

From Forest To Flooring

Tour Of Weaber Mill Reveals Importance Of Timber To Pennsylvania Economy

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Agriculture. According to Lyskava, the forest production industry employs 90,000-100,000 individuals in the entire state in three different sectors.

The first sector, lumber, includes logging, sawmills, panels, floorings, log and mobile homes, and moldings. About 1,700 wood-related firms make their home in Pennsylvania and employ 36,000 employees. The second sector, furniture, includes household and furniture plus fixtures. About 17,000 workers are employed in this sector in 500 firms. The paper and paper products sector includes pulp and paper, paperboard, and container boxes. About 400 firms employ 36,000 Pennsylvanians, obviously a very important economic driving force over the entire state. Lancaster hosts the highest number of wood-related establishments in the state, with 176 establishments employing more than 5,000 residents. York, with the Spring Grove paper factory, employs more than 6,000 residents. The top hardwood producer in America, Pennsylvania companies produce 1.1 billion board feet of lumber annually.

If current trends in the timber industry continue, the future is bright for wood-related businesses. With increased concern and emphasis on utilization and sustainability, logging companies are assuring themselves of future supply. "Logs need to be available not only today but years down the road," explained Lyskava.

Pennsylvania forest products actually come from predominantly small, family-run companies harvesting locally-grown trees. "Their ties are not to Wall Street but to Main Street," said Lyskava. "There's a misconception that it's a giant, corporate enterprise instead of a business harvesting locally-grown product with strong ties to the community they serve."

Tom Buzby, Weaber's director of governmental affairs, gave a summary on the Sustainable Forestry Initiative of Pennsylvania (SFI). The organization, a voluntary, effort to preserve trees, is a program of forestry and conservation practices. SFI accomplishes its goals through

educating landowners, training loggers, and providing the public with information on forests.

Through the SFI program landowners receive the latest information on methods for managing forests. To promote sustainable forestry practices, loggers learn skills and proper environmental practices.

In educating the public SFI works to "assure them (the public) that we've got a great forest system managed by skilled people," said Buzby.

Bill Robie, from the Hardwood Lumber Manufacturers Association of Pennsylvania (HLMA), explained how the organization's outreach and education projects. "Project Learning Tree," for example, a national environmental education program, will be distributed to every public school in the state this summer. The program includes a poster, video, and interactive CD ROM along with other materials to help teach schoolchildren about the industry. In addition, HLMA partnered with Penn State to outfit the interior of the university's nearby airport terminal in hardwood, an opportunity to expose people to hardwood products.

The Mill

Matt Weaber, vice president of Weaber and grandson of founder Walter Weaber, led the group on a tour through the mill. The company produces 200 truckloads, or 900,000 square feet of lumber per week of predominantly oak and poplar, species common to the area. The company produces approximately 20,000 board feet per hour.

Weaber gathers the bulk of their wood from a 70-mile radius, a circle which sometimes stretches 150 miles away. This radius reaches into five other states. Since much of this area is agricultural, the company uses a highly-sensitive metal detector to locate the insulators or wire before the log goes in to be sawed.

Inside the mill, the trees are debarked and processed through a headsaw, which slices the logs into a rough, four-sided "cant" that is 8-16 feet long. The bigger pieces recirculate for a recut.

The cut of the cants are dictated by computer but an operator carefully positions the logs before cutting. By keeping an eye on the computer screen and operating the various buttons and pedals, the operator sends the log into the twin bandsaw.

The cuts are sorted by species, length, and width, and graded according to value. Next the planks are dropped into bins along with cuts of similar value. The boards are run through a planer, regraded, and sent through a kiln drying process. Although drying time depends on the thickness and type of wood drying, most wood is dried for about a week to the desired six- to eight- percent moisture content. Three million board feet are in some form of drying at all times in the six kilns and two pre-drying kilns. The boards move to the warehouse, where they are shrink-wrapped for handling efficiency and protection and stacked like vanilla wafers in cellophane along the warehouse wall.

The Trends

"We get 25 percent more out of a log than we did 20 years ago," said Weaber. Part of this efficiency can be attributed to "optimization," where a computer scans the logs to determine the optimum solution for most effective cutting. In addition, the company uses the thinnest blade possible to create less sawdust. The green sawdust that is produced goes to the boilers in the wood-drying kilns on the property and the dry sawdust becomes bedding for area livestock.

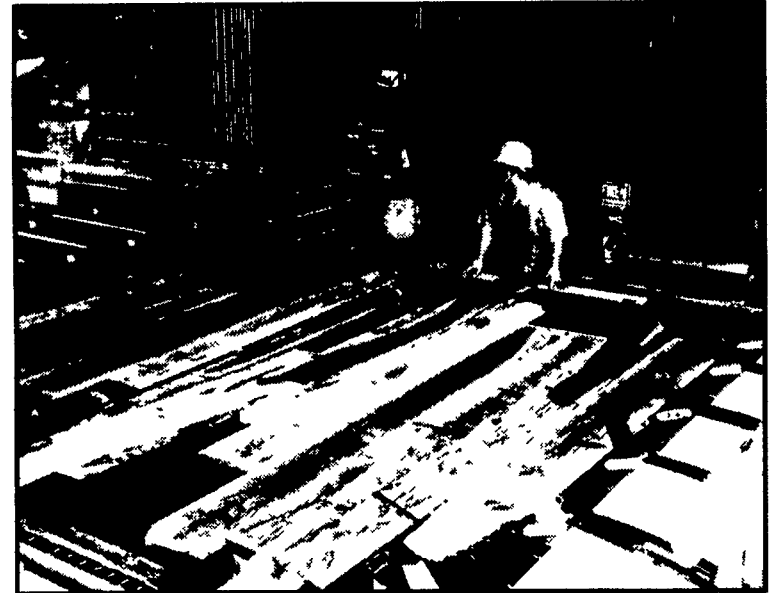
The six truckloads of sawdust produced every week is a number that grows smaller every year, thanks to increased efficiency. Bark, another by-product of the process, is used by area landscapers. The company's short board program utilizes the smaller pieces normally sent to the chopsaw.

To ensure a quality end product, the knots are cut out of the planks. The boards with knots that are two feet or longer move into the short board program, where they are marketed to the do-it-yourself home centers. The lower grade boards go to chopsaws while the boards 18 inches or shorter go to the "finger-jointer." To finger-joint a board, grooves are cut into of the board and the boards are puzzle-pieced together, then glued with a regular wood glue. Next the rough edges are taken off to yield a more paintable product.

"Years ago these boards would have been sawdust, but now we're recovering more wood out of the same log," said Weaber. The finger joint boards are actually stronger and more stable, as they lock each other in place, and the joints allow for greater surface area for glue," said Weaber. Also the boards are typically 40 percent cheaper than other boards of the same size. "For us, it's a value-added product, because it's got more value than sawdust," Weaber said. When the long finger-jointed boards are joined to other finger-jointed boards, they become "edge-jointed," with a hardwood floor appearance. These boards are used for stair skirts or column wraps in home construction.



Bob Stamey positions the four-sided "cants" according to the computer scanning results for the operating saw. Closely watching the computer screen, Stamey dictates the movement of the cant by operating appropriate buttons and pedals.



The boards are sorted by species, length, and then graded according to value. They will be dropped into bins with cuts of similar value before they head to the planer, are regraded, and sent to the kiln to dry for about a week.

Another value-added process Weaber utilizes is the veneer profiler, which includes a piece of veneer glued on top of the jointed board underneath. This yields an oak veneer face or, more simply, a thin slice of oak over an oak substrate floor. A pelleted glue is heated and pressed to hold the veneer finish onto the wood beneath.

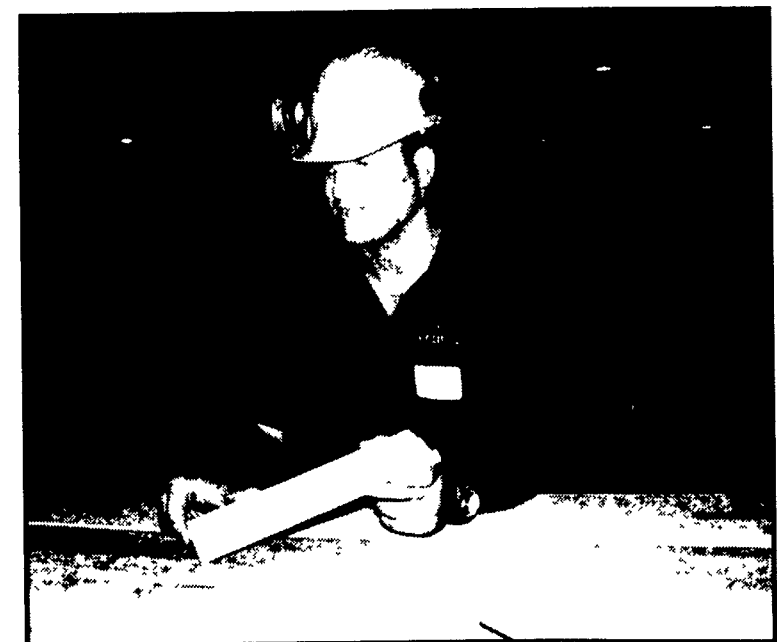
Small personal computers are

one example of the technology which is changing the face of the timber industry. Workers use hand-held computers in the warehouse, where the computer screens show what cut of wood is needed to fill an order, then deducts the board from inventory. This, of course, has drastically cut down the time needed to fill the smaller orders the company

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The company's short board program includes finger- and edge-jointed boards less than 18 inches long together. These boards are actually stronger and more stable and 40 percent cheaper than traditional boards.



Matt Weaber, vice president of Weaber Inc., shows a board which has a thin slice of oak over a finger- and edge-jointed board. A pelleted glue is heated and pressed to hold the veneer face to the board underneath.