# Position Details

## CSIRO Early Research Career (CERC) Postdoctoral Fellowship– CSOF4

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| The following information is for applicants |
| Advertised Job Title  | CSIRO Winanga-y Postdoctoral Fellowship in Multi-purpose Legume Crops for Flexible Farming Systems |
| Job Reference | 94779 |
| Tenure | Specified Term of 3 years, Full-time |
| Salary Range | AU$92,624 to AU$101,459 pa (pro-rata for part-time) plus up to 15.4% superannuation |
| Location(s) | Perth, Western Australia |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | Team Leader |
| Client Focus – Internal | 90% |
| Client Focus – External | 10% |
| Number of Direct Reports | 0 |
| Enquire about this job | Jonathan Anderson via email at Jonathan.Anderson@csiro.au or phone +61 8 9333 6103 |
| How to apply | Apply online at <https://jobs.csiro.au/> Internal applicants please apply via **Jobs Central**If you experience difficulties when applying, please email careers.online@csiro.au or call 1300 984 220. |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

**Child Safety**

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](https://www.csiro.au/en/about/policies/child-safe-policy).

### Role Overview

**CSIRO Early Research Career (CERC) Fellowships** provide opportunities to scientists and engineers who have completed their doctorate and have less than three years relevant research experience. These Fellowships aim to develop the next generation of future leaders of the innovation system through:

* A differentiated career development program to deliver capability excellence and breadth across all facets of the national innovation system;
* Research training via strategic research and development projects with a clear focus that will deliver real impact through science and engineering excellence;
* An innovative culture supporting the development and demonstration of original thinking and expertise leading to peer-recognition; and
* Opportunities to develop skills and experience in collaborative research teams to effectively work within national and global multi/transdisciplinary and multi-stakeholder environments.

CERC Fellows **are appointed for three years or part time equivalent.**

We are thrilled to be able to deliver on the commitment we made in our strategy to invest in frontier science with the new CSIRO Agriculture & Food Winanga-y Postdoctoral Fellowship scheme. The word Winanga-y (pronounced win-na-gnay) is a cultural asset gifted by the Gomeroi Nation in Myall Vale to CSIRO's Agriculture and Food Business Unit to name the Postdoctoral Fellowship Scheme. Winanga-y means to understand, know, remember, and think.

The CERC Fellow will investigate innovative uses of legume crops in Australian farming systems to improve farm enterprise resilience, sustainability and profitability. Lupins are an important legume crop in southern Australia. They support the profitability and sustainability of farming enterprises through grain production, biological nitrogen fixation, high quality livestock feed, and providing a weed and disease break within crop rotations. Historically lupin breeding has focused on high grain yields with little selection for traits associated with broader farming system benefits.

Can we develop lupins that offer innovative and flexible management options that suit farming systems in future climates? Utilising the powerful resources CSIRO has developed for narrow leaf lupin, and a multidisciplinary team of leading scientists, the CERC Fellow will explore options to change the way that lupins are used within farming systems.

The CERC Fellow will take a Genotype X Environment X Management approach to quantify opportunities to boost farm profitability through applying a range of scenarios such as early season grazing, forage conservation, late season grazing, intercropping with other species and traditional grain production. Grain yield, feeding value to sheep, nitrogen fixation and carbon balance will be considered using farming systems models. The outcome of the project will be an understanding of how flexible management practices for novel lupin germplasm could drive various pathways to improved farm resilience and sustainability.

### Duties and Key Result Areas

Under the direction of a multidisciplinary team of senior research scientists, this CERC Fellow will:

* Work with the available germplasm, genetic and genomic resources, experienced growers and technicians, agronomists, plant physiologists, livestock nutritionists, soil scientists and crop/livestock modellers to assess the characteristics of lupin that underpin alternative drivers of value from the crop.
* Design and assess innovative management practices for grain legumes to make better use of seasonal resources and provide flexible and profitable options for legume integration into climate-ready farming systems, particularly in the <500mm rainfall mixed farming zones.
* Evaluate novel lupin genetics x environment x management combinations to identify options to increase consistency of profitability, resilience, and sustainability at the farm scale.
* Produce scientific papers suitable for publication in high-quality international journals and presentation at national/international conferences.
* Record, manage, and analyse data/information using relevant domain data science techniques.
	+ Proactively undertake development to grow effective researcher capabilities to support career goals.
	+ Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy and diversity initiatives.
* Other duties as directed.

A CERC Fellow learning, development and training programis developed between the CERC Fellow and their CSIRO supervisor. The program will focus on enhancing the Fellow’s capabilities to the level expected of an independent researcher and will include on-the-job and course-based development encompassing:

* Discipline-specific techniques and protocols
* Professional growth
* Project management
* Communication and influencing skills
* Working and collaborating with others

## **Selection Criteria**

#### Essential

*Under CSIRO policy only those who meet all essential criteria can be appointed.*

1. A doctorate (or will shortly satisfy the requirements of a PhD) in a relevant discipline area, such as farming systems science, crop and pasture science, plant genetics or livestock science.

Please note: To be eligible for this role you must have **no more than 3 years** (or part time equivalent) of relevant research experience.

1. Demonstrated experience in critically evaluating opportunities to improve farming system productivity and the design of effective research plans.
2. Demonstrated experience in combining multi-disciplinary approaches to drive innovative research creating new solutions to existing problems.
3. High level written and oral communication skills with the ability to represent the research team effectively internally and externally, including the presentation of research outcomes at national and international conferences.
4. A sound history of publication in peer reviewed journals and/or authorship of scientific papers, reports, grant applications or patents.
5. A record of science innovation and creativity, including the ability & willingness to incorporate novel ideas and approaches into scientific investigations.
6. Willingness to undertake field work on farms with colleagues, with associated overnight travel expectations.
7. A current driver’s licence or the ability and willingness to obtain one.

## **Desirable**

1. A good understanding of the role of legume crops in Australian cropping and grazing enterprises.
2. Experience in the design and analysis of statistically robust field trials.
3. **The ability to work effectively as part of a multi-disciplinary, potentially regionally dispersed research team, plus the motivation and discipline to carry out autonomous research.**

## **Required Competencies**

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.
* **Influence and Communication:** Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.
* **Resource Management/Leadership:** Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **Adaptability:**Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

To be appointed as a CERC Fellow within CSIRO, candidates are required to have **submitted** their doctoral thesis at the time of commencement, as a minimum requirement, if PhD conferment has not been obtained. If a candidate has submitted, but their PhD has not yet been formally attained, the starting salary will be CSOF4-1 ($89,680). Upon CSIRO receiving written confirmation that the PhD has been awarded (within a six month period from commencement date), the salary will be increased to the negotiated level and the difference will be back-paid to the Officer’s start date.

Special Requirements

Appointment to this role is subject to provision of a pre-employment background check and may be subject to other security/medical/character clearance requirements.

* The successful candidate will undertake a pre-employment background check. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test https://ielts.com.au/).

**Our value proposition**

We want CERC Fellows to join our world class science, engineering and digital teams to solve big, complex problems that make a real difference to the future of Australia and the world.

You'll get to work with some of the most talented minds in their fields, not just in Australia, but in the world. At CSIRO, we spark off each other, learn from each other, trust each other and collaborate closely to achieve more than we could individually.

Find out more about our CSIRO Early Research Career (CERC) Fellow Experience Employee Value Proposition (EVP) [here](https://www.csiro.au/en/careers/postdoctoral-fellowships).

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [Agriculture and Food](https://www.csiro.au/en/about/people/business-units/Agriculture-and-Food) for more information.

CSIRO is a values-based organisation.  In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* People First
* Further Together
* Making it Real
* Trusted