

30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3

INSIDE VT WOOD

News From Audrey Zink-Sharp, Interim Department Head

- Welcome to INSIDE VT Wood for the Fall Semester 2009. The semester is off to a busy start. We have several new students and classes are ramping up. The VT Graduate School has made the following announcements that are of particular interest to our graduate students and graduate advisors:

ETD Resources and Discussion Forum

The Graduate School has created an [ETD wiki](#) open to all Virginia Tech graduate students and is intended to assist students as they work to complete their thesis or dissertation. Please select the link above and bookmark it for future reference.

We will also be offering the ETD Speaker Series this Fall.

Each session will be held in the GLC, Room F and videoconferenced to the Northern Virginia Center, Room 401 from 7p.m. - 8:30p.m.

September 15th: Standard and Manuscript Formats

Dr. Karen DePauw will discuss standard and manuscript ETD formats

October 7th: Copyright

Gail McMillan will discuss copyright, permissions and representing other author's works in your ETD

November 10th: Graduate School Review of your ETD

Graduate School staff will discuss items they check while reviewing your submitted ETD and the timeline of the submission process

New Process related to Preliminary & Final Examination cards

Effective August 17th, the Graduate School will no longer be sending out paper versions of the examination card to committee chairpersons. We will be sending an electronic version of the examination card in PDF format to the student, all committee members, and the departmental graduate coordinator when the exam has been formally scheduled. This will allow for quicker receipt and more widespread availability. Samples of the examination cards can be found under the [Exams section](#) of the Graduate Coordinators wiki.

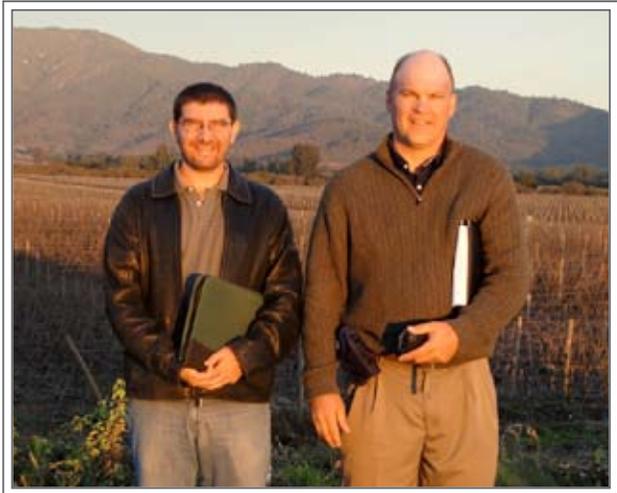
- Wood Week 2009 will not take place. We determined it best not to hold Wood Week this year due to low registration numbers for the various activities. However, we WILL have a scholarship reception later this semester, so stay tuned for the date and location for this event.

Dr. Quesada Visits Chile

Dr. Henry Quesada traveled to Chile from July 4 to July 13 as part of a delegation supported by the Virginia Department of Agriculture and Consumer Services (VDACS) and the Southern United States Trade Association (SUSTA). The delegation had two goals. The first was to attend the VINITECH show held in Santiago from July 9 to July 10 to promote use of white oak (*Quercus Alba*) from Virginia and Kentucky in the wine aging process in Chile. The second goal was

to visit wineries and cooperages in the central region of Chile in order to understand the business opportunities for white oak producers in Virginia and the Appalachian region.

Technical note about the Chilean wine industry: The total wine production in Chile is over 1.2 billion liters per year and the wine industry in Chile needs more than 40,000 new wine barrels every year for production of premium wines. More than 20% of these barrels are made using white oak from the United States, specifically from Missouri, Pennsylvania, Minnesota, Kentucky and Virginia. The rest of the production is mostly made with French Oak (*Quercus robur* and *Quercus Petraea*) with a little contribution of Hungarian and Russian oaks. Also, the Chilean wine industry utilizes oak alternatives (powder, chips and staves) to age entry level wines with an estimated consumption of 2,500 tons of oak alternatives per year. More than 60% of oak alternatives are made of white oak from the United States.



Dr. Henry Quesada and Mr. Joel Stopha from VDACS, during their visit to Ventisquera Vineyard in Central Chile.

For more information please contact Dr. Henry Quesada at quesada@vt.edu

Drs. Hammett and Quesada Presented in Investing in Sustainable Forestry Workshop



On July 15, 2009, Drs. Tom Hammett and Henry Quesada participated as speakers in the workshop “Investing in Sustainable Forestry: A Workshop on FSC-certified Local Wood Markets”. The workshop held at the Roanoke Higher Education Center was organized by Dr. David Robertson of the Department of Forestry at Virginia Tech. Dr. Quesada presented the latest research outcomes on assessing the impact of innovation certification on increasing the wood

products industry competitiveness. Dr. Hammett presented results of a marketing research project that assessed the willingness of forest products specifiers and buyers to purchase locally produced certified forest products. After their presentations both participated on a panel that discussed strategies to improve markets for certified wood products produced in the region. The workshop follows the recently completed USDA funded research project of Virginian Certified Wood Products Manufacturers. Twenty-five representatives from the regional wood products industry and local economic development organizations attended the day-long program. Dr. Bruce Hull and Dr. John Munsell from the Department of Forestry also made presentations during the workshop.

For more information please contact Dr. Henry Quesada at quesada@vt.edu or Tom Hammett at himal@vt.edu

Glasser Treks Biorefinery Developments in Europe

Wolfgang G. Glasser, *Professor emeritus of Wood Science at Virginia Tech*, has continued his involvement in the emergence of biorefineries. After assisting in the establishment of the Wallenberg wood science center in Sweden in the fall of 2008 and spring 2009, Glasser has just returned from Riga, Latvia, where he participated in a 3-day review of a European biorefinery project named *FORBIOPLAST*, which targets the conversion of forest resources into biopolymers. Glasser was invited to present a review on the utilization of lignin in polymeric materials before an audience of the Latvian Institute of Wood Chemistry (with a staff of 120!) and project participants. *FORBIOPLAST* is a collaborative

EU-funded effort with participants from Italy, Spain, Hungary, Romania, Bulgaria, Greece and Norway in addition to Latvia. The project combines research at public and private institutions with development and technology transfer activities to private enterprises. Among the latter are automotive (e.g. Fiat) and chemical companies dealing with products ranging from cosmetics to insulation foams, food packaging, adhesives and composites. Glasser's involvement in the *FORBIOPLAST* project parallels his role in a similar activity by the German federal agriculture ministry described in an earlier newsletter.

While in Europe, Glasser also lectured at the wood chemistry institute of the University of Hamburg, which has recently become a part of the federal *Johan Heinrich von Thuenen Institute*.

Glasser, who has done pioneering work on *biobased materials* and who used to head a research center by the same name at VT between 1986 and 1992, also continues to serve as Editor-in-Chief of the periodical *CELLULOSE*, a 1000-page per year scientific journal dealing with industrial polysaccharides. *CELLULOSE*, which is published by Springer, has just released its issue 16(4), which comprises a collection of 17 articles describing the current state of the *Department of Energy's* (DOE) preparation for a biofuels economy based on cellulose.

Recently released impact factor ratings have again placed *CELLULOSE* in the #1-position of the field of *Materials Science, Paper & Wood*. It is #2 in Materials Science, Textiles and #26 (of 73 journals) in *Polymer Science*. Its impact factor is 1.844. Glasser has directed the journal for the past 10 years.

Office of the Vice President for Research/Sponsored Programs Tours Brooks Center

On July 28, 2009, the Office of the Vice President for Research/Sponsored Programs toured the Brooks Center to learn more about our research efforts. The tour was arranged by Ralph Rupert and conducted by Ralph, Brian Bond, and Dan Hindman. The Office of Research group found our research to be quite interesting and informative.



Brian Bond explains the operation of the solar kiln.



Dan Hindman extols the uses of wood composites.

Ralph Rupert discusses transport simulation using the vibration table.



Pictured back row: Shelly Key, Neil Sedlak, Dr. Tom Inzana, Kim Linkous, Phaedra Lewis, Meghan Thompson, Terry McCoy, Angela Page, Greg Hess, Cory Thompson, Ralph Rupert, and Wally Swink. Front row: Vicky Ratcliffe, Sandra Muse, and Edwina Lamm.

Glasser Attends FBRI Advisory Board Meeting at U'Maine

Wolfgang G. Glasser, Professor emeritus of Wood Science, has just returned from participating in the annual Advisory Board meeting of the University of Maine's **FOREST BIOPRODUCTS RESEARCH INSTITUTE (FBRI)**, held in Orono, ME.

By establishing FBRI, the University of Maine is continuing to build on the momentum created by its forest bioproducts research initiative of 2006. This initiative has so far produced three major research centers and a culture of interdisciplinary collaboration. The participating research programs include the *Center for Research on Sustainable Forests (CRSF)*, established in 2006; the *Advanced Engineered Wood Composites Center (AEWC)*, housed since 2000 in an impressive new facility with piloting capabilities; and the *Process Development Center (PDC)* of the Department of Chemical and Biological Engineering. FBRI, which is expected to receive state-sanctioned "Institute"-status with government funding shortly, is to **provide enhanced focus on developing technologies that transform the current forest products industry into a competitive bioproducts and bioenergy economic driving force.** The Institute is focused on rapid commercialization-support based on pilot-scale technology validation. An important corner stone of this effort is the recent Maine Technology Asset Fund-award for a new 40,000 sq. ft. Technology Center Facility in Old Town, ME.

FBRI combines efforts of the Department of Chemical & Biological Engineering, the School of Forest Resources, the Pulp & Paper Process Development Center, and the Department of Resource Economics & Policy. It also builds on the existing *NSF EPSCoR Research Infrastructure Improvement (RII)* project which incorporates the disciplines of forest resources, chemistry, physics, chemical engineering, biological engineering, wood science, composite products, social sciences and public policy.

The Institute, which is headed by Professor Hemant Pendse of the Department of Chemical and Biological Engineering, has an Advisory Board consisting of 19 members from industry, government, various national research laboratories, land ownership and several NGOs. Glasser is among three current or former academics.

Glasser is the founder of the former Biobased Materials Center, which operated an interdisciplinary research program at Virginia Tech with financial support from the *Center for Innovative Technology (CIT)* between 1986 and 1992. Glasser currently provides advisory services to several other **biorefinery**-type programs in Sweden, Germany, Italy and the USA.