

OUR IMPACT 2024

A series of **case studies** that capture the unique impact of the Southern NSW Drought Resilience Adoption and Innovation Hub



SOUTHERN NSW
Innovation Hub

SUSTAINABLE AGRICULTURE,
LANDSCAPES AND COMMUNITIES

Long-term Field Trials project starts from the front foot

Proactive planning and collaboration, led by the Southern NSW Innovation Hub, developed a unique research project that was able to respond effectively to a grant funding request .

BACKGROUND

The Southern NSW Long-term Field Trials project is part of the **Future Drought Fund's Long-term Trial of Drought Resilient Farming Practices grants program**, which aims to investigate innovative and transformative cropping, grazing and mixed farming practices through the lens of drought resilience and associated risk management.

Mixed farming systems are the most common in southern Australia, making up around 70% of farms in NSW. The separate grazing, cropping, and livestock systems within mixed farms require careful integration to optimise productivity. This is especially true in drought, when an incorrect decision on one element may disrupt the entire farm and negatively affect the recovery of the landscape and the business.

Making integrated decisions on crops and livestock can be difficult, particularly during drought. The Southern NSW Long-term Field Trials project aims to identify what activities, when undertaken as part of a mixed farming system, lead to the most drought resilient farming businesses.

The trials have begun testing mixed farming treatments that balance flexibility with stability to find which system, when viewed as a whole, results in the highest productivity, economic value and environmental sustainability of each individual component. The core project site is at Charles Sturt University in Wagga Wagga, led by Senior Research Fellow Shawn McGrath, where testing of elements within trials of four mixed-farming systems are underway. Six additional sites across southern NSW are testing individual components from the core site in different systems.

The project involves working with six NSW Farming Systems Groups, the Grains Research and Development Corporation (GRDC) and Meat & Livestock Australia (MLA). In addition, the CSIRO, NSW Department of Primary Industries (DPI) and NSW Local Land Services (LLS) are involved through steering committees.

The project also demonstrates scalability across states and collaboration between Hubs with the Victoria Drought Hub running similar trials to those underway in Southern NSW, led by the University of Melbourne. In Tasmania, the TAS Farm Innovation Hub and the Tasmanian Institute of Agriculture run cross modelling across the other two projects.

We committed to creating a targeted and purposeful project with the needs of farmers in our region front and centre, all before we were certain that the investment would flow. The success of this project shows the value of co-design, collaboration and planning.

SHAWN MCGRATH
SENIOR RESEARCH FELLOW | PROJECT LEAD
GULBALI INSTITUTE, CHARLES STURT

OUR ROLE

Initial planning for the Future Drought Fund's Long-term Field Trials program began in 2022, well before the grant round officially opened. With the support of Southern NSW Innovation Hub, Charles Sturt University wanted to be on the front foot and prepared with a project ready to go, so together they began to undertake significant research and preparation.

Central to this was Southern NSW Innovation Hub's Director Cindy Cassidy organising and facilitating co-design workshops with potential partners and collaborators for the envisaged Southern NSW mixed farming Long-term Field Trials project. This included meetings with Tasmania and Victoria's Innovation Hubs, the University of Melbourne, the Tasmanian Institute of Agriculture, GRDC, MLA, Southern Growers, Irrigation Farmers Network, Central West Farming Systems, Riverine Plains, FarmLink Research and Holbrook Landcare Network.

The extended planning time and the co-design process meant that a broad range of stakeholders could come together and prioritise ideas and refine their approaches. Once applications for the Future Drought Fund's grants opened the unique project was envisaged and planned, which meant Charles Sturt University was able to respond quickly to the request for a proposal.





OUTCOMES

Charles Sturt University's Shawn McGrath said the support, guidance and leadership from the Hub's Cindy Cassidy was invaluable to the project's development process. Without the Southern NSW Innovation Hub, it wouldn't have been possible to pull together such a collaborative and broad-scoped project plan in time to respond to the grant round.

Shawn highlighted the significant time commitment he and the rest of the team made in project development, all without any certainty that it would receive funding. Shawn said, "We committed to creating a targeted and purposeful project with the needs of farmers in our region front and centre, all before we were certain that the investment would flow. The success of this project shows the value of co-design, collaboration and planning."

The focus on co-design and active participation of all the players in the project scoping ensured the proposal was well thought out, targeted at on-the-ground outcomes, and had the buy-in of all the collaborators.

As a bonus, the Hub provided specialist resources to ensure that great planning translated into a high-quality proposal. Shawn said, "It was during the final stages of preparing our grant submission that Cindy suggested we work with an expert in grant writing to refine the materials we needed to present the project to the Federal Government."

"Having funding from the Hub to work with a specialist grant writer on the project plan and investment application was the 'silver bullet' that got the collaborative Southern NSW Long-term Field Trials project over the line."

In 2023 the Southern NSW Long-term Field Trials project, led by Charles Sturt University, was awarded \$6.2 million in funding until 2027-28 to investigate the interdependence and whole-system effects of cropping and livestock components and managing environmental and social impacts in response to seasonal variation.

*Long-term Field Trials Project
soil sampling team*

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Charles Sturt
University