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Director's Message

It is quieter on Virginia Tech's campus now with students graduating about a month ago and many of our students working for your companies this summer. It is hard to believe that in 8 weeks they will be coming back with stories of their internships, what they liked and what they didn't. We all believe that the experience that our students get working for your companies is probably one of the most valuable learning experiences they will have during their time in our Department. We continue to suggest strongly (push) all of our students to have an internship for at least one summer. We want to thank all of you that work with students during the internships. If you don't

and would like to set up an internship program, please contact us.

On the job front, we had six students graduate this year, all with jobs or they went on to graduate school. Currently, we have over 20 jobs posted for students looking for full-time employment. This remains one of our major challenges, finding enough students interested in our great discipline to fill all the jobs. This is where we could use your help. There is no question in my mind that some of our best students come from parents or have friends that have been involved in the forest products industry. As I have told many of you, I blame my father for my chosen profession. He sold lumber and managed a hardwood mill all of his life. I put myself through undergraduate school piling lumber, grading logs and sweeping the mill floor on Saturday mornings. So, if you have an employee with children in high school, I hope you will let them know about the great opportunities in forest products marketing and management at Virginia Tech. Not only are there great job opportunities, but your generosity makes available over \$15,000 dollars worth of scholarships to students every year. If you would like information on our programs for your employees, please contact me.

I would like to acknowledge that a long-time friend and past chairman of the Center has retired. Mike Seidl from Frank Miller Lumber Company was Vice President and COO, and had over 16 years with Frank Miller. We want to wish Mike the very best of retirements. During this change, Bob Miller has been promoted to president and COO. We wish Bob the best in his new duties and look forward to working with him in the future.

In this issue, Brian has taken a little different look at the red oak situation for you to think on and a new steering committee has been formed to assist us in directing the Center. I would like you to mark your calendars for October 4th for our annual meeting. That evening our department will be hosting a reception in which we will be awarding the Center's scholarships to our students. If there is anything I can do to help or if you have comments, please feel free to contact me at 540-231-9759 or email me at rsmith4@vt.edu.

Challenges and Opportunities for Red Oak Lumber

The market demand for red oak lumber has been depressed. This has and may continue to negatively affect hardwood sawmills. The decrease in domestic furniture manufacturing; the increased usage of recycled pallet parts; the declining preference for red oak in the cabinet and flooring markets; and the increased substitution of engineered wood products in furniture manufacturing have all contributed to a decline in prices and market demand for red oak lumber. Many mills have been sawing other species that are in higher demand. However, with red oak accounting for a large portion of the eastern hardwood forest, some sawmills don't have the luxury of sawing other species. If mills can't change their product, then what can they do? There are a number of strategic models mills could employ, from Porter's three competitive strategies to the Boston Consulting Group's Matrix. Another is Ansoff's Product Market Opportunity Matrix shown in Figure 1. Existing and new markets are shown on the horizontal axis and existing and new products are shown on the vertical axis¹.

		Markets	
		Existing	New
Products	Existing	<p><u>Market Penetration</u></p> <ul style="list-style-type: none"> • pallets • furniture • cabinets • flooring • millwork • exports • railway ties 	<p><u>Market Development</u></p> <ul style="list-style-type: none"> • export market for low grade lumber and dimension • transportation • timber framing and log homes
	New	<p><u>Product Development</u></p> <ul style="list-style-type: none"> • custom grades • treated lumber <ul style="list-style-type: none"> • radius edge decking • fencing • siding • glulam beams and logs • Paneling • Prefabricated/assembled products 	<p><u>Diversification</u></p> <ul style="list-style-type: none"> • erosion control products • habitat restoration products

Figure 1. Red Oak Lumber Product Opportunity Matrix

A market penetration strategy focuses on traditional markets and existing products. The goal of this strategy is to capture greater market share from your competitors. This strategy can be thought of as the day to day competitive environment. The market development and product development strategies are complementary. As new markets are investigated, products often times have to be modified in order to meet the attributes demanded by the market. There may exist market development opportunities for red oak in low grade lumber exports, transportation, and the timber framing and log home manufacturing markets. These markets may require adjustments to the product in the form of custom grades and treated lumber.

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Center Focus



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Challenges and Opportunities for Red Oak Lumber (continued)

One good example of product and market development research was the Wood In Transportation Program (www.fs.fed.us/na/wit/index.html). The research that was enabled by the funding that this program provided, resulted in many significant achievements a few of which pertain specifically to red oak. Shedlauskas et al.² concluded that high strength glulam red oak beams using No. 2 lumber were feasible. McDonald et al.³ reported the yield of No. 2 and better lumber from red oak cants as 43% and 59% from graded switch ties. Wacker and Cesa⁴ reported that the primary factor for constructing numerous timber bridges is their acceptance by state transportation departments. Unfortunately, this program is no longer being funded. The hardwood lumber industry and specifically red oak lumber demand could benefit from a renewed research, development, and promotion effort focusing on hardwood utilization in the transportation sector.

The treated lumber products suggested with a product development strategy obviously wouldn't be treated with creosote. Wood acetylation is a totally organic wood modification process in which acetic anhydride reacts with the hydroxyl groups (OH) in wood to form an ester⁵. The acetylated wood has greater dimensional stability; is decay resistant; has increased UV protection; and there are minimal or no adverse affects on machining, gluing, strength, or color⁶. The Europeans have acetylated scots pine, radiata pine, poplar and european beech with good results. In fact BSW Timber, a British lumber manufacturer, has announced that it will start distributing acetylated wood, trade named Accoya, made by Titan Wood. According to Rowell⁷, most chemical modification research in the U.S. has been performed on southern pine, ponderosa pine, douglas fir, hard maple and birch. Some research into red oak acetylation has been performed but not recently⁸. The wood modification process holds great promise in terms of market potential and positive environmental benefits.

A diversification strategy requires moving into new markets with new products. This clearly entails greater risk and potentially greater returns. Many would argue, rightfully so, that wooden road mats are not a new market. I would characterize wooden road mats as an erosion control product which is a relatively new, niche market for wood. Wooden road mats are used for logging, pipeline, oil and gas, utilities and construction roads in lieu of gravel. Unfortunately, little information is available about the size or growth potential of this market. An innovative company, called Forest Concepts (www.forestconcepts.com), has pioneered the use of habitat restoration products which are made from small diameter timber. This business model should be investigated for its applicability to red oak and used to restore abandon mine lands or other areas in the East.

As everyone has become well aware, hardwood lumber markets are global and dynamic. As part of this transition, industry must become more dynamic and more global and we must continue to research and develop new markets and new products.

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Center Forms Steering Committee

The Center has held informal steering committee meetings in the past. These meetings consisted of three members and Center faculty and staff. The Center has formed a formal steering committee. The purpose of the committee is to advise the Center so that it can better assist members, students and the forest products industry. The committee is composed of a chairperson and five Wood Science & Forest Products alumnae representing both the hardwood and softwood industry; and national and state government agencies. Committee members include:

- Pat Altham Vice President AHC Export, Committee Chairperson
- Don Bright General Manager Morgan Lumber Company
- Hal Mitchell Manager Atlanta Hardwoods
- Jan Wiedenbeck Project Leader USDA Forest Service
- Brent Wood Sales Representative Rex Lumber Company
- Charlie Becker U & M Forester VA Dept. of Forestry

The committee will be focusing on important issues facing the Center such as recruitment, globalization, research funding, and internships.

Calendar of Events

Center for Forest Products Marketing & Management

- September 15-17, 2006* *Virginia Forest Products Association Meeting*
 The meeting will be held at the Sheraton Ocean Front Hotel in Virginia Beach, VA. For more information contact the VFPA at (804) 737-5625.
- September 21-22, 2006* *Portable Sawmilling Workshop*
 Location TBA.
- October 4, 2006* *Center for Forest Products Marketing & Management 15th Annual Meeting*
 Join us for our annual meeting to be held in conjunction with Wood Week at Virginia Tech.
- October 15-21, 2006* *National Forest Products Week*
 This week is a time to observe and promote the contribution and importance of the forest products to our society.
- October 25-26, 2006* *Forest Products Marketing Short Course*
 The course will introduce forest products, marketing basics, marketing strategy and research to new marketing and sales personnel.