

RIVERINE PLAINS

ANNUAL REPORT 2022





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Cover photo taken for the Fodder for the Future Project featuring Riverine Plains Senior Project Officer, Jane McInnes. Photo credit: Murray Dairy.

ABOUT RIVERINE PLAINS

VISION

A TRUSTED PARTNER IN FARMING EXCELLENCE
FOR THE RIVERINE PLAINS

PURPOSE

TO GROW MEMBER PROSPERITY BY BUILDING
KNOWLEDGE AND SKILLS

Established in 1999, Riverine Plains Incorporated is an independent, for purpose, Incorporated Association dedicated to improving the prosperity of our members, associates and partners. With over 450 members and over 30 agribusiness partners across north-east Victoria and southern New South Wales, our organisation is known for its high impact project delivery, clear, targeted communications and valuable events. Our motto is 'farmers inspiring farmers' and all the projects we deliver are driven by our members' curiosity and need to fill knowledge gaps in their businesses.

Riverine Plains specialise in providing independent, timely and relevant information through a rigorous research program and our annual schedule of events and publications. To date, we have successfully delivered over \$8 million cash in research, extension and validation projects across our region. Of this, \$3 million

cash has been contracted in the last 18 months, demonstrating our recent significant lift in capacity and capability. Current and completed projects have covered aspects of stubble management, AgTech, containment feeding of livestock, water use efficiency, sub-soil acidity, harvest weed seed control, soil and weather information, pulse adoption, canola nutrition, nitrogen management, precision agriculture, soil carbon, nitrous oxide emissions and improved winter cropping systems.

Riverine Plains staff have an experience base of over 130 years in agriculture, research, field work, communications, business and industry. Along with formal tertiary, graduate and post graduate qualifications, the majority of the team have extensive practical experience working on farms providing know-how and capacity to deliver on the Riverine Plains' purpose.



ACHIEVEMENTS AT A GLANCE

Credit: Hamish Sinclair

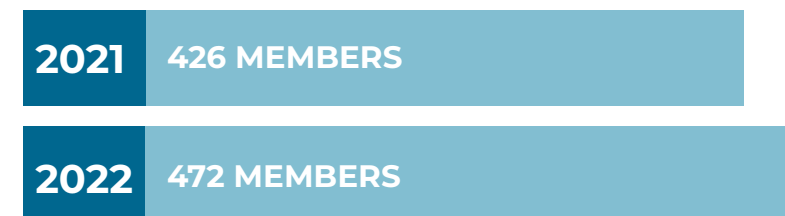
EVENTS



INAUGURAL EVENTS



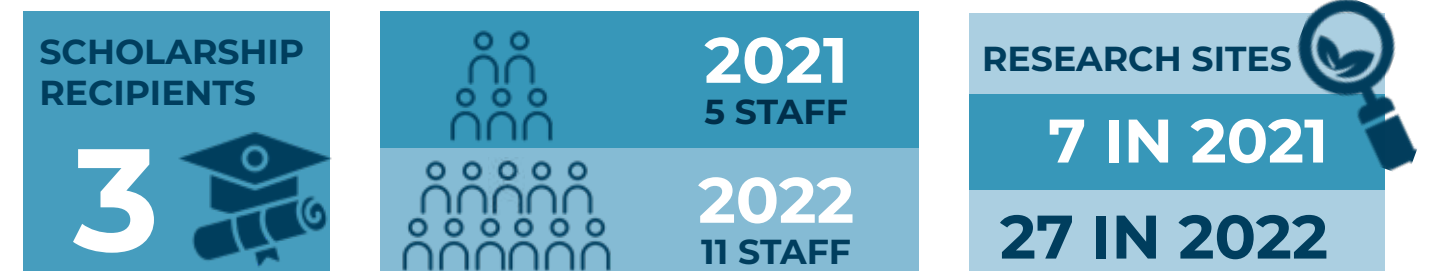
MEMBERS



INDUSTRIES COVERED



IMPACT CAPACITY AND CAPABILITY



PREMIER PARTNER



SIGNATURE PARTNERS



VALUED PARTNERS



Credit: Beatrix Clarke



Host farmer and Board member John Bruce

THANK YOU TO OUR HOST FARMERS

Thank you to the members who very generously donated their time and paddocks to enable Riverine Plains to undertake research, extension and validation locally. Your contribution to our region is noted, appreciated and impactful.

Paul and Melissa Brown

John and Sarah Bruce

Roy, Leanne and Michael Hamilton

Adam and Ingrid Inchbold

Nathan and Kara Lawless

Dean and Beverly Leslie

Beau and Rebecca Longmire

Andrew and Sue Russell

Curt and Steph Severin

The Spence Family

Wayne and Therese Thomas

Emily and Phil Thompson

Denis and Rebecca Tomlinson

Ian and Melanie Trevethan

Tim and Lara Trevethan

CHAIR'S REPORT

Riverine Plains has experienced extraordinary growth over the last 12 months. The turnover of the group has increased significantly year on year. The group now employs 11 staff and I would like to welcome aboard Rhiannan McPhee, Brooke Sanderson, Claudia Powell, Lynn Macaulay, Anna Lonergan and Katherine Seddon. They have joined our existing team of Sara Hely, Kate Coffey, Jane McInnes, Michelle Pardy and of course Catherine Marriott to make up one exceptional team. Thank you and congratulations on all you have achieved over the last 12 months.

One of the groups' many achievements this year was the delivery of our inaugural Innovation Expo. It was third time lucky for this event with the first two attempts derailed due to COVID 19. The three-day event combined a farm tour, welcome drinks, an AgTech focused field day, gala dinner raising over \$15,000 for our scholarships, and a full day conference. The event was extremely well received and was successful in adding value to our members, Riverine Plains and the broader community.

Thanks to our Premier Partner, IK Caldwell and all our Signature and Valued Partners for their continued support. Their financial and intellectual support along with their attendance and contribution to many of our events throughout the year are vital. Thank you also to all sponsors of our Innovation Expo, especially Seed Force, our major sponsor.

Lastly, thank you to the Board for the generous time they have put into our group. I know they all lead busy lives and I appreciate the support they give on a voluntary basis. John Bruce will be stepping down this year after 12 years of service. During his time John has chaired the Extension Committee, the Research Advisory Committee, and the Board. He has helped organise numerous field trips and worked tirelessly to make the group a better one. Thanks to JB, he will be sorely missed.

At the AGM in October, I stepped aside as Chair. I am immensely proud of what we have collectively achieved, and I genuinely believe that the group is in as strong a position as it has ever been. I warmly welcome Fiona Marshall as the new Chair, Riverine Plains is in good hands.

Ian Trevethan
Chair

CHIEF EXECUTIVE OFFICER'S REPORT

Between our AGM in October 2021 and October 2022, Riverine Plains has grown the budget, staff levels, project diversity, geographic spread and most importantly, the impact for our members and partners. Our focus has been on delivering value to our members and both our research and commercial partners.

KEY HIGHLIGHTS

- Increased membership by almost 10%
- Hosted our first Innovation Expo attracting over 1000 people
- Doubled our staff and remained profitable
- Partners in both the NSW and Victorian Drought and Innovation Hubs
- More than doubled the project funding under management
- Leading a multi-million dollar collaboration validating work by John Kirkegaard in our region

To demonstrate deliberate energy being put into our members this year, we have employed Riverine Plains' first ever Membership Officer, Lynn Macaulay. The role is funded out of profit from partnerships, events, and commercial projects, which we have reinvested back into the organisation for the members' benefit. Her role is solely focused on engaging with our members, driving adoption, and making sure our members have someone to engage with when they need something.

We have increased our engagement with members significantly over the past 12 months, seeing a substantial increase in attendance at events. Pre COVID 19, on average, Riverine Plains would attract about 600 farmers per year to events. This year, we have had 2066 people attend our events which is a direct result of an increased focus on event design, timing and understanding the needs of our members.

In addition to increasing our member engagement, we have seen a marked increase in the number and diversity of our research and event partners. The more people and organisations we work with, the more experience, knowledge and therefore capability we are able to bring to the region.

We continue to improve communication with our community, increasing our following and engagement on social media, providing relevant, timely information via our Fortnightly 5 and weekly blogs, along with our quarterly newsletter and annual Trial Book. This year we have added two new channels for social media, you can find us on both LinkedIn and Instagram now.

This year, to consolidate our growth phase, our focus internally has been on improving systems and processes which has yielded efficiency dividends. We have implemented a CRM for stakeholder management, a project management tool and streamlined our project coding and filing systems. We have significantly improved our Workplace Health and Safety program ensuring all who work with us are kept safe.

Our international tour with Jeromy Nolan Travel commenced again this year, after being cancelled in 2020 due to COVID 19. That trip was destined for Ukraine, so a lot has changed in the world since then. The annual trip is an opportunity for members and our Premier Partner to travel together and learn about agriculture in a different country. This year the tour went to Canada to look at the grains, AgTech and livestock sectors as well as machinery manufacturers and the Calgary Stampede.

Another big year needs another big lot of thanks. Firstly, this organisation would not be where it is without the exceptional leadership of the outgoing Chair, Ian Trevethan. Thank you Ian for your guidance, support, and leadership. A special mention must also be given to John Bruce. Over the last 12 years, JB has chaired the Board and committees and is currently the co-Chair of the Research Advisory Council. Thanks to JB for his exceptional contribution to Riverine Plains. Thank you to the Board more broadly and to our brilliant team. Together we have built an organisation which is productive, fun, and impactful. It is a privilege to work with you all.

Thank you to all our partners and event sponsors for their ongoing support of Riverine Plains. You are a key part of our organisation's success and we love working with you.

Finally, thank you to our members for your ongoing loyalty and support. Our members are why this organisation exists and your engagement and support are key to our success.

Catherine Marriott OAM
Chief Executive Officer



FINANCIAL REPORT

Riverine Plains has had another successful year financially, delivering a surplus for reinvestment back into our members. This year we were able to achieve growth in both annual income and the diversity of this income.

Predominantly Riverine Plains income is still derived from publicly funded projects and Research and Development Corporation collaborations, however there has been a focus on increasing our commercial income enabling reinvestment back into our organisation. This year, our income more than doubled, which has underpinned the recent growth and lift in membership and project activities. Membership remains an important part of our operating budget.

The organisation's finances are overseen by the Audit and Risk Committee, a sub-committee of the Board who meet twice annually to ensure the cash flow budget and financial projections are on track. We have managed to grow our staffing levels this year to 11 personnel to ensure all project deliverables are maintained.

Our largest expense remains our staffing costs, followed by contractors including both commercial companies and proudly, colleagues from other farming systems groups, with whom we are collaborating.

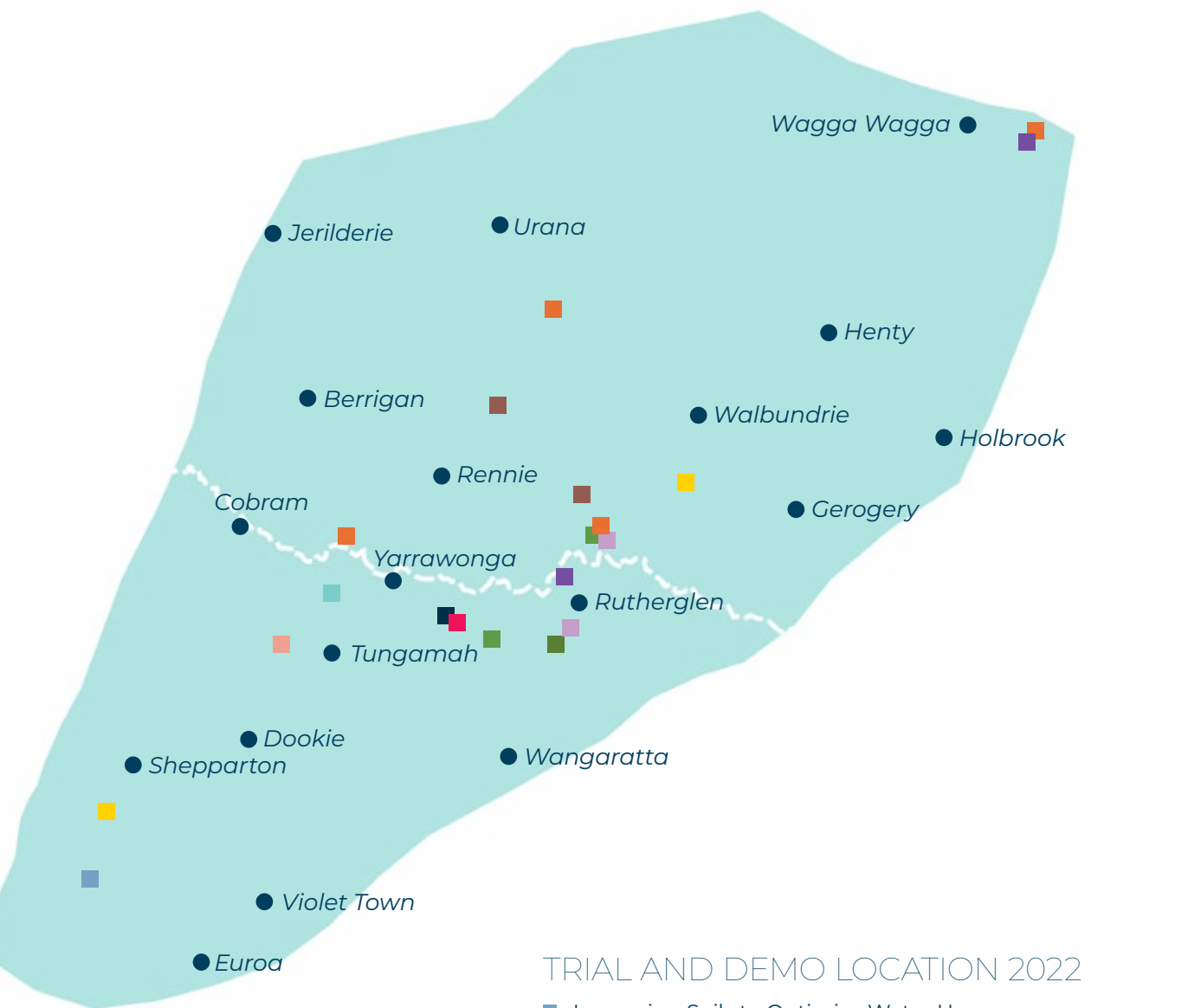
Our membership remains important from a financial perspective, not just due to membership fees, but it is the additional non-financial contributions our members make that sets our organisation apart. Our members contribute land for our trials and demonstrations, farm venues for events, machinery for demonstrations, stories for our communications and time on both our Board and Research Advisory Council. Cumulatively, all that is hard to quantify in a financial report but is worth acknowledging and capturing here.

Our ACNC registered charity remains an area for growth. We have two purposes for investment through our charity facility. One is a scholarship providing arm, the other is for research purposes. A strategy will be developed in the following 12 months to ensure value for our members and community is captured through this facility. Of note, we now have three scholarships that offer support to university students from our region studying agriculture during their second and third years. Thank you to the Hanrahan Family, Uncle Tobys and our new scholarship partner, Corteva for their ongoing support.

Thank you to our auditors Moggs Osborne and our accountant Belmores Accountants. Their leadership and guidance have set our organisation up for impact and sustainable growth and we will continue to work with both organisations over the next 12 months. Our audit was passed this year with a few minor things to improve on.

Murray Scholz
Treasurer

RESEARCH SITES ACROSS RIVERINE PLAINS REGION



TRIAL AND DEMO LOCATION 2022

- Improving Soils to Optimise Water Use
- Best Practice Liming Demo
- Irrigation Discussion Group
- Cool Soil Initiative
- Soil CRC Long Term Site
- Fodder For the Future
- Hyper Yielding Crops
- Silica and Natives
- Optimal soil and water management for drought resilience
- FAR Manures
- Farmlink N Banking
- Soil Extension

RESEARCH HIGHLIGHTS

- Increased our field trial and demonstration sites from 7 to 24 with a wider geographic spread.
- Increased the value of our projects to \$5.9 million over the last 18 months.
- Increased the number of our projects to 36 and diversified sectors and topics.
- Leading a high-profile project in collaboration with CSIRO, Grains Research and Development Corporation, the Southern NSW Drought Hub and other farming systems groups.
- Commenced and delivered our first livestock project.
- Doubled our research and field operations team.

This year has seen rapid but sustainable growth in our research deliverables, partnerships, efficiency and impact. This has been led by our highly motivated team, in combination with our Research Advisory Council (RAC).

Our RAC consists of farmers, consultants and university researchers, who together provide well-rounded ideas based on the needs of farmers, current research and information from local consultants. The RAC ensures the research, extension, validation and adoption activities Riverine Plains embarks on are relevant to our members first and foremost. It gives us confidence knowing the projects we are building will be helpful to our members and bring prosperity into our region.

This year, we have increased the diversity, structure and scale of our projects. We have brought in commercial research partners, diversified into livestock and community projects and improved the geographical spread of projects across our region. This increase in depth and breadth of projects has ensured benefit not only to our members, but also local researchers, further building capacity in the region.

This year we have had a total of 36 Projects valued at over \$5.9 million to the region. This includes projects looking at climate variability, pasture resilience, containment feeding, community, soils extension, agronomy, social research looking at impacts of climate, AgTech uptake and extension modelling.

2022	SOILS	GRAIN	LIVESTOCK	PASTURES	CROSS SECTOR
Capacity building	✓	✓	✓		
Business	✓				
Production	✓	✓	✓		
Carbon	✓	✓			
Climate	✓	✓			✓
Traditional Owner					✓
AgTech (innovation)	✓	✓	✓	✓	✓
Biosecurity					
Environment/Natural Capital		✓			✓
Social					✓

This matrix shows our projects have increased in diversity, directly aligned with our strategy over the past year.

SCHOLARSHIPS

Riverine Plains offers three scholarships of \$5000 each to students currently in their first year of study for either a diploma or bachelors degree in Agriculture, Agricultural Science or Agribusiness. All three Scholarships aim to recognise and encourage agricultural excellence by supporting students from the Riverine Plains in their agriculture-related studies.

JOHN HANRAHAN SCHOLARSHIP

The John Hanrahan Scholarship was established in honour of the late John Hanrahan, a valued member from Coreen. John's community spirit, passion for agriculture and thirst for knowledge was renowned.



2022 RECIPIENT JAMES WHITE

James is from Springhurst and is studying a Bachelor of Agricultural Science at Charles Sturt University.

UNCLE TOBYS SCHOLARSHIP

The Uncle Tobys Scholarship was established in 2021 to support future leaders in agriculture, especially those from the local region, who are crucial to the success of the food industry.



2022 RECIPIENT SAM MARSHALL

Sam hails from Rennie, NSW and is studying a Bachelor of Business Management (Agriculture) at Marcus Oldham College.

CORTEVA AGRISCIENCE SCHOLARSHIP

Corteva Agriscience is proud to be helping young people develop their passion for agriculture through the launch of its inaugural Scholarship in 2022.



2022 RECIPIENT REILY MENHENETT

Reilly grew up on a farm at Arcadia, Victoria, and is currently studying a Bachelor of Agricultural Science and Technology, as well as a Bachelor of Science majoring in Synthetic Chemistry at the University of Western Australia.

BOARD OF DIRECTORS

Riverine Plains is overseen by a voluntary board of five Member Directors and two Independent Directors.

MEMBER DIRECTORS



IAN TREVETHAN
(Chair, retired October 2022)

Ian runs a mixed farm with dryland and irrigated crops, along with a self-replacing merino sheep enterprise. Ian Studied Agricultural Science at the University of Melbourne's Dookie Campus.



MURRAY SCHOLZ
(Treasurer)

Murray Scholz runs his family farming business producing grain, oilseeds, beef, and lamb in the Eastern Riverina. Murray is an experienced Board Director with over 10 years of commercial and not-for-profit experience.



FIONA MARSHALL
(Deputy Chair)

Fiona and her husband Craig own and manage a mixed enterprise farm consisting of both dryland grain and a prime lamb business. Fiona is a life-long learner with a background in applied science and education.



MELISSA BROWN

Melissa is a partner in a family run mixed farming business near Murchison, Victoria. Melissa is the Technical Development Manager for Broadacre crops for BASF Agricultural Solutions. Melissa has a Bachelor of Agriculture from Dookie College.



JOHN BRUCE
(retired October 2022)

John and his wife Sarah operate a broadacre irrigated and dryland cropping and sheep operation near Barooga, NSW. John has been a Riverine Plains Committee and Board member since 2011.

INDEPENDENT DIRECTORS



ALISON PENFOLD

Alison's expertise has seen her work in a variety of influential roles in government, the corporate sector and running a national industry body. Alison currently works in Canberra for the Federal Shadow Minister for Trade and Tourism



BRONDWEN MACLEAN

Brondwen MacLean is a Director of Pivotal Management Consulting. She worked for 20 years at the Grains Research and Development Corporation, retiring as General Manager of Research Programs in 2019.

RESEARCH ADVISORY COUNCIL (RAC)

The Research Advisory Council is jointly chaired by Riverine Plains Board Members Melissa Brown (Miepoll, Vic) and John Bruce (Barooga, NSW).

MEMBERS

Scott Bartlett (Kialla, Vic)

Dr. Paul Long Cheng (Dookie, Vic)

David Gooden (Lockhart, NSW)

Rob Inglis (Wagga Wagga, NSW)

David Leah (Gerogery, NSW)

Angus Malmo (Yerong Creek, NSW)

Tom Marriott (Barooga, NSW)

Craig Marshall (Rennie, NSW)

Dr. Madeline Mitchell (Melbourne, Vic)

Eric Nankivell (Albury, NSW)

Rhiannon Sandford (Yea, Vic)

Dr. Cassandra Schefe (Rutherglen, Vic)

Corey Uebergang (Peechelba East, Vic)

STAFF

In 2022 Riverine Plains staff grew from five to 11. The team work from both the Mulwala office, remotely and of course across our region at field sites.



CATHERINE MARRIOTT
OAM Chief Executive Officer

Catherine brings a wealth of experience in building farmer member-based organisations, building partnerships, identifying value, business management and growth and developing and managing research.

As inaugural CEO, Catherine is developing and delivering a values driven strategic and operating plan. These will ensure relevant research, events and services are delivered to members, increasing profitability and value for all members, partners and the organisation.



DR SARA HELY
Director of Research and Operations

Sara has been working in agricultural science and rural industries for 20 years holding management roles in agricultural research in state and federal government as well as large investors in rural research, development and extension. She has a PhD in climate change research and specific knowledge in the grains industry.

As the Director of Research, Sara is responsible for project management, scientific research, meeting expectations and organisational growth.



BROOKE SANDERSON
Executive Assistant

Brooke joined Riverine Plains as Executive Assistant in 2022 and oversees the day-to-day operations of the organisation. Brooke holds extensive knowledge and a range of skills and attributes that are helping create the foundations of Riverine Plains.

Brooke strives to be regarded as honest and trustworthy, while combining hard work, discipline, efficiency, dedication and passion.



KATHERINE SEDDON
Corporate Communications Manager

Katherine holds over 20 years' communications experience in the not-for-profit, education and research sectors. She has a passion for soil health and farming and is excited to be working closely with farmers to bring them the most up to date, relevant research in a timely and regionally relevant way.

Katherine is managing all corporate communications and working on special projects for Riverine Plains.



KATE COFFEY
Senior Project Officer

Kate has worked as a Project Officer with Riverine Plains since 2013. Kate's key roles are project management and project development. Kate enjoys bringing farmers and agribusiness together to share ideas, network and solve problems.

Kate's current projects include irrigation, weather stations, improving soils, pastures and hyper yielding crops.



JANE MCINNES
Senior Project Officer

Jane has been with Riverine Plains since 2018. As Project Officer, Jane works across a portfolio of research, development and extension projects, including projects on managing subsoil acidity and soil health.

Jane previously worked in state government with a background in surface water and nutrient modelling and gully erosion research and brings strong mapping and computing skills to the team.



CLAUDIA POWELL
Communications Manager

Claudia manages Riverine Plains' communications channels, through collaboration with the Executives, Research Team and industry stakeholders.

Claudia grew up on a mixed cropping and livestock farm in northwest NSW, which has given her a connection to, and a love of, agriculture and country life. Claudia holds a Bachelor of Media and Communications from the University of New England.



RHIANNAN MCPHEE
Project Officer

Rhiannan commenced as a Research Field Officer in March 2022. Since then, she has taken on several project extension roles and is a Knowledge Broker for the Southern NSW Drought Resilience Adoption and Innovation Hub.

Rhiannan has agronomy experience across horticulture and broadacre cropping systems (irrigated and dryland), as well as experience in logistics management. Rhiannan has a Bachelor of Agriculture, from The University of Melbourne.



MICHELLE PARDY
Communications Officer

Michelle creates and edits content for the Riverine Plains newsletter, blogs and other publications, and produces the group's media releases. She served on the Riverine Plains Committee from 2006-2015, before becoming the group's Communication Officer in 2016.

Michelle has a background in grain production systems, extension (grains) and agricultural writing.



LYNN MACAULAY
Membership Officer

Lynn's role is to service members while also aiming to grow the Riverine Plains' membership base. Lynn has previous experience working on broadacre cropping farms in NSW and WA, as well as in England, where she completed her degree in Agriculture and Business Management.

She has a keen interest and passion for innovation, diversification and technology in Agriculture.



ANNA LONERGAN
Project Support Officer

As Project Support Officer, Anna provides administration and project management support to the leadership team, as well as field support for Field and Project Officers with new and existing projects.

Anna has a background in Environmental Science and Management, and has a strong passion for sustainable agriculture, research and development, and the conservation of native ecosystems.



RESEARCH PROJECTS

This is a summary of some of our key projects. Projects that are commercial in nature are not captured as we are unable to share results at this stage.

VICTORIAN DROUGHT RESILIENCE, ADOPTION, AND INNOVATION HUB: NORTHEAST NODE

Term Date: 2021-2024

The Victorian Drought Resilience, Adoption, and Innovation Hub will contribute \$8 million over four years through the Future Drought Fund.

The Hub is led by the University of Melbourne's Dookie Campus and is conducted in association with Deakin, La Trobe, and Federation University and Agriculture Victoria. Riverine Plains is a "Node" leader for Northeast Victoria and will consult the agricultural industry through farmers, councils, businesses, health organisations, and community groups in their region about building drought resilience at the local level. This process will lead to the development of pilot projects to address specific knowledge or technical skill gaps identified through the hubs, capacity building and the brokering of knowledge between nodes.

This is funded through the Australian Government's Future Drought Fund.

NEW SOUTH WALES DROUGHT RESILIENCE, ADOPTION, AND INNOVATION HUB: SOUTHERN NSW

Term Date: 2022-2024

The Southern NSW Drought Resilience, Adoption, and Innovation Hub is a consortium of nine regional partners including primary producers, Indigenous, industry and community groups, researchers, entrepreneurs, education institutions, resource management practitioners and government agencies.

Riverine Plains has been funded to appoint a part-time knowledge broker who will assist in gathering and sharing knowledge to southern NSW members and their communities. The outcome of this partnership is user-driven innovation, research and adoption and the facilitation of transformational change through the co-design of research, development, extension, adoption, and commercialisation activities.

This is funded through the Australian Government's Future Drought Fund.

ENHANCING COMMUNITY NETWORKS FOR DROUGHT RESILIENCE IN THE RIVERINE PLAINS

Term Date: 2021-2022

This project was designed to help people in Riverine Plains' communities make personal and business connections to better prepare for the next drought or future climate challenges.

This is funded through the Australian Government's Future Drought Fund.

HYPER YIELDING CROPS PROJECT

Term Date: 2020-2024

Riverine Plains established three focus farm sites in southern NSW in support of the NSW Centre of Excellence, Wallendbeen Centre, with a canola site established at Howlong and a wheat site based at Rutherglen. Riverine Plains Discussion Groups are being formed to link local growers with the focus farm paddock trials at these sites.

This is funded by the Grains Research and Development Corporation.

COOL SOILS INITIATIVE

Term Date: 2018-2023

The Cool Soils Initiative aims to increase the long-term sustainability and yield stability of southern New South Wales and northeast Victoria grain-producing regions, by adopting innovative agronomic strategies to improve soil health and related function.

This project seeks to create a platform for the food industry to support grain farmers in reducing greenhouse gas emissions, leading to increased long-term sustainability.

This is funded by the Food Agility Cooperative Research Centre.



RESEARCH PROJECTS

FACILITATED ACTION LEARNING GROUPS TO SUPPORT PROFITABLE IRRIGATED FARMING

Term Date: 2019-2023

This project is led by the Irrigated Cropping Council and assisted the formation of the Riverine Plains Irrigation Discussion Group. This group aims to link new and innovative irrigated cropping research investments by the Grains Research and Development Corporation with local farmer-driven groups and to tie these research projects more closely with farmer needs.

This is funded by the Grains Research and Development Corporation.

MULTIPLE SMALLER PROJECTS LOOKING AT SOIL CONSTRAINTS AND ENHANCING SOIL MANAGEMENT

Term Date: 2021-2024

These projects combine biophysical modelling, artificial intelligence, and statistical approaches to diagnose multiple and interactive soil constraints using existing farm and public data at a sub-field level. They will also look at research methodology, decision modelling, bio-economic factors and the development of tools to support farmers, policy makers, financiers and suppliers.

These projects are funded by the Cooperative Research Centre for High Performance Soils (Soil CRC).

PLANT-BASED SOLUTIONS TO IMPROVE SOIL PERFORMANCE THROUGH RHIZOSPHERE MODIFICATION (INCREASING PLANT DIVERSITY)

Term Date: 2019-2022

Riverine Plains has established a fully replicated trial site at Burramine, in Victoria, to evaluate how green manures, different rotations, cover crops and companion crops affect soil performance.

Additional funding from Goulburn Broken CMA will enable at least five years of trials to look at the influence of alternative cropping practices on soil properties. This site connects with similar sites through QLD, NSW, SA, and WA.

This is funded by the Soil CRC.

INNOVATION UPTAKE PROGRAM

Term: 2021-2022

AgriFutures Australia provided funding to support the Innovation Expo in July 2022. The aim of the event was to look at four different technologies in the field and target the adoption of such technologies to improve farming practices.

This is funded by AgriFutures Australia.

DEVELOPMENT AND EXTENSION TO CLOSE THE ECONOMIC YIELD GAP AND MAXIMISE FARMING SYSTEMS BENEFITS FROM GRAIN LEGUME PRODUCTION IN VICTORIA AND NSW

Term: 2021-2024

This project, led by FAR Australia is designed to deliver local development and extension to maximise farming benefits from grain legume production. This is to be achieved through grower-driven grain legume validation and demonstration trials across the region.

This is funded by the Grains Research and Development Corporation.

SOIL WATER STORAGE: INCREASED ACCESS AND TOOLS FOR ASSESSMENT

Term: 2022-2025

This project will build on the existing Soil CRC project at Burramine. Through installation of field sensors, the project will improve the understanding of crop access to water. It will give a better understanding of the competition for water and resources between mixed species cover crops and impacts on soil water availability for the cash crop.

This is funded by the Soil CRC.

FODDER FOR THE FUTURE

Term Date: 2020-2022

The project is designed to assist farmers adapt to a water-limited future by increasing the knowledge of both grain and dairy farmers by trialing different fodder options and connecting the two industries. This project highlights the value of 'closed loop' fodder production systems, which involve the transfer of high-quality fodder between businesses within the Southern Murray Darling Basin, whilst retaining the value of production locally.

This is funded by Dairy Australia, through Murray Dairy.

BEST PRACTICE LIMING TO ADDRESS SUB-SOIL ACIDITY IN NE VICTORIA

Term Date: 2021-2024

This project involves establishing a replicated lime treatment field trial at Lilliput, Victoria. It aims to increase awareness of the speed of acidification and stratification of soils in the region and the availability of tools to assist in the management decision process.

The trial aims to demonstrate best practice liming methods and how the incorporation of top-dressed lime can improve its distribution down the soil profile, lessening the impacts of soil acidity on subsequent crops.

This is funded through the Grains Research and Development Corporation.

IMPROVING SOIL TO OPTIMISE WATER USE ON FARM

Term Date: 2021-2023

This project addresses soil quality parameters, storing more rainfall for crop production and how these are related. The aim is to provide farmers with a better understanding and knowledge base of their soil and how they can identify local constraints, improve production, and water retention, and build resilience for future droughts.

This is funded through the Australian Government's Future Drought Fund and the National Resource Management Drought Resilience Program.

SMART FARMS SMALL GRANTS: SOIL EXTENSION ACTIVITIES

Term Date: 2022-2024

This project aims to support land managers by promoting the benefits of increased frequency of extensive soil sampling and testing to inform soil management decisions and take action to improve soil health. Two farmer discussion groups will work to identify high-priority soil issues through soil testing and will engage with soil scientists at field walks, workshops, and demonstrations.

This project is funded through the Australian Government's National Landcare Program Small Farms Small Grants initiative and the Grains Research and Development Corporation.

RESEARCH PROJECTS

DROUGHT RESILIENCE PRACTICES IN MIXED FARMING SYSTEMS

Term Date: 2022-2023

This project aims to fast-track direct support to cropping and livestock farmers across Victoria, South Australia, and Tasmania, in the management of pastures, the use of livestock containment and different feeding systems for drought resilience.

The use of demonstrations, activities and outputs in this project will help improve farm decision making and lead to improvements in soil cover, livestock welfare and nutrition in periods leading into, during and post drought.

This is funded by the Australian Government's Future Drought Fund through the Victoria Drought Resilience Adoption and Innovation Hub.

IMPROVED DROUGHT RESILIENCE THROUGH OPTIMAL MANAGEMENT OF SOILS AND AVAILABLE WATER

Term Date: 2022-2024

This project will establish 12 demonstration sites across NSW and NE VIC, covering approximately 18 million hectares, with a range of soil types, environments, and land uses.

Three proven strategies that improve drought resilience compared to conventional farming will be demonstrated:

1. Diverse legume rotations
2. Early sowing of slower-maturing crops
3. Measuring residual nitrogen in the soil

This project is supported through funding from the Australian Government's Future Drought Fund Drought Resilient Soils and Landscapes Grants Program, and is co-funded by the Grains Research and Development Corporation.

WHOLE-SYSTEM REDESIGN OF BROADACRE FARMING OF SE AUSTRALIA

Term Date: 2022-2024

This project is led by The University of Melbourne and will be hosted on large plot demonstration/ evaluation sites at four locations across northern Victoria. A region identified by the Australian Bureau of Agricultural and Resource Economics and Sciences (2020) as "one of only four regions in Australia at the highest level of drought risk nationally".

Around fifty small-scale replicated research trials will be used to evaluate a broader set of varieties and management options. There will be an evaluation of indigenous plant species at all sites under the guidance of experts from Black Duck Foods and Goulburn Broken Catchment Management Authority.

This is funded by the Australian Government's Future Drought Fund.

ASSESSING THE SUITABILITY OF SMALL FARM DAMS

Term Date: 2022-2024

This project is led by Southern Farming Systems and aims to create a spatial tool to rapidly calculate the likely runoff (frequency and volume under current future climate scenarios) into existing farm dams to help prepare, cope, and recover from drought. This type of calculator does not exist, with current approaches designed for flood rather than drought planning.

This is funded by the Australian Government's Future Drought Fund.

VALIDATION OF ORGANIC FERTILISER SOURCES FOR CROP NUTRITION IN NE VICTORIA

Term Date: 2022-2024

In partnership with FAR Australia, this two-year pilot project will look at the value of faba bean stubble with and without organic manures in restoring fertility and increasing yield in the following wheat crop. The impact of two different timings of nitrogen application on the faba crop in the subsequent wheat crop will also be assessed. This research coincides with skyrocketing nitrogen prices and growers increasingly looking for pulses to improve rotation fertility.

This is funded by the Grains Research and Development Corporation.

VICTORIAN DROUGHT RESILIENCE, ADOPTION, AND INNOVATION HUB - AGTECH INNOVATION PROJECT

Term Date: 2021-2024

The project will support activities focused on increasing the adoption of digital agriculture solutions, including the Drought Resilience Self-Assessment Tool and Climate Services for Agriculture. It will do this by increasing digital agriculture awareness and education and improving data literacy, data collection, collation and permissions, and data access and sharing practices. In addition, it will reduce barriers to the digitisation of Australian Agriculture through the support for 'create, try, test and learn' opportunities such as Mapping the Farm.

Farmers and advisors will learn new approaches for combining and analysing historical and current spatially referenced data (soils, landscape, climate, yields, spectral imagery) to create new insights into the resilience and reliability of different parts of the farm examined across multiple seasons.

This is funded by the Australian Government's Future Drought Fund through the Agricultural Innovation Hubs Program with the Victoria Drought Resilience Adoption and Innovation Hub.

MORE ROBUST WEATHER STATION NETWORK TO SUPPORT CLIMATE RESILIENCE

Term Date: 2022-2024

The project will investigate the feasibility of bringing together five networks of weather stations and moisture probes across southern Australia into a single, standardised platform that will inform key stakeholders on a series of localised climatic information to assist with disaster planning.

This is funded by the Department of Industry, Science, Energy and Resources through the Preparing Australia Program.

FARMLINK NITROGEN BANKING PROJECT

Term Date: 2022-2023

This project, led by FarmLink, is establishing a replicated trial site that compares 'nitrogen banking' and 'nitrogen demand' based strategies for closing the nitrogen limited yield gap with nil and national average control treatments. It will also complete an economic analysis of scenarios for 'nitrogen banking' and 'nitrogen demand' based strategies compared to controls.

This is funded by the Grains Research and Development Corporation.

RESEARCH PROJECTS

CREATING LANDSCAPE-SCALE CHANGE THROUGH DROUGHT-RESILIENT PASTURE SYSTEMS

Term Date: 2022-2024

Led by the Holbrook Landcare Network and the Southern NSW Drought Resilience, Adoption, and Innovation Hub, this project will establish a series of demonstration sites across the mid to high rainfall zone showcasing modern pasture species combinations and management practices known to build greater resilience across the landscape. Pasture species and the soils they protect are the major natural capital sources across 82 % of NSW land area, and even minor improvements can have a widespread impact.

Demonstration sites, workshops, publications, case studies, and on-farm consultations with farmers will achieve farmer adoption of findings and on-ground application of project outcomes.

This is funded by the Australian Government's Future Drought Fund Drought Resilient Soils and Landscapes Program through the SNSW Drought Resilience, Adoption, and Innovation Hub.

BUILDING LIVESTOCK DROUGHT RESILIENCE BY DISCOVERING STOCK CONTAINMENT INNOVATIONS

Term: 2021-2022 (pilot project)

This project is delivering a gap analysis and a comprehensive plan for future investment in a larger cross-hub, national initiative. It will specifically address barriers to investment and adoption of stock containment and confinement strategies.

This is funded by the Australian Government's Future Drought Fund through the Victoria Drought Resilience, Adoption, and Innovation Hub.

ADDITIONAL RESEARCH PARTNERS

Along with the research organisations that we receive funding from, Riverine Plains is proud to collaborate with the following research partners: Agriculture Victoria, Australian Government's National Landcare Program, Australian National University, Birchip Cropping Group, Brill Ag, Central West Farming Systems, Centre for eResearch and Digital Innovation, Charles Sturt University, CSIRO, Deakin University, Department of Primary Industries and Regional Development, Federation University, FAR Australia, FarmLink, Food and Fibre Gippsland, First Nations Governance Circle, Foundation for Rural and Regional Renewal, Goulburn Broken Catchment Management Authority, Holbrook Landcare Network, Irrigated Cropping Council, Irrigation Research and Extension Committee, Kellogg's Group, La Trobe University, Local Land Services NSW, Mallee Regional Innovation Centre, Mallee Sustainable Farming, Manildra Group, Allied Pinnacle, Sustainable Food Lab, Mars Petcare, Meat and Livestock Australia, Murray Dairy, NSW Department of Primary Industries, Pratt Foundation, Rural Aid, Southern Farming Systems, Southern Growers, South Australia Research and Development Institution, Southern Cross University, TechCrop, University of Canberra, University of Melbourne and University of Wollongong.

Credit: Ella Arnold



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