# Position Details

## Research Scientist/Engineer- CSOF6

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| The following information is for applicants | |
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| Job Reference | Farming Systems Research Agronomist |
| Tenure | Specified Term of 3 years  Full-time |
| Salary Range | AU$117,917 - AU$138,176 per annum (pro-rata for part-time)  plus up to 15.4% superannuation |
| Location(s) | Adelaide, SA |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens and Australian Permanent Residents * Australian temporary residents who are currently residing in Australia and have the right to work for the expected duration of the term with no requirement for sponsorship |
| Position reports to the | Team Leader – Resilient Systems, Adelaide |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Therese McBeath via email: [therese.mcbeath@csiro.au](mailto:therese.mcbeath@csiro.au) or phone: +61 8 83038455 |
| 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 staff is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. The Research Scientist may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems.

CSIRO Agriculture seek an experienced Farming Systems Agronomist to join the Adelaide-based group. The position will involve on-farm agronomic experimentation in southern Australia to investigate the impacts of a range of innovative crop management strategies to improve productivity and input-use efficiency.

A specific role for the new appointment will be to develop and apply digital agriculture principles within the portfolio of relevant CSIRO activities at both experimental and farm-scales. Emerging technologies in soil and crop sensing, and farming systems simulation will be linked to industry needs, along with developments in digital platforms that are now being widely promoted for industry application.

This position will complement existing CSIRO skills in soil-plant-animal systems research and drive new collaborative opportunities both within CSIRO and with external collaborators and investors. The position offers a unique opportunity to develop a national profile and reputation and to become a future leader of R&D in the area of modern, digitally enabled farming systems agronomy.

The CSIRO Systems Program works in partnership with rural industries, communities, and governments to deliver improvements in agricultural productivity and profitability whilst minimising environmental damage. The core of the Program’s science lies in better understanding and managing soil-plant-animal interactions that underpin productive, profitable and sustainable farm businesses. Processes that operate within and across a range of scales in cereal cropping and mixed farm systems are considered; from plants to paddocks and integration of whole farm systems for sustainable production and landscape management.

A key challenge is to identify and invest in novel approaches to improve Australia’s mixed farming systems. Using combinations of experimentation, modelling and monitoring of plot- and farm-level experiments we seek to address farm productivity by developing novel approaches and interventions to the sustainable intensification of agriculture.

### Duties and Key Result Areas

* Develop novel scientific approaches to investigate original concepts and innovations for new and current agronomic research as applied to cropping and mixed dryland farming systems in Australia.
* Design, conduct and analyse field-based experiments that test enterprise mix, soil and climate variability and management parameters using novel and emerging technologies.
* Develop, negotiate and lead new research projects that bring together skills across CSIRO, external partners and funding organisations.
* Manage research projects or significant components of projects, including responsibility for project planning, effective communication of research outcomes to partners and clients to facilitate implementation of findings and delivery of impact to Industry and publication of scientific papers in leading International journals.
* Work collaboratively with internal and external colleagues and partners, including growers and grower groups, to develop and progress challenging but realistic research plans for a range of research projects.
* Lead, coach and supervise staff to ensure experiments are established in accordance with research design, within agreed timelines and budget.
* 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**

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

***Essential Criteria***

* A PhD and or equivalent research experience in a relevant discipline area, such as farming systems agronomy, crop/pasture physiology, soil science, natural resource management or related discipline.
* **Excellent written and oral communication skills, evidenced by high-level reporting, presentation and negotiation abilities, scientific publication and the capacity to identify and influence critical stakeholders to gain support for innovative project ideas.**
* Experience with field-based agronomic experimentation in cropping systems and application of innovative technologies for improved outcomes for the whole farm enterprise.
* Experience and/or demonstrated knowledge of the application of digital agricultural principles directed at agronomic and/or farming systems research.
* Experience with the use and application of simulation and decision support models applied to crops and farming systems.
* Demonstrated success in gaining industry support for funded research projects and proven capacity to collaborate with growers, industry partners and research providers in the leadership and management of projects.
* **The ability to work effectively as a member or leader of a multi-disciplinary, regionally dispersed research team, and carry out independent individual research.** A history of professional and respectful behaviours and attitudes in a collaborative environment.
* Willingness to travel regularly to regional and interstate meetings with collaborating scientists and industry partners as required.
* **A significant record of innovation and creativity in applying science to agricultural productivity improvements with demonstrated industry impact.**
* Knowledge, understanding and commitment to principles of Equal Employment Opportunity, Occupational Health, Safety and Environment.

## **Desirable**

* Direct experience with various aspects of digital agriculture, including application of sensors, big data acquisition, systems modelling and analysis or other computer/web-based informatics.
* An understanding of the main drivers of productivity and profitability of dryland mixed farming systems in Southern Australia.

## **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:** 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:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **Judgement and Problem Solving:** Anticipates and manages problems in ambiguous situations. Develops and selects an appropriate course of action and provides for contingencies. Evaluates, interprets and integrates complex bodies of information and draws logical conclusions, synthesises proposals and defends options with reasoned arguments.
* **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:**Demonstrates flexibility in thinking and adapts to, and manages, the increasing rate of organisational change by adjusting strategies, goal and priorities.

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.

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

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