

Provost's Council
ACADEMIC REPORT FOR 2004-2005
College of Forestry

1. 2004-2005 Highlights

a. Programmatic achievements

◆ Initiatives in support of teaching

- We monitor and enhance effectiveness in teaching and advising by conducting student evaluation of teaching is each term. Student evaluation of advising is conducted each year.
- 12 BAC courses are offered, one new course developed in 04-05.
- Seven new 100-400 courses have been developed with the majority offered at Cascade Campus, and Wallowa Resources. WSE has developed a new orientation course (WSE 201).
- Forest Recreation Resources program has been revised. The Natural Resource Program was reviewed. The Student Services office and activities contributing to student success were internally reviewed.
- A new graduate program has been developed in Water Resources, with five new degree options.
- An undergraduate degree in Forest Operations Management is in progress.

◆ Major research/scholarship initiatives

- The College received 169 grants, agreements and contracts totaling over \$12 million, up \$2.5 million from last year. A new position has been approved to assist faculty with proposal preparation.
- Forest Science Department received \$9.1 million in new awards and contracts (second highest department in the university). Includes a wide range of work, for example: Use of isotope signatures to monitor forest ecosystem dynamics, health and productivity in mountainous landscapes (Bond), Feasibility of using ground penetrating radar to estimate heart rot volumes in living trees (Pruyn & Harmon), Impacts of post-fire salvage on wildlife (Hayes), Regional Carbon Balance (Law), Vegetation and wildlife response to gaps in young plantations (Puettmann), Field evaluation of dwarfing genes for biosafety of transgenic woody plants (Strauss), and funding for the Department's seven research cooperatives.
- College faculty have prominent roles in four of the successful Provost's Initiatives: Water and Watersheds, Subsurface Biosphere (SBI), Ecosystem Informatics (EII) and Rural Communities. Two new professorial positions are being created in the Forest Science Department to support two of these initiatives, a Soil Organic Biogeochemist (SBI) and a Forest Landscape Ecologist (EII). Funding from the initiatives will help support both of these positions for five years. Both positions are currently being advertised.
- Forest Resources Department is a partner in the Sustainable Rural Communities Provost's Initiative, along with Colleges of Science, Ag, and CLA. This initiative will address the

needs and challenges of Oregon's rural towns.

- The entire March Issue of the *Journal of Forestry* was devoted to articles reporting the results of a symposium convened by the College on intensive plantation forestry in Portland, January 2004. The papers were edited by Tom Adams, Steve Hobbs and Norm Johnson, and many of the papers were authored by College faculty.
- Glenn Howe and Keith Jayawickrama led the first major review of genetic improvement programs in Douglas-fir in 25 years ("Breeding Douglas-fir) which is soon to be published in "Plant Breeding Reviews" by John Wiley & Sons.
- Kaichang Li has developed a new adhesive for interior wood products which uses soy protein as a key ingredient. It is important for society and the environment because it is formaldehyde free, and made from a renewable resource. This technology has been commercialized with assistance of the Hercules Corporation and Columbia Forest Products, an Oregon corporation. Additional commercialization opportunities are underway.
- Jim Wilson is the lead author on the output from a multimillion dollar study on the life cycle analysis of wood products used in residential construction. The results of this study are being adopted by the US Government in their procurement practices and by the US Green Building Council in the popular LEED standards. Wilson is one of the editors of an entire issue of *Wood and Fiber Science* that is being dedicated to the output of this project.

◆ **Major outreach/ engagement initiatives**

- The Oregon Plantation Productivity and Value Enhancement Program: The mission of this program is to increase the productivity and value of planted forests in the Pacific Northwest through the development of innovations based on integrated systems of silvicultural and operational practices. The target is to improve the competitiveness of the Pacific Northwest in the global wood market. Doug Maguire has been chosen to lead this program.

The program will serve as a clearing house of knowledge on silvicultural and operations systems employed in plantation management, from establishment to harvest. It will conduct research and broker efforts of others to better understand how silvicultural practices and inherent site factors interact to influence productivity, value and sustainability over rotations. The ultimate goal will be to develop decision- making tools to help managers choose combinations of silvicultural and operational practices that maximize productivity and value of their plantations. A draft business plan is currently being developed.

- The Oregon Wood Innovation Center (OWIC) is currently recruiting for a director. The Center is proposed as a way for OSU to enhance innovation in the broad wood products industry. It will provide highly visible access for companies and entrepreneurs to targeted research, technical and business assistance, and extension education relating to new product/market development, technology and process innovation, business and market

planning and economics. The goal is to increase the global competitiveness of Oregon manufacturers. The idea was supported by the *Oregon Business Magazine* and was included in the proposed forest sector initiatives in the *Oregon Business Plan*, among others -0

- The Watershed Research Cooperative: Hinkle Creek paired watershed study is in place on Roseburg Forest Products forestland. It will measure the impact of 2151 century forest practices on diverse watershed characteristics. Scientists are ramping up for the first timber harvest after the summer count of fish. The study will enable them to see instantaneously the reactions of fish to logging within the watershed.

The vision is to have three paired watershed studies across western Oregon. Eastern Oregon is dependant of funding. Each study would be measured for 10 years. Site #2 tentatively identified the Trask watershed on ODF, Weyco and BLM land. Steve Tesch is working with Oregon's Congressional delegation to obtain federal funding for the study. His eventual goal is to receive 75% federal funding and 25% from local sources.

- Sustaining Oregon's Forest Resources through Wildland Fire: The College has been building a program in Wildland Fire Science and related aspects of forest health. Work is underway to strengthen research and outreach efforts in Wildland Fire Science and Ecosystem Health. Two programs have been endowed and two new faculty members have been hired to run the programs.
- The Management Plan for the McDonald Dunn College Forest was revised to enhance the Forest's value as a field lab for teaching, research and demonstration. The plan is now being implemented.

A new position has been created and filled to link teaching, demonstration and research opportunities to academic programs, and seek to and obtain grants and other forms of external funding to support academic use of the College Forests.

Another function of the position will be to maintain a database of academic use of the College Forests highlighting how that use has benefited society.

- Wood Science and Engineering faculty are working on new innovations: Barb Gartner on wood growth, cellulose and nanocomposites; Eric Hansen on innovation management, industry's use of innovation to obtain a competitive advantage in the marketplace; and Jeff Morrell, through the Wood Utility Pole Cooperative, is working on through-boring testing in Douglas-fir poles to enhance electrical pole lifespan and reduce internal decay.

◆ **National/International impact of programs and initiatives**

- Hal Salwasser frequently provides advice and council to federal legislators regarding the Northwest Forest Plan, Healthy Forest Restoration and forest policy.
- With the appointment of John Hayes as Associate Dean for International Programs, we are seeing an expanded focus on international activities, cooperative agreements, international seminars and a small grants program to assist faculty with research activities and projects. John is developing a strategic vision for international programs and working to enhance other international projects. He is working with Gary Hartshorn, President World Forestry Center, and Hal Salwasser to create an international forestry course to be

delivered in September. He is in discussion with German colleagues about a virtual video course. He is also working on a joint degree program for tropical forestry with the University of Queensland in Australia. John was invited to give a presentation at the United Nations in New York City, May, 2005.

- John Simonsen (WSE) played a key role in the development of a National Nanotechnolog~ Research Roadmap that is being used to set the federal research agenda in this area.
- Bob Leichti's (WSE) research on the seismic response of log structures is the basis on a draft International Building Code design standard for use throughout the US.
- Several faculty in the Department of Forest Science have prominent roles on national/international research/policy panels. Some examples:
 - Barbara Bond -NEON Design Consortium (Hydro ecology subgroup), this is the national development of NEON (National Ecological Observatory Network)
 - Mark Harmon - COREO (Consortium of Regional Environmental Observatories) PNW representative
 - Olga Krankina - Lead Author of Chapter 9 "Forestry" in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC, Working group III "Mitigation of Climate Change").
 - Bev Law - Science Steering Committee of the North American Carbon Program and Science Director of Ameriflux.
 - Steve Strauss - Chair, Scientific Advisory Board, Genome Canada-Quebec research consortium "Arborea," studying "Functional Genomics of Regulation of Trees," Quebec City, Canada, 2003, 2004.
 - Hal Salwasser, Chair National Commission on Science for Sustainable Forestry.

b. Faculty recognition and awards

- Steve Hobbs, FS, was appointed by the Governor as Chair of the Oregon Board of Forestry.
- Barb Gartner, WS&E, has been awarded a Fulbright Fellowship for lecturing and research at the Universidad Austral de Chile, in Valdivia.
- K. Norman Johnson, FR, received OSU's Distinguished Professor award
- Kaichang Li, WS&E, with co-authors Svetlana Peshkova and Xinglian Geng were winners of the Archer Daniels Midland/Protein and Co-Products Division Best Paper Award in the engineering/technology category for their paper on "Investigation of Soy Protein-Kymene@ Adhesive Systems for Wood Composites" that appeared in the May 2004 issue of JAOCS Journal of American Oil Chemists' Society).
- Fred Kamke and Jim Wilson, WS&E, were elected as Fellows of the Society of Wood Science and Technology.
- Fred Kamke co-authored a paper that received the 2005 Honorable Mention George G. Marra Award for "excellence in research and writing exhibited in Wood and Fiber Science.
- Joe Karchesy, WS&E, was presented with a "Salute to Excellence" Award given by the Richland, Washington section of the American Chemical Society for support and

- commitment to chemical research and students at all levels.
- Bev Law, FS, World Meteorological Organization Norbert Gerbier-MUMM International Award for 2004 Publication of the Year.
 - Dan Luoma, FS, Distinguished alumnus for 2004, Lane Community College, Eugene, Oregon.
 - The Association of Natural Resources Extension Professionals (ANREP) announced that Scott Leavengood, WS&E, is their 2005 Educational Materials Gold A ward winner for his software ORWood.xls, an Excel based program for estimating shrink and swell in wood. Scott's program has been downloaded by over 1100 users from around the world. [http:// wood.oregonstate.edu/ pubs.php](http://wood.oregonstate.edu/pubs.php)
 - Jeff Morrell, WS&E, was elected the first American President of the International Research Group on Wood Preservation (IRG), and Vice-President of the American Wood Preservers Association (AWPA).
 - Kaichang Li's research on a new wood adhesive has been featured in numerous television interviews, stories in national media and in an NSF-sponsored environmental science television program.
 - Bill Ripple, FR, and Bob Beschta, FE Emeritus, were featured on a PBS *National Geographic Special* and other national media concerning their work on trophic cascades (2004-05).

College Awards/Honors

- Barbara Bond, FS, was appointed to the first Ruth H. Spaniol Chair in Natural Resources (July 1, 2004).
- Milo Clausen, WSE received the Dean's Award for Faculty Research Assistant a Mark Harmon, FS, received an extraordinary ranking in post-tenure review. a John Hayes, FS, was named Associate Dean for International Programs.
- Claire Montgomery, FR, received the Dean's Award in Undergraduate & Graduate Instruction.
- Viviane Simon-Brown, FR, received the Dean's Award for Extended Education. a Jeff Hino, Forestry Media Center, received the Dean's Award for Support Staff.
- Steve Radosevich, FS, received the Dean's Award for Advising, Mentoring and Graduate Instruction.
- Jay Sexton, FS, received the Dean's Award for Service.
- Bill Ripple, FR and Bob Beschta, FE Emeritus, received the Dean's Team Award for Research.
- McDonald Dunn Planning Team, received the Dean's Award for Service: Rick Fletcher, FR; Becky Johnson, FR; Norm Johnson, FR; John Hayes, FS; Debbie Johnson, CF; Nonn Johnson, FR; Dave Lysne, CF; Glen Murphy, FE, Mike Newton, FS; and John Sessions, FE.
- College Forest Management Team, received the Dean's Award for Service: Dave Lysne, Carol Carlson, Jordana Chambers, Tom Edwards, Debbie Johnson, Eric Lamfers, Richard Symons, Trisha Wymore, and Dave Young.
- John Sessions, FE, received the *Aufderheide Award* for excellence in teaching, which is awarded by the students.

c. Student recognition and awards

- Holly Barnard, FS, awarded Ford Foundation Diversity Fellowship (highly competitive

- o nationally).
- o OSU Forest Products Society Student Chapter won the 2005 National Outstanding Student Chapter Performance Award.
- o David DeVallance, WSE Ph.D. Candidate, was awarded the First Place 2005 Wood Award at this year's International Convention of the Forest Products Society. His paper was titled, "Douglas-fir plywood glue bond quality as influenced by veneer roughness, lathe checks and annual ring characteristics." The award consists of \$1000 and complimentary conference registration. The paper was derived from Dave's MS thesis research with Jim Reeb and Jim Funck as co-major professors

College Awards

- o Kelly Axe Award: Michael Taylor (PM) 2004; Tim Drake (PM) 2005; James Mahaffy (PM post-bac) 2005.
- o Paul and Neva Dunn Outstanding Senior Award: Pam Paullin (NR) 2004; Wolf Read (NR) 2005.
- o Pack Essay Award: Brooke Martin (NR) 2004; Wolf Read (NR) 2004; James Mahaffy (PM post-bac) 2005.
- o Harold Bowerman Leadership: Chris Coleman, WS&E.
- o 133 students were awarded College of Forestry scholarships and fellowships in excess of \$470,000 for the 2004-05 Academic year.
- o Forest Engineering Department awarded an additional \$163,000 in fellowships and scholarships to 12 students.
- o Forest Science awarded six supplemental fellowships for a total of \$10,000.

2. Strategic Plan Implementation

a. Focus for 2004-05

Enhancing Student Success

. Maintain Growth of degree program

Undergrad enrollment grew from 362 in 2003-04 to 396 in 2004-05

Graduate enrollment grew from 136 in 2003-04 to 147 in 2004-05

Engaged with EOU personnel to extend Natural Resources degree program to that campus.

. Monitor and enhance effectiveness in teaching and advising

Conducted student evaluation of teaching each term.

Conduct student evaluation of advising each year.

. Offer BAC core courses within CoF

Currently offer 12 BAC courses within CoF; one new course in 2004-05

. Continue development of new graduate program in Water Resources

Five new OSU graduate degrees in water resources established. Students are being accepted for admission.

. Develop new 100-400 courses (since Sept. 2004)

Seven new courses have been created (mostly ORLT and Wallowa Resources) and Curriculum Council approval secured.

Nine CAT II proposals were approved for new 100-400 courses.

. Completed Natural Resources Degree Program Review

Committee recommendations must now be acted upon

. Completed internal review of College programs for Student Success

We still must assess the effectiveness and efficiency of how departmental programs mesh with College and University programs. This cannot be done over the summer due to travel. We must also validate our student success criteria and findings with students when they return this fall. Then we need to determine how best to configure our roles and responsibilities.

• **Enhance recruitment and retention of students**

Enhanced effort and resources devoted to recruiting.

Strengthened support system for 2.5 FTE devoted to high school/CC recruiting.

Initiated additional tracking and contact with students at risk.

Developed new undergrad orientation course (WSE 201) in Wood Science and Engineering.

New College-wide orientation session developed and offered for graduate students.

• **Increase scholarship and fellowships**

Scholarship funding has increased from \$224K (03-04) to \$370K (04-05). Fellowships increased from \$66 to \$103K for the same time period.

A new fellowship in memory of Lee Harris is being developed, and a scholarship in memory of Larry Hoffman has been secured.

Oregon Small Woodlands, has created a new scholarship fund, and the first scholarship of \$ 1,000 will be awarded fall term.

Willamette Industries Legacy Scholarship Fund will be awarded for the first time this fall in the amount of \$6,000/ student in forestry, engineering and business. The goal is to raise \$3 million, which we hope to achieve this year.

A \$500,000 endowment has been established for graduate fellowships in Wildlife Ecosystem Health by the Boone and Crockett Club. WSE department is soliciting industry scholarships.

FE received \$251K from the Stewart Foundation to recruit and retain undergraduate students.

• **Explore new undergraduate degree in Forest Operations Management**

Draft degree program has been supported by FE Advisory Committee and FE/FR Department Curriculum committees.

Draft CAT I has been completed and reviewed by OSU Curriculum Council.

• **Evaluate reduction of FE curriculum to 180 credits**

In concert with COE curriculum Committee, a revised 180 credit curriculum in FE has been completed.

• **Continue development of pilot phase of International Forest Engineering Institute**

Plans complete for the summer international participant study tour in conjunction with the Council on Forest Engineering meeting in Arcata, California.

• **Launch graduate certificate program in Sustainable Natural Resources Management**

Scheduled to be offered Summer 2006. CAT I proposal approved.

• **Engage other colleges in the development of a collaborative water and watersheds research, teaching, and extension program.**

Water and Watersheds Initiative was funded by the Provost.

Five new courses have been developed and are scheduled to be offered as a package in Fall Term '05; marketing is underway.

• **Initiate a new Field Studies Program in Wallowa County.**

Development and marketing completed.

Two field courses approved: FOR 282X, FOR 283X.
Five courses scheduled to be offered Summer 2005.

Increasing Research and Outreach

. Continue development of the Oregon Plantation Productivity and Value Enhancement Program.

A draft business plan is being developed.

. Initiate development to expand the innovative grants program.

A summary of the program's accomplishments has been sent to the Foundation for further development.

. Begin development of programmatic focus on multi-scale forest ecosystem processes and assessment sciences.

Ecosystems Informatics Initiative funded by Provost. Recruitment of a landscape ecologist has begun.

. Build program focus in soils and below-ground ecosystems in cooperation with College of Agricultural Sciences

Subsurface Biosystem Initiative funded by Provost. Recruitment of a soils organic biogeochemist has begun. FE graduate program concentration has been approved in Forest Soil Science.

. Begin pursuit of new initiatives in ecosystem health, protection, and restoration.

Dr. David Shaw from the University of Washington was hired as a Forest Health Extension Specialist. A new silviculturist has been recruited to include work on wildland fire.

. Expand the Watersheds Research Cooperative

Initial \$500,000 of federal support was obtained; \$310,000 has been provided by local cooperators. Hinkle Creek Science Team is collecting preharvest calibration data.

. Develop framework for a new initiative in log value recovery.

Forestry Executive Committee will consider a proposal from Glen Murphy in 2005.

. Engage other colleges in the development of a collaborative water and watersheds research, teaching, and extension program.

Water and watersheds initiative was funded by the Provost. Recruitment is currently underway for a Director of WWI.

. Explore development of an Eastern Oregon forest sustainability and enhancement research and outreach program.

A draft proposal has been developed.

. Revise College Forests' management plan to enhance value as field lab for teaching, research, and demonstration.

Plan has been finalized and implementation is in progress.

. Pursue new initiatives in wood-based materials science through the JELD-WEN endowed chair.

Fred Kamke has been hired to fill the JELD-WEN Chair.

. Wood Innovation Center

Recruitment in progress for Director of OWIC

. Wood-based Composites

John Nairn, a world-class material scientist from the University of Utah was recruited to fill the Richardson Chair in WS&E. Dr. Nairn and JELD-WEN Chair Fred Kamke form the nucleus of a major new initiative to establish OSU as a world center in bio- based composite materials.

. Continue to implement financial management strategies to reduce costs and increase

revenues.

A new position has been approved to assist faculty with grant proposal preparation.

. Establish Lematta Professorship in Forest Engineering.

Funding agreement completed with Wes and Nancy Lematta. Loren Kellogg was selected as the Lematta Professor.

. Increase grants and contracts that recover a higher percentage of indirect costs.

Develop electronic links to RFPs issued by key funding agencies and alert faculty to new funding opportunities.

. Continue the development campaign to raise new revenues.

Lisa French is building a comprehensive development plan for the College. She is creating development plans for HJ Andrews Experimental Forest and for International Programs. She is working on a land acquisition marketing campaign for forestry and agricultural lands.

. Initiate development activities to expand the College's Innovative Grants Program

A summary of the program's accomplishments has been sent to the Foundation for further development.

. Develop a College continuing education curriculum.

Increasing Diversity

. Increase efforts to identify and recruit faculty, staff, and students from under-represented groups.

Continue to support Inner City Youth Institute and Latinos in Forestry K-12 programs.

Developing plan to recruit and retain Native American undergraduates.

FE Dept. hired a female professorial faculty on fixed-term appointment.

. Increased training for search committees.

FR Silviculture and Recreation Management Search Committees engaged Affirmative Action personnel in process.

Sponsored in-house training for Staff support to Search Committees

. Increase scholarships and fellowships available to students of underrepresented groups.

In an effort to increase scholarships and fellowships for students of underrepresented groups, a tracking system has been developed.

FE was awarded a \$51K grant from OSU Foundation Women and Philanthropy

Committee to recruit women and minorities.

FR Richardson Fellowships continue to be awarded primarily to minorities and females.

. Developing a Diversity Action Plan

A progress report has been submitted to the Provost.

Self-assessment

What we are doing is working, but we must put more effort into student recruitment and retention of underrepresented groups. Lack of females in search pools constrains faculty diversity.

b. Major unit activities during 2004-2005 that helped promote one or more of the thematic areas

. The Forest Recreation Resources program has been revised. The Natural Resource Program was reviewed. The Student Services office and activities contributing to student success were internally reviewed.

. The College received 169 grants, agreements and contracts totaling over \$12 million, up \$2.5

million from last year.

- . Forest Science Department received \$9.1 million in new awards and contracts (second highest department in the university).

- . College faculty have prominent roles in four of the successful Provost's Initiatives: Water and Watersheds, Subsurface Biosphere (SBI), Ecosystem Informatics (EI) and Rural Communities.

- . The College initiatives have created enthusiasm and interest throughout the state.

- . The Oregon Plantation Productivity and Value Enhancement Program

- . The Oregon Wood Innovation Center (OWIC)

- . The Watershed Research Cooperative: Hinkle Creek paired watershed study

- . Sustaining Oregon's Forest Resources through Wildland Fire

- . The Management Plan for the McDonald Dunn College Forest was revised to enhance the Forest's value as a field lab for teaching, research and demonstration.

http://www.cot.orst.edu/restor/clan2_004/

3. Other initiatives and their outcomes

- o Bev Law completed the Aldo Leopold Leadership Training Program.
- o Steve Strauss is currently in the Aldo Leopold Leadership Training Program.
- o First Aid and CPR Classes have been provided for all new summer employees this year, as well as refresher classes for permanent employees.

4. Scorecard

a. Performance on college-level metrics

1.1 Expenditures from grants and contracts was down very slightly. 1.2 Inventions were up 50%.

1.3 68.3 % of students are comfortable with climate for diversity. We believe this to be low, as the sample was very small. A subsequent survey of our own showed a much more favorable response.

1.4 The percent of minority students of total College enrollment has decreased slightly. We continue to recruit minority students and have recruiters specifically assigned to Hispanic and Inner City youth.

1.xl External Funds generated per state dollar has increased slightly.

2.1 First year retention within the College has increased by 2.6% while the University has decreased 2.8%

2.2 Six year graduation rate has decreased 3.6% while the University has decreased 2%. 2.3 Undergraduate degrees awarded decreased by 4, however the enrollment has increased by 34 from last year.

3.1 Awards from grants and contracts have increased significantly, \$6 million from last year. Forest Science received \$9.1 million in new awards and contracts.

3.2 Private giving revenue has increased \$4 million and next year should be even better.

Leveraging resources

- . Initiatives to leverage state resources

- o Oregon Plantation Productivity and Value Enhancement Program

- o Oregon Wood Innovation Center

- o Sustaining Oregon's Forest Resources through Wildland Fire

- o Several research cooperatives are funded by OSU and member organizations that jointly select and carry out research on high-priority research problems. Swiss Needle Cast and

Hinkle Creek are especially prominent at this time in the State.

- Swiss Needle Cast Cooperative (SNC)
- The Watershed Research Cooperative - Hinkle Creek (WRC)
- Hardwood Silviculture Cooperative (HSC) 0 Nursery Technology Cooperative (NTC)
- Pacific Northwest Tree Improvement Research Cooperative (PNWTIRC)
- Vegetation Management Research Cooperative (VMRC)

. Initiatives to improve administrative efficiencies

We are currently recruiting to permanently fill the Associate Dean for Academic Affairs (0.5 FIE), and also for an Executive Associate Dean (0.5FIE). A search will soon be underway to fill an Associate Dean for Extension and Outreach Education.

5. Proposed Goals for 2005-2006

. Enhancing student success

Implement recommendations from Student Services review.

. Increasing research/ scholarship and outreach

Support faculty in grant proposal preparation.

Support Vice President for Research in developing OSU-Inc.

. Enhancing diversity and community, including international dimensions

Be successful in reconfiguring NAMSS for continued NSF support.

Be successful in obtaining NSF grants for leadership development of women faculty. Implement new international programs cited above.