# Position Details

## Research Scientist/Engineer- CSOF7

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| The following information is for applicants | |
| Advertised Job Title | Principal Research Scientist – Crop Farming Systems |
| Job Reference | 85528 |
| Tenure | Indefinite  Full-time |
| Salary Range | AU$141,949 - AU$157,055 per annum (pro-rata for part-time)  plus up to 15.4% superannuation |
| Location(s) | Myall Vale - Narrabri |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * All Candidates |
| Position reports to the | Group Leader – Integrated Crop Management |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 4-6 |
| Enquire about this job | Sharon Downes via email at Sharon.Downes@csiro.au |
| 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](mailto: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).

### Role Overview

The role of Research Scientist/Engineer staff is to lead innovative research and development resulting in scientific achievements that are delivering on CSIRO’s strategies. The Research Scientist/Engineer will lead scientific and translational activities ranging from fundamental research to the investigation of specific industry or community problems. The Research Scientist/Engineer will have the opportunity to build and maintain networks, play a lead role in securing project funds, provide scientific leadership to multidisciplinary teams and pursue new ideas and approaches that create new concepts.

A key pillar in the CSIRO Agriculture and Food’s strategy is to invest into frontier science to drive innovation and impact. CSIRO's cotton research in Narrabri and Canberra is improving the sustainability, productivity, fibre quality and distinctiveness of the Australian cotton crop through development of high-performing varieties, matching crop management strategies, improved whole supply chain sustainability and traceability, and development of value-added co-products. Australia has the highest cotton yields in the world, exporting $2.5 billion of cotton each year. CSIRO have proudly contributed to this ranking, not only through our breeding program, but also through improved crop practices that manage pests and their resistance to pesticides while striving to ensure a responsible use of Australia's vital resources such as land and water.

CSIRO Agriculture and Food develops and delivers science and technology to increase the resilience and sustainability of Australian agricultural systems. Our approach is impact-focussed, working with industry and stakeholders to ensure that we deliver outcomes that build resilient farming systems across a portfolio known as our ‘Resilient Farming Systems Impact Area’. The core of the Impact Area Portfolio’s science lies in a better understanding of the parts, or components, of the system and how each component interacts, interconnects, interrelates, and in some cases influences each other. CSIRO Agriculture and Food are seeking to appoint a Principal Research Scientist (PRS) to lead the area of cotton-centric farming systems science to grow our resilient farming systems impact in cotton-facing systems, including the emerging industry in northern Australia. The PRS will focus on:

* Developing the science and go to market strategy for cotton-centric integrated farming systems with a focus on agricultural decision-making including land management that improves farm efficiency and profitability, is future focussed towards sustainable impacts on and off farms and is connected to markets and the supply chain.
* Establishing themselves as a key contact point at CSIRO’s Myall Vale site, and within the regionally dispersed integrated farming systems science group, for external stakeholders and the wider innovation system.
* Liaising internally and externally to define and garner the resources required to progress key target areas relating to resilient farming systems.
* Identifying, assembling, and leading appropriate multi-disciplinary capability from across CSIRO (within Agriculture and Food and from other Business Units) to deliver the science required to create impact in resilient farming systems.
* Working with team and group leaders to build capability within CSIRO’s Myall Vale site to maintain a differentiated offering to external stakeholders.
* Contributing to senior leadership at the Myall Vale site for management of research infrastructure, health and safety and vibrant science and people culture.

### Duties and Key Result Areas

* Define and articulate the integrated science strategy to enhance the resilience and profitability of cotton-centric farming systems with minimized environmental impacts through multi-disciplinary science.
* Develop creative pathways of scientific investigation informed by the needs of industry and its supply chain and global benchmarks in science excellence.
* Build high-performing, collaborative and diverse science teams within CSIRO that work with key partners to deliver impact in resilient farming systems.
* Conceive, develop, champion and manage novel science delivery through projects delivering to industry/community and accessing diverse funding sources.
* Maintain active national and/or international research collaborations to access/share leading edge concepts and technology to advance projects.
* Identify trends in research and development to inform portfolio analysis and influence the Business Unit’s research directions.
* Liaise with the business manager and/or account managers to assess commercial opportunities and to protect intellectual property.
* Utilise knowledge and understanding of clients’ business and demonstrate creativity in anticipating client needs.
* Act as a trusted advisor to clients and promote an understanding of client needs amongst other employees.
* Communicate research results to clients and the scientific community through oral and written reports, which may include the preparation of documents for patent applications.
* Provide advice to policy makers and inform and transfer knowledge to non-scientific audiences.
* Communicate openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work collaboratively as part of a multi-disciplinary, regionally dispersed research team to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A PhD (or an equivalent combination of qualifications and research experience) in a field relating to farming systems science that could include agronomy, crop physiology, integrated pest/weed/disease management, natural resource management or related disciplines.
2. Current full Australian C Class drivers’ licence.
3. Demonstrated ability to support others to achieve their goals, promote wellbeing, safety and foster creativity in a multidisciplinary team of up to 20 staff
4. Demonstrated ability to lead projects of varying complexity and scale, including management of multiple partners, stakeholders, financial and project performance.
5. Experience and/or demonstrated knowledge of the application of digital agricultural principles and precision farming technologies directed at farming systems research.
6. Demonstrated success in gaining support to fund research projects and proven capacity to collaborate with key stakeholders including but not limited to growers, industry partners and research providers.
7. A significant record of innovation and creativity in applying science to agricultural productivity improvements with demonstrated industry impact, including management of commercial and science delivery pathways.
8. Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
9. A demonstrated publication history of authorship on scientific papers in peer reviewed journals and/or reports, grant applications or inventorship on patent applications.
10. Established reputation and credibility in leading relevant science and/or impact domain with evidence of effective world-class science, research and/or innovation leadership.
11. Willingness to travel for short durations regularly to regional and interstate meetings with collaborating scientists and industry partners as required.

## **Desirable**

1. *Experience in developing simulation and decision support models applied to natural or agricultural systems.*
2. An understanding of the main drivers of productivity and profitability of broadacre crop farming systems in Australia.

## **Required Competencies**

* **Teamwork and Collaboration:** Creates and fosters an environment in which there is a high level of cooperation within and between teams. Facilitates positive team relationships to build interactions across Business Units and the organisation.
* **Influence and Communication:** Identifies critical stakeholders and influences them via an influential third party, for example through an established network, to gain support for sometimes contentious proposals/ideas.
* **Resource Management/Leadership:** Provides leadership that fosters an environment that encourages new ideas and provides support for the development of emerging skills. Creates trust by displaying consistency, understanding, integrity and patience. Plans, seeks, allocates and monitors resources to achieve outcomes.
* **Judgement and Problem Solving:** Resolves major conceptual scientific, technical, commercial or management problems, which have a significant impact upon the field of research, professional function, the Business Unit or the Organisation. Situations faced have little or no precedent and require original concepts and approaches.
* **Independence:** Assesses the risk and opportunity of identified strategies, options and actions. Overcomes problems and setbacks in achieving goals. Invariably includes consideration of value-added future impact on bottom line when determining the optimal and efficient use of resources.
* **Adaptability:**Is flexible in response to external change or when faced with external constraints. Identifies and promotes the opportunities arising as a result of change.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

The successful candidate will be asked to obtain and provide evidence of a National Police Clearance or equivalent. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [CSIRO 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