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Georgia Pine Mill Transitions into Hardwoods

Kiln-direct Dry Kilns Help Cline & Sons Position Itself into the Hardwood Market

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DALTON, Georgia – Three years ago, W.D. Cline & Sons Lumber Inc. got into the hardwood business. Now, red oak, white oak, poplar and hickory lumber products account for 40% of the company's production. Southern yellow pine (SYP) and Eastern white pine make up the other 60%.

"The pine market kept deteriorating," Conrad Cline, president of Cline & Sons, said of the decision to enter the hardwood market. "There was a little better margin in hardwood."

Conrad and his brother, Brian, who own and operate the business together, also saw an opportunity to manufacture specialty hardwood products, such as wide plank flooring, moulding and tongue and groove products.

The decision to produce hardwood lumber ushered in several correlated changes, including the purchase of two modular kilns from Kiln-direct.

"We first started selling it green," said Conrad. "Then we sent it to a company in North Carolina and they dried it for us." That company later closed, but by that time specialty hardwood products were so important that Cline & Sons decided to add drying operations.

W.D. Cline & Sons Lumber Inc. was founded in 1967 by their grandfather, W.D. Cline, and his sons, Homer and Melvin. In later years Melvin sold his interest in the business to Conrad after he graduated from high school in 1978. When W.D. Cline was ready to retire, Brian purchased his share of the business after he graduated from high school in 1984. Homer and his two sons, Conrad and Brian, ran the family business until 2000, when Homer retired and sold his interest to his two sons.



Kiln-direct modular lumber dry kilns, loaded and ready to begin operating, at Cline

As the business was passed down from generation to generation, the name and service have remained the same. It is now owned and operated by Conrad and Brian. Conrad largely oversees the sawmill operations, and Brian's passion is operating and supervising the planer mill.

Cline Lumber is situated on a 20-acre site and has about 80,000 square feet under roof. There are three main buildings: the sawmill, a shop for manufacturing pallet stock and moulding, and the planer mill. The company also has two warehouses.

Cline Lumber currently employs about 20 workers. "When things were really going good, we had about 30," said Conrad. "With business as slow as it is...we're getting by okay with 20 people." When the economy picks up and lumber markets rebound, they likely will put on more workers as needed.

Production varies depending on market

conditions and specialty orders. However, at peak production Conrad indicated the mill can cut about 6,000 board feet of pine per hour and 3-4,000 board feet of hardwood.

The company buys logs from contract loggers, tree-length wood and cut-to-length. "We buy 100 percent from loggers," said Conrad. Cline Lumber employed its own logging crews in the 1970s and 1980s but phased out the logging operations.

Incoming logs are debarked with a Morbark rosserhead debarker. In the sawmill, primary breakdown is accomplished with a Corley circle mill and carriage; the company also has a Baker Products band resaw and a Corley gangsaw. A Baker Products band mill is used for sawing large logs and cants that are too big for the Corley gangsaw.

Low-grade hardwood and some pine lumber are remanufactured into pre-cut



Cline Lumber was able to increase the capacity of the Kiln-direct dry kilns by installing them on 6-foot-high concrete walls; photo taken during the installation shows three forklifts being used to set the modular structures on the raised foundations.

stock for pallet companies, and hardwood cants are sold to pallet manufacturers.

The kilns are used to dry high-grade hardwood and some high-grade yellow pine. The company's grading agency is the Southern Pine Inspection Bureau.

Cline Lumber kiln dries about 30% of its hardwood lumber production. Another 30% is air dried and the remainder is sold green. Green lumber is normally air dried for a few weeks before it is kiln dried.

The kilns of the drying partner in North Carolina were old and no longer available, so the company began looking for kilns by reviewing advertisements placed by kiln makers.

"From advertisements we'd seen in magazines," said Conrad, the search quickly narrowed to Kiln-direct. Niels Jorgensen, founder and owner of Kiln-direct in Burgaw, N.C., visited Cline Lumber. Niels is an expert in wood drying theory and practice.

After conferring with Niels, Conrad and Brian quickly settled on a solution that would be the best fit for their company. They purchased two modular units from Kiln-Direct, each with 15,000 board feet capacity, in late 2008.

They were able to increase the capacity of the kilns by installing them on 6-foot-high concrete walls. Cline Lumber employees constructed the raised foundation.

Then, two members of the Kiln-direct team arrived to set the kilns on the foundations and complete the installation process.

"We used three forklifts to put the modular part on the foundation," said Conrad. By the beginning of the year, both kilns were being used to capacity.

"It's all computer controlled," said Conrad. From any site with internet access, he can use a laptop computer to monitor the drying process and operations of the kilns. The computerized controls gauge moisture content of the lumber, monitor fans and other aspects of the kiln operations and drying process.

Propane is used to heat the Kiln-direct units. "We liked the propane best because it's so easy to use," said Conrad. "You don't have to go through handling wood waste. It's convenient and cost-effective versus wood waste at current gas prices."

In expectation of increasing gas prices, Kiln-direct has recently completed development of a mid-size wood waste heating system specifically designed for heating kilns and large warehouse spaces.

Another factor in the decision to use propane was the markets in the region for wood waste material. Cline Lumber is located in Dalton in northwest Georgia. The city is in the foothills of the Blue Ridge Mountains and close to Interstate 75, which runs north-south.

There are good markets in the region for sawdust and wood shavings – poultry farmers, especially. "We have a really good demand for wood waste in our area," said Conrad.

The company's other waste wood material – slabs, edgings, trim ends and scraps – are processed by one of two Precision Husky chippers, and the chips are sold to paper mills. Wood scrap from the pallet cut-up shop is fed to one chipper, and the sawmill waste is routed to the other chipper. Bark is sold to a company that processed it into mulch.

The shop that makes pre-cut pallet stock is equipped with a Newman KM16 multi-trimmer to cut lumber to length, a Baker Products bandsaw to resaw material, and a Brewer two-head notching machine.

The move to high-grade specialty hardwood products has changed the output mix significantly in the last several years. Cline Lumber used to produce a hefty volume of pine surfaced 2x4 to 2x10 as well as 1x4, 1x6 and other dimensions.

"The direction we've been trying to go – moulding and trim, tongue and groove for ceilings, specialty products," was a good business decision, said Conrad. There is more profit margin in the hardwood products than pine 2x4 or 2x6, he noted. "The market for pine is so poor."

Integrated pine producers, taking logs to lumber, are difficult competition, acknowledged Conrad. "A small family business can't compete with large dimensional lumber producers."

He is positioning Cline Lumber to be able to offer customers products that will match an existing moulding or trim or even new patterns.

"Any pattern you can make on a moulder, we're capable of making it," said Conrad. New requests require new knives. "We're building up a collection of knives. We can pretty much make anything you want with a moulder — just get the right knife."

As the company has expanded in specialty lumber products, it has expanded the capability of its planer mill. It recently invested in a Baker Products six-head moulder. "We're trying to get into flooring, moulding, trim," said Conrad. "The kilns complement that." The planer mill also is equipped with a Baker Products two-head planer and a Yates-American A-62 planer.

The company manufactures log cabin siding as well as beveled siding made from yellow pine and white pine. It also manu-



Kiln-direct offers a range of lumber kilns for small and large lumber producers and secondary manufacturers as well as pallet heat-treatment kilns in end-loaded and side-loaded designs; the company also manufactures kilns to dry firewood and has developed a new mid-size wood waste heating system.

factures wide plank flooring from hickory and oak.

Siding and flooring are sold to local markets along with some specialty products while products like moulding and trim are shipped to customers throughout the Southeast.

The entry into the wide-plank hardwood flooring market has been a particularly good fit for Cline Lumber. Dalton has long been associated with carpet mills and earned the name ‘Carpet Capital of the World.’ Many distributors of floor coverings now strive to offer a wide array of options to customers, including carpet and hardwood flooring. It is an easy decision for distributors buying carpet from mills in Dalton to buy their hardwood flooring in the same area, too.

Kiln-direct strives to meet the needs of individual customers. The modular kilns it supplied to Cline Lumber were designed specifically for mid-size lumber companies. Constructed from aluminum, they are insulated with high-quality foam.

The new modular kilns from Kiln-direct have performed consistently well, said Conrad. The uniformity in the drying process and the quality lumber the kilns produce underscore the kiln construction as well as the control system.

The fully automated computer control

system for the kilns is standard equipment from Kiln-direct as are the systems for recovering heat and venting. The company offers options for heating — direct gas, hot water or steam. The service of Kiln-direct technicians on-site to guide start-up operations is included in pricing.

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Most of Cline Lumber’s Southern yellow pine production, 70-75%, is sold to about five or six companies that treat it and re-sell it. The rest is sold locally at retail.

Brian and Conrad have been working in the business since they were adolescents. They began working summers for their father and grandfather at about age 11 or 12 and joined the business full-time after high school.

Each one has done just about every job in the company, but they have favorite tasks they still like to do. “I enjoy the sawyer job,” said Conrad. “I still give breaks to the sawyer, get in the cab twice a day.” Brian enjoys the planer mill operations and from time to time runs the Yates-American planer.

Conrad enjoys leisure time although he

does not have any special hobbies or pastimes. Brian enjoys the great outdoors, hunting and spending time with his wife and two children.

Cline Lumber relies on Misenheimer Inc. in Morristown, Tenn. for servicing saw blades and cutting tools. “They do all our saw sharpening and maintain chipper and planer knives and blades,” said Conrad. Misenheimer offers service for other cutting tools, such as router bits and custom tooling, and provides technical service, including on-site assistance.

Cline Lumber has a maintenance shop with two full-time mechanics to keep machinery and equipment running properly.

The company has its own trucks for short distance hauls. For shipping long distance, it relies on Hawkins Trucking in Old Fort, Tenn.

The importance of making quality products is integral to the philosophy that drives business strategy at W.D. Cline & Sons Lumber. For Conrad, it is not just about serving the needs of a defined customer base. The rewards of a manufacturing business are many, but one tops the others.

“It’s just the satisfaction of being able to produce a good product,” said Conrad. “In this country, manufacturing is in decline, and it’s just nice to make a quality manufactured product.”

