decline resulting from Cornwall closure
 - But such 'offsets' may not be long term solution
- Fundamental strategic situation – woodlot sales dependent on 'downstream' demand for fibre
 - New products and markets will create new demand // new opportunities

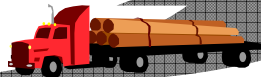
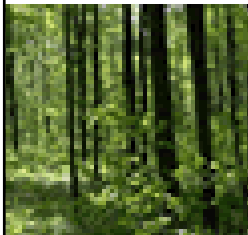
Future Directions - Opportunities

- Understanding value chain key —
 - Wood products supply/value chain connects forest to diverse range of consumer, commercial, and industrial end users



Future Directions - Opportunities

- Intermediaries include —
 - secondary, tertiary processors
 - transportation service providers
 - distribution channels



Future Directions – Opportunities

Where Can Value Be Created?

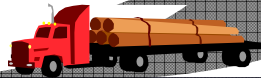


Sustainable management certification presents woodlot operators with unique opportunity to create value in end use markets

Locally, Closer To End Use, Greater Value Increments



Anywhere In Chain



Future Directions – Opportunities



Short rotation, woody biomass species – eg. willow – may represent new 'crop' opportunity



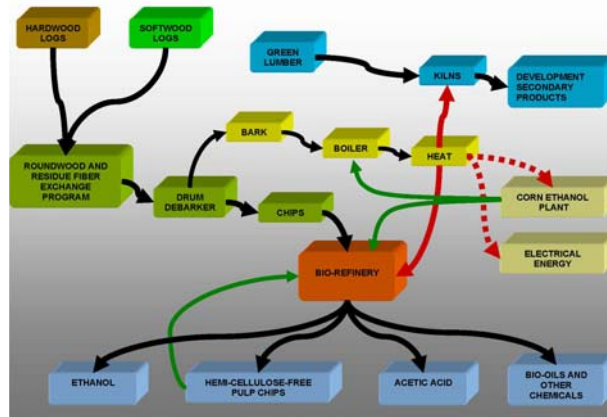
Photos Courtesy of SUNY College of Environmental Science & Forestry – www.esf.edu/willow

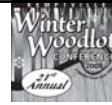
Future Directions – Opportunities

Integrated bio-refinery / biofuels production will almost certainly be part of future opportunities / future demand for woodlot output



Future Directions - Opportunities





Future Directions – Products & Opportunities

Science & Research –
leading to many new opportunities – things that can be made from wood

Acids	Dyes	Gas	Animal Fodder	Explosives
Fabrics	Plastics	Protein supplement	Glues	
Vitamins	Food additives	Resins	Emulsifiers	
Pharmaceuticals	Sugars	Liquid Fuels	Essential Oils	
Toys	Diapers	Furniture	Dietary fibre	
Films	Filter tips	Membranes	Dust control	



Fengel & Wegener, 1984
Courtesy – Dr. Sally Krigston, UoT



Future Directions - Conclusions

- Change in traditional forest industries is fundamental – not just cyclical downturn
- North American producers will have increased difficulty competing in 'commodity' grades
 - Scale needed will be very difficult to achieve
- Time to start thinking about trees as something more than just furnish for pulp and S-P-F lumber
- We need to apply science and technology to –
 - Grow more and better quality trees / fibre
 - Extract significantly higher value from every tree
 - Develop better processing / extraction technologies



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