Research Update

A Publication from the
Center for Forest Products Marketing and Management
Department of Wood Science and Forest Products
Virginia Polytechnic Institute and State University

April 2005

Editor: Brian Perkins

Evaluating Markets for Small Diameter Timber: A Case Analysis in Northern Mississippi

by:

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Introduction

Small diameter timber (SDT) has emerged as a national problem in the forest products industry due to catastrophic forest fires in the West, increases in imported pulp in the South and high grading in the Central and Eastern U.S. This research evaluated the potential markets for small diameter hardwood and softwood timber resources in Northern Mississippi. Traditionally, SDT has been used primarily as pulpwood in the production of pulp and paper products. However, demand for pulpwood has decreased due to the increase of imported pulp. Exports of paper products from Mississippi decreased 18% between 1999 and 2003, while exports of wood products increased 82% during the same time period[1]. Stumpage prices of softwood pulpwood in the southern region have declined during this period from approximately $10/ton to $6.35/ton currently. Stumpage prices of hardwood pulpwood in the southern region have increased slightly to $5.43/ton[2]. Due to the low prices of small diameter timber, value added products need to be explored so that SDT harvesting is economically feasible.

The combination of weak pulpwood markets and the lack of alternative markets for SDT have led to an increased supply of SDT. In Northern Mississippi it is estimated that timber growth in non-industrial private forests exceeds removals by 750,000 cords per year[3]. Currently there are few value added markets that can utilize the SDT resource (< 9-11" DBH). The objectives of this research were: 1) to explore existing products that can utilize SDT, 2) identify markets in Northern Mississippi that can utilize SDT and 3) identify the viable markets for SDT.

Methods

This research was primarily composed of two sections: a literature review of products that can utilize SDT and phone and in-person interviews with companies in the Northern Mississippi region. Published literature on the utilization of SDT was reviewed and incorporated into a description of each product category. Specifications, grades, and product requirements were obtained from non-profit industry associations.

A database containing manufacturers in northern Mississippi was accessed and a list of wood based manufacturers within 100 miles was compiled. Upholstered furniture and furniture frame manufacturers accounted for 23% and 19% of all manufacturers in the study area. Companies were contacted by phone and interviewed on their utilization of SDT and/or low grade lumber. Questions about low grade lumber were included because SDT will most likely yield this type of lumber. Two companies that indicated that they could use SDT during the initial phone interview were contacted for a follow up interview. A hardwood lumber company and a softwood chip-n-saw treating facility were visited during a field trip to the Northern Mississippi region. Informal discussions on SDT with company representatives were productive. Companies in Memphis, TN, the largest metropolitan closest to the region, were interviewed by phone to ascertain the retail market for products made from SDT. Flooring, fencing, pallet, and lumber companies were interviewed.

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[1]OTEA, 2004. Office of Trade and Economic Analysis. Trade Development, International Trade Administration, U. S. Department of Commerce.
[2]TMS, 2004. Timber Mart-South Market Newsletter. 2nd Quarter. 9(2): 1.
[3]Stuart, B. and L.D. Stewart, 2002. "Inventory Analysis of Northeast Mississippi". Unpublished Research. July.

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Results and Discussion

Thirty three companies (18%) were successfully interviewed. The initial results from this research indicate that potential markets exist for hardwood SDT from Northern Mississippi. These included pallets, furniture frame stock, hardwood flooring, specialty wood products, firewood, and biomass energy. The softwood markets for SDT included posts, landscape timber, fencing, pallets, and rough lumber for local use, specialty wood products and energy.

The hardwood sawmill could use timber with a minimum 7" top diameter. A recently installed ring debarker enables them to use smaller logs (previous minimum top diameter was 10"). The company is concentrating on high production small log processing. All logs pass through a twin band and then are processed into 4/4 lumber by a cant resaw. Half of their lumber is sold for furniture frame stock and the other half is sold for flooring. The company indicated that more hardwood mills will have to utilize smaller logs. The company buys logs by the ton and pays $30 - $35 per ton for cut to length small logs. The softwood mill could use timber with a minimum 6" top diameter. A chip-n-saw enables them to use small logs to produce 4 x 4's and 6 x 6's. The mill treats these small timbers, supplemental larger timbers that it purchases, and fence posts that it sources from Texas with CCA. The company states that the industrial market for CCA treated timbers and posts are good. The chip-n-saw operation is not running at full capacity due to a lack of quality logs within the diameter required. The company buys logs by the ton and pays approximately $36 per ton for small logs.

The retail market in Memphis was examined by visiting retailers such as lumber yards, garden centers, and farm supply centers and by interviewing flooring, fencing, pallet, and lumber companies. One lumber company that was interviewed sold millwork and reported that they had suppliers from all over the country and 2004 was the best sales year in company history. Another company sold SPF lumber, treated lumber and landscape timbers. They indicated that their suppliers were regional in KY and TN and that they sold more 2 x 10, 2 x 8, and 2 x 12 lumber than any other type. In general, pallet companies indicated that the market was competitive and tight. One company indicated that some pallet companies had gone out of business in the past couple of years. Many companies reported that lumber was supplied by regional suppliers in MS, TN, TX, and FL. One company that manufactured crates, skidding, and shipping fixtures imported lumber from South America and Canada. Two fence supply companies were interviewed. One company sold fence posts and boards which were purchased by another office in Dallas, TX. This company reported that there are less fencing companies this year as compared to last year, but that their overall volume remained the same. The other company sold fence posts and cedar fence boards. They are supplied directly from the manufacturer. The company reported that the market was growing but it was a "cheap market". The flooring companies that were interviewed indicated that overall the market for solid oak flooring was good. The companies had local suppliers.

Conclusions

This research indicates that markets exist within northern Mississippi that can utilize SDT. The current markets require no investment in a new processing facility and are proven. They include the OSB, pulp and sawmill markets. The problem with utilizing current markets is that they add little value to the SDT. Further processing could allow SDT into unseasoned wood markets which include products such as green lumber, pallet material, rough fencing, firewood, mulch and other items that don't need to be kiln dried. Development of a business plan and an investment would be required to enter the green wood markets. These markets do add some value to SDT but remain commodity products that are highly competitive. The most value added dry markets would require the largest investment and kiln dried products. These markets would include lumber that could be sold to a number of the traditional secondary wood industry or processing into these products. These markets add the most value to SDT and open opportunities for further value added options. The downside is that it requires a significant investment and risk, but holds the greatest potential to increase the value of SDT to the landowner and logger who must manage and harvest this material.

Research supported by the USDA Forest Service, Forest Products Laboratory in Madison, WI in cooperation with the Northern Mississippi RC&D Council.

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