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Pacific Northwest Hardwoods Capture International Attention: An Analysis of the Washington State Hardwood Industry

Hakan Ekstrom. 1990

Executive Summary

Washington State Hardwood Sawmilling Industry 1990

Hardwood lumber production in Washington grew 93 percent over the period 1980-90. This compares with softwood lumber growth of 24 percent and a national growth rate for hardwood lumber production of just 21 percent over the same period. Hardwood species like red alder, which were until recent years considered undesirable weed species in the softwood forests of the Pacific Northwest, have increased remarkably in value and now provide financial returns as great as softwoods. The low level of historic interest in hardwoods has resulted in limited knowledge about the northwest hardwood resource and Washington state hardwood lumber producers. These facts together with a growing worldwide demand for hardwoods motivated a study by the Center for International Trade in Forest Products (CINTRAFOR) at the University of Washington to understand the changing capabilities of Washington hardwood lumber producers and their markets.

Washington Hardwood Sawmilling Industry

The Washington hardwood sawmilling industry of 1990 was twice as large as in 1982, with direct employment of 850 people. The industry consumes approximately 340 million board feet of timber, of which 75 percent was manufactured into lumber and pallet stock. The remainder was utilized for pulp chips. Washington hardwood production represents almost eight percent of the total lumber production in the state and is over 2.5 times the hardwood production in Oregon. The nine major hardwood sawmills, representing about 98 percent of Washington's total hardwood production, are all located west of the Cascades in rural communities. The primary species used were western red alder (*Alnus rubra* Bong.) and big leaf maple (*Acer macrophyllum* Purch.).

Since most of the raw material for the industry, about 74 percent, was purchased from private timber owners and only one percent from federal timber sales, preservation of northern spotted owl habitat--most prevalent on federal lands--should not substantially impact hardwood timber availability.

Swedish Hardwood Sawmills

The author has also carried out similar research in his home country, Sweden. With a 'mailer production, Sweden has ten times as many hardwood mills, most of which produce the higher-valued secondary manufactured products, used for furniture, parquet flooring, cabinets or mouldings. While the Washington state hardwood sawmills are more quality-oriented than many of their softwood counterparts, they are still far from the value-added manufacturing facilities observed in Sweden.

Hardwood Markets for Washington Sawmills

Hardwood markets do not share the characteristics of softwood commodity markets. Quality and customer service attributes are often more important than price. Mill owners and managers said that the most critical production features were the ability to produce kiln-dried, high quality, accurately graded planed or surfaced lumber. A mill's reputation, its ability to deliver on time, and its personal relationships with its customers were rated more important than competitive pricing and the ability to provide custom orders. Competitive pricing and custom orders were considered more important by a few of the mills, however.

Hardwood markets, growing faster than softwood markets, have also shown greater stability with little change in demand with the boom and bust housing cycle. Alder has been discovered as a valuable species, and will play an increasing role in rural timber-dependent communities. While hardwood chips are also valuable for

pulp and paper production, the higher-valued furniture, cabinet and interior applications, will set the pace for much of the future industry development.

Only about seven percent of the Washington-produced hardwood lumber is utilized by local secondary manufacturers, with almost no secondary manufacturing in local lumber mills. California and Oregon firms consumed large amounts of the lumber, however, and exports take about 36 percent of the volume. The foreign market is very important for the industry, since export customers usually purchase the higher quality products. While Japan is the largest market, recent growth in European markets has been dramatic.

The recognition of alder as an important commercial species has resulted from its increased worldwide use in higher-valued applications. Higher-grade lumber was used mainly for furniture where the wood was visible (21%), and for cabinets (22%). Upholstered furniture (17%) together with pallets (33%) were the principal end products for low-grade hardwood lumber. Small quantities were also used for mouldings, toys, and for the do-it-yourself market.

The increased demand for red alder lumber has influenced its price, especially for the higher grades. Between 1988 and 1990, the price of kiln dried 4/4" lumber of the highest grade increased approximately 25%, from \$766 per thousand board feet (MBF) to \$955 per MBF.

Red Alder Exports from the US

In recent years, Pacific Northwest hardwood species, primarily red alder, have been elevated from positions of relatively low value into commercially important wood species in world trade. Red alder, only processed at Oregon and Washington sawmills, was the number three hardwood lumber export by volume from the United States in 1990, behind the species groups white oak and red oak. In log form alder was the number one hardwood species exported from the U.S. in 1990.

There has been a substantial increase in the export of alder lumber during the last ten years. In 1981 the export trade of alder lumber totaled only two million board feet (MMBF), while ten years later in 1990, the trade had reached 56 MMBF.

The most important single market for alder lumber during the last decade has been Japan, even though its share has been declining recently. The Japanese market accounted for 95 percent of the lumber exported 1981, while in 1990 its share had decreased to 55 percent.

The new and growing market has been in Europe, which now purchases about 25 percent of the alder lumber exported. The main importing countries in Europe are Italy, Germany and France. The total alder export to Europe during 1990 was 13.8 MMBF. While the Washington hardwood sawmills have increased their lumber production by 50 percent since 1985, the export of alder lumber, which predominately originates from Washington State, has increased by almost 700 percent.

Washington Hardwood Supply, Growth and Harvest

The hardwood timber resource in Washington is growing, with the annual cut at about half the annual growth. In the region west of the Cascades, 15 percent of the growing stock on timberland is composed of hardwood species. Red alder was the most common species (67%) and, together with big leaf maple and black cottonwood, accounted for 95 percent of the hardwood volume. In the Southwest region of the state, the annual harvest of hardwoods was 7 MMBF on state lands, which is only ten percent of the total annual growth. This situation is in contrast to forest industry owned land in the same region, where the removal rate is 26 percent higher than the current growth rate. The potential for expansion exists. It may be possible for the Washington State Department of Natural Resources to increase the harvest of hardwoods from the land it administers and become a bigger and more important timber supplier for the hardwood sawmills.

Management of Hardwood Stands

Managing a hardwood stand, whether pure or mixed with conifers, can substantially improve the quality and increase dimension yield. The alder regeneration cycle is shorter than that of softwood species. With intensive management of red alder, which is a fast growing species with good self-pruning, high quality sawlogs and peelers can probably be grown in 28 to 37 years.

It is important to inform forest owners, loggers and contractors about the value of hardwood logs and about the hardwood industry that is prepared to pay for the sawlogs.

If too many hardwood logs are cut and chipped today, the supply of sawlogs will be limited in the future. As this study found, the economics have been rapidly changing, making it pay to grow alder for higher-value markets.

Key Factors for Future Success

There is little doubt that Washington state hardwood sawmills can be successful in the future. It is the opinion of this author that it is necessary to address the following key areas to yield long-term benefits for the companies in this industry:

- * Develop closer contacts with the end user
- * Increase value-added production.
- * Develop a skilled and loyal labor force.
- * Intensify quality control.
- * Increase research and development.
- * Build awareness among forest owners of the value of hardwood.
- * Maintain a secure and stable timber supply.

Future hardwood products

It is important for the sawmills to focus on quality control, to utilize the wood to a higher-degree and to produce a higher valued product than commodity lumber. Lower-grade lumber products, No.1 Shop to No.3 Shop, comprise about 45 percent of the hardwood sawmills production; these grades should be further utilized. No.1 Shop lumber, together with No.2 Shop, which is the most difficult grade to sell today, could be remanufactured for cut stock, edge-glued panels, finger-jointed and edge-glued components.

Most of the mill managers interviewed indicated that the future success of the industry would rely more heavily on value-added products. Another broad area mentioned was the production of more custom-cut products for the furniture and cabinet industries.

Planned investment, however, generally fell in the area of upgrading primary log breakdown facilities, indicating that many mills must concentrate limited investment dollars in more efficiency at the headrig just to keep up with industry standards.

With the cost of capital rated as the second largest production problem next to labor costs, mills will be constrained in their ability to invest in value-added production.

Secondary manufacturing

Most hardwood lumber produced in Washington is leaving the state. Only seven percent of the alder lumber produced is currently utilized by secondary manufacturers in the state (pallet production not included). The volume of hardwood lumber products flowing out of the state for further manufacture may suggest an opportunity for Washington remanufacturers and secondary manufacturers to expand their use of alder and other local hardwood species.

The labor force

To be more competitive, the United States, with higher labor costs than many other countries now producing commodity lumber, should concentrate on manufacturing high-quality products. Low-quality products and "bulk-type" production can be made less expensively in countries that have lower wage structures.

By taking measures to develop a flexible and knowledgeable labor force, performance and recovery rates can be high. The skill level of the labor is particularly important when customers specifications may be more demanding and there are more custom-made products and value-added processes required.

Future markets

Japan is the largest export market for alder lumber today, and will probably continue as a large and important market, although its share of the total alder exports from the U.S. will decrease. The new and expanding market is in Europe, especially Germany, as producers substitute alder and other temperate species for tropical

timber imports, mainly because of policies influenced by the European Green Movement. If sawmills in the Pacific Northwest can deliver high quality lumber and components and follow and analyze customer demand, the European market will be much more important in the future.

Restrictions and Opportunities

Hardwood sawmill managers said that their greatest concern for the future was the timber supply. While currently not a problem for most of the mills, timber quality and availability were foremost on the minds of those in the industry when asked about future critical issues.

Availability of timber is a major concern of the purchasing mills, as much of the hardwood saw timber is a byproduct of softwood timber harvest, and the softwood harvest is expected to decline. State and federal regulations regarding timber supply as well as environmental issues were the top three overall concerns facing mill-owners. Actions by the Washington State Department of Natural Resources with respect to hardwood sales, timber availability, and environmental protection were of great importance to a majority of those interviewed.

Besides the problem of limited investment dollars and the cost of capital, the issue for many local hardwood producers may become how to procure sufficient timber supply to maintain consistent quality and mill production. These are the main restrictions but there are also opportunities for the hardwood sawmills today.

Red alder represents an under-utilized timber resource. It is a fast growing species, it has excellent wood characteristics, and it has a growing demand in domestic and international markets. This all contributes to making red alder a potentially important species for forest owners, for sawmills and for secondary manufacturers in the Pacific Northwest.

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