



Center Focus

Summer 2009



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Directors' Message

This summer in Blacksburg has been one of the nicest I can remember. There has been enough rain to keep everything green and temperatures are moderate enough to allow us to recreate comfortably. As we look at the crises around the world, too often we forget to look at how fortunate we are here at home. Although the wood products industry and the general economy are slow to recover, most indicators are showing signs of improvement. My personal indicator is my daughter. She works as a financial manager for a home construction company in the area, and their workload has improved substantially this year. The other indicator I look at is the amount of wood products moving on the highways. I have seen more wood in the form of logs and finished products in the last three months than I did the previous year. We know from all accounts that inventory levels are low, so manufacturers will have to gear up when demand rises. So my general conclusion is that things are moving in the right direction, up.

One of the best parts of my position is to watch students (undergraduate and graduate) mature through the educational process and go to the industry as successful contributors to their firms. I often run into past students (and no I don't remember all of their names) at different venues who always want to share their time and history since leaving the Department. It is quite satisfying to see that even during these difficult times, our students remain working with their firms, and I hope that our Department is one small reason for their success. I also believe that the relationship that the students develop with industry partners through our Centers is a valuable contribution to their careers. As partners, you provide a practical balance to the theory that we teach through internship opportunities and cooperative work assignments. I hope that even during these challenging times that you will continue to open the door for students to get summer employment in the future.

You will read later in this newsletter that Dr. Brian Perkins will be leaving us. He has been with the Center for five years and recently completed his Ph.D. in Forest Products Marketing. Center members should have received two reports from his dissertation looking at the hardwood lumber industry. Brian will become an assistant professor in forestry at Glenville State College in West Virginia. He will only be around 75 miles from his home, which as we get older, is more important. The Center thanks Brian for his help and wishes him the best of luck in his new position. We look forward to continuing to work with him in the future at Glenville State. He will be replaced with Dr. Omar Espinoza as the Center contact and editor of our newsletter and research reports.

Our industry has been greatly impacted by the green building and environmental sustainability movements and later in this issue you can read a little different view on how the industry may be able to capitalize on this. Current industry news and our calendar of events are listed. I invite you to our annual Center meeting which will be held on September 16, and our industry career fair as part of Wood Week on September 17. Again, I thank you for all of your support and feel free to contact me if you want further information on anything in the newsletter: rsmith4@vt.edu or 540-231-7679.

Bob Smith

Earl Kline

FOREST PRODUCTS BUSINESS NEWS

- The Canadian government has provided FPInnovations with \$80 million for product innovation and emerging technology demonstrations. Source: *eSource Canada Business News Network*.
- Canada is looking at supporting their pulp producers in response to the black liquor tax credit loophole that has given U.S. producers an estimated \$6–8 billion in tax rebates. Source: *Victoria Times Colonist*.
- Stanley Furniture announced a 36.4% decrease in net sales from the 1Q last year. This led to a loss of \$0.23 per share. Source: *Business Wire*.
- According to the *Canadian Architect*, the 2010 Olympics Speed Skating Oval will be built from glulam timbers which will span 100 meters. The structure will use approximately 1 million board feet of lumber from beetle-killed trees.
- The state of Maine will receive \$11.4 million to convert 15 public buildings to wood heating as part of the stimulus bill. Source: *States News Service*.
- According to *Business Wire*, RockTenn, a manufacturer of paper products, has achieved triple chain-of-custody certification from FSC, SFI and PEFC at its Marion, NC folding carton plant.
- The Biomass Thermal Energy Council will partner with RISI to enable its members a discount to RISI's Wood Biomass Market Report. Source: *PR Newswire*.
- According to the Targeted News Service, Reedsburg Hardwoods installed a 300 horsepower wood-waste boiler to provide heat and steam for their lumber drying operations. This was made possible in part to the Wisconsin Power and Light's Shared Savings program.
- *US Fed News* reported that Roy Anderson Lumber increased their lumber exports to China by 250% after receiving international trade assistance from the Kentucky Cabinet for Economic Development.
- Senator John Thune, (SD) has proposed a plan to fight the mountain pine beetle epidemic in the Black Hills National Forest. Source: *US Fed News*.
- Loggers and environmentalist have agreed to a management plan for the Rogue River-Siskiyou National Forest in Oregon that includes a thinning on 980 acres. Source: *Greenwire*.
- Employees went back to work at the former Wood Structures which went bankrupt earlier in the year. Company managers and Boise Cascade bought the wood truss manufacturer and restarted a new company called Boise Structural Solutions. Source: *Portland Press Herald*.
- The never ending softwood lumber dispute between the US and Canada has been reignited by subsidies and bailouts in both countries.

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: cf.editor@vt.edu

Center Focus

Published Quarterly by
The
Center for Forest
Products Marketing and
Management

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Science and Forest Products
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VT/0023/0801/1.7M/220696



Sustainability of Forestry & Wood Products

Sustainability has gained more prominence in recent years especially in forestry and wood products with developments in climate change and green building. Sustainability is a term that can have many meanings but a general definition is that it is the ability of the earth to meet the needs of current and future generations. There are numerous connections between sustainability, forestry and wood products. Obviously, forestry supplies the timber and logs that are transformed into wood products by manufacturers. Many point to the facts that in the U.S., we only harvest about 2% of forestland each year, we are growing more wood than we harvest and that forestland acreage has remained more or less steady as evidence of the industry's sustainability. Wood is often lauded for its environmental benefits because it is reusable, recyclable, biodegradable, takes very little fossil fuel energy to make, stores carbon, and is a good insulator. Yet these attributes of forests and wood products aren't sufficient for them to be considered sustainable. We must examine the larger context of how forests and wood products are utilized.

The other connection between wood products and forestry is one that is less obvious and receives much less attention. We know that the majority of our wood products are utilized for building homes and the various wood products that go in them. Like it or not, the forest industries are driven by the demand for residential housing and commercial construction. In some cases, houses are built in forests on large lots. This usually takes forestland out of production and reduces the supply of available forestland. Consumers not only want a house built from wood but they want to live in the forest as well. In this scenario, the demand for housing leads to demand for wood products and forestry and yet this results in the loss of forestland and the loss of forest available for timber production. All three parties, the forester, the wood manufacturer and the homeowner, can claim that they are being environmentally friendly or sustainable but as we see the net effect is a loss of forestland due to housing.

In other cases, houses are built on agricultural land which in much of the eastern U.S. was once likely forested. This land is no longer available for agriculture so other agricultural land has to be brought into production. This loss of agricultural land in the U.S. requires more imported food or increased agricultural productivity on existing lands. Increasing agricultural production usually leads to deforestation or loss of conservation reserves because more land is needed and to increase productivity more fertilizer is utilized. Neither of these actions are good for the environment. According to the USDA, in the U.S. between 1949 and 1997, 48 millions acres were converted to urban areas — 1 million acres per year! Housing developments and associated suburban sprawl accounts for much of this land use change. So despite our best intentions to manage forests sustainably and for multiple values, and to use wood because it is one of the greenest materials available, the results of the way that wood is used to build single family houses often leads to land use change, and this has severe environmental impacts.

As one drives through the D.C. metro area for example, one gets a sense of the impact that the low rise wood building system (single family home construction) has brought. Multi-family housing (i.e.: condominiums and town houses) takes up less space but there is still much sprawl associated with this type of building. Look at all the sprawl, development, and the associated traffic jams created by people having to drive far away from their work to be able afford a home. A home that is often just a few feet from their neighbor's home. If you are going to be ten feet from your neighbor, doesn't it make more sense just to live in a townhouse and share the larger piece of land? Alas, Americans are individual, fearful of cooperating, and the stereotypical American dream is to own your own home not your own apart-

ment. Not surprisingly, much of our economy is based on commercial and residential construction. Recent events such as the popping of the housing bubble, the mortgage fraud, and the financial crisis tells me that all of this construction was not economically sustainable. I think that most people would agree that in the long run the suburban sprawl and low rise wood residential construction found near so many of our metro areas is certainly not environmentally sustainable. So even though in general and on a broad scale our forests and wood products are sustainable and certified, we as an industry must acknowledge that the way in which we use wood is often not sustainable.

If the way in which we use wood is not sustainable, then what are the alternatives? In my opinion, I think that the answer is to build up and not out. We also need to design wood products to be easily reused, recycled or composted. First lets discuss building up and not out and then wood product reuse. Building up usually requires steel construction. Do high rise buildings built from steel have a lesser environmental impact? A direct comparison between steel high rise and low rise wood buildings could be calculated by dividing the total carbon footprint (CO₂ tons) by the area of the building (acres) and by the number of occupants. This calculation would give you the CO₂ tons/acre/person housed of each building type. I imagine that high rise steel buildings would have a lower environmental impact due to the large number of people housed. However, I don't have those calculations to present. Also, this doesn't count the effects of the associated sprawl, gasoline consumption, etc. that is needed with low rise construction.

Being an advocate for wood, I think we must look to the Europeans who build with wood up to 8 or 9 stories high. They utilize cross laminated panels and glue-laminated beams and panels in their commercial buildings. The cross laminated panels are pre-fabricated solid wood panels that are designed to be used as roofs, walls, ceilings and floors (see picture). The forest and wood industries should promote this type of construction in the U.S. which uses large quantities of wood yet has a smaller building footprint for each occupant compared to traditional housing. This would have the beneficial effect of decreasing the exposure of the industry to the residential housing market.



Wood product manufacturers traditionally give little thought to recycling or reuse when designing products. The pattern of forest—manufacturer—consumer—waste is a given with only small research efforts made for recycling or reuse. Why can't we discover ways to close the loop? Diverting waste from the landfill and sending it back to the forest. Wood could be composted to serve as a soil amendment

or fertilizer in intensive forest plantations, decommissioned treated wood or recycled paper could serve as a soil erosion control products on timber harvesting jobs, roads or hiking trails, and biochar made from chipped wood waste could serve as a soil amendment while storing carbon. By bringing wood back to the forest, the long term sustainability and productivity of the forest would be maintained while not relying on fossil fuel fertilizers. The transportation and logistics system is already in place. The forest industries could benefit economically and environmentally from a new business model that is based on forest stewardship and enabling consumers to utilize forest products in a truly sustainable fashion.

Calendar of Events & Announcements

Brian Perkins departing the Center

I have enjoyed writing and editing the newsletter for the past 4 1/2 years while working as a graduate student. I feel that I improved the newsletter by bringing articles and news items that are important to the industry. Many of the articles have turned into trade journal articles which has benefited me and the larger industry. I hope that you have enjoyed reading the newsletter. I will be starting as an Assistant Professor of Forestry at my first college alma mater, Glenville State College in Glenville, WV in August. I look forward to facilitating student learning and sharing my knowledge with students. In my place, Omar Espinoza will be editing the newsletter, research updates, and the Center's website. In these trying times, I wish everyone the best of luck and take care.

Brian Perkins

Paul Winistorfer takes over as College of Natural Resources Dean

Dr. Paul Winistorfer has stepped down as Department Head in order to start his new role as CNR Dean. Paul will start in his new position on August 4th. Dr. Audrey Zink-Sharp will serve as interim department head until the position can be filled.

July 15, 2008

Investing in Sustainable Forestry

A workshop on FSC-certified "Local Wood" Markets. Virginia Tech Roanoke Center 9am-4pm. Contact David Robertson for more details. davidrobertson@vt.edu or 434-610-0491.

September 14-18, 2008 ***Wood Week 2008***

Thursday is the wood industry career fair under a big-top tent in the center of the Virginia Tech campus. See the following website: <http://www.woodscience.vt.edu/woodweek/2009/> for more Wood Week 2009 details.

September 16, 2008

Center Annual Meeting

The 18th annual meeting will be held on Wednesday morning during Wood Week and the scholarship reception will be held in the evening.