



NOTICE OF VACANCY

Endowed Chair Tree Fruit Whole Plant Physiology and Production Systems Washington State University

WORKING TITLE: Endowed Chair Tree Fruit Whole Plant Physiology and Production Systems funded 100% research (Agricultural Research Center)

RANK: Associate Professor or Full Professor, 12-month, tenure track

LOCATION: Washington State University (WSU) Tree Fruit Research and Extension Center (TFREC), Wenatchee, Washington

SALARY: Competitive and commensurate with position, training and experience.

EFFECTIVE: September 1, 2012

The College of Agricultural, Human, and Natural Resources Sciences (CAHNRS) through the Department of Horticulture seeks a nationally/internationally recognized leader in apple and pear physiology/biology to serve as a core member of our tree fruit research and extension team.

General Information

The endowed chair will lead WSU's pome fruit whole-plant physiology and production systems horticulture research program as appropriate to the Pacific Northwest. The individual will address practical fruit production issues that will enhance the profitability and competitiveness of the WA apple and pear industry. This position is funded by an endowment made possible by a recent historic \$27 million investment made by the state's tree fruit growers for the purpose of supporting tree fruit research and extension at Washington State University. This investment represents the largest private commitment to WSU to date.

Known for its iconic apple, Washington State is recognized globally as the world's premier tree fruit production region, with more than 230,000 (180,000 apple) acres of tree fruits statewide and more than \$6 billion of annual economic impact. More than a third of apple and cherry production is exported annually. The TFREC in Wenatchee is in the center of this large production region, which includes the Yakima Valley and Columbia Basin that are easily accessible from Wenatchee. The long, warm summer days, cool nights, low precipitation, and volcanic soils make central WA ideal for irrigated fruit production as well as other high value horticultural crops and represents one of the most agriculturally-diverse regions in the U.S. The tree fruit industry is committed to sustainable agricultural practices and conservation of water resources. The tree fruit industry annually provides approximately \$3.5 million in

competitive funding through the Washington Tree Fruit Research Commission for projects of interest and value to the industry.

RESPONSIBILITIES:

The Endowed Chair will lead the WSU Department of Horticulture pome fruit whole-plant physiology and production systems horticulture program, emphasizing research that creates innovative solutions to production issues. Acquisition of competitive extramural funding to support a comprehensive research program is expected. Applied physiology and orchard systems research may include studies on source/sink relationships, crop load management, training systems, rootstock/scion interactions, drought and nutrient stresses, flowering and fruit set, plant growth regulation, modeling physiological aspects of orchard system performance, physiological adaptation to high density planting systems, whole tree photosynthesis/gas exchange, cold/heat tolerance, etc. Access to apple and pear genotypes with varying degrees of resistance to pathogens, insects, temperature stress, drought, physiological disorders, etc. from the pome fruit breeding and genetics program offers unique opportunities for fundamental research on the metabolic bases of susceptibility to stress in apple and pear. Participation in formal dissemination of horticulture/physiology-related knowledge to undergraduate and graduate students via guest lectures, team teaching activities and graduate student supervision is expected.

The program complements other Tree Fruit Research and Extension Center (TFREC), Departmental, inter-Departmental, and USDA statewide initiatives, such as tree fruit genomics, pome and stone fruit breeding and genetics, tree fruit virology, disease forecasting, post-harvest biology/technology, integrated pest management, and automation technology.

The successful candidate will emphasize collaborative programs with state, federal, private research and extension personnel to strengthen an interdisciplinary horticultural research team focused on pome fruit. The successful candidate will actively pursue extramural research funding, contribute scholarly literature, and enhance the national and international scope and reputation of the WSU pome fruit horticulture program. The successful applicant will be expected to conduct an approved program of research consistent with the mission of the WSU Agricultural Research Center, and work effectively with other researchers, extension specialists and area agents, private crop consultants, and with the grower community and stakeholders. The successful candidate will participate in regional meetings, promote pome fruit horticulture, and write for popular/grower press in addition to publishing extensively in scientific journals. Teaching responsibilities will include the mentoring and supervision of graduate students.

As part of a team of faculty with research and extension expertise including automated systems, applied physiology, genomics, genetics and breeding, and crop protection, the Endowed Chair will develop an internationally recognized program in integrated tree fruit biology. The Endowed Chair will benefit from working closely with the Extension Tree Fruit Program Leader to translate and disseminate practical, research-based information emanating from WSU's expanding tree fruit program. The Endowed Chair will be recognized nationally and internationally for his/her involvement in state-of-the-art research and education activities emerging in the tree fruit industry.

QUALIFICATIONS:

Required:

- 1) Ph.D. in horticulture or a related plant science discipline at the time of application.
- 2) Qualified for appointment at associate or full professor rank in the Department of Horticulture.
- 3) Demonstrated record of scholarly accomplishments in plant physiology and cropping systems management.

Preferred:

- 1) Demonstrated ability to communicate effectively with technical and non-technical audiences in oral, written, and electronic forms.
- 2) Demonstrated leadership in developing and executing an intensive interdisciplinary research program in tree fruit biology.
- 3) Demonstrated excellence in research, graduate student mentoring, and interdisciplinary team building.
- 4) Demonstrated record of acquiring extramural competitive grant support.
- 5) Knowledge of orchard, or other perennial crop, management systems and field research.
- 6) Extensive knowledge of state-of-the-art techniques applicable to tree fruit biology/physiology research.
- 7) Demonstrated capacity in quantification of plant biology processes that would lead to the development of predictive models.

WSU/Industry Partnership

In partnership with the State's tree fruit industry, Washington State University strives to be the world leader in tree fruit research and education. Today, WSU's tree fruit effort includes more than 30 faculty who dedicate the majority of their time and effort to tree fruit research and extension. These faculty span ten academic disciplines – horticulture, biological systems, engineering, entomology, plant pathology, soil science, food science, agricultural economics, agrometeorology and rural sociology – and are located on the main Pullman campus, at three research and extension centers, and in regional extension units. This effort is supplemented with the activities of scientists in the USDA-ARS Tree Fruit Research Laboratory located in Wenatchee and the Washington Tree Fruit Research Commission.

WSU has continued to advance its tree fruit research and education program with recent investment in faculty positions in breeding and genomics, automation and mechanization, as well as the purchase of a 150-acre research and demonstration orchard near Wenatchee. The historic \$27 million investment from the state's tree fruit producers will add six endowed chairs, at least five extension/tech transfer positions, and provide operating funds for research orchards.

The Washington Tree Fruit Research Commission uses grower assessments on fruit produced in the state to competitively fund research efforts in partnership with WSU on aspects of tree fruit production, including germplasm and rootstock development, physiology and agronomic management, improved post-harvest practices, sensory eating quality and crop protection. Approximately \$3.5 million per year is provided in tree fruit research grants.

Washington State University (WSU)

Founded in 1890, WSU is a comprehensive land grant university with teaching, research, and extension missions, and one of two research universities in the state of Washington. WSU is organized into nine academic colleges, the Honors College, and the Graduate School. It has an enrollment of approximately 25,000 students on four campuses (Pullman, Spokane, Tri-Cities, and Vancouver) with approximately 20,000 students located on the main campus in Pullman, WA. WSU ranks among the top 50 public research universities and is a Carnegie I, Doctoral/Research Extensive University. The University strongly values diversity among its faculty, staff, and students and seeks to ensure a welcoming climate for all. Further information about the University can be found at: www.wsu.edu.

Department of Horticulture

The department (<http://hortla.wsu.edu>) is in the College of Agricultural, Human, and Natural Resource Sciences (CAHNRS, <http://www.cahnrs.wsu.edu>). The department has fully integrated programs in teaching, research, and extension, involving approximately 27 faculty, 22 adjunct faculty, 20 research

associates, and numerous administrative professionals and support staff statewide. The administrative office is located on the main campus in Pullman with 52% of the faculty located across two branch campuses (<http://www.spokane.wsu.edu>; <http://www.tricity.wsu.edu>) and four statewide Research and Extension Centers:

- WSU Irrigated Agriculture Research and Extension Center in Prosser, Washington (<http://www.prosser.wsu.edu>)
- WSU Mount Vernon Northwestern Washington Research and Extension Center (<http://www.mtvernon.wsu.edu>)
- WSU Puyallup Research and Extension Center (<http://www.puyallup.wsu.edu>)
- WSU Tree Fruit Research and Extension Center in Wenatchee, Washington (<http://www.tfrec.wsu.edu>)

To support the department's commitment to Specialty Crops, strategic hires have been made in *Rosaceous* genetics, genomics and plant breeding, which has emerged as a preeminent area within the Department and College. The Orville A. Vogel Plant Biosciences Building on the Pullman Campus, the first of five under construction or planned in the Biotechnology Complex, opened in 2005 and features state-of-the-art teaching and research facilities in support of an expanded university-wide effort in this area. A recently published analysis ranks Plant Science research productivity at Washington State University in the top echelon of universities nationwide.

Degree Programs

The department contributes to the Integrated Plant Science (IPS) undergraduate degree program administered through CAHNRS. Horticulture-based majors include: Fruit & Vegetable Management; Viticulture & Enology; Landscape, Nursery & Greenhouse Management; Agricultural Biotechnology; and Landscape Design & Implementation. The department also participates in the interdisciplinary Bachelor of Science in Agriculture and Food Systems (AFS) degree program (<http://afs.wsu.edu/>). Fostering undergraduate experience in research and creative practice is a departmental priority.

The department has a robust and growing graduate program with approximately 45 graduate students seeking degrees in Horticulture (MS and PhD), Landscape Architecture (MSLA), and interdisciplinary degrees in Molecular Plant Science (PhD), and Master of Agriculture (MAG) programs.

WSU Tree Fruit Research & Extension Center - Wenatchee

This position is located at the Tree Fruit Research and Extension Center (TFREC) in Wenatchee in one of the principal production areas in Washington State. The TFREC is one of several research centers of the College of Agricultural, Human, and Natural Resource Sciences. Comprehensive research projects are conducted by Washington State University and United States Department of Agriculture (USDA) collaborating scientists in all phases of orchard culture, pest control, fruit harvesting and handling, fruit maturity, storage, grading and packaging. These programs also include basic science aspects of plant physiology, entomology, plant pathology, soil science, horticulture, economics and biochemistry. Research programs at the TFREC emphasize primarily apples, pears and sweet cherries although some research is conducted on apricots, peaches and plums. Production and postharvest research is also conducted in orchards of cooperating growers throughout the major fruit production areas of Washington and in cooperation with fruit packinghouses. The core of the TFREC facilities is the main center campus located in Wenatchee, which includes office, laboratory, and greenhouse space for WSU and USDA scientists. A newly dedicated state-of-the-art research orchard in Wenatchee provides field research facilities for these same scientists plus those from the main Pullman campus and other research centers around the state.

Location

The Greater Wenatchee Area has a population of approximately 65,000 and straddles the Columbia River in the center of Washington. In addition to excellent primary and secondary schools, Washington State University offers upper-division and graduate-level courses and programs through distance-learning opportunities located on the Wenatchee Valley College campus. Wenatchee is located on the eastern edge of the Cascade Range, thus providing abundant recreational opportunities. In addition to local attractions, year-round art and cultural events, and a thriving seasonal farmers' market, the City of Seattle and the greater Puget Sound Region lie 150 miles to the west. For more information about Wenatchee and the region visit the chamber of commerce web site <http://www.wenatchee.org/>.

APPLICATION PROCESS:

Screening of application materials will begin April 22, 2012. To apply visit: www.wsujobs.com and be prepared to submit a detailed letter of application addressing the required and highly desired qualifications, a statement of vision and goals, a detailed resume/vita with publications list, and the names, addresses, and contact information for at least four professional references. For questions about the position contact: Dr. Amit Dhingra, Chair, Search Committee: 509-335-3625, adhingra@wsu.edu.

For information on application status, contact Ms. Beverly Brantner at 509-335-3943, brantner@wsu.edu.

WASHINGTON STATE UNIVERSITY IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EDUCATOR AND EMPLOYER. Members of ethnic minorities, women, special disabled veterans, veterans of the Vietnam-era, recently separated veterans, and other protected veterans, persons of disability, and/or persons age 40 and over are encouraged to apply.

WSU is committed to excellence through diversity, has faculty friendly policies including a partner accommodation program, and a NSF ADVANCE Institutional Transformation grant (see <http://www.excelinse.wsu.edu/>).

WSU employs only US citizens and lawfully authorized non-US citizens. All new employees must show employment eligibility verification as required by the U.S. Citizenship and Immigration Services.

Washington State University is committed to providing access and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation in the application process, contact Human Resource Services: 509-335-4521(v), Washington State TDD Relay Service: Voice Callers: 800-833-6384; TDD Callers: 800-833-6388, 509-335-1259(f), or hrrs@wsu.edu