South Australian Drought Resilience Adoption and Innovation Hub

Annual MEL Report

Financial year: 2023-2024 (1 July 2023-30 June 2024)

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Summary

Outputs	
Output 1: Outputs of innovation programs and opportunities, including resources, tools and other products, developed and shared (not communications products included in Output 6 and learning activities included in Output 5)	A total of 55 resources, tools and other products were developed in this MEL reporting period to provide assistance with on fam decision making (resource guides, webinars, and decision tools), to assist with communicating the results from trial and demonstration sites (technical reports, project site reports, trial books), to provide examples of practical implementation of drought resilience practices and technologies practical application (Case Studies, fact sheets, webinars podcasts and videos), to identify drought resilience needs (farming systems needs analysis), and to guide industry (sustainability roadmap). There are a total of 834 people recorded as using the resources developed, however this number is likely to be a lot higher as some projects specifically engaged consultants and advisors who then disseminate the tools and resources to their clients and there were 4,393 people attending Hub events where tools and resources were promoted, explained, and disseminated. The SA Drought Hub Website has seen significant upgrade over the past 1 months to include with a wide range of drought resilience information available to farmers. The agronomic focus areas also have 'Dry Season Information' sections to provide users with specific information on management approaches during dry periods leading into drought. Additionally, the Project Pages on Hub website provides a description of all current and completed hub projects along with the resources developed through that project including reports, decision tools, webinars and case studies.
Output 2: Outputs of innovation programs and opportunities specific to First Nations, including resources, tools and other products, developed and shared (not Communications products included in Output 6 and learning activities included in Output 5)	The Hub engaged in 16 activities promoting and/or facilitating the exchange of ideas with First Nations for the development of resources, tools and/or other products. This included: • 2 x on country visits • 1 x yarning circle • 1 x workshop • 12 x project planning and development meetings These activities and events were attended by 193 first nations community members and representatives.

	Following from the Climate Yarning Circles undertaken in early 2023, a Climate Yarning Circles video was produced to showcase the project and raise awareness of the impact of climate change on Aboriginal culture. The video has had 70 views on YouTube to date and has also been presented to audiences of 120 people at forums and through presentations. The development of a Ngarrindjeri seasonal calendar was identified by the Ngarrindjeri community as key follow-on project to the Climate Yarning Circles Project which was conducted in early 2023. The calendar's purpose is record the ecological timing of plants and animals, and record the changes in ecological timing that is occurring as a result of climate change.
Output 3: Scholarships	Four 12-month internships focusing on the grains industry have been directly supported by the SA Drought Hub during this reporting period, with all four interns employed through hub member organisations, The Hart Field site group (x2) and SA Research and development Institute (SARDI) (x1) and Agricultural innovation and research Eyre Peninsula (AIREP) (x1) All of the interns are grains industry focused are work alongside industry groups, grower groups and producers to build their knowledge and experience in real world farming situations. One farmer was supported to undertake a Stepping into Leadership program scholarship which specifically designed for emerging female leaders in agriculture and agribusiness. A two-day facilitation and extension training workshop was held for network partners who work closely with farmers and farmer groups, to build their skills in designing good extension and facilitation skills to enhance the level of farmer engagement and impact of Hub projects. One PhD, one Honors and two undergraduate students were engaged in and works on hub funded projects being delivered through Hub member organisations. Approximately four hundred and fifty undergraduate and post graduate students from a range of agricultural disciplines are using a Hub drought resilience learning and study site at the University of Adelaide's Roseworthy Campus as part of their undergraduate subjects.
Output 4: Outputs of support for access to funding	The Hub has supported 27 grant and tender applications across a range of grants programs with most of these applications being for greater than $250,000. Of the 27 applications, 9 were successful totalling over $9 million ($9,309,269).

	Support for each of the successful grant applications listed above has included a mix of: • Hub resource provision, • linking the projects to other FDF programs on the ground, • providing SA Drought Hub presentations, workshops and other content to value add to events, • Participation on project steering committees • provision of collaborative and value add opportunities as appropriate, • Hub staff support for delivery of the project • Providing connections and links to Hub members and Network Partners as required to assist project delivery. • Promotion of the project events to Hub members, Partners, and the broader Hub network. • Extend information, materials and products created through the project to Hub members, Partners, and the broader Hub network. • Provide information and networking support to SA Hub members and Network Partners involved in the project.
Output 5: Learning activities to support resilience with end users and those who support end users (and associated products).	There were 137 learning activities undertaken as listed in the Data Capture spreadsheet. Most of these were delivered through SA Drought Hub member organisations as part of project activity delivery in SA regional areas. These events were supported and attended by the Hub staff members where possible. Total attendance across the 137 learning events was 4,393 people: • 2,457 x farmers / producers / pastoralists • 572 x Private Consultant / agribusiness / farm advisors / farm consultants / businesses / Industry • 186 x extension staff • 128 x grower group network staff / farmer group staff • 70 x researchers (attendees not presenters) • 698 x Students. • 5 x DAFF Program Staff • 5 x Plant Breeders • 272 x attendees at events where the demographic breakdown was not recorded. The focus areas of the events varied greatly to meet regionally specific issues and topics that were prioritised through the Hub's co-design process. Key themes were Dry season decision making, improved crop and livestock management to increase drought resilience, planning for the impact of drought and climate change, water security on farm, pasture and fodder production, and soil management to increase drought resilience. There were 72 Community wellbeing events run in partnership with and co-funded by the Farm Business Resilience Program and

	Livestock SA which were hugely successful and well attended by 2,362 people.
Output 6: Hub communication activities plans and products (to be reported via progress report)	Whilst Hub led communications are reported in the SA Drought Hub progress Reports, there are a range of communications activities relate to hub programs which are initiated by our Members and Network Partners. A total of 119 communications activities and products were created to support the delivery of SA Drought Hub projects and programs. This included newsletters and articles, media releases and interviews, social media posts, videos, fact sheets, podcasts, and trials results compendiums and booklets. These were largely developed by Hub Members and Network Partners
Output 7: Trials and demonstrations	The SA Drought Hub has established 123 on-farm demonstration sites across 113 farms and pastoral properties in the 2023/2024 financial year, including 2 research farms. The focus of these sites is mixed farming (field crops and livestock), cropping (field crops) and rangeland livestock production. All On Farm Trials and Demonstrations are implemented with the assistance of the farmer or pastoralist who is hosting the trial or demonstration on their property. The demonstration sites were visited by 549 farmers and pastoralists, and 221 advisors, consultants, government Extension officers, project officers and grower group staff who can share the knowledge gained with their client and member networks. All on-farm trials and demonstration sites align with the co-designed priorities identified through each of the Nodes. This ensures relevance to local producers from across different regions in SA and alignment to local grower group priorities which in turn increases the amount of attendance at the on-farm trial and demonstration sites.
Output 8: Co-designed Operational Plans and Activity/Project Plans	The key themes identified through the initial 2021/2022 co-design process have continued to guide Hub investment and delivery of the activity workplan. The 10 themes identified in the Operational Plan, Hub program logic, and Activity Work plan are: 1. Community resilience and wellbeing through support, collaboration, and access to technologies. 2. Farm planning and decision making to manage climate and operational risk. 3. Farm business management. 4. Livestock and fodder management strategies, technologies, and innovations. 5. Crop and pasture management strategies, technologies, and innovations. 6. Access to drought information and technical support.

	7. Soil and land management strategies, technologies, and innovations. 8. Water security and management strategies, technologies, and innovations. 9. Native vegetation, biodiversity, pest management strategies, technologies, and innovations. 10. Upskilling advisers, researchers, and key influencers. The Activity Work Plan was reviewed and revised in mid-2023 to reflect the changing priorities of the hub member organisations and the evolution of the Hub. MEL data was used to inform the areas where changes and improvements were being suggested, and this was validated with hub members and staff prior to changes being made. The revised activity work plan has seen the continuation of the 10 themes but with improved alignment of the associated activities to the project context and delivery needs of Hub members, network partners, and end users. This has ensured the activities of the Hub are best aligned with evolving and emerging grower needs and collective resources and needs of the Hub members. The extent to which users feel engaged in the design and delivery of Hub activities has been measured through the Hub Member survey with a total of 77 responses received from the 210 survey recipients (37% return rate). The Member survey showed a high degree of satisfaction with the SA Drought Hub with a largely positive response from those who responded to the survey.
Output 9: Outputs from Hub governance activities	The Hub has an Advisory Group that 1. provides strategic industry, government and community intelligence and feedback, and 2. Support the programs to align with the strategic objectives and priorities of government, industry and regions. An Institutional Management Committee (IMC) oversees the governance and management arrangements and progress of the Hub. Each Node in the Hub has a Stakeholder Advisory Group (SAG) that includes representatives from the Hub Members and Network Partners participating in project delivery at each Node and local primary producers. Senior Hub staff conduct a weekly management meeting to plan for and manage upcoming events, project delivery, funding opportunities, reporting, stakeholder engagement, communications, and other operational matters that arise. The following governance meetings have taken place: • 4 x FDF Advisory Board meetings, • 7 x Institutional Management Committee (IMC) meetings, • 6 x Node Stakeholder Advisory Group (SAG) meetings • 46 x weekly Hub Management meetings • 22 x fortnightly Staff Operations meetings

	Additionally, there are meetings with the finance, legal, and other administrative teams from the University of Adelaide if matters arise or require clarification to ensure compliance with the Head Agreement, the Hub Collaboration Agreement, and all relevant legislation. There is a high level of satisfaction expressed by people and organisations directly involved in the Hub as indicated through the Hub Member Survey completed during May and June 2024 where 77 responses were received from the 210 recipients (37% response rate).
Output 10: Drought commercialisation initiatives	The SA Drought Hub has not pursued any commercialisation opportunities as this has not been the focus of the Hub. The co-design undertaken by the hub identified opportunities to support on farm extension and adoption of recently commercialised tools and products through demonstration sites. There has been continued interest from grower groups and commercial companies on the demonstration of newly commercialised products which contribute the addressing the priorities identified through the hub's co-design. This has led to their contribution and involvement in projects being delivered by the Hub. Demonstrations of recently commercialised technologies have included: 1. There has been ongoing interest in improving on-farm water security using innovative remote sensing and water monitoring systems. 2. The use of Variable Rate Fertilizer Application technologies has been employed on several farms in the South Australian Mallee after extensive demonstration and assisted adoption. 3. The Hub has supported a virtual fencing trial to exclude merino ewes from a sandy rise in a stubble paddock and protect lighter textured soils that are prone to disturbance from stock and subsequent wind erosion. 4. The Hub has worked closely with Beanstalk as part of the Drought Venture Studio to actively promote the Drought Venture Studio program and the opportunities it presents to a wide range of Hub members who operate in or have interest in ag tech, innovation and commercialisation opportunities.

Outcomes

Short-term Outcomes

ST1: Increased collaboration and partnerships among organisations working in RDEA&C	Hub members include grower and livestock groups, universities, State Government agencies, landscape boards, agribusinesses, and industry groups. Seven new Network Partners have joined the Hub as regionally based co-designed projects have continued, taking the total number of Hub members to 59 and Network Partners to 33. Hub Staff play a key role in ensuring relevant and appropriate RDEA&E information is disseminated to Hub members, growers and stakeholders as they seek information on drought resilience topics and concerns. The Hub is currently engaged in 83 collaborations and partnerships with a range of RDCs, industry bodies, CRCs, scientific bodies, other FDF programs, and other Drought Hubs, and these have expanded significantly over the past two years from 20 in 2022, 58 in 2023 and 83 in 2024. Many of the collaborations established have led to co-contributions towards projects in the form of physical, financial, intellectual, and human resources, and co-development of funding applications and tenders for projects that are co-designed to meet end user needs.
ST2: Co-design and participatory approaches embedded in the design and delivery of Hub activities	All of the SA Drought Hub Activities being delivered employ a co-design process. This includes alignment of project delivery with the themes and project priorities identified through the initial co-design consultations and working with Hub members, network partners and end users to design and deliver projects to end users. The Hub has taken the priorities identified in each of the Hub Nodes through the initial co-design consultations and has worked collectively with Hub Members to co-design projects that recognise and add value to past and current investments, are tailored to local farming systems and environmental conditions, engage local and regional stakeholders in the design and delivery of projects, and are of the highest priority to local end users. Hub projects are primarily delivered through the South Australian Grower Group (Farming Systems Group) Network and specific targeted and localised project development has been undertaken through these groups and Landscape Boards from across the State since the initial co-design workshops. This has ensured that projects recognize and meet the principles outlined above. Hub staff attended 180 meetings with member organisations and stakeholders with the primary focus on co-design, implementation,

	and delivery of projects. Hub staff also attended 45 workshops, 20 field days, 3 information sessions, 5 training sessions, 13 conferences, 17 forums and 16 other events. The meetings and events were collectively attended by 5756 people with 1923 growers receiving information about the SA Drought Hub, associated activities, and opportunities for involvement.
ST3: Hubs seen and utilised as key regionally focused institutions for defining and delivering RDEA&C services (relating to drought resilience)	Over the past three years membership has increased by more than 30 organisations as the value of partnering in the SA Drought Hub has been appreciated and realised by an increasing number of organisations. The Hub is funding and supporting 37 projects of varying scales involving a wide array of Hub member organisations and affiliate bodies. The diversity of projects being delivered through the Hub is a direct consequence of meeting the varying local RDEA&C needs and priorities relating to drought resilience of each region and the agricultural sectors and organisations that operate within them through an effective co-design process. The SA Drought Hub is seen as a central point for information on Future Drought Fund programs and initiatives. Community members and organisations come to the Hub consistently to ask questions about the broader FDF programs and the opportunities to engage in these. The SA Drought Hub is also invited to have representation on a range of project and industry committees to provide input from a drought and climate risk perspective. These include Regional Drought Resilience Planning, Industry RD&E committees, Industry Blueprints, FDF grants funded project steering committees, and Community led projects. The Hub is currently engaged in 83 collaborations and partnerships outside of the core work being undertaken with hub member organisations and network partners. These have expanded significantly from 20 collaborations in 2022 and 53 collaborations in 2023. Collaborations span Peak Industry Bodies, Research and Development Corporations, Governing bodies, Government Agencies, and our many on ground partners across the state. The collaborations are reflective of the growing confidence and understanding of the SA Drought Hubs role in the broader South Australia project development and delivery landscape, and the opportunities for collaborative effort to add value to projects, participants, and organisations.
ST4: Hubs work effectively as part of a national network/architecture	The Hub is currently engaged in 83 collaborations and partnerships with a wide array of organisations including other Hubs, RDCs, state/territory agencies and other stakeholders operating at statewide and national scales. Discussions with several Research and Development Corporations have led to co-investment in and delivery of RDC funded initiatives

	and there are ongoing negotiations for additional co-development and delivery of projects. Partnerships with other Hubs, SA Hub members, and the members of other Hubs have expanded since the conclusion of the Cross-Hub Projects, with several collaborative grant applications being developed. The SA Drought hub is Leading the *'Containment Feeding to Boost Business Performance and Resilience'* project and the *'Profitable and Resilient Southern Beef Herds',* both involving several Hubs. We are supporting and involved in the delivery of two additional national projects *'TEKFARM's* and '*Derisking the Seeding Program'*, both involving multiple Drought Hubs. The Hub is involved in five multi hub project applications through the Climate Smart Agriculture partnerships and innovation Grants and is awaiting the outcome of these. The Hub actively participates in several FDF Communities of Practice. These strengthens the understanding and relationships between Drought Hubs and with DAFF, and fosters collaborations and partnerships beyond those that could be naturally anticipated. The Hub has supported 27 grant and tender applications across a range of grants programs and of these 9 applications were successful totalling over $9 Million.
ST5: Efficient and effective activities to support RDEA&C and uptake by end users	The SA Drought Hub has led and enabled many activities to support RDEA&C. This has included 37 projects, 123 demonstration sites and 137 separate learning events undertaken over the 2023/24 financial year. Attendance at the events and demonstration sites totalled 5,181 people engaging in learning events and demonstration sites (4,393 at learning events and 788 at demonstration sites). In response to the Hub Learning Activity Survey question: *The content of this activity was easy to understand*: 98% of the 485 respondents either agreed (59%) or strongly agreed (39%). There were 2% of respondents who did not answer this question. In response to the Hub Learning Activity Survey question: *The content of this activity was relevant in helping me to prepare for, or respond to, future drought?* 92% of the 485 respondents either agreed (61%) or strongly agreed (31%) with 7% of respondents either disagreeing (3%) or strongly disagreeing (4%). 1% of respondents said this question was not applicable to them. In response to the Hub Learning Activity Survey question: *The content of this activity was relevant to my needs?* 97% of the 485 respondents either agreed (63%) or strongly agreed (34%) with 1% of respondents disagreeing. There were 2% of respondents who did not answer this question.

	In response to the Hub Learning Activity Survey question: *As a result of this activity, I am likely to make a practice change, or consider making a practice change*? 88% of the 485 respondents either agreed (69%) or strongly agreed (19%) with 9% of respondents either disagreeing (5%) or strongly disagreeing (4%). 1% of respondents said this question was not applicable to them, , and 2% of respondents did not answer this question. The area of land being managed by people who agreed or strongly agreed that they were likely to make a practice change or consider making a practice change was 17,689,554 Ha.
Hub Specific Short-term Outcomes	
	The SA Drought hub does not have any Hub Specific Short Term Outcomes
Medium-term Outcomes	
MT1: Increased availability and accessibility of, and capacity to use and adopt, knowledge that can be applied to improve drought resilience	The Hub has developed 55 knowledge and information resources which include fact sheets, case studies, podcasts, videos, websites, newsletters, and technical reports to provide information to a wide range of audiences. These resources have been used by 834 people however this number is likely to be much higher as some projects have specifically engaged consultants and advisors who then disseminate the tools and resources to their clients. Additionally, there were 4,393 people attending Hub events where tools and resources were promoted, explained, and disseminated and it is unknown how many of these attendees have adopted the tools and resources provided. The knowledge and information resources have been accessed through a variety of mechanisms and are used to compliment Hub learning events, community engagement initiatives, and on-farm trials and demonstrations. • Total attendance across all 137 learning events was 4,393 people and includes 2,457farmers / producers / pastoralists, 572 x Private Consultant / agribusiness / farm advisors / farm consultants / businesses / Industry, 186 project and government extension staff, 128 grower group network staff / farmer group staff, 70 researchers, 698 students, 5 DAFF staff and 5 plant breeders. There were a further 272 x attendees at events where the demographic breakdown was not recorded. • A total of 111 commercial farms and 2 research farms hosted on farm trials and demonstrations with a total of 549 farmers and 239 advisors, consultants, government

	Extension officers, project officers and grower group staff visiting these sites. A total of 485 Hub Learning Activity Survey evaluations were collected from participants across these events and in response to the question: *I would be likely to consult/use the materials provided (at the learning event) again*: 95% of the 485 respondents either agreed (59%) or strongly agreed (36%) with 3% of respondents either disagreeing (2%) or strongly disagreeing (1%). There were 2% of respondents who did not answer this question. This demonstrates that end users and stakeholders (such as service providers) rate the generated knowledge and tools generated as appropriate, useful and user-friendly and will use them again to assist in decision making on matters relating to drought resilience in farm businesses.
MT2: Increased adoption and commercialisation of drought resilience technologies and practices	Most of the project delivery effort that is supported or delivered by the Hub is focused on extension and adoption, with smaller efforts towards applied research and development. Commercialisation is not something that the Hub has engaged deeply in as the timeframes to take a product from concept to sale are often far beyond those of the current Hub funding agreement. Additionally, in response to the current dry season, the hub has purposefully directed resources into projects and activities that assist farmers and advisors to make timely and informed decisions on farming practices and operations in dry and challenging seasons. Examples of Increased adoption of drought resilience technologies and practices are: • The '*On Farm Water Security'* project has developed a range of communications products that feature positive interviews with farmers on the use of water monitoring devices on their properties and the benefits that adoption of the technologies has provided. • The '*Soil Zone Management*' project has focused on grower adoption of Variable Rate fertiliser applications (VRT) using variable rate technology (VRT) An Eazy VRT tool is being developed as part of the project. • The *'climate resilience of the Australian Sheep Industry'* project has demonstrated and quantified the impact of four, easy to implement, strategies for sheep producers to implement to mitigate the impacts of heat events on sheep. • The Hub has supported a *virtual fencing trial* on Eyre Peninsula to exclude merino ewes from a sandy rise in a stubble paddock to minimise erosion.

MT3: Technologies and practices adopted are effective in improving drought resilience	There has been significant on farm adoption after the delivery of a broad range of project and associated demonstration sites that have focused on incorporation of drought resilience measures into existing farming systems. This approach can greatly increase the drought resilience of farming systems through adaptations that improve soil moisture conservation, reduce crop competition, increase nutrition, promote increased productivity, and reduce input costs. Learning activity survey results and reports from Grower Groups have indicated that producers are intending to adopt the practices being presented at the Hub supported demonstration sites and other learning initiatives. In response to the Hub Learning Activity Survey question: *As a result of this activity, I am likely to make a practice change, or consider making a practice change*? 88% of the 485 respondents either agreed (69%) or strongly agreed (19%) with 9% of respondents either disagreeing (5%) or strongly disagreeing (4%). 1% of respondents said this question was not applicable to them, and 2% of respondents did not answer this question. The area of land being managed by people who agreed or strongly agreed that they were likely to make a practice change or consider making a practice change was 17,689,554 Ha.
MT4: Design and delivery of Hub activities is responsive to end-user needs	Grower and other user satisfaction has been measured through the Hub Learning Activity Survey undertaken at learning events such as field days and workshops and producer visits to demonstration sites and farm walks. The feedback from the 485 Learning Activity surveys received across the financial year was overwhelmingly positive, indicating a high level of satisfaction with the process and outcomes of co-design. This was consistent in the 2022/2023 financial year when the 332 Learning Activity surveys received were also overwhelmingly positive Results of the learning activity surveys are displayed fully under short term Outcome 5 (ST5) with responses that demonstrate the Hub's responsiveness to end user needs below: • In response to the Hub Learning Activity Survey question: The content of this activity was easy to understand: 98% of the 485 respondents either agreed (59%) or strongly agreed (39%). There were 2% of respondents who did not answer this question. • In response to the Hub Learning Activity Survey question: *The content of this activity was relevant in helping me to prepare for, or respond to, future drought?* 92% of the 485 respondents either agreed (61%) or strongly agreed (31%) with 7% of respondents either disagreeing (3%) or strongly disagreeing (4%). 1% of respondents said this question was not applicable to them.

	• In response to the Hub Learning Activity Survey question: *The content of this activity was relevant to my needs?* 97% of the 485 respondents either agreed (63%) or strongly agreed (34%) with 1% of respondents disagreeing. There were 2% of respondents who did not answer this question There is also a high degree of satisfaction expressed through the Hub Member survey (see data presented in Short Term Outcome 2 (ST2))
Hub Specific Medium-term Outcomes	
HS1: Increased capacity, preparedness, and transition towards a future climate with less rainfall	Many of the projects being delivered and the resources and tools being developed through the SA Drought Hub and it's membership, whilst drought resilience focused, also assist in building climate resilience. The Hub has run a range of workshops across the State which have focused on Historical drought analysis, seasonal climate, and future climate predictions, and the application to decision making. These workshops, attended by growers / pastoralists, advisors / extension staff, First Nations Peoples, and project coordinating staff had significant positive impact. Participants were introduced to My Climate View and a range of other climate tools and products that can assist in seasonally based decision making. Most of the hub funded and supported projects build production and farming systems resilience to both drought and climate change. Projects that support the retention and storage of greater soil moisture, use technologies to better manage on farm water supplies, improve on farm decision making in both good and difficult time, improve fodder production and storage, and reduce fertilizer input costs are all being delivered by the hub and each helps to build both drought and climate resilience. The Hub is commencing the *Adapting to the challenges of the Future climate to farming systems in marginal environments'* project and is currently undertaking the The *'Improving the climate resilience of the Australian Sheep Industry'* project. Both projects increase farmer understanding of climate change impacts on farming systems and propose viable adaptation strategies.
HS2: Industry sectors are providing broad resilience and innovation support across the state	Industry sectors in South Australia are strongly engaged in the Hub. Primary Producers SA (PPSA), Livestock SA, Grain Producers SA (GPSA) are all members of the SA Drought Hub And each organisation has representation of the SA FDF Advisory Group (SA Drought Hub advisory group). Th Hub has co-funded and co-delivered a range of drought resilience, innovation, sustainability, and timely decision-making

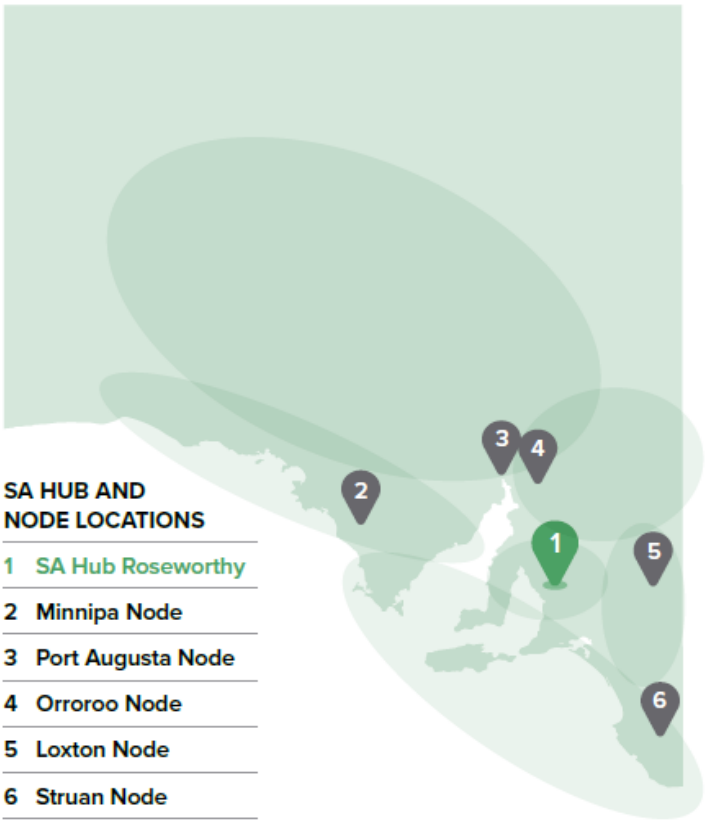
	projects and events in partnership with Livestock SA and Grain Producers SA The South Australian Grains industry Trust (SAGIT) have coinvested in three regionally based agronomic projects to improve soil and crop management for drought resilience. The Hub and SAGIT have also partnered to co-fund a regional intern program designed and led by farming systems groups. The South Australian Sheep Industry Fund (SIF) have contributed industry funds for the Hub to co-invest in a range of sheep industry projects that met identified drought Hub and Industry Blueprint priorities. The priorities identified through the SA Hub co-design process and the projects being delivered all align to either the SA Sheep industry Blueprint, SA Beef industry Blueprint, or SA Grains industry Blueprint. This is reported back to the industry bodies and associated committees responsible for the delivery and administration of the blueprints.



A drone demonstration at the Rudall Tuckey Sticky Beak Farm Visit

1. Context

The SA Drought Hub was established in June 2021 and covers all the agricultural production areas of South Australia through its headquarters at Roseworthy (Hub), and five regionally based Nodes at Minnipa (1), Port Augusta (2), Orroroo (3), Loxton (4) and Struan (5) – see map below). Each Node has a physical presence but is not constrained by geographic location i.e. partners in the Lower Eyre Peninsula, Adelaide Hills and Fleurieu, Kangaroo Island, and Limestone Coast have shared interests and all link to the high rainfall Node (Struan) that is physically located in the Limestone Coast region of the state.



The SA Drought Hub has a primary focus on mixed farming, grains and livestock production, but also works with the wine industry and horticulture sectors. Key stakeholders include grower groups, universities, government agencies, indigenous partners, agribusinesses, RDEA&C partners and industry organisations. The Hub also partners with a range of RDEA&C partners including Research and Development Corporations, Cooperative Research Centres, and Research institutes.

Soon after establishment the Hub developed and put in place governance structures and began recruitment of key staff. There was significant engagement with members and network partners to determine their drought resilience priorities though July and August, and seven Co-design workshops were undertaken across regional South Australia through September to identify

community and grower ideas and needs in relation to building drought resilience. Numerous meetings and consultations with Hub Members including Grower Groups, Industry Bodies and Landscape Boards also took place to identify their drought resilience priorities. A Co-design report was developed and through further consultation, priorities established for each region of SA. The co-design work was being undertaken concurrently with the development of the Hub's operational and activity work plans, communications plans and MEL plans, and whilst imperfect in that co-design and project implementation was running ahead of planning, it did enable the Hub to commence project delivery from early 2022 with a range of end user designed, community led initiatives.

The initial suite of activities/projects were primarily regionally specific. Subsequent activity and project development has focused on achieving a balance of multi-region multi-industry projects but still with appropriate regionalisation of solutions and delivery approaches. This is attributable to Hub members having an increased level of confidence in the Hub program and seeing the broader opportunities that it presents at a local as well as multi-region multi-industry level.

The Hub brings together staff members from five different organisations: The University of Adelaide, Ag Excellence Alliance (Agricultural NGO), The Department of Primary industry and Resources, The South Australian Arid Lands Landscape Board, and Ag Communicators (Communications Company). Overall, recruitment and staff retention across the Hub has been successful noting some challenges in timely recruitment and retention of regionally based Node Coordinators. In periods of no substantive Node Coordinator other Hub staff have serviced the roles but this has reduced overall Hub engagement in some regions.



Soil Testing at a field day for the improving drought grazing management in the non-arable ranges of the Northern & Yorke region.

The Agrifutures funded Innovation Broker, now in its third round of funding, has provided opportunity for co-design of projects that deliver outcomes for farmers in climate resilience, market access, digital agriculture and biosecurity. Where possible, the design of these projects has been synergistic with also enhancing drought resilience through complimenting Drought Hub and other FDF initiatives.
Stakeholder Advisory Groups (SAGs) in each node are composed of local hub member organisations and primary producers. The SAGs were developed in the first year of the Hub to provide guidance on regional priorities, contribute to activity co-design, bring local knowledge to help refine projects, and bring together local providers and producers to participate in Hub activities. The SAGs have not been as effective as planned. This is due to a range of reasons including a duplication of role and function in some regions where other organisations are running similar groups to achieve project or program guidance and validation functions, infrequent and adhoc meetings due to the time constraints of SAG members and Hub Staff, and uncertainty from some SAG members on the role and purpose of SAGs

Further to the regional staffing considerations detailed above, there are some staffing and organisational capacity constraints within some of the Hub's key delivery organisations. Many of the Hub members delivering projects in regional areas are also delivering a range of other Federal, state, RDC and CRC, programs, and projects. The Hub focus on drought resilience coupled with an intent to collaborate and complement these other programs where appropriately meeting Hub co-design objectives and end user identified priorities continues to be well received. There are some regions however, particularly those with smaller groups or lower population, where there is a desire for additional projects to be delivered but the organisations in those areas don't have the staffing capacity to support additional project work. This has been addressed to some degree through the Hub support of regionally based interns. There remains however, a human resource capacity gap that needs to be filled in order to deliver a broader range of projects to some local and regional areas.

The SA Drought Hub membership has increased since the inception of the Hub which has led to greater need to spread resources. This has meant that increasingly the Hub team are looking for external opportunities in order to maintain active and effective engagement with the members. The uncertain nature of competitive grants makes consistent and ongoing engagement with all eighty plus Hub member organisations somewhat difficult to maintain and managing expectations in this area is important.

The Hub's project co-design process encourages farmer led discussion and priority setting aligned with industry. This has been highly effective at implementing engaging projects but on occasion has not aligned with prior expectations of some key stakeholders of the Hub.

Most of the project delivery effort that is supported or delivered by the Hub is focused on extension and adoption coupled with some efforts involving applied research, development and support of uptake of commercial technologies that enhance drought resilience. The SA Drought Hub delivery model is for projects to be led by organisations that operate close to the ground and in a local context. As such, most Hub projects are led by the SA based Grower Groups and Landscape (NRM) Boards. Whilst these organisations mostly 'lead' projects, there are a wide range of other hub member and partner organisations that are involved in the delivery of projects. The Hub brings these groups and organisations together in partnership arrangements that see project delivery optimised.

The SA Drought Hub was previously involved in three cross Hub projects, one as a project lead and the other two as a participant. These were critical in not only getting Hubs to work together, but also in providing a mechanism for SA Drought Hub members to engage with other Hubs and their member organisations and understand the opportunities the National Hubs network presented at regional and local scales. This has led to the development and initiation of four projects involving the SA Drought hub and at least two other Hubs, and an even broader range of discussions on the opportunities for collaborative projects moving forward. Working collaboratively across Hub boundaries is becoming foundational when considering project and program delivery.

The Hub has worked closely with Research and Development Corporations (RDCs) to co invest and co deliver projects that align with the priorities of end users. Specific examples include Hub projects being co-delivered alongside the three Grains Research and Development Corporation (GRDC) RiskWise Action Research Groups being run in South Australia. The SA Drought hub effort is focused on extension and adoption component of the SA based RiskWise programs in a manner that complements the GRDC investment. Collaboration has also occurred with MLA through the development of '*Profitable and Resilient Southern Beef Herds*' project and the '*Precision Sheep Management'* Project, with the former led through the University of Adelaide by the SA Drought Hub Livestock Technical Specialist Adoption Officer and involves other Drought Hubs and their network members.



One of the Easy Variable Rate Technology (VRT) Workshops being held at Cambrai

There have been notable co-investments with the SA Grains industry Trust (SAGIT) and the SA Sheep Industry Fund (SIF) and the SA Landscape Priority Fund (LPF) (see output 4), with the hub providing co-investment to support interns, agronomic project, and environmental landscape scale project initiatives that deliver drought resilience building outcomes in areas identified as priorities by end users. These initiatives have been important as they leverage the financial resources of industry and the state and further engage the Hub member base though support of their own industry levy-based programs.

SA Drought Hub commercialisation activities have focused on demonstration on farm of newly commercialised products that assist farmers to build drought resilience rather than assisting with the commercialisation of tools and products. The Hub is a partner in the National Farmers2Founders led TEKFARM program and have engaged strongly with Beanstalk to promote the Drought Venture Studio and encourage SA researcher and start up participation in the program.

Overall, the SA Drought Hub is operating very effectively. The Hub has increased the number of member and network partners in each of the three full financial years of operation, networks and

collaborations have increased, and partnerships with a range of organisations in South Australia and nationally have developed and been successful. Most importantly, the Hub members and growers (end users) are very satisfied with the Hub and the activities the Hub is delivering as evidenced from participant and member survey data. This shows that the co-design process has been effective in designing projects from the ground up with local communities and growers in mind.

The SA Drought Hub aims to build upon the solid foundation that has been established over the past three years, continuing to engage with members, network partners and end users to ensure regional needs and priorities are met. The Hub will continue to link partners and collaborators into Hub project opportunities, and the drought resilience building opportunities presented through other FDF programs, other Federal and state Government programs, Research and Development Corporations, Universities, and Industry Bodies.

2. Emerging Issues

South Australia is experiencing an extremely dry year in 2024 with most areas in the state receiving well below average or worst on record rainfall to date. Whilst the SA Drought Hub has delivered a range workshops and events to support farmers in making timely and informed decisions for crop and pasture agronomy and livestock management and husbandry, it is imperative that there is coordination of effort around near and medium-term drought resilience and response measures. The Hub has a significant regional presence, and it is likely that some members of drought affected communities will expect the Hub to have a role in supporting drought recovery. The Hub executive has engaged with the Department of Primary Industries and Regions SA, the lead agency for drought response in SA, and the SA FDF Advisory Group to help ensure effective within state coordination of effort across resilience, preparedness and response. Consideration on the role Drought Resilience Adoption and Innovation Hubs have during drought is important, particularly given the significant regional presence and community-facing and farmer-facing nature of Hubs and community expectations.

A key focus area for the Hub over the past eight months has been developing and delivering learning activities that focus on dry times management options and timely decision making. These events have been run in conjunction with Livestock SA, the Ag Resilience Program ((FDF) Farm Business Resilience Program), PIRSA, and AWI Extension SA and included:

- A series of 72 Red Meat Connect Community Wellbeing BBQs were run across the state in conjunction with the FDF Farm Business Resilience Program and Livestock SA.
- Two workshops to provide mental health recognition and assistance training to farm advisors and consultants.
- A series of eight containment feeding on farm sticky beak days to provide sheep and cattle producers to opportunity to meet with livestock consultants and other farmers who had implemented containment feeding operations on their properties and discuss the benefits and how to best manage any risks.

- A series of 6 workshops titled ‘livestock strategies for the next 100 days’ to provide information, management options, and decision-making tools for livestock feeding and maintenance during dry Autumn, Winter and early Spring where pastures and on farm feed reserves are depleted.



Farmers and advisors at the Livestock Strategies for the next 100 days workshop held in Watervale.

- A series of two workshops titled ‘Decision support for risk management of farming systems in a variable climate’ to held to assist farmers to make informed and timely decisions on cereal crop establishment and management.
- A series of climate workshops conducted to inform farmers on the break of season, climate trends, and projections to assist in decision making and climate risk management.

The findings of the DAFF review of Drought Hubs, and the SA FDF Advisory Group independent consultation spanning Hub scope, governance and implementation models will inform any enhancements in the current Hub (to June 2026) and for post-2026. It is difficult to provide clarity on Hub direction until the reviews are complete and recommendations implemented. Some Hub members are starting to seek guidance and clarity on a future Hub model now in order to align their programs and minimise the risk of service and program duplication. A specific example is the Climate Smart Agriculture Regional Sustainable Agriculture Program where SA Landscape Boards are now developing these programs without clear advice on the scape of a the SA Drought Hub post review.

There is a desire from a large number of SA Drought Hub Members for the Hub to engage in building climate resilience, particularly to heat and extreme temperature, rather than only focusing on drought. The Hub members and the wider community see climate change as a more permanent threat and have a desire to address this in practical ways that are regionally designed and relevant, and align with other Federal, State and RDC initiatives.

3. Other Relevant Initiatives

3.1 FDF related

There has been a large amount of support, collaboration, co-investment, and co-delivery provided by the SA Drought Hub to a range of FDF programs being delivered in South Australia by other providers. It is a key objective of the SA Drought Hub to support complementary FDF programs where possible and to ensure these are coordinated to deliver the best possible opportunities and experiences for end users engaged in FDF activities. We strive to present these opportunities to as many people as possible and facilitate their involvement.

SA Drought Hub support to other FDF Programs has included:

- FDF Soils and Land Management Grants: Provided links to Hub members and networks, sat on project community of practices to identify opportunities to link Hub activities and complement the grant delivery activities. Promotion of project findings and support for further extension of those findings through Hub funded projects.
- FDF Extension and Adoption of Drought Resilience Practices Grants – The Hub is a partner in the *'De-risking the seeding program. Adoption of key management practices for the success of dry early sown crops'* project. The Hub has provided a large amount of support to the project which has been coordinated and delivered by the Hub's Farming Systems Adoption Officer through employment with Ag Excellence Alliance. The hub is a also a key partner in the delivery of the '*TEKFARMs*' project with the South Australian component of the project being delivered by the hub's innovation Officer with support from the Adoption Officers and Knowledges Broker.
- Drought Venture Studio: The Hub hosted a Drought Venture Studio Venture Builder and organised site visits to commercial farms to see how they operate and to discuss farmer needs for new and /or improved technologies. We organised and participated in an innovation discovery session involving advisors and researchers to identify the key opportunities and areas for the development of new technologies in South Australian Farming Systems. The Hub has actively promoted the Drought Venture Studio program and the opportunities it presents to a wide range of Hub members through social media and newsletter, and at meetings and Hub facilitated events.
- My Climate View – Use of my Climate View in project delivery and climate workshops conducted by the hub and Partner Organisations, promotion through SA Drought Hub newsletter, social media platforms and at Hub stands and displays at events. Promotion to Hub partner organisations.
- FDF Regional Drought Resilience Planning (RDRP) Program – The SA Drought Hub Knowledge Broker sat on the steering committees and contributed significantly to the development of four RDRP programs (Far North, Limestone Coast, Hills, Fleurieu and Kangaroo Island, and Eyre Peninsula). The Hub promoted the program and opportunities for community involvement through Hub media, engaged Hub members and network partners into the planning process, linked hub co-design information to the RDRP processes, provided

community contacts and advice on local group engagement, assisted in delivering community workshops and face to face consultations, and reviewed and commented on the RDRP drafts.



Hub Node Coordinator Jo Ridsdale supporting a Regional Drought Resilience Planning Workshop at Yunta

- FDF Farm Business Resilience Program – The SA Drought hub co funded a broad range of drought resilience building initiatives with the Farm Business Resilience Program being delivered in SA by the Department of Primary industry and Regions SA (PIRSA) and Livestock SA. This included 72 Red Meat Connect Community Wellbeing BBQs for livestock and grains producers, 8 on farm containment feeding sticky beak days, 6 livestock strategies for the next 100 days workshops. These are explained in Output 5 and listed in the data capture plan. The Hub also promoted Farm Business Resilience program courses and learning events through Hub media, engaged Hub members and network partners into the program, and provided Hub co-design process and Hub priorities that were identified through co-design.
- FDF Helping Regional Communities Prepare for Drought - Discussion with Foundation for Rural and Regional Renewal staff on opportunities to link Hub and Community Resilience programs closer. Promoted the regional communities' program through Hub media, engaged Hub members and network partners into the program, assisted and supported community led applications, provided Hub co-design process and Hub priorities that were identified through co-design, provided Hub information to program applicants.
- FDF Drought Resilience Leaders Program - promoted the program to Hub members through social media channels.

3.2 Non FDF related

The SA Drought Hub has engaged in many non-FDF related initiatives which have complemented the work of the Hub and created further opportunities to build drought and climate resilience across the hub's area of operation.

The Hub has continued our partnership with Agrifutures, employing an Innovation Broker to address both AgriFutures and SA Drought Hub priorities. The Innovation Broker has engaged a wide range of industry groups and growers to identify key project needs and opportunities since the role commenced. The breadth of the role has enabled projects and activities that have drought and climate resilience outcomes to be brought together with productivity, market access, biosecurity, and agricultural innovation outcomes. The Innovation Broker is working with the Hub's AgTech Adoption Officer on the delivery of the FDF Extension and Adoption of Drought Resilience Practices '*TEKFARMs'* Grant, engaging with numerous growers, industry bodies, technology providers, and supply chain operators to identify and employ system level improvements and efficiencies through technology deployments. The innovation Broker is leading the design and implementation of the '*Adapting to the challenges of the future climate to farming systems in marginal environments project'* which looks at farming system approaches under climate change scenarios in low and unreliable rainfall environments. Both projects are highly aligned with the scope of the role which includes seek solutions that are of interest to, and meet the needs of, agricultural stakeholders with consideration of practical requirements and end user needs, now and into the future.

The SA Drought Hub has provided support for a range of carbon farming initiatives that aim to diversify on-farm income streams. Whilst this offers a degree of financial resilience through income diversification, it also compliments the drought resilience wok of the Hub given the secondary benefits to landscape management, soil health, shade and shelter for stock that carbon farming projects can offer. Hub support has included provision of office space for the AgExcellence Alliance Carbon Farming initiative project officer and links through SA Drought hub networks to researchers and other key stakeholders.

The Regional Soils Coordinator has connected extensively with stakeholders including farming systems groups, local State Government agencies, Universities, research organisations and private consultants, agronomists and soil advisors to gain an understanding of current soil issues, priorities across South Australia and build networks. In collaboration with all Regional Soil Coordinators across Australia the SA coordinator surveyed landholders, land managers, producers and people who work in advisory or extension roles with growers, farmers, and landholders about local soil issues, what ways soil advice is being provided and local soil issues and where extension activities are occurring and where gaps in delivery exist. Many of the issues identified have high relevance to drought and climate resilience. The Regional Soil Coordinator has also developed a regional soils extension needs plan, a soils communications plan and has supported the SA Soils Extension Network though provision of advice and information on soils related issues.



The SA Regional Soil Coordinator attending a National Regional Soil Coordinator national meeting

Through its sponsorship program, the SA Drought Hub has supported several key industry events held in South Australia over the past twelve months to ensure drought resilience was included in the event programming and discussion. Events have included:

- LambEx: the pinnacle event in Australian sheep, lamb & wool attracting over 1200 sheep producers and representatives from the entire sheep, lamb & wool production supply chain from across Australia and the globe.
- AgExcellence Alliance Conference: AgExcellence Alliance is the peak organisation representing Farming Systems Groups in South Australia. The conference brings together Farming Systems Groups from across the state to share knowledge, experiences and innovations and to participate in discussions to further agriculture in South Australia. Farming Systems Groups are key members and primary delivery partners of SA Drought Hub programs and projects.
- Thriving Women Conference: a conference that brings together women from across the agricultural sector to build skills, knowledge and networks across agricultural industries.
- SA Livestock Consultants conference: This event brings together livestock consultants, extension staff, producers, advisors and researchers to discuss key issues and opportunities in livestock management and to showcase current projects and research findings.
- The Australian Institute of Agriculture (AIA): The AIA supports tertiary students to engage with and find employment within the Agricultural sector through identifying and promoting employment pathways and opportunities, student skills development, and hosting networking events for students and industry to come together.

4. MEL Report on Outcomes[1]

4.1 SHORT – TERM OUTCOMES

ST1: Increased collaboration and partnerships among organisations working in RDEA&C

- **ST1 Outcome Report**

Outputs contributing to outcome ST1 are:

- Output 1: Outputs of innovation programs and opportunities, including resources, tools and other products, developed and shared
- Output 4: Outputs of support for access to funding
- Output 5: Learning activities to support resilience with end users and those who support end users (and associated products)
- Output 7: On-farm trials and demonstrations to build drought resilience
- Output 8: Co-designed Operational Plans and Activity/Project Plans
- Output 9: Outputs from Hub governance activities

ST1 Outcome Indicators

- Number of organisations collaborating in and with the Hub (including types/purposes of partnerships).
- Extent to which collaboration and partnerships are functioning well and achieving desired identified outcomes, such shared learning, increased access to RDEA&C resources and confidence in responding to challenges.
- Level of satisfaction by governance members on their level of input, the extent to which it is valued and its impact on guiding the program.

The SA Drought Hub has 59 founding member organisations which include a range of grower and livestock groups, universities, state government agencies, landscape boards, agribusinesses, and industry groups. All founding members of the SA Drought Hub members are listed in the Head Agreement between the SA Drought Hub and the Department for Agriculture Fisheries (DAFF) and Forestry, and also in the SA Drought Hub Operational Plan.

Seven new Network Partners (see list below) have joined the SA Drought Hub in the 2023/2024 financial year as regionally based co-designed projects have continued to expand. This takes the total number of Hub network partners to 33. Network partners are made up of a diverse range of organisation types including grower groups, consultants, industry groups, and Landscape Boards, highlighting the diversity of projects being delivered across different Hub sub regions by members and network partner organisations. The seven new network partners are:

- Frontier Farming Systems
- Deborah Scammell trading as Talking Livestock
- Insight Extension for Agriculture
- Lowbank and Districts Agriculture Bureau
- Natures Equity
- Peninsula Precision Ag
- Ag Consulting Co.

With the notification of the extension to the Hub head Agreement, the opportunity has been taken for Members and Network partners to assess their involvement with the Hub. Two Network Partners have withdrawn from the SA Drought Hub as they were not currently involved in delivering projects. Some individual staff members from within organisations have also withdrawn due to the following reasons:

- Changes to their roles and function by their employing organisation.
- Leaving their roles to take up new employment opportunities.
- Insufficient time due to increased workload in non-SA Drought Hub work and initiatives.



Participants at a filling feed gaps workshop in Naracoorte

Hub members include the South Australian Grower Group network, three South Australian based Universities, The South Australian Research and Development Institute (SARDI) and several private research agronomy companies. Hub initiatives have increased collaboration between these organisations and have seen increased grower group and end user access to RDEA&C resources as a result. This is evidenced through the collaborations being realised in the delivery of SA Drought Hub projects, the information being shared between organisations and ongoing co-design of

projects that sees applied research taken through an extension and adoption pathway via SA Drought Hub projects.

Regionally based staff play a key role in ensuring relevant and appropriate RDEA&C information is disseminated between Grower Groups and to their members and other producers as information is sought on drought resilience topics and concerns.

The Hub currently has several projects being led by Grower Groups that have project partners who would not have collaborated on the delivery of the project without introduction and assistance from the Hub to work together on a common issue. This includes Gower Groups working together to deliver a project in each of their regions with their local producers and sharing information on the progress of the on-ground activities and the project learnings. An example of this is the *'Improving the climate resilience of the Australian Sheep Industry'* project that has brought together five Farming Systems Groups, a Landscape Board, The South Australian Research and Development Institute (SARDI) and the University of Adelaide to co-deliver a project. The University of Adelaide and SARDI provide data and information whilst the Grower (Farming Systems) Groups and Landscape Board provide the farmer liaison, promotions and extension of research findings to their farmer members. The Grower Groups and Landscape Board also assist the university and SARDI staff to establish demonstration sites on commercial farms and link the project to other project works being undertaken in the region to engage the farmer audiences.

The Hub has supported 49 farm visits and 5 farmer bus tours across South Australia to facilitate the exchange of information and knowledge on Drought Resilience practices and project learnings. These have been very well attended and are a successful mechanism for information to be shared between farmers and extension officers from within regions and different parts of the State. Often these events are run alongside of other events to minimise the between project and project competition for farmer's time and to ensure drought resilience is seen as part of normal farming practice along with other agronomic and management considerations and approaches.



A farm visit being undertaken by the Rudall Tuckey Farmers Group on Eyre Peninsula

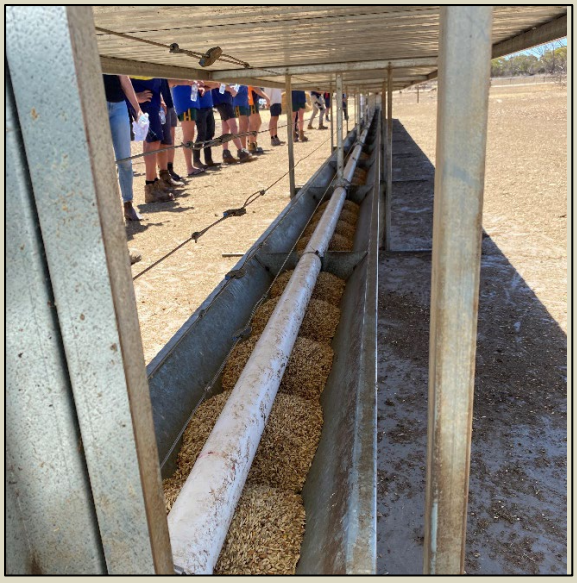
Hub members have reported that the co-design process has allowed them to undertake key projects of local importance that were not possible to deliver though other programs. The Hub co-design process has empowered Grower Group members to lead the design of projects to best meet the needs of local farmers and communities. Whilst this certainly has provided the assistance needed to respond to drought resilience challenges at local scales, it is too early to determine if this has translated to confidence in adopting new practices.

The Hub is currently engaged in 83 collaborations and partnerships, and this has expanded significantly over the life of the Hub from less than 20 collaborations at the same time in 2022 and 53 collaborations at the same time in 2023. The nature of the collaborations has increased in diversity, purpose, and intricacy to be far more purposeful in achieving targeted outcomes for all organisations involved.

Discussions and partnerships with several Research and Development Corporations (GRDC, MLA, Agrifutures, Hort Innovation, Wine Australia) have led to co-investment in projects, resource sharing and the Hub delivering RDC funded initiatives such as the Agrifutures funded Innovation Broker. Partnerships with other Hubs and their member organisations have expanded since the completion of the Cross-Hub Projects, with SA Hub member organisations collaborating and partnering directly with the member organisations of other Hubs in the delivery of projects such as the Derisking the Seeding Program which is funded through the FDF Extension and Adoption of Drought Resilience Farming Practices Grants and managed by the SA Drought hub Adoption Officer.

The SA Drought Hub has led the development and delivery of the '*Containment Feeding to Boost Business Performance'* project involving three other Drought Hubs across Southeastern Australia, the Tasmanian Hub, the Victorian Hub, and the Southern New South Wales Hub. The project has seen consultants and advisors from across these Hub regions engaged and upskilled in the practice of livestock containment feeding during drought and the associated benefits, management considerations and approaches, and the risks and mitigation options. This has been particularly timely given the seasonal conditions that have transpired so far this year and the heightened need and demand for reliable and accurate information on setting up and managing containment feeding on farms.





Sheep producers at the Containment Feeding Sticky Beak Farm Visit at Lock on the Eyre Peninsula

These are only some of the examples of collaboration and partnerships being driven by the Hub. A full list of the 83 current Hub collaborations and partnerships is provided in the Data Capture Spreadsheet under the ST1 Tab.

ST2: Co-design and participatory approaches embedded in the design and delivery of Hub activities

1. **Output(s) Report**

Outputs contributing to outcome ST2 are:

- Output 8: Co-designed Operational Plans and Activity/Project Plans
- Output 9: Outputs from Hub governance activities

2. **ST2 Outcome Report**

ST2 Outcome Indicators

- Extent to which co-design and participatory principles and approaches are used in the design and delivery of Hub activities including with First Nations.
- Extent to which users, including First Nations, feel engaged in the design and delivery of Hub activities, and are satisfied with processes and results of the co-design activity.

All of the SA Drought Hub Activities being delivered employ a co-design process. This includes alignment of project delivery with the themes and project priorities identified through the initial co-design consultations and working with Hub members, network partners and end users to design and deliver projects for the benefit of end users.

The SA Drought Hub has taken the priorities identified in each of the Hub Nodes through the initial co-design consultations undertaken in late 2021 and has worked collectively with Hub Members since to co-design projects that recognise and add value to past and current investments, are tailored to local farming systems and environmental conditions, engage local and regional stakeholders in the design and delivery of projects, and are of the highest priority to local end users. Projects are primarily delivered through the South Australian Grower Group (Farming Systems Groups) Network and specific targeted and localised project development has been undertaken through these groups and Landscape Boards from across the State since the initial co-design workshops. This has ensured that projects recognise and meet the principles outlined above. The projects developed to date are listed in the data capture spreadsheet in various sections.

Where an issue may not have been initially identified but has since become important, producers and Hub member organisations can present project ideas to the Hub through Hub staff and Advisory Groups, which are made up of representatives from Hub member organisations and local producers. Where the issue and associated project is considered an important drought resilience measure for local producers, the project can be supported.

The Hub also has a sponsorship program with a rapid application and assessment process that allows smaller groups and smaller projects to access Hub funding and resource support for project opportunities as they arise. The key feature to this program is that applications are completed through a simple online process taking approximately 10 minutes to complete. Applications go directly to Hub management team who assess and advise of the outcome within a few days. This has provided an avenue for the engagement of a wide range of smaller member organisations and farmer groups to undertake locally relevant and important drought resilience learning events such as bus tours, workshops and field days.



A Farm Visit with Dairy Farmers at Mount Pleasant to look at one of the mixed species pastures demonstration sites

Hub staff attended 180 meetings with member organisations and stakeholders with the primary focus on co-design, implementation, and delivery of projects. Hub staff also attended 45 workshops, 20 field days, 3 information sessions, 5 training sessions, 13 conferences, 17 forums and 16 other events. Attendance across all events further enabled stakeholder engagement and feedback that assisted the Hub activity and project co-design process. The meetings and events were collectively attended by 5756 people with 1923 growers receiving information about the SA Drought Hub, associated activities, and opportunities for involvement. It is likely this number is an underestimate given there were often greater numbers of people than were recorded at events where the hub undertook promotional activities and engagements.

The Activity work plan was revised in May 2023 to better reflect the program delivery that member and partner organisations were seeking, and to support activities out to December 2024. The revised activities have better meet the needs of Hub members, network partners and end users, with the changes being made as part of the ongoing co-design process the SA Drought Hub is engaged in. Further refinements will be made as we develop the SA Drought Hub Activity Work Plan for delivery of activities through the extension period to June 30, 2026.

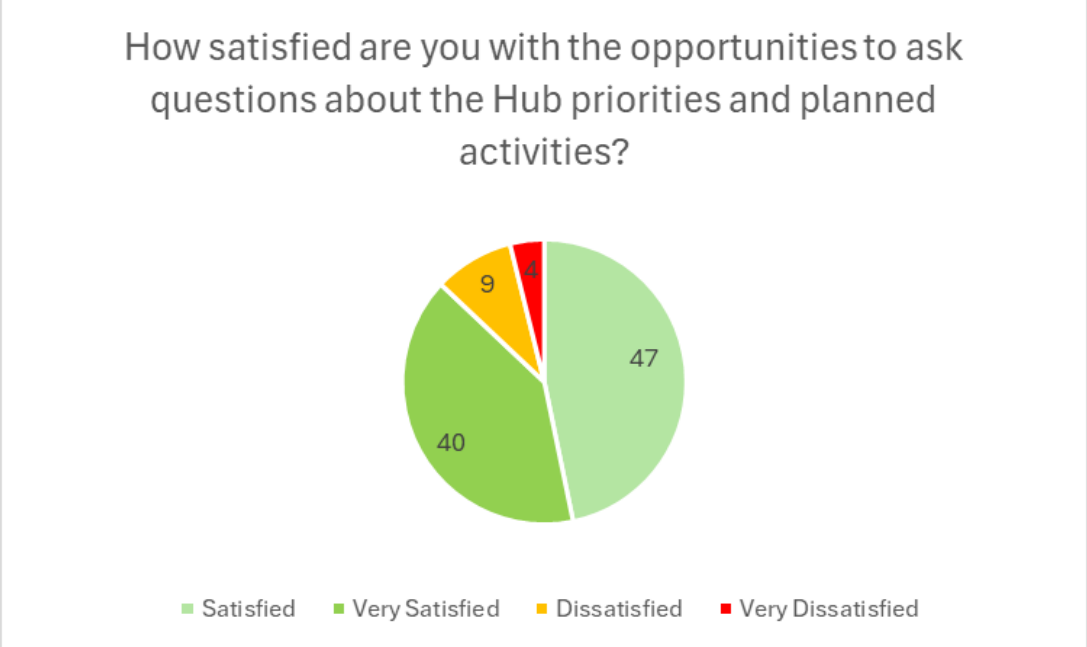
The extent to which users feel engaged in the design and delivery of Hub activities has been measured through the Hub Member survey. The SA Drought Hub member survey was distributed in May 2024 to people from key Hub member and partner organisations, Hub governance

committees and groups, and staff to assess the degree of satisfaction with the Hub's governance processes and level engagement.

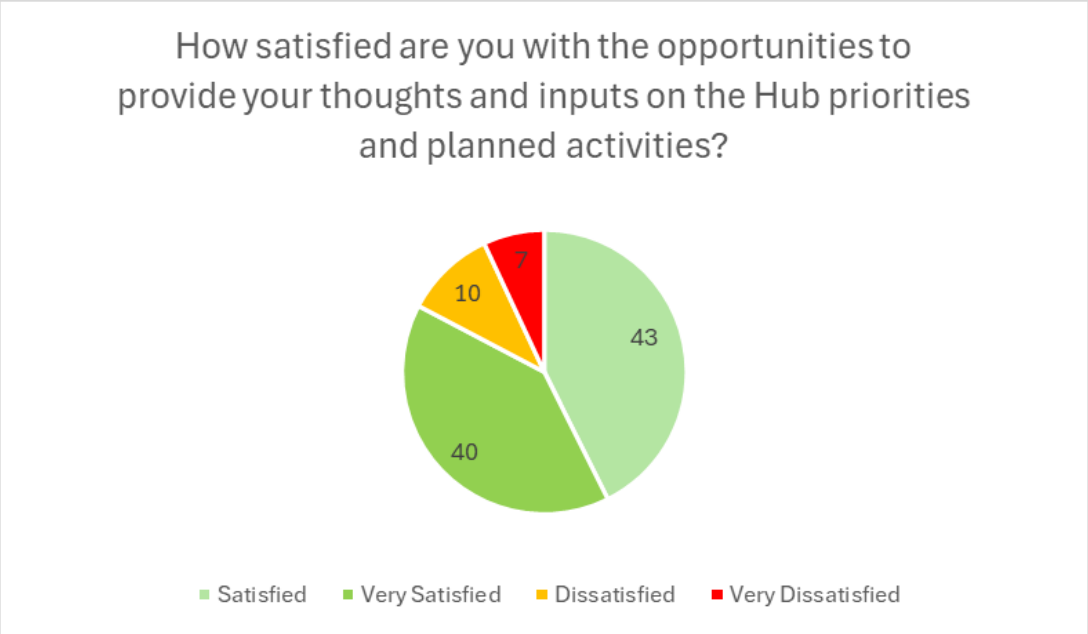
A total of 77 responses were received from the 210 survey recipients (37% return rate) with the table below showing the number of responses for each role within the Hub. It is important to note that many of the organisations and people engaged in the SA Drought Hub have more than one role and people were asked to complete the survey for the main role they undertake within the SA Drought Hub.

Role within the Hub	Number of responses
Collaborator / Investor	4
Government	9
Hub Member	15
Hub Network Partner	9
Hub team / staff	9
Project Lead Organisation	17
SA FDF Advisory Board Member or IMC	2
Stakeholder Advisory Group Member (SAG)	12
TOTAL	**77**

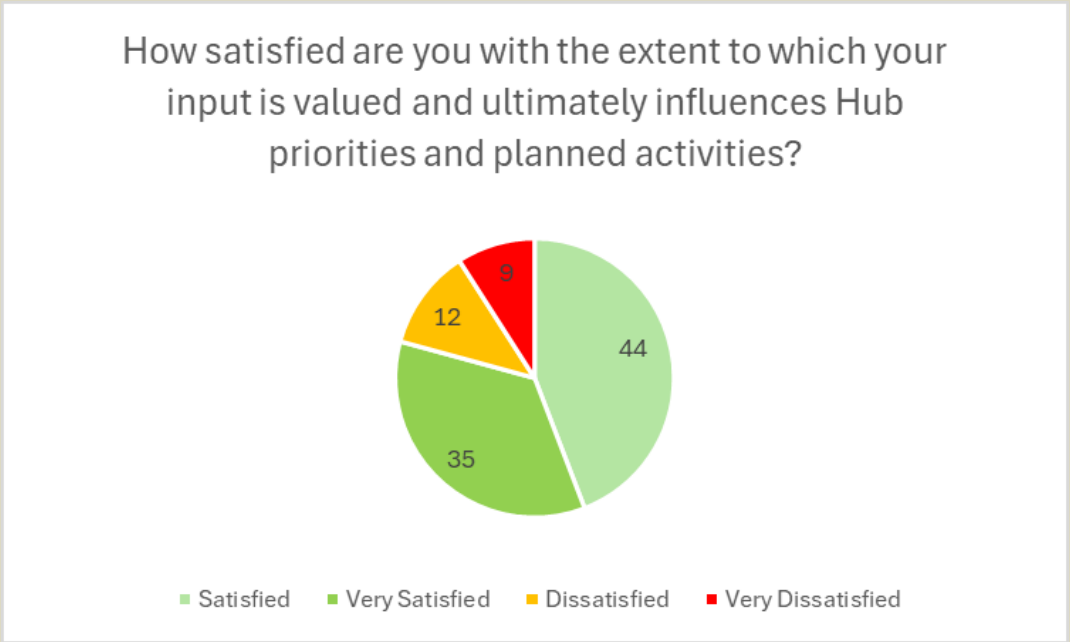
In response to the member survey question: *How satisfied are you with the opportunities to ask questions about the Hub priorities and planned activities?* 87% of the 77 respondents were satisfied (47%) or very satisfied (40%), with 13% of respondents either dissatisfied (9%) or very dissatisfied (4%).



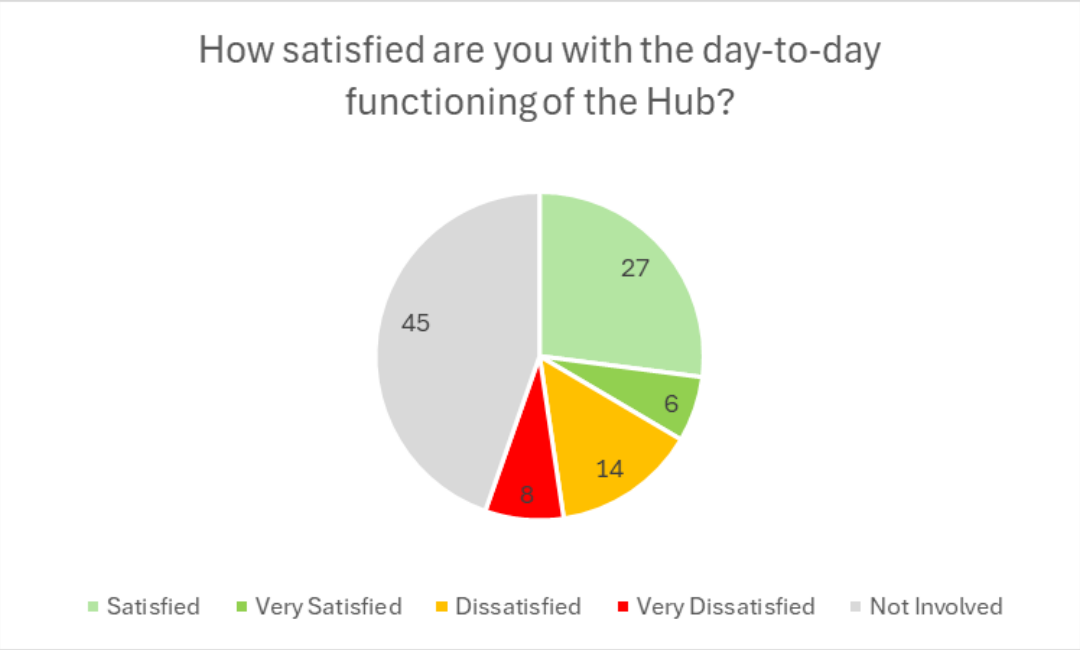
In response to the member survey question: *How satisfied are you with the opportunities to provide your thoughts and inputs on the Hub priorities and planned activities?* 83% of the 77 respondents were either satisfied (43%) or very satisfied (40%) with 17 % of respondents either dissatisfied (10%) or very dissatisfied (7%).



In response to the member survey question: *How satisfied are you with the extent to which your input is valued and ultimately influences Hub priorities and planned activities?* 79% of the 77 respondents were either satisfied (44%) or very satisfied (35%), with 21 % of respondents either dissatisfied (12%) or very dissatisfied (9%).



In response to the member survey question: *How satisfied are you with the day-to-day functioning of the Hub?* 45% of respondents felt that this question was not applicable to them as they aren't involved in the 'day to day' functioning of the Hub. 33% of the 77 respondents were either satisfied (27%) or very satisfied (6%) with 22% of respondents either dissatisfied (14%) or very dissatisfied (8%).



The annual Hub Member survey shows a high degree of satisfaction with the SA Drought Hub with a largely positive response from those who responded to the survey. Key areas of satisfaction were that the Hub continued to be easy to work with and added value to the work programs of Hub member organisations, Hub staff were easy to engage with and helpful, the partnerships within the Hub were performing well, and the collaborations the hub created were positive.

Respondents who expressed dissatisfaction came exclusively from three stakeholder groups: Government, Stakeholder Advisory Groups, and Hub Staff. This is attributable to the following:

- Government: Apparent misalignment of expectations of the Hub and contrasting understanding about the role of Hubs as defined in the Purpose of the Grant.
- Stakeholder Advisory Groups: The group meetings have been infrequent and adhoc leaving some members to question the value of the groups. Some group members are not clear on the role and purpose of the groups, and feel the Hub is not engaging them effectively or utilising their knowledge and skills as well as it could be.
- Hub Staff: The Hub brings together staff members from four different organisations and this has highlighted differences in organisational culture and differing perceptions of their role and function within the Hub. Additionally, there has been some degree of disagreement on the scope and role of the Hub with regards to program and project delivery. This has led to a level of tension between, and inconsistent messaging from, the different organisations who host staff as part of the Hub. These tensions have also highlighted issues with the current governance model of the Hub.

The SA Future Drought Fund Advisory Group is currently undertaking an independent consultation spanning Hub scope, governance and implementation model to help inform any enhancements in the current Hub (to June 2026) and for post-2026.

ST3: Hubs seen and utilised as key regionally focused institutions for defining and delivering RDEA&C services (relating to drought resilience)

1. **Output(s) Report**

Outputs contributing to outcome ST3 are:

- Output 4: Outputs of support for access to funding
- Output 8: Co-designed Operational Plans and Activity/Project Plans
- Output 10: Drought commercialisation initiatives

2. **ST3 Outcome Report**

ST3 Outcome Indicators

- Hubs are seen and utilised as key regionally focused institutions for defining and delivering RDEA&C services relating to drought resilience.

The SA Drought Hub is seen as key regionally focused institution for defining and delivering RDEA&C services relating to drought resilience and has through partnership arrangements engaged over 80 organisations as members and partners in the Hub. Over the past three years the Hub membership and network partners have increased by more than 30 organisations as the value of partnering in the SA Drought Hub has been appreciated and realised. Through these arrangements the Hub is funding and supporting 37 projects of varying scales involving a wide array of Hub member organisations and affiliate bodies. A Map of project sites is displayed below and offers an indication of the distribution of project delivery sites across South Australia, bearing in mind that many of these sites host multiple activities.

The diversity of projects being delivered across the state is a direct consequence of the Hub meeting the local RDEA&C needs and priorities relating to drought resilience of each region and the agricultural sectors and organisations that operate within them through an effective co-design process.

All of the projects have come from Hub consultation and co-design with local agricultural service providers, farmers, advisory groups and hub staff, led by local organisations with famers and community membership, and delivered by Hub member organisations in partnership with the local farming community contributing to the project delivery and outcomes.



Farmers at a Barossa Improved Grazing Group (BIGG) on farm water innovations project demonstration site near Angaston

The SA Drought Hub is seen as a central point for information on Future Drought Fund programs and initiatives. Community members and organisations often seek information from the SA Drought Hub in the broader FDF programs and the opportunities to engage in these. The Hub actively promotes these programs and facilitates end user participation at every opportunity. Examples include the Drought Venture Studio, the Farm Business Resilience Program, My Climate View and the Regional Drought Resilience Planning process in four regions. See section 3: Other Relevant Initiatives, sub section 3.1: FDF related initiatives.

The SA Drought Hub is also invited to have representation on a range of project and industry committees to provide input on drought and climate resilience building and project delivery and collaboration opportunities. These include Regional Drought Resilience Planning initiatives, Industry and member organisation RD&E committees, Industry Blueprints, project steering committees, and Industry and project advisory groups.

The Hub is currently engaged in 83 collaborations and partnerships outside of the core work being undertaken with Hub member organisations and network partners, and these have expanded significantly over the two years from 20 collaborations in 2022, and 58 collaborations in 2023. These span Peak Industry Bodies, Research and Development Corporations, Governing bodies, Government Agencies, and our many on ground partners across the state. The collaborations are reflective of the growing confidence and understanding of the SA Drought Hubs role in the broader South Australia project delivery landscape, and the opportunities for collaborative effort to add value to projects, participants, and organisations.

Examples of this can be seen through the partnership established between the SA Drought hub and the industry-based levy programs employed in South Australia. The SA Sheep Industry Fund (SIF) and the SA Grains Industry Trust (SAGIT) both collect levies from producers in their respective industries and allocate these funds to priority industry projects and research initiatives. The SA

Drought Hub has partnered with both organisations to leverage monies where there is an alignment of priorities and common need for co-delivery. Examples have included the '*Containment Feeding to Boost Business Performance'* project in partnership with SIF and the '*Interns Program'* (see output 3: Scholarships) in partnership with SAGIT. Both have seen the delivery of Hub and Industry identified priorities simultaneously and speak to the confidence of industry ion the Hub as a key regionally focused institution for defining and delivering RDEA&C services.

Additionally, co-investment and project delivery has been undertaken with all Landscape (NRM) Boards in SA across a range of regional projects and drought resilience areas. The SA Landscape Priority Fund is a program funded through some of the levies collected by SA Landscape Boards and is available for those Boards to deliver priority regionally based projects. The SA Drought Hub has supported several of these projects and has co-invested in 2024 in the Kangaroo Partnerships Project involving five Landscape Boards, E-NGOs, Rangeland Ecologists, and The Department of Environment and Water. The Hub has also accepted an invitation to sit on the steering committee for this project.



SA Drought Hub Livestock Adoption Officer Penny Schulz with Cam Nicholson from Nicon Rural Services and Molly Kalman, Livestock Production Specialist with Elders at one of the Filling Feed Gaps Workshops

ST4: Hubs work effectively as part of a national network/architecture

1. ST4 Outcome Report

Outputs contributing to outcome ST4 are:

- Output 1: Outputs of innovation programs and opportunities, including resources, tools and other products, developed and shared
- Output 4: Support for access to funding
- Output 5: Learning activities to support resilience with end users and those who support end users (and associated products)
- Output 7: On-farm trials and demonstrations to build drought resilience.
- Output 10: Drought commercialisation initiatives.

ST4 Outcome Indicators

- Extent, effectiveness and outcomes of collaboration between nodes and with other Hubs, RDCs, state/territory agencies and other stakeholders.

The range of collaborations has increased in number and complexity since the commencement of the Hub in 2021 with a greater number of RDEA&C services being delivered regionally across South Australia with high levels of grower and user engagement. This is evidenced through the volume of activities the hub is leading and supporting and the high levels of end user engagement in these activities. (see outputs 2, 3, 5 and 7). Additionally, the network has expanded through the inclusion of new network partners and a greater breadth of intra and inter Drought Hub activities.



Farmers at the Goode Sticky Beak Day attending the Best practice for early sowing opportunities demonstration site at Penong

The Hub is currently engaged in 83 collaborations and partnerships with a wide array of organisations including other Hubs, RDCs, state/territory agencies and other stakeholders operating at statewide and national scales. These collaborations and partnerships are important in their contribution to the national RDEA&C architecture and have developed significantly since 2022 when the Hub was involved in 20 collaborations, predominantly with regionally based entities across SA.

Discussions with several Research and Development Corporations (GRDC, MLA, Agrifutures, Hort Innovation, Wine Australia, Dairy Australia) have led to co-investment in and delivery of RDC funded initiatives such as the MLA funded *'Profitable and Resilient Southern Beef Herds'* Agrifutures funded Innovation Broker, and the GRDC funded RiskWise Program being delivered through three Action Research Groups across SA. There are ongoing negotiations with MLA regarding a '*Precision Sheep Management'* project that will also provide the opportunity to involve several Hubs nationally.

The Hub has supported 27 grant and tender applications across a range of grants programs with most of these applications being for greater than $250,000. Of these 9 applications were successful totalling over $9 Million (see output 4). Many of the applications were led by Hub members and supported by the Hub in a range of ways. For some of the applications the Hub brought partners together to collaborate where there was a common interest. The Hub also engaged local farming groups for inclusion in applications, providing opportunities for local groups to engage in larger statewide or nationally based projects.

Partnerships between other Drought Hubs and their members and SA Drought Hub members have expanded since the conclusion of the Cross-Hub Projects, with collaborative grant applications being developed for a range of projects. The SA Drought Hub is Leading the *'Containment Feeding to Boost Business Performance and Resilience'* project involving the Vic, Tas and SNSW hubs and is also Leading the *'Profitable and Resilient Southern Beef Herds'* also involving several Hubs. We are co-delivering the Farmers2Founders led *Tekfarms* Project in collaboration with the TNQ and SQNNSW Drought Hubs, Wine Australia and Elders, and are supporting the delivery of the '*De-risking the seeding program: adoption of key management practices for the success of dry and early sown crops'* project with the SWWA, Vic and SNSW Hubs, and 15 Hub member organisations. The SA Drought Hub is involved in five project applications through the Climate Smart Agriculture partnerships and innovation Grants, each of which involves multiple Drought Hubs. These applications are detailed in Output 4 and are expected to be announced soon.

The Hub actively participates in the National Knowledge Broker Network Community of Practice, The Monitoring, Evaluation, and Learning (MEL) Community of Practice, and the Hub Directors Community of Practice. Each of these forums strengthens the understanding and relationships between Drought Hubs and with DAFF, and fosters collaborations and partnerships beyond those that could be naturally anticipated.

These are only some of the examples of collaboration and partnerships being driven by the Hub. A full list of the current Hub collaborations and partnerships is provided in the Data Capture Spreadsheet on the ST1 Tab.

ST5: Efficient and effective activities to support RDEA&C and uptake by end users

1. ST5 Outcome Report

Outputs contributing to outcome ST5 are:

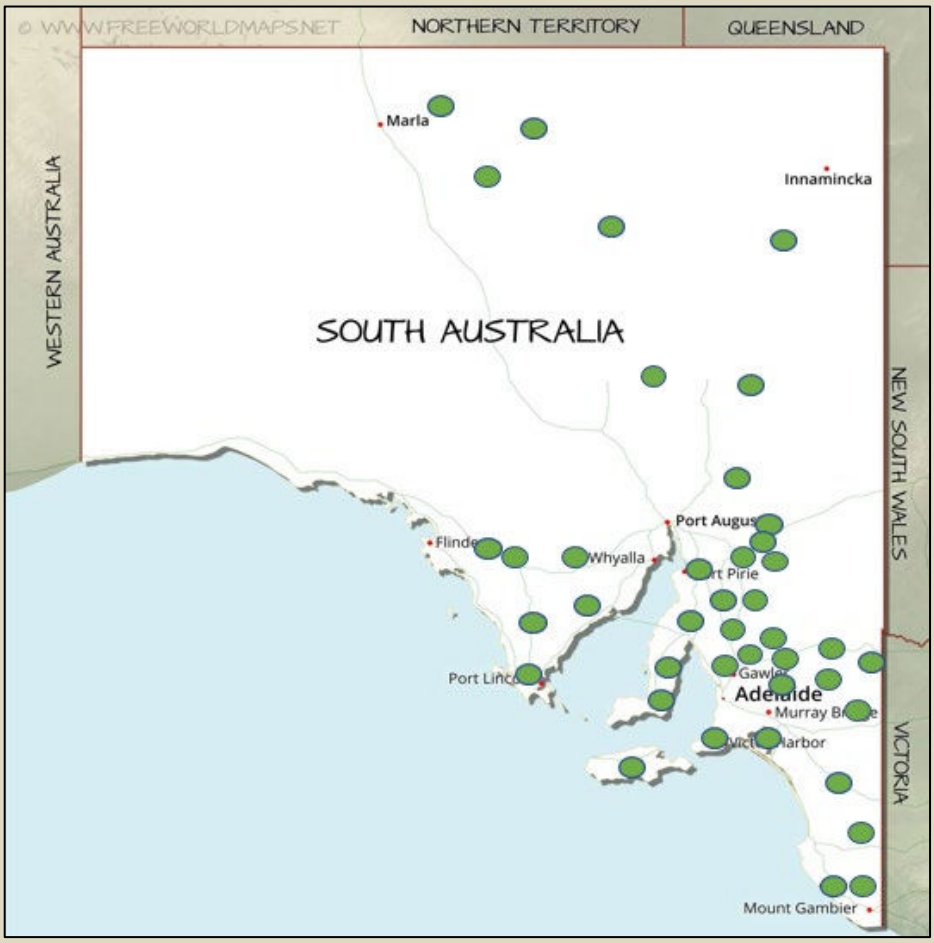
- Output 1: Outputs of innovation programs and opportunities, including resources, tools and other products, developed and shared
- Output 2: Outputs of innovation programs and opportunities specific to First Nations, including resources, tools and other products, developed and shared
- Output 3: Scholarships
- Output 4: Support for access to funding
- Output 5: Learning activities to support resilience with end users and those who support end users (and associated products)
- Output 7: On-farm trials and demonstrations to build drought resilience.
- Output 10: Drought commercialisation initiatives.

ST5 Outcome Indicators

- Extent to which participants in Hub related activities report that they have gained relevant knowledge and skills.
- Extent to which activities delivered by the Hub are efficient and effective from an end user perspective.
- Level and type of intended practice change that has resulted from engagement in Hub-related activities.

The SA Drought Hub has led and enabled and supported many activities to support RDEA&C and has increased significantly the volume and delivery of outputs in 2023/2024 that foster on farm practice adoption. This has included 37 projects being delivered at varying scales via Hub member and network partner organisations, and which regularly contain a mix of in-field demonstrations and learning events. Within these projects there have been 123 demonstration sites established and 137 separate learning events undertaken over the 2023/24 financial year, an increase of 59 learning activities and 69 demonstration sites on the 2022/2023 financial year. There was also vastly increased attendance at the events and demonstration sites with a total of 5,181 people (4,393 at learning events and 788 at demonstration sites) engaging in learning events and demonstration sites, an increase of 2,371 people from the 2022/2023 financial year.

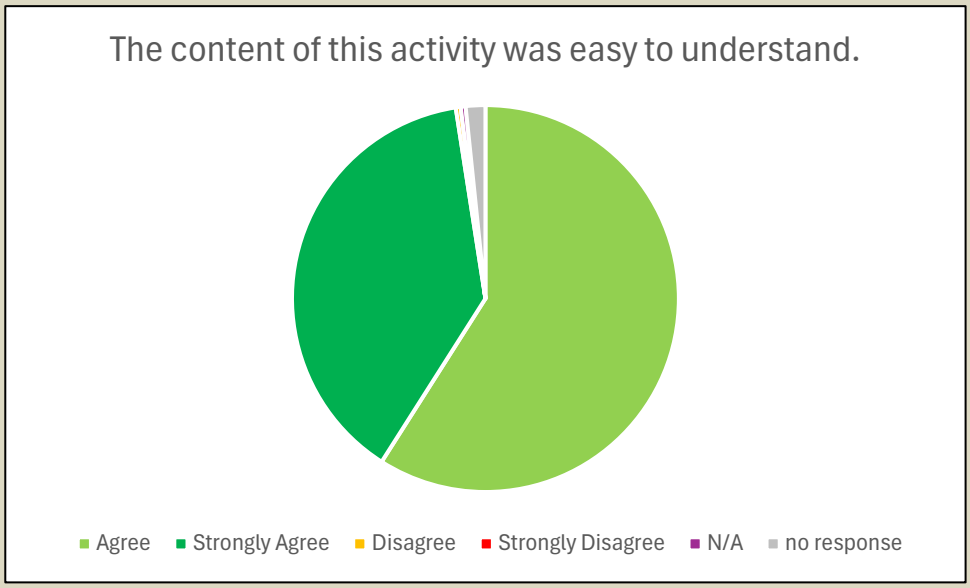
A Map of project sites is displayed below and offers and indication or the distribution of project delivery sites, bearing in mind that some sites have multiple activities.



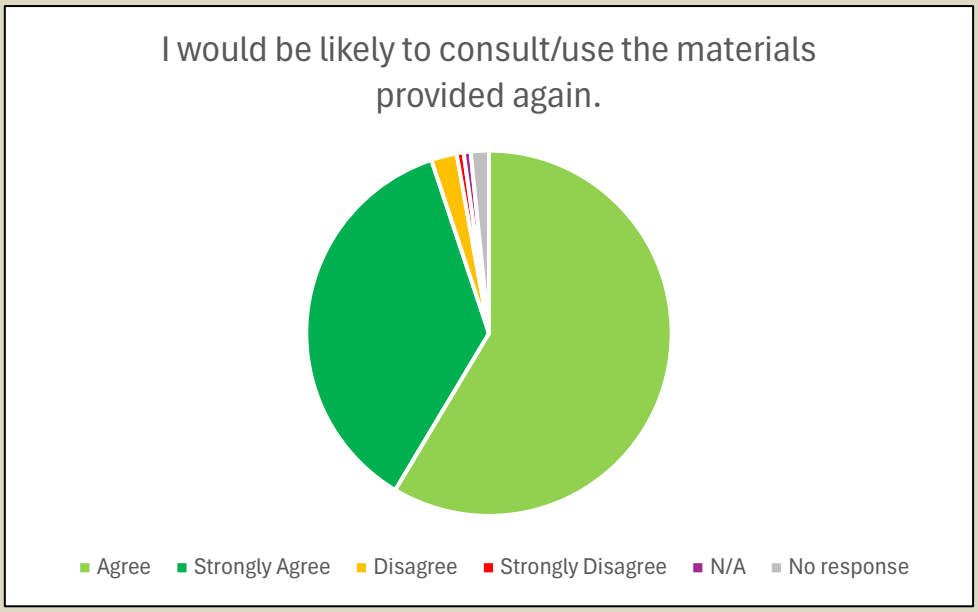
The extent to which participants in Hub related training/skilling activities report that they have gained relevant knowledge and skills and how they are applying this in practice has been measured through the Hub Learning Activity Surveys. These have been undertaken at learning events such as field days and workshops and producer visits to demonstration sites and farm walks. The feedback from the 485 Learning Activity surveys received across the 2023/2024 financial year was overwhelmingly positive, indicating a high level of satisfaction with the content and delivery of learning activities, an increase in the level of awareness and knowledge, and an intent to change practices and/or adopt technologies to increase their farms' resilience to drought. The reason there are 4,393 attendees at learning events and demonstration sites and 485 learning activity surveys is that most SA Drought Hub events are embedded into existing regional activities and events which have their own unique MEL requirements. Hub learning activity surveys are only employed at stand-alone Hub events which there are not all that many of relative to total number of attendees because our preference is to integrate Hub activities where possible as this provides the maximum exposure for Hub activities.

The level of satisfaction shown in the learning activity surveys this year is very consistent with the level of satisfaction in the 2022/2023 surveys where 332 responses were received. This indicates that the hub continues to provide valuable information and meaningful, on topic activities for end users to participate in that meet their needs and assists them to adopt new practices and technologies.

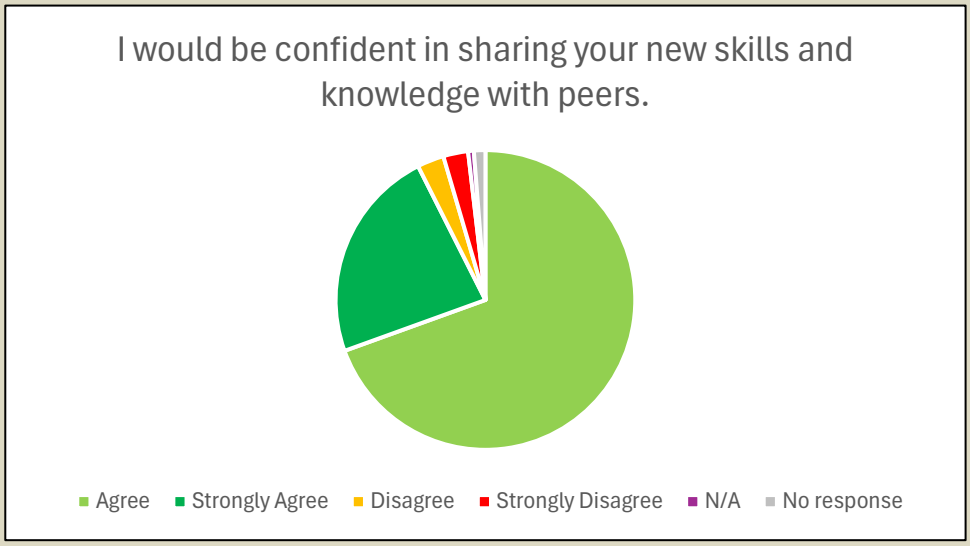
In response to the Hub Learning Activity Survey question: *The content of this activity was easy to understand*: 98% of the 485 respondents either agreed (59%) or strongly agreed (39%). There were 2% of respondents who did not answer this question.



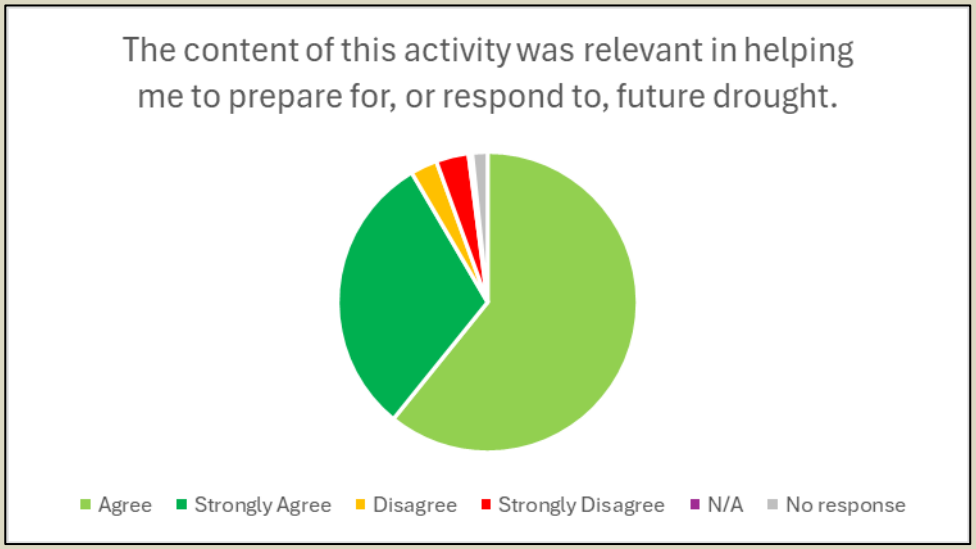
In response to the question: *I would be likely to consult/use the materials provided (at the learning event) again*: 95% of the 485 respondents either agreed (59%) or strongly agreed (36%) with 3% of respondents either disagreeing (2%) or strongly disagreeing (1%). There were 2% of respondents who did not answer this question.



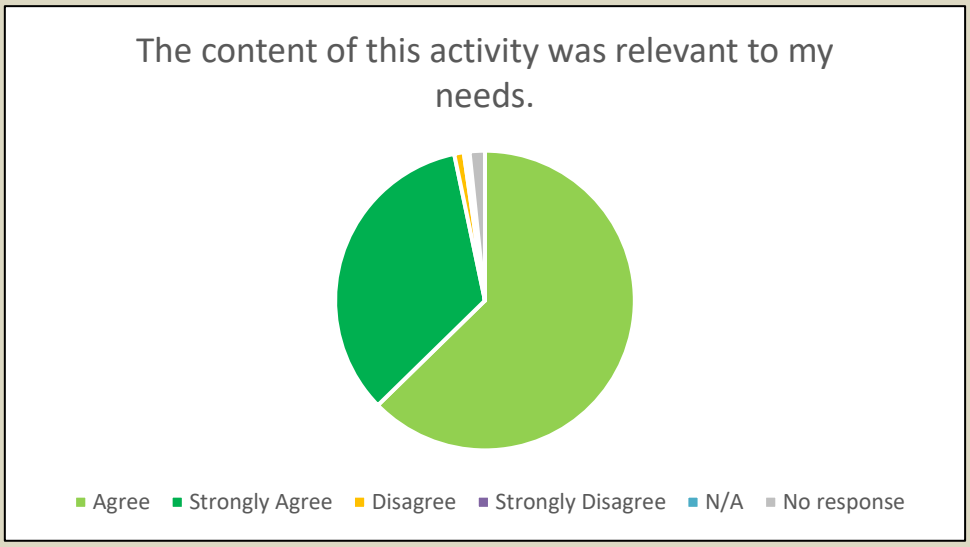
In response to the Hub Learning Activity Survey question: *I would be confident in sharing your new skills and knowledge with peers*: 92% of the 485 respondents either agreed (69%) or strongly agreed (23%) with 6% of respondents either disagreeing (3%) or strongly disagreeing (3%). There was 1% of respondents who said this question was not applicable to them and 1% of respondents who did not answer this question.



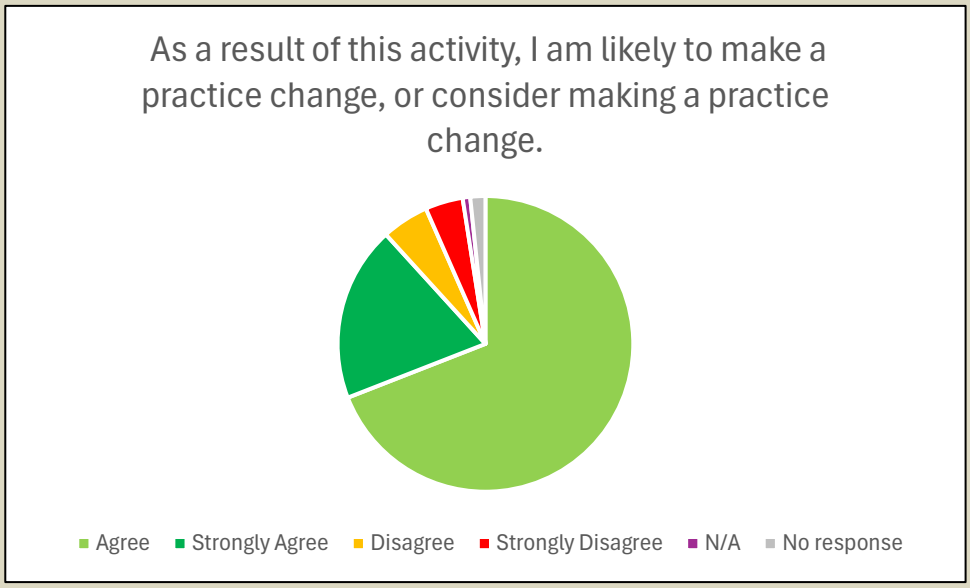
In response to the Hub Learning Activity Survey question: *The content of this activity was relevant in helping me to prepare for, or respond to, future drought?* 92% of the 485 respondents either agreed (61%) or strongly agreed (31%) with 7% of respondents either disagreeing (3%) or strongly disagreeing (4%). 1% of respondents said this question was not applicable to them.



In response to the Hub Learning Activity Survey question: *The content of this activity was relevant to my needs?* 97% of the 485 respondents either agreed (63%) or strongly agreed (34%) with 1% of respondents disagreeing. There were 2% of respondents who did not answer this question.



In response to the Hub Learning Activity Survey question: *As a result of this activity, I am likely to make a practice change, or consider making a practice change*? 88% of the 485 respondents either agreed (69%) or strongly agreed (19%) with 9% of respondents either disagreeing (5%) or strongly disagreeing (4%). 1% of respondents said this question was not applicable to them, most likely due to these people being advisors or extension officers rather than farm and property owners and managers, and 2% of respondents did not answer this question. The area of land being managed by people who agreed or strongly agreed that they were likely to make a practice change or consider making a practice change was 17,689,554 Ha.



The level and type of practice change varies between projects, although most proposed changes will be incremental adjustments and transitional changes to current practices and farming systems rather than transformational changes to different commodity types and business

structures. This is to be expected as the majority of Hub projects to date have focused on incremental and transitional change activities as was identified through the Co-design consultation and prioritisation process which was undertaken and is ongoing with Hub member organisations and producers. It can be a limitation in co-design that often discussion centres on how to fix existing issues through adjustments to current practice rather than the transformational changes that may be required to maintain long term viability. The SA Hub is aware of this and has focused on the co-design and commencement of some transformational projects such as: the *Adapting to the challenges of the Future climate to farming systems in marginal environments'* project, the *'Containment Feeding to Boost Business Performance and Resilience* Project' and the *'Adopting Strip and Disc Farming Systems'* project which includes the including of a farmer needs analysis to identify and address barriers to adoption.. Whilst these will not completely replace the incremental projects as there is certainly a need for these, it will provide a balance of short, medium, and longer-term practice changes that growers need to consider when building drought resilience.

A series of case studies have been developed to showcase the SA Drought Hub's achievement against short and medium-term outcomes (See case studies section of this report). Whilst the case studies focus on a relatively small number of projects and associated activities comparative to the total number of projects and activities the Hub is delivering, they are indicative of the uptake and adoption by end users who are engaging in SA Drought Hub funded, led, and supported activities.



A workshop being held on the Fleurieu peninsula as part of the Filling Feed Gaps project

4.2 SHORT–TERM OUTCOMES HUB SPECIFIC

The SA Drought Hub does not have any Hub Specific Short-Term Outcomes.

4.3 MEDIUM–TERM OUTCOMES[2]

MT1: Increased availability and accessibility of, and capacity to use and adopt, knowledge that can be applied to improve drought resilience

1. **MT1 Outcome Report**

Outputs contributing to outcome MT1 are:

- Output 1: Outputs of innovation programs and opportunities, including resources, tools and other products, developed and shared
- Output 2: Outputs of innovation programs and opportunities specific to First Nations, including resources, tools and other products, developed and shared
- Output 3: Scholarships
- Output 5: Learning activities to support resilience with end users and those who support end users (and associated products)
- Output 7: On-farm trials and demonstrations to build drought resilience.
- Output 10: Drought commercialisation initiatives.

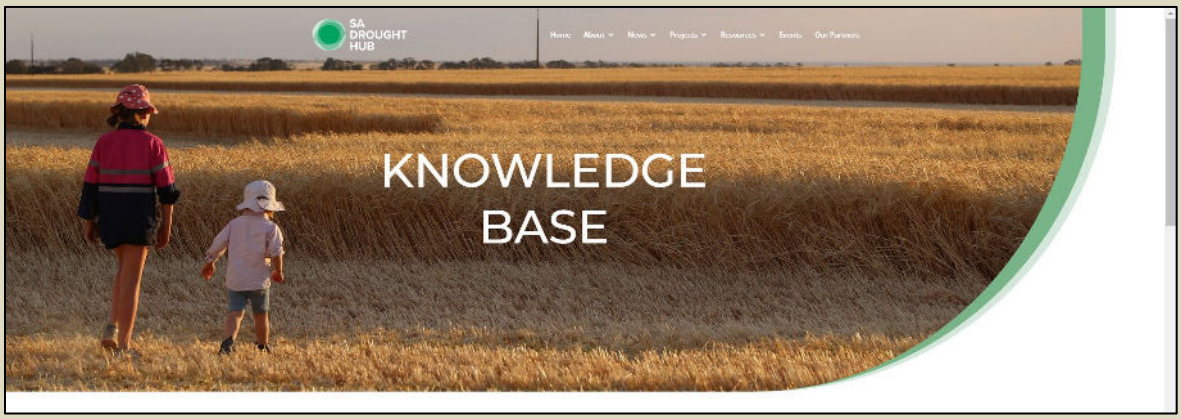
MT1 Outcome Indicators

- Extent to which end users and stakeholders (such as service providers) rate the generated knowledge/information and tools as appropriate, useful, user-friendly, and their availability.
- Increased end users capacity to access, use and adopt knowledge/information that can be applied to improve resilience to future drought.

The Hub has developed 55 knowledge and information resources which include fact sheets, case studies, podcasts, videos, websites, newsletters, and technical reports to provide information to a wide range of audiences. The purpose of these has varied to suit a variety of audiences across different agricultural industries and different regions. The resources include drought resilience project findings and how to guides in the form of case studies, on farm trail and demonstration

[2] Indicators revised in February 2024.

site findings in the form of technical reports, and farmer to farmer advice and knowledge sharing in the form of videos and podcasts.



The SA Drought Hub Knowledge base has a wide range of drought resilience information, tools and other resources.

The knowledge and information resources are confirmed to have been used by 834 people (See data Capture Spreadsheet Outcome 1), however this number is likely to be much higher as some projects have specifically engaged consultants and advisors who then disseminate the tools and resources to their clients. This flow of information from advisors to clients is not captured. Additionally, there were 4,393 people attending Hub events where tools and resources were promoted, explained, and disseminated and it is unknown how many of these attendees have adopted the tools and resources and information contained within them either wholly or partially. Even further, the SA Drought Hub delivers most projects through Farming Systems Groups with established networks across all of South Australia's agricultural districts and a collective membership of over 5,000 farmers. The farming systems groups also promote and encourage the use and adoption of the tools and other products developed through hub projects to their members and networks and the level of adoption that this has created is also unknown.

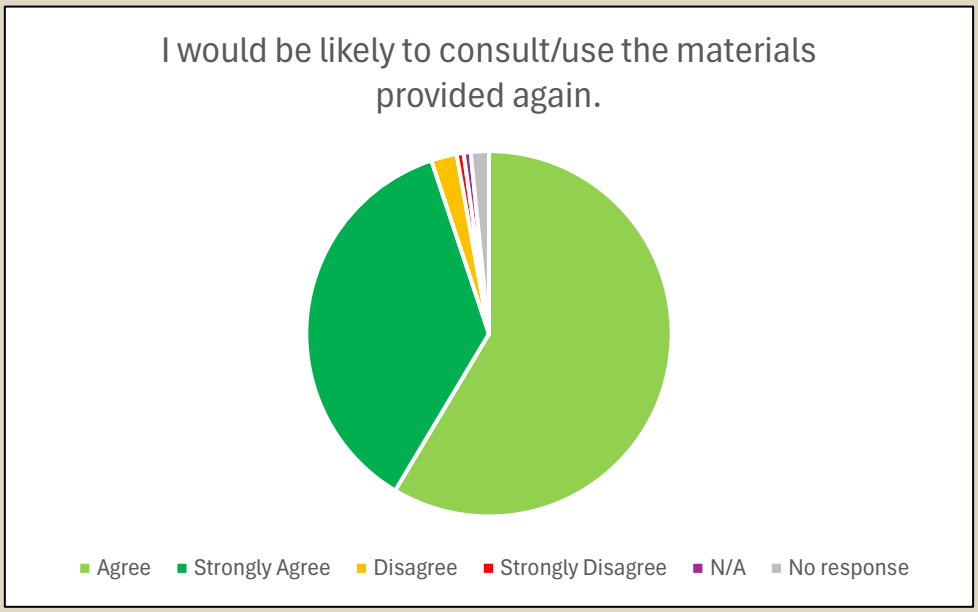
The knowledge and information resources have been accessed through a variety of mechanisms and are used to compliment Hub learning events, community engagement initiatives, and on-farm trial and demonstrations.

- Total attendance across all 137 learning events was 4,393 people and includes 2,457farmers / producers / pastoralists, 572 x Private Consultant / agribusiness / farm advisors / farm consultants / businesses / Industry, 186 project and government extension staff, 128 grower group network staff / farmer group staff, 70 researchers, 698 students, 5 DAFF staff and 5 plant breeders. There were a further 272 x attendees at events where the demographic breakdown was not recorded.
- A total of 111 commercial farms and 2 research farms hosted on farm trials and demonstrations with a total of 549 farmers and 239 advisors, consultants, government Extension officers, project officers and grower group staff visiting these sites. Additionally, there were approximately 450 undergraduate and postgraduate students using an SA Drought Hub trial and demonstration site at the University of Adelaide Roseworthy Campus

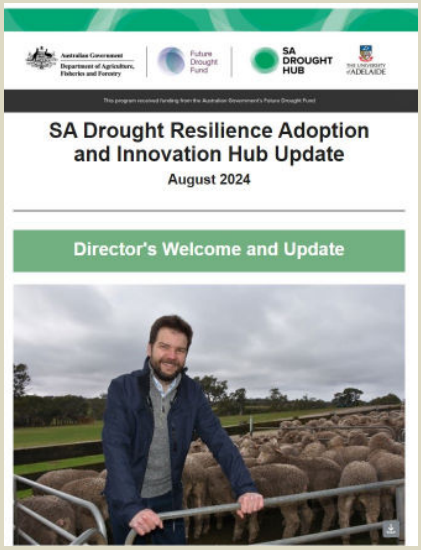
A total of 485 Hub Learning Activity Survey evaluations were collected from participants across these events and in response to the question: *I would be likely to consult/use the materials provided (at the learning event) again*: 95% of the 485 respondents either agreed (59%) or

strongly agreed (36%) with 3% of respondents either disagreeing (2%) or strongly disagreeing (1%). There were 2% of respondents who did not answer this question.

This demonstrates that end users and stakeholders (such as service providers) rate the generated knowledge and tools generated as appropriate, useful and user-friendly and will use them again to assist in decision making on matters relating to drought resilience in farm businesses.



The SA Drought hub website was enhanced during the 2023/2024 financial year to significantly expand the knowledge base to provide a far broader range of practical on farm level, drought resilience information targeted towards farmers and other end users. This has included: dry times tools, information and resources, a library of drought resilience resources from a range of partner organisations, RDC's, Industry Groups, detailed summaries of Hub projects, information on other FDF programs, past and current editions of the Hub newsletter, podcasts, and opportunities for producers and community members to participate in Hub and FDF activities. The SA Drought Hub website had 1,879 users, 6,065 page views, with an average engagement time of 1m 28s. These were all significant increases on the last reporting period and show that, like the increase in activity participation, more people are accessing drought resilience resources through the Hub.



The SA Drought hub Newsletter

The SA Drought Hub newsletter provided an avenue for the promotion of all FDF programs and activities being delivered in South Australia. A wide range of news stories and upcoming events were promoted through the newsletter which provided a resource for cross promotion and information sharing between FDF Programs. The Newsletter currently has 453 subscribers with an average open rate of 50%. Distribution is far greater than this as Hub member organisations often forward the newsletter to their members or use content from it in their own newsletters.

The hub's social media accounts help it to amplify its messages and information resources even further across its farmer, farming systems group, agricultural consultant/advisor, agribusiness, researcher, and community member target audiences. Facebook, X (formerly Twitter), Instagram and LinkedIn followers grew steadily across all platforms over the past 6 months: Facebook increased 16% to 575; X 9% to 418; Instagram 26% to 198; and LinkedIn 57% to 320. Numerous partner organisations, especially farming systems groups and Landscape Boards – boost the hub's social media reach by sharing relevant hub posts, and vice versa.

Social media

Platform	No. of followers 30/06/2024	% increase in followers this reporting period	No. of posts (original + shared)	Reach/impressions (number of people who saw posts at least once)	Engagement
Facebook	575	16%	93	10,240 (130% increase from previous reporting period)	655 content interactions (likes, reactions, saves, comments, shares or replies) – 33% increase 94 link clicks – 7% increase
X/Twitter	410	9%	179	Analytics no longer available for free accounts	
Instagram	198	26%	43	337 (68% increase)	249 content interactions (16% increase)
LinkedIn	320	57%	74	11,331 impressions (110% increase)	381 reactions (120% increase) 401 clicks (112% increase)

MT2: Increased adoption and commercialisation of drought resilience technologies and practices

1. Output(s) Report

Outputs contributing to outcome MT2 are:

- Output 1: Outputs of innovation programs and opportunities, including resources, tools and other products, developed and shared
- Output 2: Outputs of innovation programs and opportunities specific to First Nations, including resources, tools and other products, developed and shared
- Output 5: Learning activities to support resilience with end users and those who support end users (and associated products)
- Output 7: On-farm trials and demonstrations to build drought resilience.
- Output 10: Drought commercialisation initiatives.

2. MT2 Outcome Report

MT2 Outcome Indicators

- Extent to which end users have adopted drought resilience technologies and practices developed or promoted by the Hub.
- Extent to which drought resilience technologies and practices developed or promoted by the Hub have been commercialised, and where recently commercialised products, tools, etc, have been promoted by the Hub.

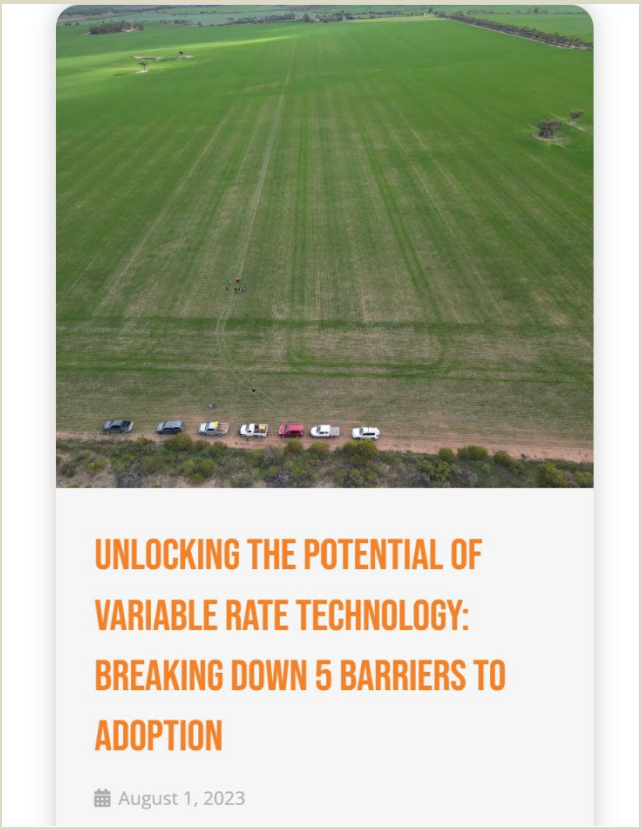
Most of the project delivery effort that is supported or delivered by the Hub is focused on extension and adoption, with smaller efforts towards applied research and development. The Hub currently has 90% of projects with an extension and adoption focus which are delivered by regionally based providers such as Grower (Farming Systems) Groups and Landscape Boards. Commercialisation is not something that the Hub has engaged deeply in as the timeframes to take a product from concept to sale are often far beyond those of the current Hub funding agreement. Also given the publicly funded nature of the Hub there are concerns from investors and developers around the need for Hub investments to share the intellectual property rights and associated profits. The Hub has therefore focused efforts towards demonstration on farm of newly commercialised products that assist farmers to build drought resilience. Additionally, in response to the current dry season, the hub has purposefully directed resources into projects and activities that assist farmers and advisors to make timely and informed decisions on farming practices and operations in dry and challenging seasons. These initiatives relate to management decision in the current dry seasonal conditions, wellbeing, and being set up and ready to maximise production when the dry conditions end.

Examples of Increased adoption of drought resilience technologies and practices are:

- The Barossa improved Grazing Group has produced case studies and videos that showcase the technologies employed in the 'O*n Farm Water Security*' project that has been run over the past two financial years. These feature positive interviews with farmers on the use of water monitoring devices on their properties and the benefits that adoption of the

technologies has provided. This year further work will see a return on investment analysis undertaken to demonstrate the payback period for water management technologies when deployed on farm. The project's success has prompted a sister project that demonstrates water security measures to be developed and initiated on Kangaroo Island, and a proposal for a third project on farm water saving and security currently being developed by Lucerne Australia for irrigated lucerne production.

- Mallee Sustainable Farming Soil Zones project where the 2023 phase of the project focused on grower adoption with 6 focus farms and a further 9 adoption sites where producers were encouraged to employ soil zone mapping and variable rate fertiliser applications on their properties using the methods employed on the focus farms. In 2024 an Easy Variable Rate Technology (VRT) tool and web platform is being developed for the Murray Mallee Region in SA and will be available to all producers, industry or agronomists hoping to adopt VRT on farms. The tool will greatly assist VRT adoption across SA farming communities.



- The University of Adelaide, SARDI, five Grower Groups and a Landscape Board have delivered the *'climate resilience of the Australian Sheep Industry'* project which demonstrated and quantified the impact of four, easy to implement, strategies for sheep producers to mitigate the impacts of heat events on sheep. The project equipped the 22 participating properties, and the 60 participants in producer leaning groups, with the ability to successfully implement these interventions in future years. The strategies were chosen based on ease of implementation and adoption, and their capacity to improve thermoregulation and reduce the physiological stress on sheep resulting from heat events. These were Melatonin, Vitamins ADE (delivered as a long-lasting oral drench), Vitamin C and Betaine (both provided in the water). Alongside of this, the project delivered two

prototype calculators which allow sheep producers and industry professionals to make informed decisions around the likely impact of heat events in their region on flock productivity and quantify the financial benefit of adopting the strategies demonstrated in this project.

- The Hub has supported a virtual fencing trial at the Minnipa Research Centre on Eyre Peninsula to exclude merino ewes from a sandy rise in a stubble paddock. The virtual fencing system was able to keep sheep from accessing the protected area within the paddock for the entire trial period. In addition to the success of the virtual fencing technology, the sheep gained body condition throughout the trial period indicating that this application did not have a negative impact on production. Results will be communicated to the Eyre Peninsula farming community during Spring 2024 field days and more broadly across SA through the SA Drought Hub and Member communication channels.



Some of the merino ewes participating in the virtual fencing trial

MT3: Technologies and practices adopted are effective in improving drought resilience

1. **Output(s) Report**

Outputs contributing to outcome MT3 are:

- Output 1: Outputs of innovation programs and opportunities, including resources, tools and other products, developed and shared
- Output 2: Outputs of innovation programs and opportunities specific to First Nations, including resources, tools and other products, developed and shared
- Output 5: Learning activities to support resilience with end users and those who support end users (and associated products)
- Output 7: On-farm trials and demonstrations to build drought resilience.

- Output 8: Co-designed Operational Plans and Activity/Project Plans
- Output 9: Outputs from Hub governance activities
- Output 10: Drought commercialisation initiatives.

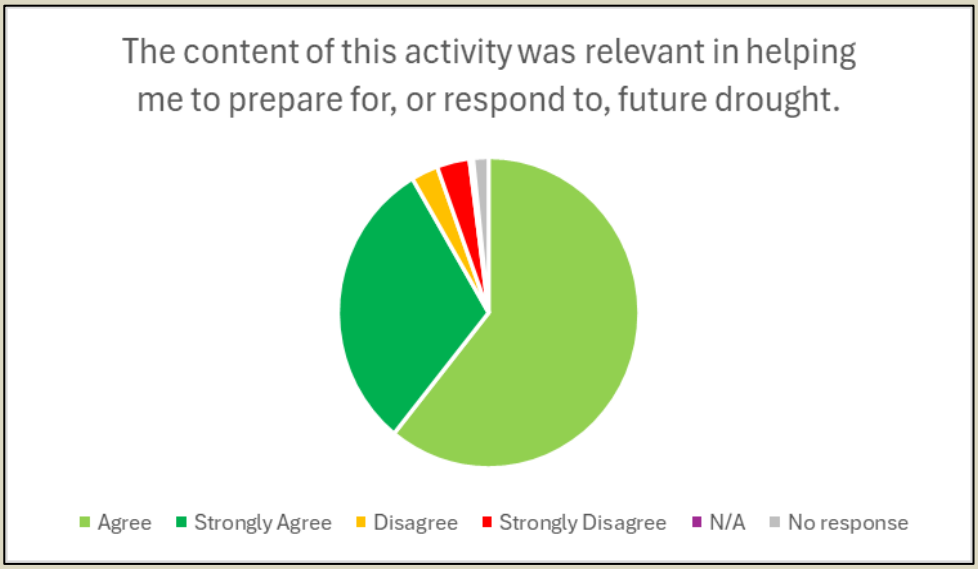
2. MT3 Outcome Report

MT3 Outcome Indicators

- Effectiveness of technologies and practices being adopted by end users.

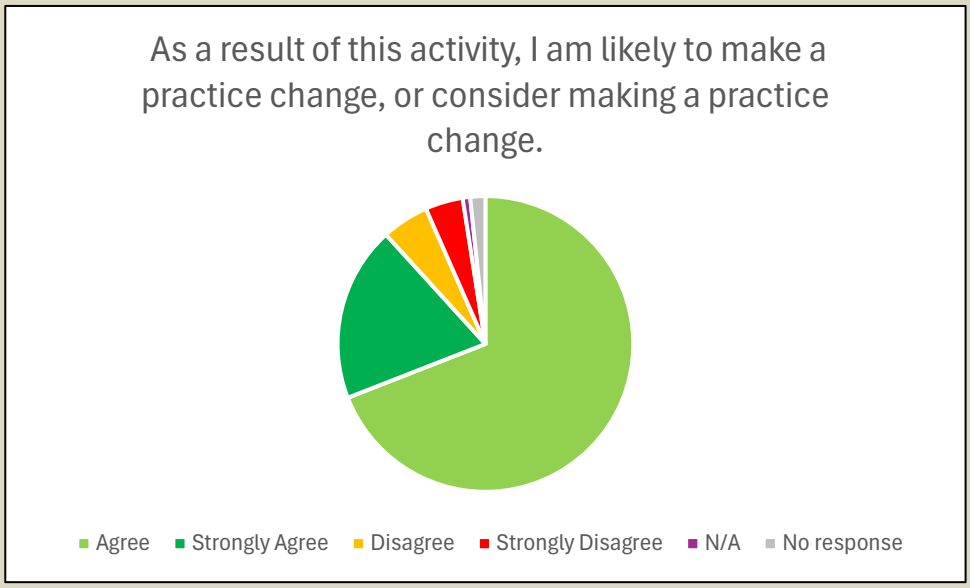
The extent to which participants in Hub related training/skilling activities report that they are applying changed and new practices has been measured through the Hub Learning Activity Surveys. These have been undertaken at learning events such as field days and workshops and producer visits to demonstration sites and farm walks. The feedback from the 485 Learning Activity surveys received from producers after attending a Hub demonstration site and / or learning event across the financial year was overwhelmingly positive. 92% of respondents stated that the content of the activity they attended was relevant in helping them prepare for or respond to future drought, and 88% of respondents expressed an intent to change practices and/or adopt technologies to increase their farms' resilience to drought.

In response to the Hub Learning Activity Survey question: *The content of this activity was relevant in helping me to prepare for, or respond to, future drought?* 92% of the 485 respondents either agreed (61%) or strongly agreed (31%) with 7% of respondents either disagreeing (3%) or strongly disagreeing (4%). 1% of respondents said this question was not applicable to them.



In response to the Hub Learning Activity Survey question: *As a result of this activity, I am likely to make a practice change, or consider making a practice change*? 88% of the 485 respondents either agreed (69%) or strongly agreed (19%) with 9% of respondents either disagreeing (5%) or strongly disagreeing (4%). 1% of respondents said this question was not applicable to them, most likely due to these people being advisors or extension officers rather than farm and property owners and managers, and 2% of respondents did not answer this question.

The area of land being managed by people who agreed or strongly agreed that they were likely to make a practice change or consider making a practice change was 17,689,554 Ha.



As stated in Short Term Outcome 5 (ST5) the level and type of practice change varies between projects although most proposed changes will be incremental and transitional rather than transformational changes to the commodity types being farmed and business structures. Whilst these types of projects are important for farmer engagement and participation in hub activities and work programs, transitional projects are needed in some areas where climate change impacts are predicted to have a large impact on the current farming systems employed in those areas. The Hub is aware of this and has begun to implement more transformational projects in partnership with local farming systems groups and RDC's. Whilst these will not completely replace the incremental and transitional change projects, it will provide a balance of short, medium, and longer-term practice changes that growers need to consider to address long term drought and climate resilience and productive viability.

Examples of practice change occurring can be seen through project case studies and reports. These include:

- The Hub has run a practical workshop series called Livestock Strategies for the Next 100 Days to assist farmers and farm advisors to make timely and informed decisions for livestock and fodder management across Autumn, Winter and early Spring in this very dry season. The six workshops focused on livestock nutrition requirements, managing pastures and fodder reserves, livestock health and wellbeing, livestock management options and how to determine the best options for you and your business and looking after yourself in difficult times. The six workshops were collectively well attended by 251 farmers, 37 farm advisors / consultants and extension staff, and 8 grower groups and feedback from the workshop surveys and anecdotally from farms was that the workshops provided good targeted and useful information that has assisted on farm adoption of dry times management strategies for livestock and fodder. Additional workshops are planned for early in the 2024/2025 financial year and further decision-making workshops will be delivered through Spring to assist farmers with timely and informed decision making over Spring and Summer should the very dry seasonal conditions not improve.

- The Barossa Improved Grazing Group (BIGG) has produced case studies and videos to showcase the On Farm Water Security Project that has been run over the past two financial years. These feature positive interviews on the use of the monitoring devices from producers who have had he tank level monitors installed on their properties and have encouraged local on farm adoption. AgKI (Kangaroo Island) Have recently developed and a similar water security project for growers on the island and are using the resources developed through the BIGG project. This year will see return on investment analysis undertaken to further encourage grower adoption of water management technologies.
- Mallee Sustainable Farming Soil Zones project focused on grower adoption with 6 focus farms and a further 9 adoption sites where producers were encouraged to employ soil zone mapping and variable rate fertiliser applications on their properties using the methods employed on the focus farms. Ten locally held workshops to guide and assist with VRT implementation attracted 210 attendees and an Easy VRT tool is being developed in 2004 to further assist and guide growers in the use and deployment of Variable Rate Technologies on their farms.
- The SA Drought Hub has supported several projects that focus on the adoption and optimisation containment feeding of livestock as a drought management practice. This has contributed to and built upon the work undertaken through a range of groups and organisations previously. The adoption of changed practice has been significant and has increase demand for additional information with 323 farmer and advisor attendees at workshops designed to facilitate adoption through upskilling livestock advisors, the delivery of peer-to-peer learning sessions, and on farm visits to share learnings between farmers and advisors.
- There have been several mixed species pastures project sites run with Grower Groups leading these projects and tailoring species selection and agronomy to local conditions. There is a keen interest from farmers in this area with several demonstration sites established across the state in different rainfall zones and a number of learning events conducted to showcase the demonstrations and encourage adoption of mixed species pastures. Nine farm visits and workshops were held with 208 farmers attending and 170 farm advisors/consultants and extension staff.



Farmers at a mixed species pastures demonstration site at Farrell Flat

- The Filling Feed gaps project has continued to see high levels of producer and advisor engagement with 153 growers participating in the project since its inception and over70 of these completing feed testing analysis and making changes to the management of their pastures and fodder production as a result. Many producers involved in the project were happy to share their existing feed tests with the project and this has supported a peer-to-peer learning approach. There were also 15 farm advisors/consultants and extension staff involved in the project who will provide guidance to their clients on the pasture management approaches promoted through this project.
- Producer adoption in the Tools for pasture Forecasting project, a compilation of information on tools for pasture forecasting relevant to SA producers has been accessed by numerous people through the SA Drought Hub and MacKillop Farm management Group websites. Advice from consultants and advisors is that growers are using the tools and seeking advice on how to employ them to best effect.
- The Hub supported a project to identify new wheat germplasm with drought tolerance that could be used in or crop breeding programs to increase the drought tolerance of wheat. The site was visited by 50 researchers, 5 crop breeders and 30 farmers, all having input towards the desirable crop traits for on farm adoption.



Farmers and advisors from WA visiting the wheat germplasm *field trial site at Roseworthy*

There has been significant on farm adoption after the delivery of a broad range of demonstration sites that have focused on incorporation of drought resilience measures into existing farming systems. This approach can greatly increase the drought resilience of farming systems through adaptations that improve soil moisture conservation, reduce crop competition, increase nutrition, promote increased productivity, and reduce input costs. Learning activity survey results and reports from Grower Groups have indicated that producers are intending to adopt the practices being presented at the Hub supported demonstration sites and other learning initiatives.

MT4: Design and delivery of Hub activities is responsive to end-user needs

1. Output(s) Report

Outputs contributing to outcome MT4 are:

- Output 1: Outputs of innovation programs and opportunities, including resources, tools and other products, developed and shared
- Output 2: Outputs of innovation programs and opportunities specific to First Nations, including resources, tools and other products, developed and shared
- Output 8: Co-designed Operational Plans and Activity/Project Plans
- Output 9: Outputs from Hub governance activities

2. MT4 Outcome Report

MT4 Outcome Indicators

- Extent to which end users, including First Nations, feel that Hub is responsive to their needs.

All of the SA Drought Hub Activities being delivered employ a co-design process. This includes alignment of project delivery with the themes and project priorities identified through co-design consultations and working with Hub members, network partners and end users to design and deliver projects to meet end user needs.

The SA Drought Hub took the priorities identified in each of the Hub Nodes through the initial co-design consultations undertaken in late 2021 and has worked collectively with Hub Members since to co-design projects that recognise and add value to past and current investments, are tailored to local farming systems and environmental conditions, engage local and regional stakeholders in the design and delivery of projects, and are of the highest priority to local end users. Projects are primarily delivered through the South Australian Grower Group Network and specific, targeted, and localised project development has been undertaken through these groups and Landscape Boards from across the State since the initial co-design workshops. This ensures the projects recognise and meet the principles outlined above. The projects developed to date are listed in various sections of the data capture spreadsheet.

Where an issue may not have been initially identified but has since become important, producers and Hub member organisations can present project ideas to the Hub through Hub staff and Advisory Groups, which are made up of representatives from Hub member organisations and local producers. Where the issue and associated project is considered an important drought resilience measure for local producers, the project can be supported.

The Hub also has a sponsorship program with a rapid application and assessment process that allows smaller groups and smaller projects to access Hub funding and resource support for project opportunities as they arise. The key feature to this program is that applications are completed through a simple online process. Applications go directly to Hub management staff who assess and advise of the outcome within a few days. This has provided an avenue for the engagement of a wide range of smaller member organisations and farmer groups to undertake locally relevant and important drought resilience learning events such as bus tours, workshops and field days. The sponsorship program has proved very popular and has offered a flexible and simple mechanism to

fund, develop, and deliver workshops and events that assist farmers to make timely and informed decisions relating to the current dry seasonal conditions. Given the continuing dry season and end user need, the Hub will continue to focus on this work into the 2024/2025 financial year.

Learning activities held on timely and informed decision making in dry seasons has included:

- A series of 72 Red Meat Connect Community Wellbeing BBQs were run across the state in conjunction with the FDF Farm Business Resilience Program and Livestock SA. These were initiated in response to poor market and seasonal conditions having a significant impact on livestock producers in SA and had a total attendance of 2362 people.



A Red Meat Connect Community Wellbeing BBQ and Cricket Match at Copley

- Two workshops to provide training to farm advisors and consultants to recognise the signs of someone suffering from poor mental health and provided them with the skills to address the situation sensitively and safely.
- A series of eight containment feeding on farm sticky beak days were held across the state in early summer to provide sheep and cattle producers to opportunity to meet with livestock consultants and other farmers who had implemented containment feeding operations on their properties and discuss the benefits and how to best manage any risks. A wide range of tools and resources including webinars, decision matrices, and information guides have been produced as part of these projects and are available for producers to assist with timely decision making in dry periods.
- A series of 6 workshops titled 'livestock strategies for the next 100 days' were undertaken to provide information, management options, and decision-making tools for livestock feeding and maintenance during dry seasons where pastures and on farm feed reserves are depleted.
- A series of two workshops titled 'Decision support for risk management of farming systems in a variable climate' were held to assist farmers to make informed and timely decisions on cereal crop establishment and management.

Supporting the above learning activities which focused on timely and informed decision making in this current dry season were a series of climate workshops conducted to inform farmers on the break of season, climate trends, and projections to assist in decision making and climate risk

management. BoM outlook data was presented for seasonal forecasts and My Climate View was used to show longer term climate predictions.



One of the Climate workshops being conducted by Peter Hayman from ARDi in the Murray Mallee

Grower and other user satisfaction has been measured through the Hub Learning Activity Survey undertaken at learning events such as field days and workshops and producer visits to demonstration sites and farm walks. The feedback from the 485 Learning Activity surveys received across the financial year was overwhelmingly positive, indicating a high level of satisfaction with the process and outcomes of co-design. This was consistent in the 2022/2023 financial year when the 332 Learning Activity surveys received were also overwhelmingly positive

Results of the learning activity surveys are displayed fully under short term Outcome 5 (ST5) with responses that demonstrate the Hub's responsiveness to end user needs below:

- In response to the Hub Learning Activity Survey question: The content of this activity was easy to understand: 98% of the 485 respondents either agreed (59%) or strongly agreed (39%). There were 2% of respondents who did not answer this question.
- In response to the Hub Learning Activity Survey question: *The content of this activity was relevant in helping me to prepare for, or respond to, future drought?* 92% of the 485 respondents either agreed (61%) or strongly agreed (31%) with 7% of respondents either disagreeing (3%) or strongly disagreeing (4%). 1% of respondents said this question was not applicable to them.
- In response to the Hub Learning Activity Survey question: *The content of this activity was relevant to my needs?* 97% of the 485 respondents either agreed (63%) or strongly agreed (34%) with 1% of respondents disagreeing. There were 2% of respondents who did not answer this question

There is also a high degree of satisfaction expressed through the Hub Member survey (see data presented in Short Term Outcome 2 (ST2)) for the questions:

- In response to the member survey question: *How satisfied are you with the opportunities to ask questions about the Hub priorities and planned activities?* 87% of the 77 respondents were satisfied (47%) or very satisfied (40%), with 13% of respondents either dissatisfied (9%) or very dissatisfied (4%).
- In response to the member survey question: *How satisfied are you with the opportunities to provide your thoughts and inputs on the Hub priorities and planned activities?* 83% of

the 77 respondents were either satisfied (43%) or very satisfied (40%) with 17 % of respondents either dissatisfied (10%) or very dissatisfied (7%).

- In response to the member survey question: *How satisfied are you with the extent to which your input is valued and ultimately influences Hub priorities and planned activities?* 79% of the 77 respondents were either satisfied (44%) or very satisfied (35%), with 21 % of respondents either dissatisfied (12%) or very dissatisfied (9%).
- In response to the member survey question: *How satisfied are you with the day-to-day functioning of the Hub?* 45% of respondents felt that this question was not applicable to them as they don't have involvement in the 'day to day' functioning of the Hub. 33% of the 77 respondents were either satisfied (27%) or very satisfied (6%) with 22% of respondents either dissatisfied (14%) or very dissatisfied (8%).

The annual Hub Member survey shows a high degree of satisfaction with the SA Drought Hub with a largely positive response from those who responded to the survey. This was also the case in the 2022/2023 Hub member survey where similar positive responses were received from the 44 survey respondents. Key areas of satisfaction were that the Hub continued to be easy to work with and added value to the work programs of Hub member organisations, Hub staff were easy to engage with and helpful, the partnerships within the Hub were performing well, and the collaborations the hub created were positive.



A group of visiting Moroccan Agriculture Department Staff and Agronomists at a Hub crop demonstration site at Roseworthy

4.4 MEDIUM-TERM OUTCOMES HUB SPECIFIC

HS1: Increased capacity, preparedness, and transition towards a future climate with less rainfall

1. **Output(s) Report**

Outputs contributing to outcome HS1 are:

- Output 1: Knowledge development and sharing (products developed from)
- Output 2: Outputs of innovation programs and opportunities
- Output 3: Outputs of innovation programs and opportunities (specific to First Nations communities)
- Output 4: Scholarships
- Output 5: Support for access to funding
- Output 7: Learning activities to support resilience with end users and those who support end users (and associated products)
- Output 8: Products from co-designed activities to support First Nations engagement and knowledge
- Output 10: On-farm trials and demonstrations to build drought resilience
- Output 14: Drought commercialisation opportunities
- Output 15: Drought and resilience tools and products

HS1 Outcome Report

HS1 Outcome Indicators in Data Capture Plan

- Extent to which end users have increased their capacity, preparedness, and transition towards a future climate with less rainfall through planning, management, and practice change,

Many of the projects being delivered and the resources and tools being developed through the SA Drought Hub and it's membership, whilst drought resilience focused, also assist in building climate resilience. Details of the projects and the extent to which users have increased their capacity, preparedness, and transition towards a future climate with less rainfall through planning, management, and practice change is provided in short term outcome (ST1) Short term outcome (ST5), medium term outcome (MT3) and medium-term outcome (MT4)

The Hub has run a range of workshops across the State which have focused on historical drought analysis, seasonal climate, and future climate predictions, and the application to decision making. These workshops, attended by growers / pastoralists, advisors / extension staff, First Nations Peoples, and project coordinating staff had significant positive impact. Participants were

introduced to My Climate View and a range of other climate tools and products that can assist in seasonally based decision making. Many attendees at the events found these useful and were often unaware of them prior to the workshops.

Most Hub funded and supported projects build production and farming systems resilience to both drought and climate change. Projects that support the retention and storage of greater soil moisture, use technologies to better manage on farm water supplies, improve on farm decision making in both good and difficult time, improve fodder production and storage, and reduce fertiliser input costs are all being delivered by the Hub, and each helps to build both drought and climate resilience.

The Hub is commencing the *Adapting to the challenges of the future climate to farming systems in marginal environments'* project which will look at the best options and opportunities for farming systems in marginal environment to remain agronomically, environmentally, and economically viable into the future under a range of climate change scenarios.

The *'Improving the climate resilience of the Australian Sheep Industry'* project focuses on the use of strategies to mitigate the significant impacts of heat stress in sheep. Whilst the project is highly relevant in helping sheep producers build drought resilience in their flocks, there is an equal level of importance in building greater resilience to the impact of climate change with the predicted hotter temperatures and greater number of days annually over 30 degrees in many parts of South Australia.



Sheep being tested as part of the Improving the climate resilience of the Australian sheep flock project.

HS2: Industry sectors are providing broad resilience and innovation support across the state

2. <u>Output(s) Report</u>

Outputs contributing to outcome HS2 (see Appendix C) are:

- Output 2: Outputs of innovation programs and opportunities
- Output 5: Support for access to funding

- Output 11: Co-designed Operational Plans
- Output 12: Activity Plans that incorporate aspects of co-design processes
- Output 13: Outputs from Hub governance activities conducted

3. HS2 Outcome Report

HS2 Outcome Indicators in Data Capture Plan

- Extent to which industry sectors in SA are engaged in SA Drought Hub activities.
- Alignment of SA Drought Hub activities and contribution towards industry drought resilience objectives.

Industry sectors in South Australia are strongly engaged in the Hub. Primary Producers SA (PPSA), Livestock SA, Grain Producers SA (GPSA) are all members of the SA Drought Hub and are actively engaged in the design and delivery of Hub activities. Each organisation has representation of the SA FDF Advisory Group, Primary Producers SA has provided strategic guidance on the delivery of SA Drought Hub programs and integration opportunities with other large-scale programs and projects being delivered in SA. Livestock SA has co-delivered a range of drought, innovation, and timely decision-making projects and events with the Hub, supported Hub projects through resource provision, provided communications and promotion of Hub and broader FDF activities, and has guided Hub project alignment to state-wide sheep and beef industry blueprint priorities.

Grain Producers SA has actively supported Hub projects through resource provision, provided communication and promotion of Hub and broader FDF activities, and has guided Hub project alignment to state grains industry blueprint priorities. The Hub has co-funded the Sustainability Roadmap for the South Australian Grains industry and supported Grain Producers SA carbon benchmarking initiatives.

The South Australian Grains industry Trust (SAGIT) have coinvested in three regionally based agronomic projects to improve soil and crop management for drought resilience. The Hub and SAGIT have also partnered to co-fund a regional intern program designed and led by farming systems groups. These have been based with the Hart Field site Group in the Mid North and AIREP on the Eyre Peninsula, with consideration being given to an intern in the SA Murray Mallee Region.

The South Australian Sheep Industry Fund (SIF) have contributed industry funds for the Hub to co-invest in a range of sheep industry projects that met identified drought Hub and Industry Blueprint priorities. These have included the *'climate resilience of the Australian Sheep Industry'* project and the '*Precision Sheep Management'* project currently in development.

Approximately 80% of all Hub investment is being targeted at the field crops and livestock sectors due to the level of exposure to drought and the associated industry risks, and the high proportion of the State's land area occupied by these sectors, often in low rainfall, low production areas.



Farmers at the Northern Sustainable Soils Field Day at Bute.

The priorities identified through the SA Hub co-design process and the projects being delivered all align to either the SA Sheep industry Blueprint, SA Beef industry Blueprint, or SA Grains industry Blueprint. This is reported back to the industry bodies and associated committees responsible for the delivery and administration of the blueprints.

Hub staff contribute to industry groups by sitting on Research, Development and Extension Committees, Blueprint Working Groups and other Industry led committees. This enables hub staff to understand the priorities of the industry organisations within the state and identify synergies with the hub priorities and programs.



SA Drought Hub Node Coordinator Tamara Zerk and Knowledge Broker Tony Randall at the Hub stand at Agfest in Yankallila.

5. MEL Report on Outputs[3]

1) Outputs Common Across All Hubs

Output 1: Outputs of innovation programs and opportunities, including resources, tools and other products, developed and shared (not Communications products included in Output 6 and learning activities included in Output 5).

Indicators

1.1 Number and type of activities supporting and/or facilitating the development of resources, tools and/or other products.

The SA Drought Hub has run 19 projects where tools and resources have been developed as part of the project. These have been promoted and disseminated through a total of 90 project activities such as at learning events or demonstration sites as detailed in outputs 2, 5, 7, and 10 and recorded in the data capture report.

1.2 Number and type of resources, tools and other products promoted and/or developed, and their description/purpose including intended use.

A total of 55 resources, tools and other products were developed in this MEL reporting period. These were:

- 1 x SA Drought Hub Website
- 12 x technical reports
- 15 x project site reports and trial results books
- 6 x decision tools
- 1 x sustainability Roadmap
- 1 x farming systems needs analysis
- 7 x resource guides
- 5 x webinars
- 1 x podcast
- 2 x fact sheets
- 9 x case studies (2 video)
- 9 x Site maps and reports

The tools and resources were developed to provide assistance with on fam decision making (resource guides, webinars, and decision tools), to assist with communicating the results from trial and demonstration sites (technical reports, project site reports, trial books), to provide examples

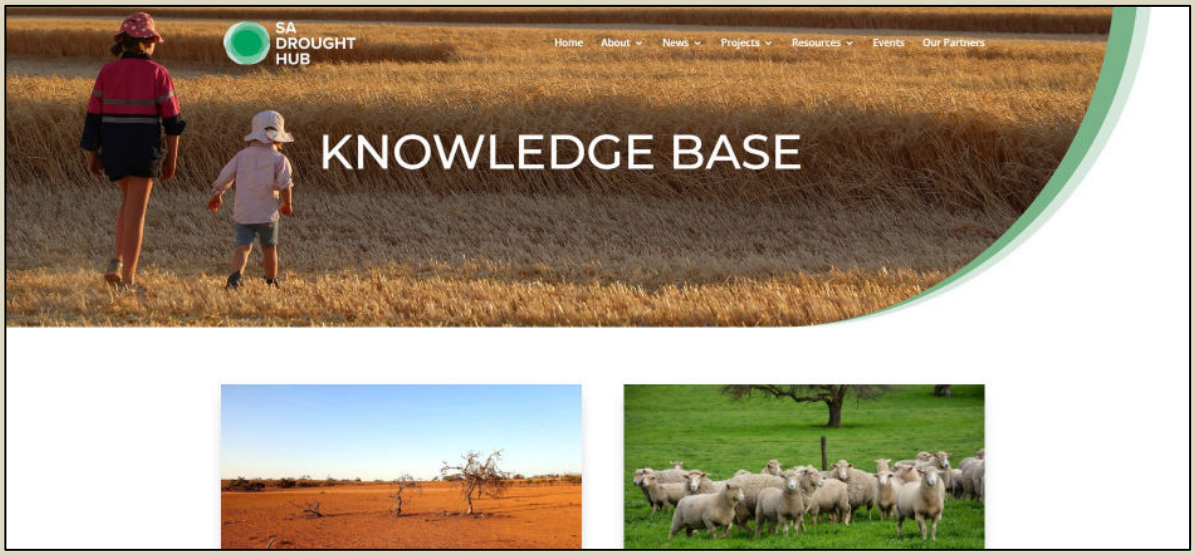
[3] Outputs and Indicators revised in February 2024.

of practical implementation of drought resilience practices and technologies practical application (case Studies, fact sheets, webinars podcasts and videos), to identify drought resilience needs (farming systems needs analysis), and to guide industry (sustainability roadmap)

Each of the resources that were developed has been listed in the data capture spreadsheet which includes the project the resource relates to, a brief description of the resource and where it can be accessed.

The SA Drought Hub Website has been advanced over the past 12 months with key additions being the knowledge base where a wide range of drought resilience information is available to farmers. The Knowledge base has 6 focus areas, each with information specific to that focus area. The agronomic focus areas also have 'Dry Season Information' sections to provide users with specific information on management approaches during dry periods leading into drought. Additionally, the Project Pages on the Hub website provide a description of all current and completed hub projects along with the resources developed through that project including reports, decision tools, webinars and case studies. The 6 focus areas on the knowledge base are:

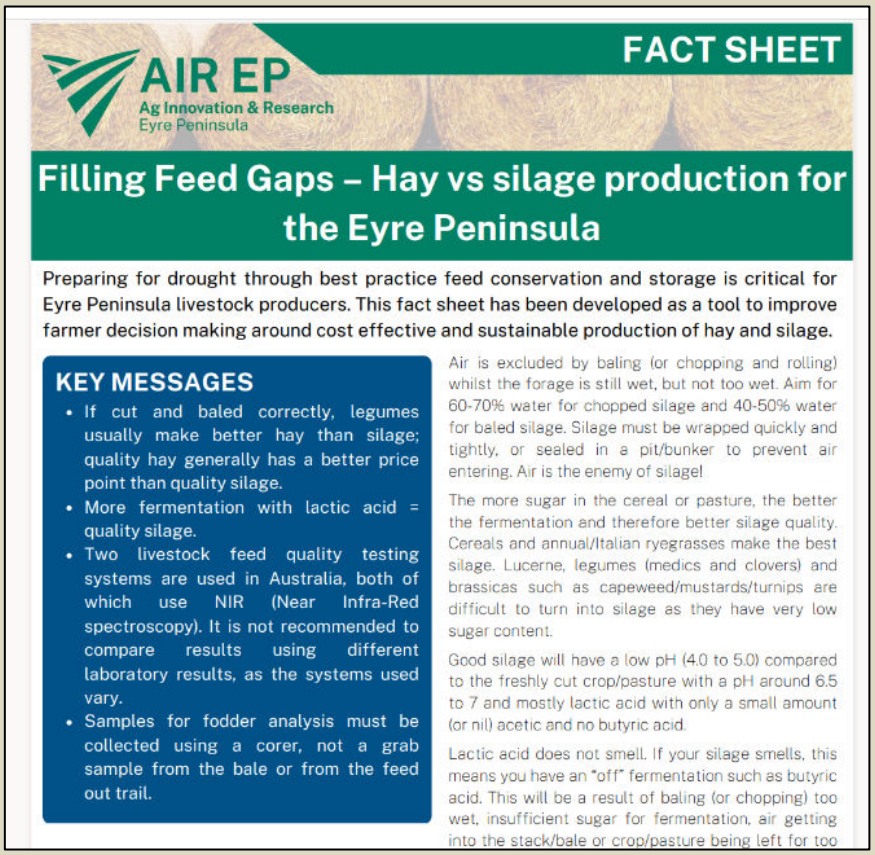
- Soil and Land management
- Livestock and Fodder management
- Crop and pasture management
- Water security management
- Farm planning and decision making
- Community resilience and wellbeing



The SA Drought hub knowledge base on the hub website.

1.3 Number and type of activities sharing and encouraging the use of the resources, tools and/or other products developed.

The SA Drought Hub has run 19 projects where tools and resources have been developed as part of the project. These have been promoted and disseminated through a total of 90 project activities such as at learning events or demonstration sites as detailed in outputs 2, 5, 7, and 10 and recorded in the data capture report.



AIR EP
Ag Innovation & Research
Eyre Peninsula

FACT SHEET

Filling Feed Gaps – Hay vs silage production for the Eyre Peninsula

Preparing for drought through best practice feed conservation and storage is critical for Eyre Peninsula livestock producers. This fact sheet has been developed as a tool to improve farmer decision making around cost effective and sustainable production of hay and silage.

KEY MESSAGES

- If cut and baled correctly, legumes usually make better hay than silage; quality hay generally has a better price point than quality silage.
- More fermentation with lactic acid = quality silage.
- Two livestock feed quality testing systems are used in Australia, both of which use NIR (Near Infra-Red spectroscopy). It is not recommended to compare results using different laboratory results, as the systems used vary.
- Samples for fodder analysis must be collected using a corer, not a grab sample from the bale or from the feed out trail.

Air is excluded by baling (or chopping and rolling) whilst the forage is still wet, but not too wet. Aim for 60-70% water for chopped silage and 40-50% water for baled silage. Silage must be wrapped quickly and tightly, or sealed in a pit/bunker to prevent air entering. Air is the enemy of silage!

The more sugar in the cereal or pasture, the better the fermentation and therefore better silage quality. Cereals and annual/Italian ryegrasses make the best silage. Lucerne, legumes (medics and clovers) and brassicas such as capeweed/mustards/turnips are difficult to turn into silage as they have very low sugar content.

Good silage will have a low pH (4.0 to 5.0) compared to the freshly cut crop/pasture with a pH around 6.5 to 7 and mostly lactic acid with only a small amount (or nil) acetic and no butyric acid.

Lactic acid does not smell. If your silage smells, this means you have an "off" fermentation such as butyric acid. This will be a result of baling (or chopping) too wet, insufficient sugar for fermentation, air getting into the stack/bale or crop/pasture being left for too

A fact sheet developed by AIREP Farming Systems Group as part of the Filling the Feed Gaps project.

The SA Drought Hub has also promoted drought resilience tools and products including videos, case studies and podcasts which have been developed by other Drought Resilience Hubs and organisations not associated with the SA Drought Hub. These have been promoted through the Hub media channels such as our social media accounts and newsletter.

1.4 Number of users utilising the resources, tools and/or other products.

There is a total of 834 people recorded as using the resources developed, however this number is likely to be a lot higher as some projects specifically engaged consultants and advisors who then disseminate the tools and resources to their clients. This flow of information from advisors to clients is not captured. Additionally, there were 4,393 people attending Hub events where tools and resources were promoted, explained, and disseminated and it is unknown how many of these attendees have adopted the tools and resources either wholly or partially. Even further, the SA Drought Hub delivers most projects through Farming Systems Groups with established networks and a collective membership of over 5,000 farmers. The farming systems groups also promote and encourage use and adoption of the tools and other products developed through hub projects to their members and networks and the level of adoption that this has created is unknown.

Output 2: Outputs of innovation programs and opportunities specific to First Nations, including resources, tools and other products, developed and shared

(not Communications products included in Output 6 and learning activities included in Output 5).

Indicators

2.1 Engagement with First Nations community members (by number and type of engagement).

The Hub has engaged with 193 First Nations community members through meetings, workshops and Yarning Circles. Whilst these have been largely held for project planning and development purposes of projects planned to commence later in 2024 there have been some learning activities conducted and these are described below in the following section.

2.2 Number and type of activities promoting and/or facilitating the exchange of ideas with First Nations for the development of resources, tools and/or other products.

The Hub engaged in 16 activities promoting and/or facilitating the exchange of ideas with First Nations for the development of resources, tools and/or other products. This included:

- 2 x On Country visits
- 1 x Yarning Circle
- 1 x workshop
- 12 x project planning and development meetings

The development of a seasonal calendar was identified by the Ngarrindjeri community as a key follow-on project to the Climate Yarning Circles Project which was conducted in early 2023. The calendar's purpose is to record the ecological timing of plants and animals and record the changes in ecological timing that is occurring as a result of climate change. Examples of this are earlier flowering, fruiting and seed set by plants, earlier egg laying by birds, and different abundances and movement patterns by mammals as a result of changing water resource availability.

A community workshop with 34 members of the Ngarrindjeri community was held at Goolwa to look at examples of seasonal calendars from other Aboriginal nations and determine the preferred layout and content along with discussions on design. The workshop was attended by the Bureau of Meteorology (BOM) First Nations Engagement Officer who provided information on BOM resources that have been developed for and are available to First Nations Groups.



The participants at the first Seasonal Calendar Workshop held with the Ngarrindjeri Aboriginal Corporation (NAC) and community members.

A Yarning circle was held to record the outcomes of the Coorong soaks monitoring program which was conducted by Flinders University after being identified as an issue of concern to the Ngarrindjeri community during the Hub supported Climate yarning Circles. The program engaged community members to monitor the location, extent, and health of the freshwater soaks along the Coorong due to their ecological and cultural significance. A monitoring program was established, and data collected which will now be used as baseline information to guide the ongoing restoration and conservation of the freshwater soaks. Further work will be undertaken to determine the impact of climate change induced sea level rise on the freshwater soaks with ongoing community monitoring and intergenerational cultural knowledge exchange.



Participants at the Coorong Freshwater Soaks Yarning Circle to promote the monitoring results and identify future actions for the restoration and conservation of the soaks.

2.3 Resources and/or products developed with First Nations by number and type (e.g. decision tools, fact sheets, art work, story telling).

The Hub worked with First nations Communities to develop the following Resources and/or products:

- 1 x Climate Yarning Circle project video Climate Yarning Circles video
- 1 x Climate Yarning Circle project report and issues matrix
- 1 x seasonal calendar (in development)

2.4 Number and type of activities sharing and encouraging the use of the resources, tools and/or other products developed.

The Hub engaged in 7 activities sharing and encouraging the use of the resources, tools and/or other products developed through project run with First Nations Organisations and communities. This included:

- 1 x workshop to promote opportunities for First nations engagement and projects
- 2 x forums to promote the climate Yarning Circles Project meetings
- 4 x presentations at meetings and forums to promote the Climate Yarning Circles Project.

2.5 Number of users utilising the resources, tools and/or other products

As part of the Hub funded Climate Yarning Circles project undertaken in early 2023, a Climate Yarning Circles video was produced to showcase the project and raise awareness of the impact of

climate change on Aboriginal culture. The video has had 70 views on YouTube to date and has also been presented to audiences of 120 people at forums and through presentations.

There are 37 people who have used the report and priorities matrix developed as part of the Ngarrindjeri Climate Yarning Circles project to inform the development of a seasonal calendar. This was used during seasonal calendar community workshop and project planning meetings to inform discussion on the key risks to the Ngarrindjeri environment, culture, and community.

Output 3: Scholarships

Indicator

3.1 Number, dollar value range and area of scholarships (by category and type of recipient) funded by the Hub (or similar initiative-e.g. internship)

The SA Drought Hub supported a broad range of scholarship activities across the financial year. These are:

Scholarship type	Number of participants
12 month industry-based internships	4
Leadership scholarship	2
Detailed Facilitation and extension training for researchers and extension staff	10 x researchers 6 x extension staff
PhD student (working on a Hub project)	1
Honors Student (working on a Hub project)	1
Undergraduate Students (working on a Hub project)	2
Students supported in the Australian Institute of Agriculture (AIA) student program.	20
Undergraduate and postgraduate using Hub demonstration sites for course learning	~450

Four 12-month internships focusing on the grains industry have been directly supported by the SA Drought Hub during this reporting period, with all four interns employed through hub member organisations, The Hart Field site group (x2), SARDI (x1) and Agricultural Innovation and Research Eyre Peninsula (AIREP) (x1)

Through the internship programs, interns build skills across trial design and analysis, field assessments, evaluation, crop management and operational activities including seeding and harvest. All four interns are grains industry focused are work alongside industry groups, grower groups and producers to build their knowledge and experience in real world farming situations.







Top left: Intern Miffy Purslow from hart Field Site Group assisting to sow the crop.

Top Right: Intern Alex Busch from AIREP ready to commence in his new role

Centre: Intern Kaidy Morgan conducting crop research for the Hart Field Site Group

Botton left and right: Intern Marni Griffiths learning to drive the trial plot harvester.





One female farmer and one of the Hubs Node Coordinators and was supported to undertake a Stepping into Leadership program scholarship. The program is specifically designed for emerging leaders in agriculture and agribusiness looking for training and support to step into leadership roles in industry, community or business. The program enables fifteen women from across South Australia to build personal leadership skills through participation in face-to-face professional development and the ongoing support provided through individual coaching, mentoring and webinars.

The Australian Institute of Agriculture (AIA) supports tertiary students to engage with and find employment within the Agricultural sector through identifying and promoting employment pathways and opportunities, student skills development, and hosting networking events for students and industry to come together. The Hub contributed funds to run two industry events and support the production of the 2024 student compendium that directs students to scholarship, traineeship, intern, higher education and employment opportunities. Additionally, the Hub supported 12 AIA students to undertake a bus tour of Hub funded and other drought resilience field demonstration sites.

The SA Drought hub ran a two-day facilitation and extension training workshop for network partners who work closely with farmers and farmer groups, to build their skills in designing good extension and facilitation skills to enhance the level of farmer engagement and impact of Hub projects. Three more workshops will be run in the 2024/2025 financial year.

One PhD, one Honors and two undergraduate students were engaged in hub funded projects being delivered through Hub member organisations. The work they undertook supported the delivery of the project and its outcomes as well as complimenting and furthering their studies.

Approximately four hundred and fifty undergraduate and post graduate students from a range of agricultural disciplines are using a Hub drought resilience learning and study site at the University of Adelaide's Roseworthy Campus as part of their undergraduate subjects.

Output 4: Outputs of support for access to funding

Indicators

4.1 Number and type of organisations that received support and number and type of support provided by the Hub to apply for funding external to the Hub ((e.g. grant funding, tenders, project proposals, contracts, etc).

A total of 27 new grant applications were formally supported by the SA Drought Hub with applications ranging from $10,000 to greater than $6,000,000.

The total number of organisations that received support exceeds 30 and includes Landscape Boards, Grower Groups, community organisations, Aboriginal organisations, research providers, Regional Development organisations, and local government. The type of support included

Support for FDF Grants currently being delivered in South Australia.

- Extension and Adoption of Drought Resilience Farming Practices Grants

- Co- delivery of the project: '*De-Risking the Seeding Program: Adoption of key management practices for the success of dry and early sown crops'.* with Ag Excellence Alliance. The project is led by the SA Drought Hub Mixed farming Adoption Officer.
- Co-delivery of the project: *'Farmers to Founders TEKFARM: Accelerating and scaling adoption of drought resilience technologies'*. The Project is delivered in SA through the SA Drought Hub by the Innovation Broker, Sean Miller in collaboration with Hub Adoption Officers and Hub Member Organisations.
- Support for the delivery of the Project: '*Building farming systems resilience and future proofing the impacts of drought through accelerating the adoption of proven cost effective and yield responsive soil and fertiliser management practices by farmers across southern Australia'*. The project is led by Mallee Sustainable Farming and is supported by the Hub through assisting with the initial application co-design and provision of links to Hub networks and contact points within regional communities, discussions with project leads to identify opportunities to link Hub activities and complement the grant delivery activities.

- Long Term Trials: Discussions with project proponents on how the SA Drought Hub might support the Long-Term Trials initiatives being delivered within South Australia. Support provided for extension activities at Long Term Trial sites.
- FDF Soils and Land Management Grants: Provided links to Hub members and networks, sat on project community of practices to identify opportunities to link Hub activities and complement the grant delivery activities.

A summary of Hub support for the 27 new grant applications is provided below for several key grant programs.

Helping Regional Communities Prepare for Drought Initiative – Small Network Grants

- 5431 Collective: *Grant to Host a Rural Women's Day event, a Men's Social Wellbeing evening and a series of workshops for small businesses aimed at upskilling them in marketing, finance and social media to enhance their presence and better understand how to extend their business.* Provided letter of Support, provided advice on grant program.

Climate Smart Agriculture Small Grant program

- Barossa Improved Grazing Group: *Beefing up Containment Feeding to Boost Climate and Business Resilience project*. Provided letter of Support, provided advice on grant program.
- Fleurieu Farming Systems: *Climate Connections – linking farmer decision-making to real-time weather data for sustainable production" project.* Provided letter of Support, provided advice on grant program.
- Future Farmers: *'Regenerating the Hills & Fleurieu region'*. Provided letter of Support, provided advice on grant program.

Climate Smart Agriculture Partnerships and Innovation Grant

- Tropical North Queensland Drought Hub: *'Climate Ready Rangelands: management adaptation through timely data driven decision making'.* SA Drought Hub Knowledge Broker assisted in design and development of the application in partnership with other Drought Hubs and collaborators, linked network partners to the project, supported project network development.
- University of Adelaide and Partner Organisations: *'Enhancing farm resilience, productivity and sustainability through climate-smart pasture legumes and improved management strategies in low rainfall mixed farming regions of southern Australia'* Provided letter of Support, provided advice on grant program, linked to Hub network partners and builds on the outcomes of an existing Hub project.
- Mallee Sustainable Farming with partner organisations*: A future sustainable, carbon smart dryland farming industry led by farmer participatory learning and robust place-based research data capture of at-risk soils in low rainfall Mallee zones of SA, VIC and NSW*. Provided letter of Support.
- Charles Sturt University: '*Protect & Enhance Water & Soil Resources'.* Provided letter of Support, linked to Hub network partners, assisted application development.
- James Cook University: 'Enhanced Rock Weathering' Provided letter of Support, linked to Hub network partners, assisted application development.
- Grower Group Alliance: *'The Ripple Effect project'*. Provided letter of Support, linked to Hub network partners.
- Vircura: *'Commercial production of agave as a sustainable source of the fuels of the future'*. Provided letter of Support, linked to Hub network partners.
- University of Adelaide: *'Goyder's Edge Agriculture: Adapting to the challenges of a future climate to farming systems in marginal environments'*. Provided letter of Support, provided advice on grant program, linked to Hub network partners.
- University of Adelaide: 'Innovative Soil Technologies: Fostering Resilience and Climate-Smart Crop Production in Australia project'. Provided letter of Support, linked to Hub network partners.
- South Australian Research and Development Institute: '*Trash into treasure – using agricultural wastes to increase on-farm profitability whilst reducing carbon footprints'.* Provided letter of Support.
- Auricht Projects: 'Working with Wetlands: advancing sustainable agriculture practices to restore and protect farm wetlands using innovative solutions and partnerships project'. Provided letter of Support, linked to Hub network partners.

DAFF: Development of an AFWI Research Centre

- University of South Australia *'Development of an AFWI Research Centre'.* Provided letter of Support, linked to Hub network partners.

Landscape Priority Fund

- Hills and Fleurieu landscape Board: *'Building landscape resilience with high-performing dams'*. Provided letter of Support, linked to Hub network partners and SW WA Drought Hub researchers working on similar issues.
- SA Arid Lands Landscape Board: *'Kangaroo Partnership project'* Provided a letter of support, co-investment commitment, and links to Hub member organisations.

- SA Arid Lands Landscape Board: '*South Australian Rangeland Goat Management Strategy; Co-ordinating management of Rangeland Goats'* Provided letter of support.
- SA Arid Lands Landscape Board: *'Sustainable Land Management Project'*. Provided letter of support, linked other Hubs and network partners.
- Landscape Boards of SA: *'Empowering land managers to optimise soil health for productivity and environmental outcomes'*. Provide letter of support.

SA Arid lands Landscape Board Planning for Health Country Grants

- Kokatha Aboriginal Corporation RNTBC: *'Developing a Kokatha Country Plan'*. Provided a letter of support, co-investment commitment, and links to Hub member organisations.

GRDC Tender for pre-accelerator and accelerator program delivery.

- Farmers2Founders: '*Tender to deliver pre-accelerator and accelerator programs'*. Provided letter of support, linked partner networks.

MLA Tenders

- University of Adelaide: *'Profitable and Resilient Southern Beef Herds'*. Provided letter of support, linked partner networks, SA Drought hub Livestock Adoption officer assisted in application development and will work on the project as Chief Investigator
- University of Adelaide: '*Precision Sheep Management'.* Provided letter of support, linked partner networks, SA Drought hub Livestock Adoption officer assisted in application development and will work on the project.

Million Minds Mental Health Research Mission 2023 Mental Health Research Grant Scheme.

- University of South Australia: **'***A community-based mental wellbeing preparedness program for fire, drought and extreme weather events, for the Medical Research Future Fund'***.** Provided letter of support, alignment with Hub funded initiatives.

Office for Ageing Well, Age Friendly SA Grant

- District Council of Orroroo-Carrieton: '*Bust a Move Project to support social and physical wellbeing opportunities for people over the age of 50 to remain active and engaged in their community'.* Provided letter of Support.

4.2 Total value of funding supported and total value received.

The total value of funding supported, and total value received across 9 successful applications was:

Landscape Priority Fund

- $870,650 - Landscape Boards of SA: 'Empowering land managers to optimise soil health for productivity and environmental outcomes'.
- $370,000 – SA Arid Lands Landscapes Board: *'Kangaroo Partnerships project'*.

- $200,000 – Hills and Fleurieu Landscape Board: '*Building landscape resilience with high-performing dams'.*
- $304,236 – SA Arid Lands landscape Board: *'Co-ordinating management of Rangeland Goats'*.

GRDC Tender for pre-accelerator and accelerator program delivery.

- $600,000 - Farmers2Founders: '*Tender to deliver pre-accelerator and accelerator programs'*.

MLA Tenders

- $6,820,833 - University of Adelaide: *'Profitable and Resilient Southern Beef Herds'*

South Australian Grains industry Trust (SAGIT)

- $66,790 - Agricultural Innovation and Research Eyre Peninsula: *'Eyre Peninsula internship in Applied Grain Research'.*
- $26,760 - Hart Field Site Group: *Regional internship in applied grains research (HART)*

SA Arid lands Landscape Board Planning for Health Country Grants

- $50,000 - Kokatha Aboriginal Corporation RNTBC: *'Developing a Kokatha Country Plan'*.

TOTAL = $9,309,269

Support for each of the successful grant applications listed above has included a mix of:

- Hub resource provision,
- linking the projects to other FDF programs on the ground,
- providing SA Drought Hub presentations, workshops and other content to value add to events,
- participation on project steering committees
- provision of collaborative and value add opportunities as appropriate,
- Hub staff support for delivery of the project
- providing connections and links to Hub members and Network Partners as required to assist project delivery.
- promotion of the project events to Hub members, Partners, and the broader Hub network.
- extend information, materials and products created through the project to Hub members, Partners, and the broader Hub network, and
- provide information and networking support to SA Hub members and Network Partners involved in the project.

Output 5: Learning activities to support resilience with end users and those who support end users (and associated products)

Indicators

5.1 Number of learning and/or training activities by:

- name and type (farm visits, seminars, workshops, etc.).
- Hub's role, key partners and focus area (e.g. risk practices and other resilience technologies and practices).
- number and category of participants/attendees with associated demographics (e.g. location, industry, farm type, etc).

There was a total of **209 events conducted across the financial year including 137 learning activities and 72 community wellbeing events**. These are listed in the Data Capture spreadsheet. Whilst many of the learning activities were delivered through SA Drought Hub member organisations as part of their project delivery, there were also a number that were designed, organised and delivered by SA Drought Hub staff in collaboration with Hub member organisations. The majority of Learning Activities conducted were attended by Hub Staff who supported the delivery of the events.

The 137 Learning Activities included:

- 49 Farm Visits
- 54 workshops
- 5 farmer bus tours
- 8 field days
- 13 seminars
- 3 conferences (supported)
- 5 forums

The 72 Community wellbeing events were run in partnership with and co-funded by the Farm Business Resilience Program and Livestock SA. These were:

- 72 Community Wellbeing BBQs.

Total attendance across all 209 events was 6,755 people and includes:

Attendance at the 137 learning events was 4,393 people:

- 2,457 x farmers / producers / pastoralists
- 572 x private consultant / agribusiness / farm advisors / farm consultants / businesses / Industry
- 186 x extension staff
- 128 x grower group network staff / farmer group staff
- 70 x researchers (attendees not presenters)
- 698 x students.
- 5 x DAFF program staff
- 5 x plant breeders
- 272 x attendees at events where the demographic breakdown was not recorded.

Aattendance at the 72 Community wellbeing events was:

- 2,362 attendees in total. Demographics were not collected.

It is important to note in the above attendance numbers that people are likely to have attended more than one event.



Farmers at the 'Improving drought grazing management in the non-arable ranges of the Northern & Yorke Region' Workshop in Roberstown.

The focus areas of the events varied greatly to meet regionally specific issues and topics that were prioritised through the Hub's co-design process. Key themes were improved crop and livestock management to increase drought resilience, longer term planning for the impact of drought and climate change, seasonal planning and decision making, water security on farm, and soil management to increase drought resilience.

Whilst there have been a large number of learning activities delivered covering a wide range of drought resilience topics, a key focus area for the Hub has been developing and delivering learning activities that focus on dry times management options and timely decision making due to the extremely dry conditions experienced across most of South Australia in early and mid-2024. These events were run in conjunction with Livestock SA, the Ag Resilience Program ((FDF) Farm Business Resilience Program), PIRSA, and AWI Extension SA, and were mostly tailored for livestock producers due to lack of pasture growth, diminished feed supplies and a market downturn in livestock prices.

- A series of 72 Red Meat Connect Community BBQs were run across the state in conjunction with the FDF Farm Business Resilience Program and Livestock SA. These were initiated in response to poor market and seasonal conditions having a significant impact on livestock producers in SA. The events focused on wellbeing by providing an activity that encouraged farmer and community connection for community discussion, sharing of experiences, and strengthening of community support networks. The BBQs were extremely popular and well attended with a total attendance of 2362 people.
- Two workshops were held to provide mental health recognition and assistance training to farm advisors and consultants. The workshops enabled participants to recognise the signs of someone suffering from mental health issues, provided them with the skills to address

the situation sensitively and safely, and informed them where to access support for that person.

- A series of eight containment feeding on farm sticky beak days were held across the state in early summer to provide sheep and cattle producers to opportunity to meet with livestock consultants and other farmers who had implemented containment feeding operations on their properties and discuss the benefits and how to best manage any risks. This complimented the 'Containment Feeding to Boost Business Performance' project which was designed and delivered by the SA Drought Hub to upskill consultants and their clients in the adoption of containment feeding as a key livestock management strategy in dry times. This program was attended by livestock cconsultants from across Southeastern Australia with many supported by other Drought Hubs to attend and the project learnings shared with those Hubs for use within their regions A wide range of tools and resources including webinars, decision matrices, and information guides have been produced as part of these projects and are available for producers to assist with timely decision making in dry periods.
- A series of 6 workshops titled 'livestock strategies for the next 100 days' were undertaken to provide information, management options, and decision-making tools for livestock feeding and maintenance during dry Autumn, Winter and early Spring where pastures and on farm feed reserves are depleted. This included animal nutrition requirements, alternate feed sources when hay and fodder is too expensive or not available, lambing and weaning in containment feeding areas, and managing livestock health. These workshops are continuing with a further 3 workshops planned for July and August.



Farmers and advisors at the Livestock Strategies for the next 100 days workshop held in Keith.

- A series of two workshops titled 'Decision support for risk management of farming systems in a variable climate' were held to assist farmers to make informed and timely decisions on cereal crop establishment and management.

Supporting the above learning events which focused on the dry season were a series of climate workshops conducted to inform farmers on the break of season, climate trends, and projections to assist in decision making and climate risk management.

A full list of completed learning activities with attendance numbers at each is provided in the data capture spreadsheet.

5.2 Number and type of products developed for or from learning/training activities (if applicable).

There were 38 products developed for or from Hub supported learning and/or training events. These include workshop materials, field day handouts with information on demonstration sites, videos, podcasts providing an overview of a project and complimentary to workshop, and case studies used as examples during workshops. These are listed under output 1 in this report and on the Data Capture Spreadsheet. Where relevant, these materials have been made available for people to access via group websites and other media include the SA Drought Hub website, YouTube (videos) and streaming services (podcasts).



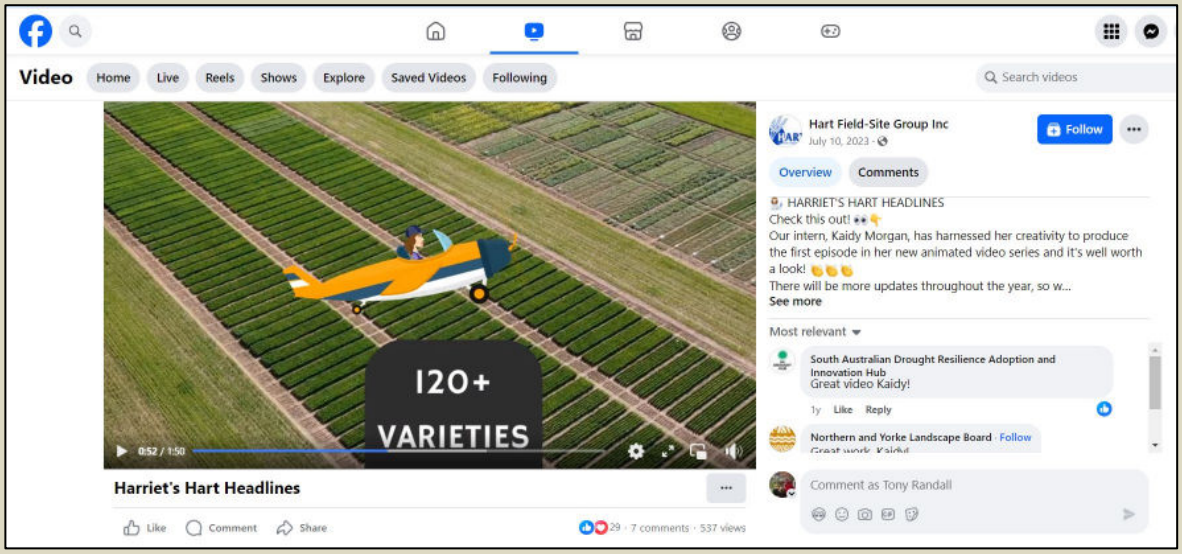
Farmers at a field demonstration site at Minnipa on Eyre Peninsula

Output 6: Hub communication activities plans and products (to be reported via progress report)

N/A - Outputs with associated indicators being reported via progress report.

Whilst SA Drought Hub communications metrics are reported in Progress reports 6 and 7, a range of additional communications activities and products have been undertaken by Hub project leads and partner organisations relating to the Hub funded and supported projects which they are delivering. These are recorded in the data capture Spreadsheet and briefly summarised below.

A total of 119 communications activities and products were delivered to support the delivery of SA Drought Hub projects and programs. This included newsletters and articles, media releases and interviews, social media posts, videos, fact sheets, podcasts, and trials results compendiums and booklets.



Kaidy Morgan's 'Harriet Hart' animated series documented her journey as an intern

Output 7: Trials and demonstrations

Indicators

7.1 Number and type of on-farm (and other) trials and demonstrations of drought resilient practices conducted, and number/type of participants.

The SA Drought Hub has supported 123 on-farm demonstration sites across 113 farms and pastoral properties in the 2023/2024 financial year, including 2 research farms. The focus of these sites is mixed farming (field crops and livestock), cropping (field crops) and rangeland livestock production. All On Farm Trials and Demonstrations are implemented with the assistance of the farmer or pastoralist who is hosting the trial or demonstration on their property. Each of the trials and demonstrations undertaken is displayed in the Data Capture Spreadsheet.



Soil sampling as part of the Variable Rate Technology demonstration sites in Lameroo.

7.2 Number of farmers/primary producers that participated in farm trials and demonstrations of drought resilient practices.

A total of 111 commercial farms and 2 research farms hosted the on-farm trials and demonstrations.

A total of 549 farmers visited the on-farm trial and demonstration sites. Importantly there were 239 advisors, consultants, government Extension officers, project officers, researchers, and grower group staff who also attended the sites and are able to share the knowledge gained with their client and member networks. Additionally, there were approximately 450 undergraduate and postgraduate students using a SA Drought Hub trial and demonstration site at the University of Adelaide Roseworthy Campus established to be part of the curriculum and provide learning outcomes.

All on-farm trials and demonstration sites align with the co-designed priorities identified through Hub consultation. This ensures relevance to local producers from across different regions in SA and alignment to local grower group priorities which in turn increases the amount of attendance at the on-farm trial and demonstration sites. Comments from producers are captured in the Learning Activities Survey responses in the data Capture Spreadsheet.

In response to the question "*The content of this activity was relevant to my needs*" 98 % of the 485 respondents answered strongly agree (34%) or agree (64%). Furthermore, in response to the question "*the content of this activity was relevant in helping me to prepare for, or respond to, future drought*", 93 % of the 485 respondents answered strongly agree (31%) or agree (62%). When learning activity participants were asked if they *'would be confident in sharing your new skills and knowledge with peers'* 93% of the 485 respondents answered strongly agree (23%) or agree (70%).

Whilst not all responses are related to attendance at field trials and demonstration sites, many are, and there is an overall high level of agreeance that Hub activities are relevant to participant needs, helping people prepare for drought, and providing the confidence to share what they have learned with their peers.



SA Drought Hub node Coordinator Fiona Tomney presenting at the early sowing demonstration site at Cowell

Output 8: Co-designed Operational Plans and Activity/Project Plans

Indicator

8.1 Number and type of plans arising from the co-design process.

SA Drought Hub co-design workshops and consultations were held in late 2021 and early 2022. A total of 991 ideas were received through the co-design process and these were grouped into 10 themes which took account of the priority placed on certain areas of drought resilience building, and the opportunities that this presented for project development. The key themes identified through the initial co-design process have continued to guide Hub investment and delivery of the activity workplan. The 10 themes identified in the Operational Plan, Hub program logic, and Activity Work plan are:

11. Community resilience and wellbeing through support, collaboration, and access to technologies.
12. Farm planning and decision making to manage climate and operational risk.
13. Farm business management.
14. Livestock and fodder management strategies, technologies, and innovations.
15. Crop and pasture management strategies, technologies, and innovations.
16. Access to drought information and technical support.
17. Soil and land management strategies, technologies, and innovations.
18. Water security and management strategies, technologies, and innovations.
19. Native vegetation, biodiversity, pest management strategies, technologies, and innovations.
20. Upskilling advisers, researchers, and key influencers.

The Activity Work Plan was reviewed and revised in mid-2023 to reflect the changing priorities of the hub member organisations and the evolution of the Hub. MEL data was used to inform the areas where changes and improvements were being suggested, and this was validated with hub members and staff prior to changes being made.

The revised activity work plan has seen the continuation of the 10 themes but with improved alignment of the associated activities to the project context and delivery needs of Hub members, network partners, and end users. Allowing the Hub to revise the Activity Work plan for implementation in the 2023/2024 financial year has provided the opportunity to ensure the activities of the Hub are best aligned with evolving and emerging grower needs and collective resources of the Hub members. The revised workplan has ensured continuation of Hub activities and enabled outcomes to be delivered through to the end of 2024 whilst a new program of work is being developed as part of the extension phase of the Hub to 2026.

As we move into the next phase of the Hub we will continue to revise strategic and operational documents to ensure alignment with the needs and priorities of investors, hub members and end users. Changes to the role, focus and delivery of Hub programs will also be informed by the Hubs review being conducted by DAFF and an internal review of the SA Drought Hub's governance and program delivery models which is being undertaken by the SA Hub Advisory Board.

Output 9: Outputs from Hub governance activities

Indicators

9.1 Number and type of governance activities: when, by whom, how many and format.

The Hub has an Advisory Group that 1. provides strategic industry, government and community intelligence and feedback, and 2. Support the programs to align with the strategic objectives and priorities of government, industry and regions. The Advisory Group has an independent chair and includes representation from PIRSA, the University of Adelaide, Ag Excellence Alliance, key agriculture commodity representative groups, Local Government Association, Landscape SA and appropriate State Government Agencies. The Advisory Group also meets with representatives from other FDF programs undertaken within SA to ensure communication between FDF programs to avoid duplication and maximise outputs from each program.

The SA Drought Hub has an Institutional Management Committee (IMC) to oversee the governance and management arrangements and progress of the Hub. This includes project approval, Membership and Network Partner additions, budget oversight, progress against the activity work plan, and reporting.



Senior DAFF staff and FDF Consultative Committee Members visited several SA Drought hub project sites in May 2024.

Each Node in the Hub has established a Stakeholder Advisory Group (SAG) that includes representatives from the Hub Members and Network Partners participating in project delivery at each Node and local primary producers. The role of the SAGs is to work with Hub staff to help co-design activities that meet priorities identified through the co-design process and are locally relevant on the ground. The SAGs act as a sounding board, helping to refine projects and bringing together local providers, producers, and resources to enhance projects.

Senior Hub staff conduct a weekly management meeting to plan for and manage upcoming events, project delivery, funding opportunities, reporting, stakeholder engagement, communications, and other operational matters that arise. Senior staff discuss weekly workplans and allocate tasks that require attention to personnel accordingly.

All Hub staff conduct a fortnightly operations meeting to identify and discuss project delivery opportunities, update progress of current projects, share project results, look for opportunities for cross node collaborations, and discuss weekly workplans.

The following governance meetings have taken place:

- 4 x FDF Advisory Board meetings,
- 7 x Institutional Management Committee (IMC) meetings,
- 6 x Node Stakeholder Advisory Group (SAG) meetings
- 46 x weekly Hub Management meetings
- 22 x fortnightly Staff Operations meetings

Additionally, there are meetings with the finance, legal, and other administrative teams from the University of Adelaide if matters arise or require clarification to ensure compliance with the Head Agreement, the Hub Collaboration Agreement, reporting requirements, and all relevant legislation.

9.2 Changes and challenges in Hub's governance since the inception of the Hub.

There is a high level of satisfaction expressed by people and organisations directly involved in the Hub as indicated through the Hub Member Survey completed during May and June 2024. The survey was distributed to 210 people involved in the Hub across the following stakeholders:

- All FDF Advisory Board members and IMC Members
- All Stakeholder Advisory Group Members
- All Project Lead Organisations
- All Hub Member and Partner Organisations
- Government participants in the Hub
- Collaborators / Investors
- All Hub Staff

A total of 77 responses were received from the 210 survey recipients (37% return rate) with the table below showing the number of responses for each role within the Hub. It is important to note that many of the organisations and people engaged in the SA Drought Hub have more than one role and people were asked to complete the survey for the main role they undertake within the SA Drought Hub.

Role within the Hub	Number of responses
Collaborator / Investor	4
Government	9
Hub Member	15
Hub Network Partner	9
Hub team / staff	9
Project Lead Organisation	17
SA FDF Advisory Board Member or IMC	2
Stakeholder Advisory Group Member (SAG)	12
TOTAL	**77**

In response to the member survey question: *How satisfied are you with the opportunities to ask questions about the Hub priorities and planned activities?* 87% of the 77 respondents were satisfied (47%) or very satisfied (40%), with 13% of respondents either dissatisfied (9%) or very dissatisfied (4%).

In response to the member survey question: *How satisfied are you with the opportunities to provide your thoughts and inputs on the Hub priorities and planned activities?* 83% of the 77 respondents were either satisfied (43%) or very satisfied (40%) with 17 % of respondents either dissatisfied (10%) or very dissatisfied (7%).

In response to the member survey question: *How satisfied are you with the extent to which your input is valued and ultimately influences Hub priorities and planned activities?* 79% of the 77 respondents were either satisfied (44%) or very satisfied (35%), with 21 % of respondents either dissatisfied (12%) or very dissatisfied (9%).

In response to the member survey question: *How satisfied are you with the day-to-day functioning of the Hub?* 45% of respondents felt that this question was not applicable to them as they don't have involvement in the 'day to day' functioning of the Hub. 33% of the 77 respondents were either satisfied (27%) or very satisfied (6%) with 22% of respondents either dissatisfied (14%) or very dissatisfied (8%). Respondents who expressed dissatisfaction came exclusively from three stakeholder groups: Government, Stakeholder Advisory Groups, and Hub staff. This is attributable to the following:

- Government: Apparent misalignment of expectations on the Hub and contrasting understanding about the role of Hubs as defined in the Purpose of the Grant.
- Stakeholder Advisory Groups: The group meetings have been infrequent and adhoc leaving some members to question the value of the groups. Some group members are not clear on the role and purpose of the groups, and feel the Hub is not engaging them effectively or utilising their knowledge and skills as well as it could be.
- Hub Staff: The Hub brings together staff members from four different organisations and this has highlighted differences in organisational culture and differing perceptions of their role and function within the Hub. Additionally, there has been some degree of disagreement on the scope and role of the Hub with regards to program and project delivery. This has led to a level of tension between, and inconsistent messaging from, the different organisations who host staff as part of the Hub. These tensions have also highlighted issues with the current governance model of the Hub.

The SA Future Drought Fund Advisory Group is currently undertaking an independent consultation spanning Hub scope, governance and implementation model to help inform any enhancements in the current Hub (to June 2026) and for post-2026.

The following governance related challenges have been encountered by the Hub in this reporting period:

- The SA Drought hub has been extremely engaged in the agriculture sector across SA and has, as a result, been very visible. This has placed the Hub as the central point for people and organisations seeking drought resilience information in SA and has increased workload in referrals
- There is an opportunity for greater connectivity between FDF programs, specifically at the program development and design phase. Whilst we currently engage well with the other FDF programs being delivered across SA, this is largely through collaboration, co-

investment and co-delivery of programs and projects rather than a deeper co-design and program integration which is needed in the development phase to be effective and viable.

- The Hub's Institutional Management Committee, made up of University of Adelaide and the Department of Primary Industry and Regions, together with Hub Management Committee, has on occasion impeded project co-design and/or budget approval. This may be associated with misalignment of expectations and lack of common understanding of the purpose of the Hub. This has been subsequently clarified with DAFF-FDF team to seek to address the lack of common understanding.
- There remains duplication of information provision across the progress reports, MEL reports and data capture spreadsheet. MEL reporting should be streamlined to provide the required information for the achievement of key nationally consistent outcomes that align with the common scope and purpose of Drought Hubs. The SA Drought Hub outputs are often reported in both MEL and progress reports due to the structure and content of the SA Drought Hub Activity Work plan. We believe there should be one report for outputs, the data capture spreadsheet, shared across progress and MEL reporting, one report for outcomes, and one report on progress.
- The key audience of the Hub is primarily farmers and farmer / grower groups, with many of the Hub projects delivered on the ground through these groups in order to leverage their extensive farmer networks across the state. As not for profit community-based organisations, it is often difficult for them to find the in-kind contributions that are required to meet FDF program expectations.
- Whilst Hub membership has increased since the inception of the Hub, there is the same number of resources available through the Hub to engage the member base meaningfully. This has meant that increasingly we are looking for external opportunities to pull into the Hub's sphere in order to maintain active and effective engagement with the full member base.
- Admission of new Hub members is onerous under the Collaboration Agreement terms. This presents a potential barrier to engagement and participation when building drought resilience. This impediment seems to be counter to intent of the Drought hubs program and the FDF more broadly. Currently, engagement with non-Hub Members is through a network partner mechanism.
- Whilst the Hub has extensive collaboration with several RDCs at a project level these have had to been in a separate but linked arrangement owing to intellectual property requirements/considerations. This would ideally be addressed at a Hubs program level to enable formal collaboration in the future
- Hub program timeframes to date haven't given certainty to potential major co-investors on the longevity of the hubs and our ability to address complex issues over the longer time periods that these issues require for resolution. Initiation of the 6-year Hubs program 2026 to 2032 will go a long way to addressing this.

Output 10: Drought commercialisation initiatives

Indicator

10.1 Number, type and purpose of commercialisation activities, and Hub's role.

There has been interest from grower groups and commercial companies on the demonstration of newly commercialised products which contribute the addressing the priorities identified through the hub's co-design. This has led to their contribution and involvement in projects being delivered by the Hub.

- There has been ongoing interest in improving on-farm water security using innovative remote sensing systems. The project has been run since 2022 and has had a high degree of interest from producers in the Barossa Ranges region where the project has been delivered. This year the project has expanded to Kangaroo Island with producers there also wanting to understand to benefits that remote sensing water management systems could offer them. There is also interest from a further two regions to undertake similar projects in late 2024 or 2025. Video and written case studies have been developed with producers who hosted the demonstration sites providing their opinions on the technologies. See videos here and case studies here. This coming year will see additional return on investment analysis undertaken on the remote sensing systems to further encourage adoption on farms.

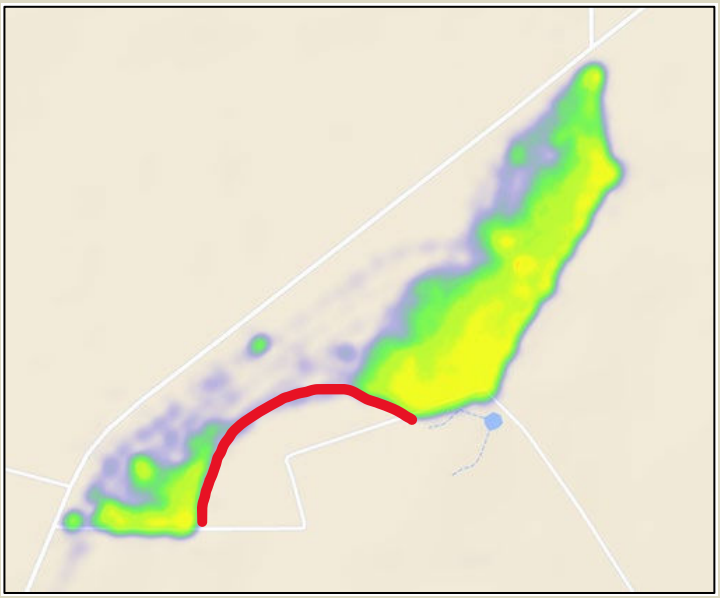


The Kallipr LoT water quality monitor operating at a vineyard in Eden Valley.

- The use of Variable Rate Fertiliser Application technologies has been employed on several farms in the South Australian Mallee. This has allowed farmers to apply fertilizer as needed to different soil types and areas within paddocks rather than using blanket applications that can see over or under fertilizing. The fertiliser cost savings and benefits of targeted crop nutrition have been significant and have assisted farmers to be more profitable in the better years through saving money on fertiliser inputs and increasing yield. This in turn increases resilience in the poorer years through being in a better economic position and having soils with optimal fertility.
- The SA Drought hub has supported a virtual fencing trial at the Minnipa Research Centre on Eyre Peninsula. The aim of the field trial has been to exclude fifty merino ewes from a sandy rise in a stubble paddock using virtual fencing and modified cattle virtual fencing collars. The purpose is to determine if virtual fencing can be used to protect areas in paddocks with lighter textured soils that are prone to disturbance from stock and subsequent wind erosion. The trial took place over a three-week period and the exclusion was very

successful. The virtual fencing system was able to keep sheep from accessing the protected area within the paddock for the entire trial period. The image below shows the movements of the sheep in the paddock throughout the trial with the red semi-circle area at the bottom of the image indicating where the virtual fence was located. In addition to the success of the virtual fencing technology, the sheep gained body condition throughout the trial period indicating that this application did not have a negative impact on production.





A virtual fencing collar being applied to an ewe and A heat map showing the movements of the sheep in the paddock throughout the trial

The SA Drought Hub has worked closely with Beanstalk as part of the Drought Venture Studio. This included delivery of an innovation discovery session involving advisors and researchers to identify the key opportunities and areas for the development of new technologies in South Australian Farming Systems. The hub also arranged and hosted Beanstalk staff on site visits to commercial farms to see how they operate and to discuss farmer needs for new and /or improved technologies. We have actively promoted the Drought Venture Studio program and the opportunities it presents to a wide range of Hub members who operate in or have interest in ag tech, innovation and commercialisation opportunities

2) Hub Specific Outputs

Hub Specific Output 1: Establish a Drought Resilience Innovation Scheme.

This output was developed to directly report on Activity 3 of the SA Drought Hub's original activity work plan titled '*Establish a Drought Resilience Innovation Scheme'*. A review and realignment of the Hub Activity Work Plan in early 2023 saw this outcome renamed to '*Establish Innovative Drought Resilience Projects'* to better reflect the needs identified as Hub priorities and delivery mechanisms evolved.

Given the 2023 amendment to the activity workplan this output is now redundant. The reporting that relates to this outcome is now captured under outputs 1, 5, 6, and 7, in this report and any

reporting as a Hub specific output would be a duplication of what has been reported under outputs 1, 5, 6, and 7.



Participants at the Easy VRT Workshop in Loxton

6. Case Studies

The SA Drought Hub has completed a range of case studies, both through member organisations and initiated by the Hub. These are in written, video and podcast formats and cover a range of topics and projects being undertaken by the SA Drought Hub.

Written

1. SA Drought Hub Impact
2. Demonstrating soil zone mapping for variable rate nutrition management
3. Containment feeding to boost business performance and resilience
4. Utilising satellite imagery in the growing season to inform adaptive management
5. Improving on-farm water security using innovative remote sensing systems
6. Drought management for the health and longevity of perennial horticulture plants
7. Ngarrindjeri Climate Yarning Circles
8. Developing Capacity in Grains Research via Intern impact

Video

1. On-Farm Water Innovations
2. On-Farm Water Innovations 2
3. Ngarrindjeri Climate Yarning Circles
4. Cropping without Glyphosate

Podcast

1. Todd Woodard – mitigating dry seasons with good decision-making
2. James Kerr – building drought resilience on Buckleboo Station
3. Prosperous pastures – managing your feedbase for dry conditions
4. Livestock containment: building drought resilience with Cam Nicholson
5. When do I let sheep out of containment in a dry season?

7. Methodology

The SA Drought Hub has collected data using reporting templates, the Hubs MEL program Participant Evaluation Survey, and Member Survey. Additional questions relating to property size have been added to the Learning Activity Survey to gauge the area over which people expressing an intent to adopt changed practices may employ them. This information has also enabled the Hub to identify the scale of farm operations being represented at learning events and to tailor the events towards this.

Both surveys (learning activity participant and Hub member) are available for users to complete online using the 'JotForm' platform. This has enabled event participants and Hub members to complete the survey on their smart phones, with data automatically populating a spreadsheet that is consistent with the Data Capture Spreadsheet. The online survey eliminates the need to scan paper copies and enter data to a spreadsheet after learning activities, saving considerable time. Results are received and collated into a format mimicking the data capture spreadsheet making it easy to transfer the data for bulk analysis and reporting and enabling the hub to provide event feedback to the project lead organisations and presenters in a rapid manner, usually the next day. Hard copies of the surveys are still required for instances where there is limited or no mobile phone reception, for people who don't have a smart phone at the event, or where their phone battery is flat.

Collection of data, achievements, learnings, and end user feedback on Hub funded projects is undertaken through project reporting templates which are completed by a nominated project lead organisation. Project progress reports are submitted six monthly in line with Hub progress reporting to DAFF. These have eight sections which seek written feedback on the associated activities and contain tables that align with the Data Capture spreadsheet for each activity type. This allows the reports to be easily integrated to the data capture spreadsheet and provides significant narrative for use in MEL reporting. Project lead organisations only need to complete the relevant sections for the project they are delivering. Feedback is sought from report users on the how they have found the report to complete, improvements that could be made, the level of awareness of the Hub, and whether the organisation would like further Hub support.

The eight categories in the Hub progress report are:

1. Project summary
2. Learning activities and events
3. Interns, students and trainees
4. Communications activities
5. On-Farm trails and demonstrations
6. Drought resilience tools and products
7. Commercialisation opportunities.
8. Report submission and feedback.

A meetings and events record sheet is maintained by all Hub staff to record the meetings and events they attended, the audience type and number and the purpose of the meeting or event. This has been extremely useful in understanding the number of growers, extension officers, and industry people the Hub has reached and the level of awareness raising the Hub has achieved.

A series of written, video, and podcast case studies have been developed to showcase the outputs and impact of the SA Drought hub programs and mechanisms that have been employed to engage farmers in the program. These are provided in section 6. Case Studies of this report.

The SA Drought Hub maintains a regional presence through our regionally based staff including Node Coordinators, Adoption Officers, the Knowledge Broker, and Innovation Broker. This has seen effective relationships built with regionally based groups and organisations, and with growers.

Information and quotes from conversations with hub members and end users is captured and incorporated into reporting.

Project Progress report templates, project and branding and communication guidelines are made available on the newly updated SA Drought Hub resources page on the website so current versions are always available and can be accessed at any time by the people completing them.

8. Lessons Learnt

The following are the top ten lessons learned over the duration of the SA Drought Hub:

Lesson 1. Much of South Australia is experiencing very challenging seasonal conditions. The Hub has been able to work with many stakeholders in delivery of workshops focused on timely decision making for drought resilience. The feedback from these workshops on their value for business preparedness, planning and decision making during challenging seasonal conditions has been very favourable and highlights an important area of effort for the Hub.

Lesson 2. Projects that span RDE&A continue to be effective at building collaboration between researchers, grower groups, Landscape Boards, and industry service providers at scale. There is a high impact on the ground from projects that deliver productivity resilience and enhanced environmental outcomes, and growers are seeking these projects.

Lesson 3. Having a large number of member / partner organisations in the Hub can make it difficult to find a purpose for everyone. We need to ensure every member has a meaningful role and can actively participate and contribute to Hub activities.

Lesson 4. The ability for the Hub to add-value to existing initiatives (e.g. with RDCs) has enabled highly cost-effective delivery models to be put in place. An example of this is the GRDC RiskWi$e (National Risk Management Initiative) Program where the Hub has co-invested alongside three GRDC RiskWi$e projects being delivered in SA.

Lesson 5. The Hubs provide a unique opportunity to co-design projects/activities aligned with priorities. There continues to be some degree of opposition to this process from a limited few individuals and organisations as they are accustomed to competitive grant rounds with fewer collaborators in projects. This shows a need for consistent communication from all hub team to ensure best engagement outcomes for all stakeholders.

Lesson 6. The effectiveness and impact from FDF programs is maximised where there is a degree of on-the-ground coordination between the program delivery organisations. There are common target stakeholders across the range of FDF Programs who can be engaged more efficiently when FDF program delivery is initiated from the project planning stages through a coordinated engagement and co-design process.

Lesson 7. The SA Hub model of state-wide design and coordination coupled with local delivery and empowerment has been highly effective in implementation of high impact activities e.g. 'time of sowing' projects and the MFMG led 'Filling Feed Gaps' project as shown in the Data Capture Plan.

Lesson 8. The need for a constant focus on end outcome and impact of project and program delivery and not just awareness raising requires capacity and capability building in extension program delivery. The Adoption Officers have been highly valuable in achieving this in the SA Drought Hub.

Lesson 9. There is real and tangible value to all stakeholders in having a national network of Drought Hubs to tackle national and multi-hub topics whilst still retaining local engagement and delivery models.

Lesson 10. It takes time to build trust and effective relationships and partnerships in regional communities, particularly when funding commitments are uncertain, and program longevity is unknown. This is becoming even more important with the engagement of First Nations communities and the development of On Country project delivery.



Farmers and advisors at the Livestock Strategies for the Next 100 Days Workshop in Mount Compass.

Appendix A: Hub Learning Activity Survey

The SA Drought Hub collects learning activity participant survey data to evaluate the effectiveness and level of participant satisfaction with the events, and to guide improvements to Hub program delivery. The data collected in the surveys is also provided to the organisation/s and people organising, hosting, delivering, and presenting at the events so they can gauge the level of satisfaction and tailor future events and presentations to better meet end user needs and expectations. The data is also provided to DAFF as part of our annual MEL reporting. The Hub Learning Activity Survey is provided below.

SA DROUGHT HUB

Learning Event Activity Survey

The feedback you provide in this survey will assist in guiding improvements of SA Drought Hub supported projects to continue to best meet local producer and adviser needs. The information will be collated with other projects from across the state to inform SA Drought Hub activity design for the continuing monitoring, evaluation and learning process of the Hub. Information will also be collated at a national level to guide improvements and future delivery of National Future Drought Fund Programs. Only data which has been de-identified will be shared with the Department.

We would like to thank you for providing this feedback as it is important to ensure the projects and events we are running are of benefit to you and your community.

Please fill out the form below and return it to your presenter
OR
Complete it online by scanniung this QR code.

Event or presenter name and date: .....

Demographics

1. **What is your age?** Please circle

15-24	35-44	55-64	75-84
25-34	45-54	65-74	85 and over

2. **How do you describe your gender?** Please circle

Male	Female	Non-binary	Other	Prefer not to answer

3. **Are you of Aboriginal or Torres Strait Islander origin?** Please circle.

No	Yes, Aboriginal	Yes, Torres Strait Islander	Yes, both Aboriginal and Torres Strait Islander	Prefer not to answer

4. **Which of the following categories best reflects the capacity you attending this event in?** Please circle.

- Farmer/Primary producer
- Farming Systems Group/Grower Group
- Agribusiness
- Landscape Board
- Funding body/RDC
- Extension or training provider
- State Government
- Local Government
- Federal Government
- First Nations/Indigenous Group
- Not for profit organisation
- Other private business
- Researcher/academia
- Other (please s

Questions 5, 6, and 7 only apply to those who selected 'Farmer/Primary producer above

5. **What Local Government Area (LGA) is your farm/property located in?**

If it is located across multiple LGAs, which LGA is most of your farm/property located in?

For properties in the Pastoral Unincorporated Area please use Outback Communities Authority (OCA).

LGA Name: ……

6. **Which of the following categories best describes the main agricultural sector of your farm business/primary production enterprise?** If you operate across multiple industries, please indicate the main industry/sector:

- Grains / legumes / field crops
- Sheep Farming
- Beef Cattle Farming
- Sheep-Beef Cattle Farming
- Beef Cattle Feedlots
- Grain fed-Sheep or Grain fed -Beef Cattle farming
- Dairy Cattle Farming
- Pig Farming
- Poultry Farming (meat)
- Poultry farming (eggs)
- Grape Growing
- Citrus Fruit Growing
- Apple and Pear Growing
- Stone Fruit Growing
- Olive Growing
- Berry Fruit Growing
- Other Fruit and Tree Nut Growing
- Vegetable Growing (outdoor)
- Vegetable Growing (indoor)
- Beekeeping

1

7. **What is the size of the property or properties that you manage?** ……..Ha or ……..Acres

For pastoral Properties only ……Km2

Activity specific questions

Activity description and objective. Please tick relevant box.

Activity Specific questions	Not applicable	Strongly disagree	Disagree	Agree	Strongly agree
The content of this activity was easy to understand					
I would be likely to consult/use the materials provided again					
I would be confident in sharing new skills and knowledge with peers					
The content of this activity was relevant in helping me to prepare for, or respond to, future drought					
The content of this activity was relevant to my needs:					
As a result of what I've learned here, I am likely to change my practices and/or adopt a new technology:					

8. What are some of the practice changes you are considering making as a result of this activity / event?

……

9. What made the content either relevant or not relevant to your needs?

……

10. Do you have any additional comments that you would like to make?

……

Appendix B: Hub Members Survey

Member and Partner Survey

This survey is intended for the South Australian Drought Resilience Adoption and Innovation Hub (SA Drought Hub) **consortia members and partners**– all parties receiving FDF funding and/or making co-contributions to the Hub.

The purpose of this survey is to gain insight into the collaborative effort and efficiency of the SA Drought Hub. Survey responses are anonymous. The survey has 14 questions and should take no more than ten minutes to complete. The information will be used to identify where improvements can be made to the SA Drought Hub's governance and management structures, and program and project delivery mechanisms. The information will also assist in understanding the areas and activities you feel the Hub should focus on. The de-identified information is also reported to the Department of Agriculture, Fisheries and Forestry (DAFF)as part of our regular reporting process to guide improvements in the delivery of the Future Drougtht Fund Drought Hubs Program nationally.

Thank you for taking the time to complete this survey. It will provide us with important information to guide improvements to the delivery of the SA Drought Hub and the outcomes we achieve.

1. Briefly describe your role in the Hub:

   Nb: Where you have multiple roles please select the role

   - Hub Member
   - Hub Network Partner
   - Project lead (Project Lead Organisation)
   - Hub Collaborator
   - South Australian FDF Advisory Board (Board Member)
   - Stakeholder Advisory Group Member (RDE&A Committee member)
   - Institutional Management Committee (IMC) (Hub steering committee)
   - Hub or Node employee
   - Other, please specify

2. Which Node/s do you work within / associate with
   i. Minnipa (Upper Eyre Peninsula)
   ii. Port Augusta (Pastoral)
   iii. Orroroo (Upper North)
   iv. Roseworthy (Mid North, Yorke peninsula, Northern Adelaide Plains)
   v. Loxton (SA Murray Mallee, Riverland, Upper Southeast)
   vi. Struan (High Ranfall – Lower South East, Kangaroo Island, Adelaide Hills and Fleurieu Peninsula, Lower Eyre Peninsula)
   vii. All Nodes

3. Briefly describe your level of involvement in delivering Hub activities (e.g., full-time or part-time on Hub activities). If part time, what is the amount of time you spend on hub activities

   _____

4. How satisfied are you with the opportunities to ask questions about the Hub priorities and planned activities?

	Very dissatisfied		Dissatisfied		Satisfied		Very satisfied

5. How satisfied are you with the opportunities to provide your thoughts and inputs on the Hub priorities and planned activities?

	Very dissatisfied		Dissatisfied		Satisfied		Very satisfied

6. How satisfied are you with the extent to which your input is valued and ultimately influences Hub priorities and planned activities?

	Very dissatisfied		Dissatisfied		Satisfied		Very satisfied

7. How satisfied are you with the day-to-day functioning of the Hub?

	Very dissatisfied		Dissatisfied		Satisfied		Very satisfied		I'm not involved in the day-to-day functioning of the Hub

8. Please provide any additional comments on the how the current collaboration and partnerships are functioning:

   _____

9. Please provide any additional comments on what you think could be improved in the Hub's governance processes:

   _____