

May 2008						
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# INSIDE VT WOOD

## Reminder...

Remember to submit department news items by Friday 3 p.m. of each week to Will Pfeil at [wpfeil@vt.edu](mailto:wpfeil@vt.edu) for inclusion in Inside VT WOOD each Monday morning. All past issues of Inside VT Wood reside on our department website under the [publications link](#).

## News From Paul Winistorfer

- Thanks to Dean Mike Kelly and his wife Candi for their recent personal contribution to our 'Building Our Future' campaign. We appreciate the support we receive from Dean Kelly and this is a testament to their support of our vision to move forward with new facilities planning. Thank you Mike and Candi for your support of our programs in Wood Science.
- Graduating Student Exit Interview Summaries will be available next week to the department.
- Many of us are participating in the Richmond Expo Friday and Saturday this week. The Department and the Center for Unit Load Design will be attending and have booths set up.

## Coming Up...

- WBC Spring Board Meeting May 21, 22
- Faculty \_ day Work Session May 23 (Brooks Center)
- Northeastern Utilization and Marketing Council of the Northeastern Area Association of State Foresters (NAASF) - June 3 (Brooks Center)

## Students Take Note: Department Scholarship Application Deadline is Thursday This Week - May 15<sup>th</sup>

Our department scholarship application deadline is May 15<sup>th</sup>, for scholarships to be awarded effective fall 2008. Application may be made on line. You can find our downloadable application form, and link to the online application on our department website at <http://www.woodscience.vt.edu/students/scholarships/scholarlist.asp?type=I>

Notification is made during the summer, and students are recognized at our Wood Week Scholarship Recognition Reception. The reception is scheduled for September 17<sup>th</sup>, 2008 at the Inn at Virginia Tech.

## Register for Wood Week 2008 Career Fair

Wood Week 2008 is set for the week of September 15, 2008. Our Career Fair is Thursday September 18, on the Drillfield of the Virginia Tech campus. We have increased our capacity this year to 75 companies. Registration is now live and linked from the Wood Week 2008 link on our homepage. Please help spread the word on the career fair and help us reach our goal of 75 participating firms this year. A press release is now available on our website announcing the career fair.



## **Garrett Norman Successfully Defends MS Thesis**

Congratulations to Garrett Norman for his successful defense of his thesis research work last week on 5 May, 2008. Garrett's research topic is "Pull Manufacturing System Design for Rough Mill Systems: A Case Study". Dr. Earl Kline (major professor) along with Dr. Brian Bond and Dr. Bob Smith serve on Garrett's committee.

## **The Nicest Mortarboard in VT History**

Senior Adam Hutchison took graduation to a new height with the creation of his wooden VT artwork on the top of his mortarboard for graduation ceremonies. Nice job Adam and congratulations!

Pictured from left to right: Dr. Brian Bond, Graduating Senior Adam Hutchison, Dr. Paul Winistorfer, and Mr. Bob Wright.



## **Extension Professors Share Expertise at 2008 Forestry on the Grow**

Two professors from the Department of Wood Science and Forest Products shared their knowledge through presentations and field exercises at the 2008 Forestry on the Grow ; Forest Utilization Conference & Expo, held at the Western Hills Guest Ranch, Sequoyah Resort Park, Wagoner, Oklahoma on April 30—May 2. Dr. Brian Bond addressed the topics of Hardwood Log Grading, and Sawing for Grade. Professor emeritus Fred Lamb conducted presentations on the Basics of Lumber Drying and Insect Control & Kiln Schedules.

Forestry on the Grow was the 13th Annual Oklahoma Forest Utilization Conference and Equipment Exposition for Exploring Opportunities and New Technologies for Natural Resources Management and the Wood Products Industry. Presented by Ouachita Mountains RC&D, Inc. in cooperation with a team of dedicated professionals and generous sponsors, the purpose for the conference and expo is sharing information with not only those who are currently involved in the forest industry but also those considering opportunities in this growing segment of the economy. The conference is designed with two concurring sessions for persons to choose from that focus on the interests of: Forest landowners, or Primary forest products/Secondary wood manufacturers. In conjunction with the conference, there was an equipment and demonstration exposition where manufacturers of forestry related products and equipment highlighted the latest technology available to the forest industry. Service providers were also on hand to share the services they have available for the industry. Dr. Lamb has been invited to the conference to share information since its inception and this was Dr. Bond's 9th invitation to present information at the conference.

## **Buehlmann and Kline Attend Sloan Foundation Annual Meeting.**

Dr. Urs Buehlmann and Dr. Earl Kline attended the Sloan Foundation's annual Industry Studies conference on 1-2 May, 2008. The conference theme focused around how industries are responding to globalization. One of the main takeaways from the conference---as businesses strive to maintain their competitive advantage focused solely around a product, process, or other intellectual property, any such advantage is short-lived in today's "flatter world". However, businesses that focus and support their core capabilities around their "human resources" seem to thrive for the long haul.

Developing a “learning” business culture is probably one of the most challenging business tasks. Because this challenge is so difficult to overcome, it is the reason why an effective and innovative business culture can sustain a huge competitive advantage. This takeaway should reinforce our recent efforts to incorporate the latest human resource development skills into our curriculum (such as the Wood Enterprise Institute and the FP Business Management class) for our future business leaders.

To see some of the conference presentations, please visit: <http://web.mit.edu/is08/program.htm>

## Customer Appreciation Contractor Day

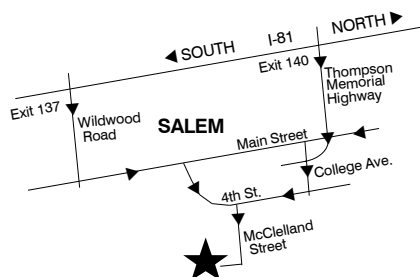
Anyone interested in attending contact Dr. Hindman about transportation.



# “Customer Appreciation” CONTRACTOR DAY

- Food- Burgers, Hot Dogs, Chicken
- Door Prizes

Please join us and let us serve you a great lunch, win some prizes, chat with vendors, and just have some fun, on us. We sincerely hope to see you.



**Friday, May 16, 2008**  
**12:00-2:00pm**



*Ask your Salesman or call for more information:*  
525 McClelland St. (at 4th St.), Salem - 540/387-0273, 800/766-9072

## Inside Swedwood: IKEA'S First U.S. Plant

Published: May 07, 2008

By Karen Koenig

Source: [ISW Online](#)

IKEA manufacturing subsidiary Swedwood opens the doors to its 930,000-square-foot facility in Danville, VA, part of a four-phase, \$281 million plan.

When IKEA announced plans to open a manufacturing facility in the United States, industry pundits said the multi-billion dollar furniture company was “insane.”

“It’s good economics,” counters Jörgen Lindquist, North America vice president of Swedwood, IKEA’s manufacturing subsidiary. Lindquist cites, “reducing sourcing costs, reducing overall lead times, reducing currency exposure, transportation concerns and [developing a] secure supply for IKEA’s growing demand,” as some of the reasons behind the \$281 million, four-phase plan.

The company broke ground in early 2007, with the full project expected to be completed over a seven- to 10-year horizon, Lindquist says. When finished, Swedwood will have four manufacturing facilities spread over a 209-acre site in Danville, VA.

A ceremony commemorating the grand opening of the first facility — a 930,000-square-foot plant — is scheduled for late May, but Swedwood already has been rolling out production of the LACK and EXPEDIT storage series, all bearing the label “Made in United States.” BestÅ storage systems also will be manufactured at this site. According to Lindquist, as the remaining plants go online, other IKEA product lines will be manufactured domestically.

According to Joseph Roth, director of public affairs for IKEA in North America, having a manufacturing plant in North America will help lower the overall production and transportation costs, “and help us ensure affordable prices for our customers in the United States and Canada.”

It is a swiftly growing customer base. IKEA’s sales in North America reached \$4.2 billion for fiscal 2007, accounting for 15 percent of the company’s worldwide sales. The United States alone accounted for \$2.9 billion in sales last year, placing it second on the list of sales countries after Germany. By year’s end, IKEA will have 35 IKEA stores in the United States and 11 in Canada, with another two locations, Charlotte, NC, and Tampa, FL, planned for 2009. The majority of the retail stores — two-thirds, says Roth — are located on the East Coast, around major metropolitan areas.

### Cost-Effective, Lean Production Flow

The Danville facility has been supplying product lines to IKEA retail stores in the eastern United States and Canada since April, Lindquist says.

Swedwood utilizes a highly automated, lean manufacturing system to produce the board frame furniture in a continuous, cost-effective flow. According to Lindquist, the manufacturing layout in the Danville location mimics those in Swedwood’s European plant. “The concept setup is for more automation in production than a traditional [U.S.] setup. The product is designed to be produced efficiently in a line,” he says.

Swedwood uses a board-on-panel sandwich technique to produce the strong, but lightweight furniture. To make the product, particleboard and high-density fiberboard panels are cut to size on a Schelling panel saw, which has the capability to process up to 20,000 boards per shift on a daily basis.

Next, the particleboard sides are matched with a honeycomb core and an HDF panel is placed along the top and bottom. After just a few minutes pressing time in the Buerkle press, the constructed panels are cooled before being transferred to an integrated production line for edge processing and treatment.



Swedwood will be manufacturing BESTÅ (pictured), LACK and EXPEDIT storage systems at the Danville, VA, facility.





Swedwood manufactures on a just-in-time basis, using a highly automated production system. Panels are cut-to-size, matched with a honeycomb core, and pressed. The sandwiched panels are cooled, and then transferred to the edge processing and boring line. Finishing for the LACK and EXPEDIT products is done on a UV line. The BESTÅ products receive a foil finish.

Panels for both the LACK and EXPEDIT furniture lines first are sent through a Homag Profiline double-sided sizing and edge-processing machine before being cut on a Holzma Powerline saw. Next in the production line is a Homag Profiline machine capable of double-sided longitudinal edging, as well as transverse edging and profile trimming. Holes are bored on a Weeke Profiline, after which the panels are cut down the center, turned using a Bargstedt panel turner, then conveyed down the line to the Homag Optimat sizing and edgebanding machine. At the end of the line, panels are loaded on a Bargstedt panel loader, before being transferred to the finishing line.

The finishing line is environmentally friendly and also highly automated, with Biesse RBO material handling equipment to minimize lifting by employees. The UV finishing line can apply up to nine different layers of finish and is comprised of a series of Costa sanders, Sorbini roll coaters and Cefla UV ovens. Swedwood uses Akzo coatings, with birch, white, black and a black/brown woodgrain tone designated as the primary colors.

### State & Local Incentives Provide IMPETUS

The Virginia Economic Development Partnership worked closely with the City of Danville and Pittsylvania County to bring the Swedwood project to Danville, VA. Among the inducements provided to Swedwood was the availability of a large labor force and more than \$12 million in incentives.

According to information from the Virginia Governor's office, the list of business incentives offered to Swedwood included: a \$3 million grant from the Governor's Opportunity Fund to assist with the project; a \$1 million grant by the Virginia Investment Partnership program; and \$2.4 million in Tobacco Region Opportunity Funds from the Virginia Tobacco Indemnification and Community Revitalization Commission.

Swedwood also received benefits from the Virginia Enterprise Zone Program, which is administered by the Virginia Department of Housing and Community Development. Swedwood also qualified for up to \$1.35 million in rail and economic access grants from the Virginia Department of Rail and Public Transportation and the Virginia Department of Transportation for road access funding. Training assistance has been provided by the Virginia Department of Business Assistance through its Workforce Services Jobs Investment Program.

When completed, Swedwood will bring more than 700 jobs to the Danville area. For more information about economic development in Virginia, visit [www.yesvirginia.org](http://www.yesvirginia.org).

Although initial production began last month, Swedwood already is installing additional paint, press and edgebanding lines that will add manufacturing capacity to the plant.

Domestic production of the BestÅ storage system product line is slated to begin in June. BESTÅ production will follow a similar manufacturing process, except the products receive a foil finish, using Friz wrapper, instead of the painting, graining or embossing process used on the other lines.

According to Lindquist, Swedwood is an advocate of environmentally sound and efficient manufacturing methods, while producing furniture on a just-in-time basis. The company has coined the term SWOP (Swedwood Way of Production) "as an umbrella for our production, which includes different known techniques, such as SMED (Single Minute Exchange of Die for the rapid conversion of one product to another), 5S (Sort, Straighten, Shine, Standardize and Sustain) and lean manufacturing," Lindquist says.

"By using these cost-efficient construction methods, we're able to produce furniture that lasts a long time, looks good and is affordable," he adds.

Beyond its efforts to minimize waste in the manufacturing process, as both an IKEA subsidiary and supplier, Swedwood not only follows IKEA's environmental and social guidelines, termed IWAY (IKEA Way of Purchasing

Home Furniture Products), but uses it in relationships with its own suppliers. According to the company's Web site, IWAY stipulates a "code of conduct" with regards to minimizing environmental impact and working conditions. Topics covered include: emissions, discharges and noise; chemical storage and management; waste management; environmental improvements and impacts; worker safety; adult and child labor laws; and wood procurement.

According to Lindquist, when possible, Swedwood will source products from local suppliers. One of the reasons the company chose Danville as its location was the availability of sustainable raw materials. A large labor pool was another factor in choosing the location, he adds. With the completion of all phases of the project, more than 700 people from the Danville and surrounding areas will be employed by Swedwood.

### **Vertical Integration Key**

As the primary supplier of board furniture for IKEA, Swedwood's growth rate has followed that of IKEA's — approximately 15 percent a year, Lindquist says.

Both he and Roth agree that a key factor in IKEA's success with consumers has been the availability and affordability of its products. "[As we] grow our presence, we want to ensure we have a reliable supply of product," Roth says.

IKEA is vertically integrated, which helps it to achieve its goal. The company formed Swedwood in 1991 as a safeguard against the possible loss of manufacturing suppliers in Eastern Europe during the period of political and economic unrest. Most recently, IKEA announced it will create another subsidiary — Swedspan — to manufacture particleboard and high-density fiberboard for its board frame furniture. Swedspan will be an affiliate of Swedwood and part of the INGKA Holding group.

Roth says he is unaware of plans to build a Swedspan North American plant in the near future. For now, he says, "We'll continue to source supplies locally."

## **Job Announcements**

### **Sales and Marketing**

Large North American hardwood lumber and log company is seeking an experienced salesperson to represent our company in selling hardwood logs and lumber to the rapidly expanding Chinese secondary forest products industry. This person should have experience in log and lumber markets, a college degree, speak fluent Chinese and English and be willing to travel within China and to the U.S. This is a great opportunity to grow with a well-respected North American timber company who desires to greatly expand its marketing efforts in China. We are experienced in the Chinese market, currently have a representative in Southern China and we are shipping large numbers of containers to China monthly. Our sawmills and timberlands produce a large volume of high quality logs and lumber each month in Red Oak, White Oak, Black Walnut, Hard Maple, Birch, Cherry, Hickory, Ash and most other Northern American species. Preferably we are looking for someone in the Shanghai area, or Northern China including major wood-using areas like Dalian, Tianjin or possibly Beijing. However all applicants will be considered, even outside of these areas. If you feel you are well qualified please let us know and we would like to hear from you.

If you desire to work with an American company with limitless opportunities, please email your resume and cover letter to:

Hongmei Gu, Lead Recruiter

E-mail: [hongmei.gu@gmail.com](mailto:hongmei.gu@gmail.com) (Please write "Great China Job" in your subject line)