



NOTICE OF VACANCY

Assistant/Associate Professor Tree Fruit Physiology Washington State University Search # 41746

- TITLE:** Tree Fruit Physiologist
- RANK:** Assistant/Associate 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:** July 1, 2013, or as negotiated

GENERAL INFORMATION:

The Department of Horticulture is seeking candidates for a tenure-track, 12-month, 100% Agricultural Research Center funded position to become a core member of our tree fruit research and extension team. The incumbent will be expected to develop a high profile and productive research program in the general area of physiology of tree fruits.

Known for its iconic apple, Washington State is recognized globally as one of the world's premiere tree fruit production regions with more than 220,000 (170,000 apple) acres of tree fruits statewide worth more than \$6 billion in annual economic impact to the state. Washington's fruit exports are highly sought after worldwide, with more than a third of apple and cherry production exported annually. This position is located at the WSU Tree Fruit Research and Extension Center (TFREC) in Wenatchee central to the state's production regions, including the Yakima Valley and Columbia Basin. 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 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 incumbent will provide leadership in developing and conducting basic and applied research in the general area of physiology of tree fruits in collaboration with the tree fruit research and extension team and the industry. Developing a fundamental research program that leads to innovative and creative

solutions to production problems is key to the position. The person in this position is expected to develop an internationally recognized research program on basic and applied aspects of the effects of various stressors (e.g., heat, light, water, nutrient) on tree and fruit growth and development. Research will focus on understanding processes and mechanisms that regulate vegetative and reproductive growth, development and quality at physiological, biochemical and molecular levels. Possible areas of study include the biology of rootstock/scion interactions, cold hardiness, water relations and water use efficiency, mechanistic studies to understand how in-season production and management affect retention of postharvest fruit quality, hormonal control of source/sink relationships, flowering and fruit set, and the role of secondary metabolites in contributing to stress resistance and fruit quality attributes. Relevant skills include in depth knowledge of plant physiology, pomology, plant/fruit biochemistry, and molecular biology and/or genetics.

The incumbent will collaborate with the Endowed Chair of Pomology and work closely with the Tree Fruit Extension Leader Endowed Chair to communicate program results to stakeholders. Access to apple, pear, and cherry genotypes with varying degrees of resistance to biotic and abiotic stress from WSU's pome and stone fruit breeding programs offers unique opportunities for fundamental research in the area of functional genomics. The incumbent will benefit from working closely with our breeding, genetics, and genomics teams to help understand gene function and to characterize the stability and expression of complex traits in response to stress and management inputs.

The successful candidate will be required to seek and secure extramural research funding, contribute scholarly literature, teach and mentor undergraduate and graduate students, and effectively communicate research results to stakeholder groups.

This research position complements other programs at the TFREC, Departmental, inter-Departmental, and USDA statewide initiatives, such as tree fruit genomics, pome and stone fruit breeding and genetics, pomology, tree fruit virology, disease forecasting, postharvest biology/technology, integrated pest management, phenomics, and automation technology. The successful applicant will conduct an approved program of research consistent with the mission of the WSU Agricultural Research Center.

QUALIFICATIONS:

Required:

- 1) Ph.D. in horticulture or a related plant science discipline at the time of hire.
- 2) Demonstrated record of scholarly accomplishments in plant physiology commensurate with career level and sufficient to achieve tenure if applying for associate professor rank.

Preferred:

- 1) Demonstrated ability to communicate effectively with technical and non-technical audiences in oral, written, and electronic forms.
- 2) Demonstrated ability to conduct original research in tree fruit biology/stress physiology.
- 3) Demonstrated ability or capacity to teach/mentor undergraduate and graduate students.
- 4) Demonstrated record of or capacity to acquire and/or manage extramural competitive grant support.
- 5) Knowledge of orchard, or other perennial crop, management systems and demonstrated experience in field-level research.
- 6) Extensive knowledge of state-of-the-art techniques applicable to perennial plant biology/physiology research.
- 7) Ability to work effectively with interdisciplinary teams composed of multiple institutions and stakeholders and commodity groups.

WSU Tree Fruit Research & Extension Center - Wenatchee

This position is located at the TFREC in Wenatchee (<http://www.tfrec.wsu.edu>), 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 at this center by WSU faculty and USDA-ARS 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. Production and postharvest research is also conducted in orchards of cooperating growers throughout 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 state-of-the-art research orchard near 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. This area straddles the Columbia River and is in the geographic center of Washington. In addition to Wenatchee having excellent primary and secondary schools, WSU offers upper-division and graduate-level courses and programs through distance-learning opportunities at the center as well as at 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 farmer's 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/>.

WSU/Industry Partnership

In partnership with the Washington 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 over 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 and the Washington Tree Fruit Research Commission both located in Wenatchee, and the USDA-ARS Yakima Agricultural Research Laboratory in Wapato, WA

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 research and demonstration orchard near Wenatchee. A recent gift of \$27 million from the tree fruit industry provides funding for seven new endowed chairs that will result in WSU being one of the elite tree fruit research institutions in the world.

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 Washington State. 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 approximately half 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 programs (<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 39 graduate students seeking degrees in Horticulture (MS and PhD) and interdisciplinary degrees in Molecular Plant Science (PhD), and Master of Agriculture (MAg) programs.

A newly dedicated state-of-the-art research orchard in Wenatchee provides field research facilities for scientific teams in addition to those from the main Pullman campus and other research centers around the state.

APPLICATION PROCESS:

Screening of application materials will begin April 1, 2013. To apply visit: www.wsujobs.com and be prepared to submit a detailed letter of application addressing the required and preferred qualifications, a statement of vision and goals for how your program would impact PNW tree fruit industries, 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. Matthew Whiting, Chair, Search Committee: 509-786-9260, mdwhiting@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: 1-800-833-6384; TDD Callers: 1-800-833-6388, 509.-335-1259(f), or hrs@wsu.edu.