

Small sawmills respond to changing timber markets

By Brooks C Mendell, PhD and Seth Freeman

Across North America, sawmills continue to grow in size. Larger mills are adding capacity, often at the expense of smaller operations. These smaller mills, many of which are multi-generation family businesses, represent a small portion of total wood demand and consumption, yet provide valuable services in local timber markets.

In addition to participating in the market for wood, small mills satisfy unique needs:

They provide tailored services for custom manufacturing businesses such as woodworkers and cabinet makers.

They fill niches for specific species, such as red oak or cedar, and specific products, such as pallets.

They provide outlet markets for loggers, tree surgeons, and development clearings.

In sum, small sawmills benefit local communities and other businesses, helping consumers as well as larger sawmills that cannot easily handle smaller jobs.

Our wood demand research for the US South confirms findings by Henry Spelter at the US Forest Service: wood consumption continues to rise, but the number of mills operating continues to fall. We summarize two examples of these trends for the

years 2000 through 2005 in Alabama and Georgia (Figures 1 and 2).¹

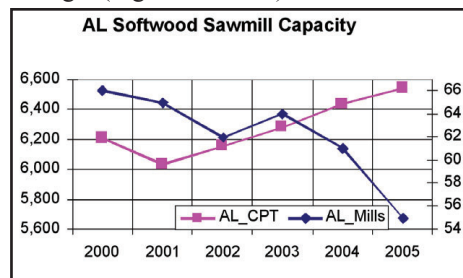


Figure 1. Sawmill capacity and number of sawmills, Alabama 2000-2005

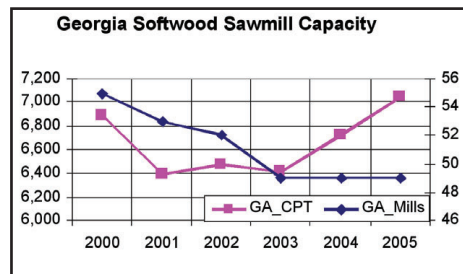


Figure 2. Sawmill capacity and number of sawmills, Georgia 2000-2005

What do the figures tell us? Nearly a dozen mills have closed in Alabama since 2000, including two large industrial operations. In Georgia, at least eight mills closed since 2000, also including two larger

operations. Yet during this time, while the number of small mills declined, wood consumption rose as the remaining mills added capacity.

These trends highlight challenges faced by smaller operations. They must compete with larger firms for wood and, at the same time, manage increased costs of production mostly associated with energy prices. Many long-time mill owners close their operations rather than sell out. We interact with several mills in Southern states that continue to saw lumber simply because they are unable to find buyers for their sawmills.

Smaller operations play an important role in our timber markets. They are a source of market signals and entrepreneurial activity. Local forest businesses and landowners look to these operations for val-

ued services and niche markets. As small mills alter the way they operate, changes are felt throughout the timber markets. Therefore, local forest businesses can better understand their markets by maintaining awareness of these changes.

Dr. Mendell and Mr. Freeman are Principal and Market Coordinator for Forisk Consulting, which provides research and education services for forest businesses and timberland investors. These services focus on understanding timber markets and risk, and forest operations.

Footnotes: Data from Spelter and Alderman. 2005. Profile of softwood sawmills in US and Canada. Available online from the US Forest Service.

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Tolko and Nexterra complete Gasification Plant



Nexterra's president and CEO Jonathan Rhone (left) and Tolko's regional manager Jim Baskerville at the new gasification plant at Heffley Creek, near Kamloops BC.

Tolko Industries Ltd. and Nexterra Energy Corp. have announced they have successfully completed their new gasification project at Tolko's Heffley Creek plywood mill near Kamloops BC. The new "syngas" plant converts wood residue into low-cost, clean, thermal energy, replacing high-cost natural gas and moving this mill closer to energy self-sufficiency. The system will not only save the mill more than \$1.5 million in

annual fuel costs, but will also improve local air quality and reduce Tolko's greenhouse gas emissions by 12,000 tonnes per year. This is equivalent to taking almost 3,000 cars off the road.

"This project underscores Tolko's commitment to investing in technologies that make our mills more energy self-sufficient, and improves our environmental and bottom-line performance," said Jim Baskerville, Tolko's Regional Manager, Veneer and Plywood. "We are very pleased with the Nexterra gasifier system. It is user friendly, simple to operate, and we are working with Nexterra to identify opportunities where we can apply the technology at other Tolko mills."

"This project is a great example of the innovative use of biomass for energy production – a concept we are addressing in the development of a new bioenergy strategy," said Richard Neufeld, BC Minister of Energy, Mines and Petroleum Resources. "In the future, bioenergy will help meet our electricity needs, help create jobs and develop economic opportunities, while also helping to protect our health and environment."

"This is tremendous news for the forest industry," said Jim Dangerfield, Vice-President, Western Region, for Forintek, Canada's Wood Products Research Institute. "Despite progress toward energy self-sufficiency, the industry still consumes billions of dollars of fossil fuel. Switching from natural gas to syngas using Nexterra's gasification technology has the potential for widespread application in the forest industry to reduce reliance on fossil fuels, cut costs and improve competitiveness."

"Tolko is a terrific partner and we will continue to support their goal of becoming energy self-sufficient," said Jonathan Rhone, Nexterra's President and CEO. "This project demonstrates how our technology can help customers regain control of their energy costs by switching to alternative fuels. This concept of an 'inside-the-fence' syngas utility has widespread application in the forest products and other industries as leading companies invest in fuel conversion technologies."

About the Project – In 2005, Tolko partnered with Nexterra to develop the 38 MMBtu/hr gasification system that converts 13,000 bone dry tonnes per year of wood residue into a clean burning, renewable biofuel called syngas. The syngas generated will displace approximately 235,000 GJ (gigajoules) per year of natural gas previously used at the mill to dry veneer and to produce hot water for log conditioning. This is equivalent to the amount of natural gas required to heat approximately 1,900 residential homes in BC.

This project has received financial support and encouragement from the federal and provincial governments including Natural Resources Canada, TEAM (Technology Early Action Measures – a federal interdepartmental technology investment program) and Ethanol BC.

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