POSITION DESCRIPTION

Position Title: Research Officer (Plant Pathology)
Organisation Unit: Queensland Alliance for Agriculture and Food Innovation
Position Number: 3025313
Type of Employment: Full-time, fixed term until 5 November 2020
Classification: Research Academic Level A

THE UNIVERSITY OF QUEENSLAND

The University of Queensland (UQ) contributes positively to society by engaging in the creation, preservation, transfer and application of knowledge. UQ helps shape the future by bringing together and developing leaders in their fields to inspire the next generation and to advance ideas that benefit the world. UQ strives for the personal and professional success of its students, staff and alumni. For more than a century, we have educated and worked with outstanding people to deliver knowledge leadership for a better world.

UQ ranks in the world’s top universities, as measured by several key independent ranking, including the Performance Ranking of Scientific Papers for World Universities (45), the US News Best Global Universities Rankings (52), QS World University Rankings (55), Academic Ranking of World Universities (55), and the Times Higher Education World University Rankings (60). UQ again topped the nation in the prestigious Nature Index; and secured a greater share of Australian Research Council grants in 2016 ($24.5 million) than any other university nationally.

UQ has an outstanding reputation for the quality of its teachers, its educational programs and employment outcomes for its students. Our students remain at the heart of what we do. The UQ experience –the UQ Advantage – is distinguished by a research enriched curriculum, international collaborations, industry engagement and opportunities that nurture and develop future leaders. UQ has a strong focus on teaching excellence, winning more national teaching excellence awards than any other in the country and attracting the majority of Queensland's highest academic achievers, as well as top interstate and overseas students.

UQ is one of Australia’s Group of Eight, a charter member of edX and a founding member of Universitas 21, an international consortium of leading research-intensive universities.

Our 50,000-plus strong student community includes more than 13,000 postgraduate scholars and more than 12,000 international students from 144 countries, adding to its proud 230,000-plus alumni. The University has about 7,000 academic and professional staff and a $1.7 billion annual operating budget. Its major campuses are at St Lucia, Gatton and Herston, in addition to teaching and research sites around Queensland and Brisbane city. The University has six Faculties and four University-level Institutes. The Institutes, funded by government and industry grants, philanthropy and commercialisation activities, have built scale and focus in research areas in neuroscience, biomolecular and biomedical sciences,
sustainable minerals, bioengineering and nanotechnology, as well as social science research.

UQ has an outstanding track-record in commercialisation of our innovation with major technologies employed across the globe and integral to gross product sales of $11billion+ (see http://uniquest.com.au/our-track-record).

UQ has a rapidly growing record of attracting philanthropic support for its activities and will have further success in this area as an important strategic aim going forward.

Organisational Environment

The Queensland Alliance for Agriculture and Food Innovation (QAAFI) is a unique research institute in Australia as it is a jointly funded initiative of UQ and Agri-Science Queensland and Biosecurity Queensland, part of the Department of Agriculture and Fisheries (DAF). QAAFI conducts research and development to benefit the food and fibre sector both nationally and internationally.

The Institute’s strengths are reflected in its three research centres – the Centre for Plant Science, the Centre for Animal Science and the Centre for Nutrition and Food Sciences. QAAFI brings together scientists from UQ and DAF to conduct high-end science that delivers higher impact outcomes for industry and the community.

Details of the research interests of the Institute may be accessed on the Institute’s web site at http://www.qaafi.uq.edu.au

Information for Prospective Staff

Information about life at UQ including staff benefits, relocation and UQ campuses is available at - http://www.uq.edu.au/current-staff/working-at-uq

The University of Queensland Enterprise Agreement outlines the position classification standards for Levels A to E.

DUTY STATEMENT

Primary Purpose of Position

To engage in experimental and extension activities contributing to fulfillment of the milestones for the project ‘Avocado Industry Biosecurity Capacity Building’, which has been awarded to QAAFI by Hort Innovation. This project will minimize the effect of high biosecurity risks on Australian avocado production through the creation of biosecurity resources, information, awareness raising and capacity. The gamut of activities is wide but focused on high priority pests and pathogens as identified in the Avocado Industry Biosecurity Plan. Some flexibility is built into the project to allow team members to respond to biosecurity threats at short notice. Preparation of extension and communication materials and involvement in industry extension and communication activities will be required.

Duties

Research

- Take primary responsibility for the design and maintenance of diagnostic protocols for a range of exotic pests and pathogens that threaten the Australian avocado
industry, such as *Avocado sunblotch viroid*, *Raffaelea lauricola*, *Sphaceloma perseae*, *Helipus lauri* and *Conotrachelus aguacatae* (refer to Avocado biosecurity plan [http://www.planthealthaustralia.com.au/industries/avocados/] for full list of threats).

- Assess the genetic diversity of scolytid beetles affecting the Australian avocado industry and test the pathogenicity of fungi carried by these beetles.
- Monitor the scientific literature and communicate with international colleagues to identify emerging biosecurity threats to the Australian avocado industry, and collate this information in annual reviews for publication in the industry magazine.
- Develop a biosecurity network through the use of social networking tools such as PestPoint.
- Provide molecular diagnostic support for other avocado plant health projects, as negotiated by the project leader.
- Assist with incursion responses as necessary by providing diagnostic services and expert advice.
- Communicate outcomes of the project by: publishing scholarly papers in high quality scientific journals; preparing extension articles for industry magazines; presenting seminars at workshops and conferences; directly communicating with farmers at field days and at other venues that present.
- Negotiate with partner investigators in the project to ensure that project milestones are achieved.
- Assist the project leader with preparation of milestone and final reports for the funding body.

**Teaching and Learning**

- As a ‘Research focussed’ position there is no formal requirement for teaching. However it is encouraged that you actively seek postgraduate supervisory opportunities to enhance the outcomes of the project.

**Service and Engagement**

- Foster the Institute’s relations with industry, government departments, professional bodies and the wider community.
- Perform a range of administrative functions in the Institute.
- Contribute to the processes that enable the academic team to manage the work of the Institute, including participation in Institute and Centre decision-making and serving on Institute committees.
- Other duties as reasonably directed by your supervisor.

**Other**

Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including:

- the [University’s Code of Conduct](#)
- requirements of the Queensland occupational health and safety (OH&S) legislation and related [OH&S responsibilities and procedures](#) developed by the University or Institute/School.
• the adoption sustainable practices in all work activities and compliance with associated legislation and related University sustainability responsibilities and procedures
• requirements of the Education Services for Overseas Students Act 2000, the National Code 2007 and associated legislation, and related responsibilities and procedures developed by the University

Organisational Relationships

The position reports to Dr Andrew Geering, Senior Research Fellow, and then to the Centre Director, or their delegate.

SELECTION CRITERIA

Essential

• PhD in the area of Plant Pathology or Plant Microbiology,
• Demonstrated expert knowledge in theory and practical methods associated with plant pathology or plant microbiology, including the isolation and subculturing of micro-organisms from plant tissue, demonstration of pathogenicity, the use of molecular diagnostic techniques such as PCR or LAMP, DNA sequencing and phylogenetic analyses.
• Knowledge of pathogen or pest surveillance techniques and willingness to participate in surveys in all avocado-growing states.
• Strong organizational skills and expertise in the preparation of diagnostic protocols and other biosecurity resources such as reference collections.
• An ability to establish effective relationships and to represent and promote plant pathology at a university and wider community level, including industry, government and professional bodies.
• Demonstrated written and oral communication skills and an ability to tailor information according to the needs of the target audience (farmers, extension officers or scientists).
• Developed industry liaisons and professional contacts.
• Evidence of a contribution to research through completion of projects to the satisfaction of the funding body and a strong publication record.
• Ability to work collaboratively with colleagues and a desire to learn new techniques.

Desirable

• Experience in supervision of research assistants and/or Honours and Research Higher Degree students.
• Knowledge of the avocado industry, including economically-important pests and diseases, and strategies for control.

Qualification Verification

An appointment to this position is subject to the verification of the highest academic qualification from the conferring institution.
The University of Queensland values diversity and inclusion. Applications are particularly encouraged from Aboriginal and Torres Strait Islander peoples. Applications are also encouraged from women.