SCOUT FOR THE RIVERINE PLAINS: RENNIE TRIAL BLOCK UPDATE

KEY MESSAGES

- **Not all agtech is created equal and Riverine Plains is keen to explore what happens when it's put to the test in the paddock.**
- **In 2025, Riverine Plains established the SCOUT trial block at Rennie, NSW, to find out what actually stacks up in terms of new technologies.**
- **We hosted a malt barley variety trial, bioelectrical seed treatment, and a microbial Olympics, all while building the trial skills and protocols to improve our knowledge and ask the right questions.**

RAINSTICK

Since 2024, Riverine Plains has been working with novel technology startup, Rainstick, to scale up their variable electric field technology (VEFT). Initially we delivered this through the SCOUT: Rainstick—Improving canola establishment project, supported by the Victoria Drought Resilience Adoption and Innovation Hub, before establishing a small-plot trial in conjunction with Rainstick at Rennie in 2025.

This technology, which mimics the effect of lightning, merges First Nations knowledge with modern bioelectrics to enhance seed germination, with a focus on boosting plant establishment and growth to improve crop yield.

This trial involved applying Rainstick treatments to a selection of canola varieties adapted to the region. While this technology has been successful under lab conditions, including in horticultural crops, this was the first time the technology had been evaluated on canola in the field.

These results will be used to inform further research on whether VEFT can improve canola establishment under challenging environmental conditions.

MICROBIAL OLYMPICS

Microbial products are one of the most exciting and most difficult frontiers in modern agronomy.

Unlike a herbicide or fertiliser, you can't see a microbe working. The biological processes involved are invisible to the naked eye, highly sensitive to soil temperature, moisture, pH, and existing microbial populations, and can vary dramatically across a paddock, as well as from paddock to paddock and from season to season.

That variability makes trialling microbial products genuinely complex: a result that holds in one soil type may not translate next door, let alone across a catchment. Also add to that the challenge of establishing a reliable baseline.

As a result, this trial was designed to ask two main questions: what does the microbial community in a paddock look like before you intervene, and how do you measure change meaningfully?

Riverine Plains is working through those questions methodically, building the measurement frameworks and trial rigour needed to give farmers confidence.

MALT BARLEY VARIETY TRIAL

In 2025, Riverine Plains also delivered a trial with Malteurop, comparing 20 barley varieties under local conditions, to better understand how disease management and nutrition interact with varietal genetics to influence grain yield and malting-related quality traits.

Results from this replicated variety trial are presented on the following pages.

SUMMARY OF THE RENNIE SMALL PLOT TRIALS

Riverine Plains is continuing to investigate a range of new technologies that could have practical applications for farmers, while also developing trial protocols so that their potential can be realised earlier.

For more information about our trials program, please contact Riverine Plains' Head of Farming Systems, Jane McInnes, by emailing jane@riverineplains.org.au.