Center Focus

Spring 2010

IN THIS ISSUE:

Director's Message

Greetings from Blacksburg:

As our forests start to put new life on this spring, it is time to reflect on how our economy is doing and what adjustments may be needed for the coming building season. As a persistent optimist, my crystal ball tells me that we are slowly coming out of the worst downturn for the forest products industry since the great depression. Most economists believe it will be a slow steady recovery, but it will be a number of years before we are back at the 1.6 million housing starts that are needed to meet current demographic forecasts. Our industry has consolidated, shuttered older facilities and reduced output by over 50% in some segments. We are leaner, quicker, more efficient, and in most cases in great shape to meet increasing demand. Many of you have heard me preach before the two ways to increase profits are to reduce costs (a focus on production efficiencies) or increase revenues (a marketing approach). As we come out of this recession, it is time to focus on new markets, new products, new services, and meeting customers' needs better than anyone else. This is what the Center has been teaching students and the industry for nearly 20 years and it is more important today than it was when we started in 1991. No company can survive without continuing to grow in these areas.

As I write this, we are in the middle of interviews for our students for summer internships and full-time positions. I have visited with a number of companies that are interviewing and they are optimistic about the year and are planning to build their management team with new individuals. Our marketing and business curriculum in forest products remains one of the premier programs in North America. It is solely due to the great partnership we have with our industry members. Only through that relationship (marketing) can we know what your needs are and train our students to be prepared for the positions you need in your organizations. We currently have over 40 students that will eventually be future leaders in your companies. As always, we are open to any suggestions in how we can meet your needs better and you are always invited to campus to share your insights on our industry and interview our students for your company.

In this issue we are doing something different. We are sharing some recent research conducted on our industry's view of the green movement. This is an area that will only become more important in our industry's future and the results from the study should be of interest to many. Also listed are our upcoming short courses and other events of interest. Please feel to contact me at 540-231-7679 or rsmith4@vt.edu if you have any questions or suggestions on serving you better.

Bob

FOREST PRODUCTS BUSINESS NEWS

- The Renewable Fuels Association expects the 28 cellulosic ethanol refineries being developed in the US to expand significantly once they are commissioned. The refineries will have a combined initial capacity of 170 million gallons per year. The combined capacity for the existing 189 biorefineries in the US is 11.9 billion gallons per year. *ICIS Chemical Business*.

- Uniboard, Canadian subsidiary of the German Pfleiderer, had put on stream a new facility for medium-density and high-density fiberboard in North Carolina. The new production site has an output capacity of 400,000 m3 of fiberboard and 300,000 m3 of particleboard a year. *German News Digest*.

- The independent Sustainable Forestry Initiative (SFI) program continues to grow, recently achieving 2,000 chain-of-custody certified locations. *Targeted News Service*.

- USDA Secretary Tom Vilsack says a $9 million federal loan is going toward a new wood pellet plant in Island Pond, VT, creating 34 new jobs in the Northeast Kingdom. The company plans to turn hardwood lumber into pellets that can be burned for heat. *Associated Press Newswires*.

- The WoodShow Dubai , the Middle East's only wood industry-focused exhibition, will kick off its 2010 edition, with over 250 global exhibitors from more than 40 countries set to participate during its three-day run from April 13 to 15 at the Dubai Airport Expo. *Emirates News Agency*.

- Standard & Poor lifted its outlook on Masco Corp. (MAS) from negative to stable, citing expectations of a housing market recovery in 2010, which will help improve the market for home repairs and remodeling. *Dow Jones News Service*.

- In a sign that the battered home-improvement sector is poised for recovery, Home Depot Inc. reported a better-than-expected profit for the fourth quarter Tuesday, after improved demand for kitchen, bath, paint and flooring products led to its first same-store sales gain in almost four years. *MarketWatch*.

- Log exports from Washington and Oregon fell a little more than 10 percent last year, but softwood lumber exports from the region jumped 17.5 percent from 2008. *Associated Press Newswires*.

- The growing demand for energy from biomass is a boon for wood pellet producers but it threatens to drive up costs for the existing pulp and paper sector, says a report by the International Wood Markets Group. The Vancouver research firm says the wood biomass energy industry is being driven forward by government subsidies and policies. Pulp and composite wood board producers are competing for the same fiber, driving up their costs. Global pellet production was 14 million tons in 2008. Production is expected to hit 18 million tons by the end of 2010. *Vancouver Sun*.

- Renewable energy accounted for 10.5% of US energy production and 10.2% of the net electrical generation in the nine months through September 2009, according to the US Energy Information Administration's Monthly Energy Review released in December. *ADP Renewable Energy Track*.

Forest Products Business News has been designed for educational and engagement purposes only. The intention is to report news that affects various business segments of the forest products industry. Any comments or questions should be referred to: omar.espinoza@vt.edu

Center Focus

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The Green Movement and the U.S. Hardwood Sawmill Industry

By: Omar Espinoza, Robert Smith, and Urs Buehlmann

The “green” movement is one of the most important developments of the last decades. It originated from concerns about energy independence, global warming, and environmental sustainability. These concerns have moved governments around the globe to issue policy aimed at ensuring the sustainable use of natural resources and the prevention of waste; international agencies have been created to promote the responsible utilization of resources; and businesses are making efforts to include environmental issues in their corporate culture. The U.S. hardwood industry has not been unaffected by the environmental movement, and two developments in particular will most likely affect companies in this industrial sector: the increasing adoption of green building standards and the growing demand for forest certification.

Forest Certification

Forest certification initiatives have the purpose of promoting the sustainable utilization of forests, from an environmental, economic, and social point of view. Forest certification invariably involves verification by a third party, which makes sure that the practices followed do not damage the natural forests. Several certification schemes exist; the most important in the U.S. are the Sustainable Forest Initiative (SFI), the Forest Stewardship Council (FSC), and the Programme for the Endorsement of Forest Certification, and the American Tree farm System (ATFS), and the Canadian Standard Association forest standard (CSA). There are differences between these systems from a certification process point of view (number of standards, performance measures, or specific practices evaluated), or based on their main constituents (ATFS, PEFC, and SFI are seen as more supportive of industry; while FSC is more aligned with international NGOs)[i]. It is claimed that forest certification can improve a company’s image, facilitate access to certain markets, and may allow charging of price premiums.

A number of studies have concluded that, contrary to what happens in other regions of the world, the U.S. market has not yet embraced forest certification. A survey among U.S. homeowners concluded that the U.S. customer is still not willing to pay a premium for environmentally-certified wood products[ii]. Similarly, in a focus-group study of customer perceptions, participants stated that environmental concerns were not a major concern for wood products purchasing decision-making[iii].

Green Building

According to the Environmental Protection Agency’s definition, green building is “the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's life-cycle”[iv], from design to deconstruction. As for forest certification, a number of programs have been created. There are about 50 regional and national green building programs in the U.S. Most of them contain guidelines for energy-efficient products, materials, and construction practices; they also promote the use of renewable energy sources and recycling. Similarly to forest certification, virtually all green building systems include third-party verification. Probably the most notable green building systems are the Leadership in Energy Environmental Design (LEED), the Green Globes program, the National Association of Home Builders’ (NAHB) Green Building Guidelines, and the EPA’s Energy Star program. Examples of notable state and regional programs are the Austin Green Builder Program, the King County (Seattle) Built Green Program, and the Built Green Colorado Program.

In general, green building programs have been criticized by the wood products industry because most of them require proof of responsible practices (i.e., environmental certification) only for wood, and because some of their prescriptions encourage the use of bamboo by considering it an “environmentally preferable material.” Nevertheless, green building is becoming an important driver for demand of certified wood. The LEED program only recognizes FSC-certified material, whereas the Green Globe program recognizes all major North American forest certification schemes (SFI, ATFS, CSA, and the FSC). It has been suggested that green building standards need to use globally recognized life-cycle analysis standards to rate the real environmental impact of construction materials. The Consortium for Research on Renewable Industrial Materials (CORRIM) has been developing a "scientifically sound database of the environmental and economic impacts" of wood building materials[v], from planting to demolition.

Survey of Hardwood Lumber Manufacturers

The Center for Forest Products Marketing and Management at Virginia Tech has conducted a study to investigate the impact of the green movement on U.S. hardwood lumber manufacturers, and the perceptions in the industry about green building and forest certification. A total of 1,216 hardwood lumber manufacturers were sent a nine-item questionnaire with questions ranging from awareness of forest certification and green building systems, to financial benefits from certification. Results are presented next.

The first question of our survey was aimed at learning the level of awareness of forest certification and green building systems among hardwood lumber manufacturers. Responses revealed that there is a higher degree of familiarity with forest certification schemes than with green building programs (an average of 3.4 compared to 2.4, in a scale from 1 to 7, see Figure 1). One explanation for this difference is the fact that lumber manufacturers are closer to the source of raw material (forest resources) than to the final customer (residential building). Also, the wood products industry has given little attention to green building programs, probably because these systems are seen as unfavorable to wood as a construction material. Among forest certification schemes, respondents had the highest degree of familiarity with SFI, followed by the FSC and the ATFS. This is consistent with what is reported by the organizations as total certified area in North America (over 181 million acres for SFI, 109 million for FSC, and 24 ATFS[vi]). Regarding green building standards, the National Green Building Standard and the Leadership in Energy and Environmental Design programs were the most recognized (2.7 for both).

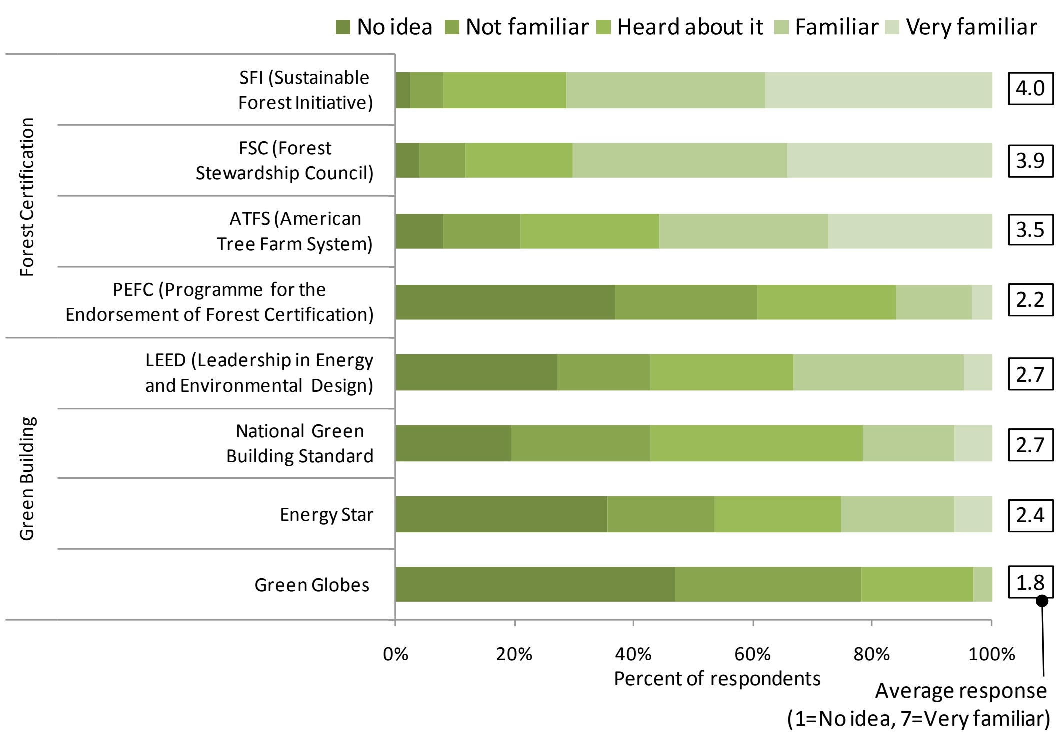

Figure 1. Familiarity of respondents with forest certification and green building programs.

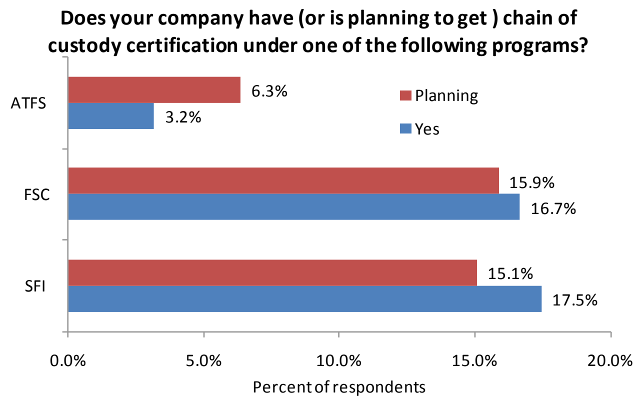

Figure 2. Extent of chain of custody certification programs.

Also of interest was to learn the extent of chain of custody certification among respondents. Figure 2 shows the results for this question. Overall, 29% of respondents reported to have chain of custody certification at the time of the survey, and 26% were planning to certify their operations. Regarding a specific certification system, nearly the same proportion of companies was SFI- and FSC-certified, with a slightly higher number of companies being SFI-certified. Only 3.2% of companies had ATFS certification.

Since forest certification and green building standards are voluntary and conceived to be market-driven, it is important that customers are aware of, and willing to purchase certified material, the survey aimed at learning about the frequency with which customers of hardwood sawmills ask for certified lumber and the green building rating of the product (Figure 3). Thirty percent of companies reported being asked for certified lumber by their customer "frequently" or "sometimes," whereas the corresponding percentage for green building rating was only 8%. Three fifths of respondents reported not being asked at all about the green building points of their products. This points towards a need of education.

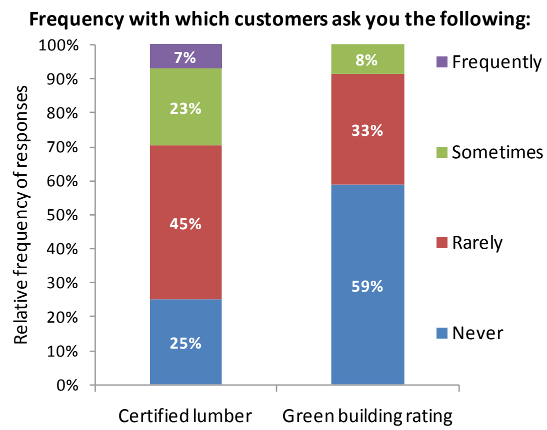

Figure 3. Frequency of customers' requests for green material.

It is important that producers have economic incentives to adopt these programs. These economic incentives can originate from growing demand for certified products, price premiums, and access to attractive markets. Companies with certification were asked whether they were benefiting financially from it. Three quarters of respondents that reported having some kind of chain of custody certification answered that they were not obtaining any financial benefit from certification.

Green building programs are mostly based on a point system, where a certain number of points are assigned for each verified practice or material used, depending on their environmental impact. Thus, it is important for producers to know how their products rate in this system. Only 11.4% of respondents were aware of the green building points and only 7.7% of those reporting knowledge of this information used it in advertising.

Hardwood lumber producers were also asked their level of agreement with several statements regarding environmental issues. Answers are summarized in Figure 4. Most agree that demand for lumber certified for "green-building" will increase (77%) and that customers are increasingly concerned about the environment (62%). Companies stated that they have reduced their environmental footprint during the last 3 years (68%) and that they are pursuing environmentally-conscious policies (72%). Most respondents do not think certified lumber allows for higher profit margins (81%), and that green building standards will help their industry (62%).

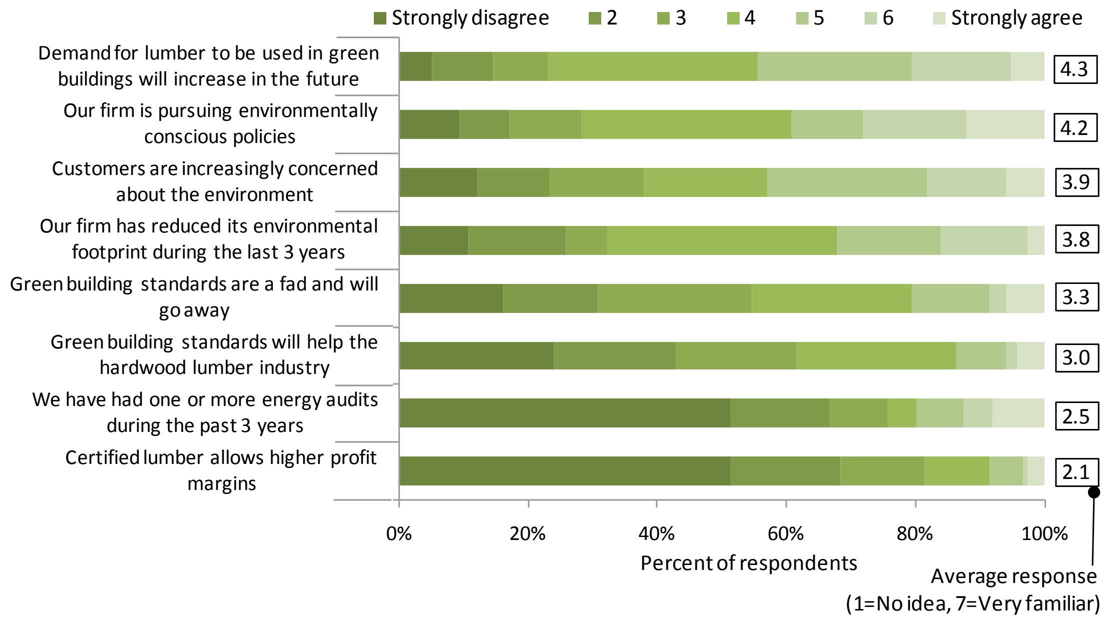

Figure 4. Level of agreement with environmental-related statements.

Lastly, the questionnaire included an open-ended question for respondents to write about what the industry should do to benefit from the green movement. A majority of respondents (36%) stated that efforts should focus on educating the public and promoting hardwood as a "green" material. Twenty seven percent of respondents thought that standards should be changed to reflect the industry's reality and that the certification should be streamlined or improved. A surprising number of respondents (24%) expressed their opinion in negative terms, going from "eliminate certification" to "green movement is a hoax." Other responses were along the lines of making certification more affordable for small operations, charge more for certified products, and improving legislation.

Summary

The green movement will have great impact on the U.S. hardwood industry, and presents both opportunities and threats for the sector. The promised price premiums for environmentally-certified lumber have not materialized, but businesses are increasingly realizing that being perceived by the market as social and environmentally responsible is in their interest. Green building standards will become a major driver for forest-certified lumber; however, awareness of green building programs and standards is very low among producers. The industry needs to do more in terms of educating the public about the environmental benefits of wood as a construction material, and green building standards need to include in their evaluation of materials the environmental impact from a life-cycle perspective.

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[i] Hansen, E., Fletcher, R., Cashore, B., & Mcdermott, C. (2006). Forest Certification in North America. College of Forestry - Extension Publication, (EC 1518), 12. http://owic.oregonstate.edu/pubs/EC1518.pdf
[ii] Ozanne, L. K., & Vlosky, R. P. (2003). Certification from the U.S. consumer perspective: A comparison from 1995 and 2000. [Journal article]. 53(3), 13-21.
[iii] Teisl, M. F., Peavey, S., Newman, F., Buono, J., & Hermann, M. (2002). Consumer reactions to environmental labels for forest products: A preliminary look. Forest Products Journal, 52(1), 44.
[iv] U.S. Environmental Protection Agency. (2009). Green Building - Basic Information. Retrieved March 29, 2010, from http://www.epa.gov/greenbuilding/pubs/about.htm
[v] CORRIM website www.corrim.org.
[vi] From: (1) SFI. (2009). SFI and FSC Certification in North America - A Summary Comparison. Sustainable Forest Initiative. (2) American Forest Foundation. (2010). American Tree Farm System - Statistics & FAQ. http://www.treefarmsystem.org/

Calendar of Events & Announcements

Advanced Lean Thinking—Pull Systems (www.woodscience.vt.edu/workshops/cont-flow-systems)

This workshop will be beneficial for managers, supervisors, and entrepreneurs in the wood products industry who are already familiar with basic lean thinking concepts and want to learn how to apply more advanced lean concepts in their business. This workshop will focus on continuous flow concepts to help make materials and information flow more efficiently in their businesses to better target actual demand.

Date and Location: April 14, Wood Education Research Center in Princeton, WV.

Lean Thinking - Learning to See (www.woodscience.vt.edu/learntosee)

The workshop, Learning to See, is part of achieving superior organizational performance through value Stream Mapping. Value Stream Mapping supports an organization in discovering and eliminating wasteful practices. Lean transformation has helped world-class companies achieve significant cost savings, quality improvements, lead-time reductions, and profitability increases.

Dates and locations (all Virginia locations): April 15, Abingdon. May 6, Danville. May 12, Virginia Beach. August 5, Harrisonburg.

Green Building (www.woodscience.vt.edu/green)

This workshop will provide homeowners, building construction specialists, managers, supervisors, entrepreneurs, educators, and government employees with a basic understanding of green building practices and green building certification systems. For parties interested, the workshop will also provide guidance for the next steps in assessing opportunities for implementing green building practices.

Dates and locations (all Virginia locations): April 8, Abingdon. May 10, Virginia Beach. May 11, South Boston. July 15, Harrisonburg.

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VT Solar Kiln Courses for 2010

April 9 in Durango, Colorado. Solar Drying and Dry Kiln Workshop. Durango Community Recreation Center. Sponsored by the staff of the Colorado Wood Utilization and Marketing Program. Contact: amanda.bucknam@colostate.edu

May 20th in Richmond, Virginia, as part of the **RICHMOND EXPO**, sponsored by the Virginia Forest Products Association in cooperation with the College of Natural Resources at Virginia Tech . Information and registration at www.woodscience.vt.edu/workshops/vfpa-education-sessions/.