ONE BASIN CRC PhD program

Are you looking at developing world-leading skills in helping communities tackle climate change, capitalise on the digital transformation and accelerate rural innovation? Are you interested in receiving training from internationally renowned experts, whilst working with industry partners in the iconic Murray-Darling Basin on real-world problems?

The One Basin Cooperative Research Centre (One Basin CRC) offers attractive PhD packages in a broad range of disciplinary fields and across multiple universities in Australia (Australian National University, Charles Sturt University, Flinders University, The University of Adelaide, The University of Melbourne, The University of Sydney). Our PhD graduates will be the future leaders in basin research and application. Our One Basin PhD program provides unprecedented leadership development opportunities, extensive industry networking, and the chance to establish a deep understanding of your chosen field. Key features of the One Basin CRC PhD Program are:

- A 3.5 year scholarship with the option of a 6 month-funded internship with an industry partner or equivalent part-time employment.
- A flexible funding package including a stipend as much as $51,300 pa* and generous travel and operational costs, with potential additional income from working part-time with industry partners and further scholarship funding.
- The PhD program seeks to achieve gender balance and attract candidates from all walks of life, with Australians of Indigenous and Torres Strait Islander heritage particularly encouraged to apply.
- Opportunities for travel (including the possibility of international conferences), development and engagement with a strong research network that is being developed through the 10-year CRC.
- Each candidate will spend the majority of their time in one of the following research hubs: Loxton (South Australia), Mildura (Victoria), Griffith (NSW) and Goondiwindi (Queensland) with associated node in Narrabri (NSW).

Our PhD program will give you the professional skills and networks to accelerate your career in research or practice across the water, agriculture or environmental sectors.

** This is dependent on the host university policies, other available co-funding, and candidature experience and background. Candidates will receive a minimum stipend of $35,000 pa and a further minimum $20,500 (total) in operational funding. The exact allocation of the funding package between the stipend and support activities (such as conferences, travel to and from regional hubs) will be agreed to by the host university, PhD student and the 1BCRC. Applicants must be intending to apply for, and be highly competitive for, a Research Training Program (RTP) Stipend (or an equivalent scholarship). The student will enter the PhD program in 2024 and enrol on a full-time basis.*

Apply via: onebasin.com.au/phd-programs

PhD project ID: 1BPhD23-07 **Date advertised:** 8 September 2023

PhD project title:

Financing and incentivising ecosystem services to future-proof Basin producers against climate change

Description of the topic of PhD project:

This project will focus on vineyards in the Griffith area as (i) a stakeholder group that is currently facing extreme challenges in terms of biophysical and socioeconomic viability and sustainability, and (ii) a 'case study' that will yield rigorous and high utility insights that can be rapidly applied across other industries and One Basin CRC Hub regions. A defining feature of this project is that the supervisory team will draw together strengths in agricultural economics and finance with strengths in viticulture and ecosystem services. Ecosystem services are nature's benefits to humanity (such as soil carbon fixation, nutrient cycling, buffering hydrology dynamics, natural pest control and weed suppression). In plain English terms, Dr Pawsey will guide the PhD student in relation to how ecosystem services can be financed, whilst Prof Gurr will guide in relation to incentivising adoption by providing measurement tools of the strength and resultant benefits of the ecosystem services. Financing tools will involve a range potential mechanisms including green bonds, biodiversity credits, carbon offsets and sustainability-linked loans. Incentivising will draw on recent successful work on vineyard ecosystem services led by Prof Gurr and funded by Wine Australia, but build on that by expanding the range of ecosystem services considered and explicitly linking to financing mechanisms. The context for the project is to allow the vineyard sector to fruitfully engage with the growing importance of environmental, social and governance (ESG), allowing growers a pathway to ESG certification. ESG is recognised as a key strategic priority for Wine Australia.

Primary university supervisor(s):
Professor Geoff Gurr with Dr Nick Pawsey (Charles Sturt University)

Co-supervisors:
To be confirmed depending on student's background and interests: Professor Timothy Cavagnaro (Flinders University); Associate Professor Petr Matous (The University of Sydney); Associate Professor Sigfredo Fuentes (The University of Melbourne)

Requisite qualifications and experience:
Candidates with Masters or honours degrees in the following disciplines, or with equivalent research or work experience will be favourably considered: *viticultural or agricultural science or economics, applied ecology, natural resource management or ecological economics.*

To determine your eligibility for studying at Charles Sturt University, see:
https://study.csu.edu.au/information-for/postgraduate-students

1BCRC industry partner(s) potentially involved:
Wine Australia