WASHINGTON STATE UNIVERSITY
Department of Plant Pathology

PhD Graduate Student Assistantship in Plant Pathology

Department of Plant Pathology, Washington State University, Pullman, WA and WSU NWREC, Mount Vernon, WA. A position for a Ph.D. student is available to: (i) research plant health and root disease issues resulting from growing crops using biodegradable mulches (BDMs) under high tunnel systems, (ii) help define the relative ability of existing and emerging BDM products to meet performance standards and completely biodegrade in the soil environment, and (iii) help document the presence/absence of mulch by-products in the soil environment and their effects on soil ecology.

This assistantship is available through the WSU plant pathology department and vegetable pathology program at WSU NWREC in Mount Vernon. The Ph.D. student will work under the direction of Dr. Debra Ann Inglis on the project, *Biodegradable Mulches for Specialty Crops Produced under Protective Covers*. Collaborative work on the project will also be done in laboratories at Washington State University in Pullman, at Western Washington University in Bellingham, WA, and at WSU NWREC; these are under the direction of Dr. Karen Leonas, Dr. Marion Brodhagen, and Dr. Carol Miles, respectively. The student will be part of a national team of interdisciplinary scientists, and opportunities for travel will be available.

The main focus of the overall project is to investigate specialty crop production efficiency, productivity, and profitability under high tunnels and biodegradable mulch (BDM) production systems, which includes the agricultural, environmental, economic and social implications of adapting high tunnels and BDMs in specialty crop agriculture. Essential to this effort is an understanding of the impacts of high tunnels and BDMs on plant health and root diseases. A field study across three locations in Washington, Texas and Tennessee where tomato will be grown with currently available and new formulations of prospective BDMs, as well as, tomato, lettuce and strawberry crops grown inside and outside high tunnels, is now being planned by project cooperators.

The student will spend at least two semesters on the main campus in Pullman for required course work, and provide assistance to Leonas' laboratory research activities. Field, greenhouse and laboratory studies are anticipated for Mount Vernon and Bellingham. Some classes may be able to be taken at WSU Mount Vernon NWREC via WSU distance delivery. Student housing in a renovated farmhouse is available at NWREC for a modest monthly fee with advance notice.

Required Qualifications. An M.S. in plant pathology, horticulture, soil microbiology, or a related field. A strong background in plant pathology field research techniques, plant disease diagnosis, environmental monitoring and statistics, is essential. Applicant must have an interest in diseases of vegetables and small fruits, and specialty crop production systems, as well as an interest in biodegradable alternatives to agricultural plastics and soil ecology. The ability to

PO Box 646430, Pullman, WA 99164-6430
509-335-9541 • Fax: 509-335-9581 • plpath@mail.wsu.edu • http://plantpath.wsu.edu

work as a team member with interdisciplinary collaborators across locations is essential. The successful candidate must have excellent oral and written communication skills and be able to work independently. The applicant also must have excellent record keeping abilities and be able to adapt to multiple experimental approaches across multiple locations within the U.S.

Availability. Summer or Fall semester, 2010.

Application. Applicants should email Dr. Debra Ann Inglis directly (dainglis@wsu.edu) to indicate interest in this position. Applicants must follow departmental guidelines on applying to WSU's plant pathology graduate program and to the Graduate School. See: http://plantpath.wsu.edu/students/appcheck.html

Financial support in the form of a research assistantship (including health insurance, tuition waiver and other benefits) will be provided. For more information please visit: http://plantpath.wsu.edu/students/prostudents.htm

University and Community and R&E Center. Washington State University (WSU), the state's land grant university, provides world-class education to more than 25,000 students statewide. Plant research at the University is consistently ranked among the top five nationwide in terms of research productivity. The University's plant researchers are among the most highly cited in the world according to ISI Highly Cited Researchers List. WSU's main campus is located in Pullman, a college town of about 27,000. Together with the University of Idaho, eight miles to the east in Moscow, ID, the region provides diverse cultural and intellectual activities for a combined community of more than 50,000 people.

WSU's Northwestern Washington Research & Extension Center (NWREC) is located in the Skagit Valley of northwestern Washington. This region is well known for its scenic beauty, the Cascade Mountain Range, and Puget Sound. The center's mission is to serve the agricultural, horticultural and natural resource science interests of the state through research and extension activities that are enhanced by the unique conditions of northwestern Washington: a mild marine climate, diverse small and mid-sized farming enterprises and compressed rural-urban interface.
WSU-NWREC is one of four off-campus WSU Research and Extension Centers operated by the College of Agricultural, Human and Natural Resource Sciences (CAHNRS). The Agricultural Research & Technology Building completed in 2006, includes offices, modern laboratories, greenhouse bays, a public auditorium and demonstration kitchen, distance learning and video teleconferencing capabilities. For more information see: http://mtvernon.wsu.edu

EEO/AA/ADA