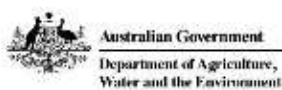




# South Australian Drought Resilience Adoption and Innovation Hub

## Node Co-Design Workshops Report



This project received funding from the Australian Government's Future Drought Fund

## EXECUTIVE SUMMARY

In August, September, and October 2021, the South Australian Drought Resilience Adoption and Innovation Hub conducted a series of regional workshops across the State to identify each region's priorities to strengthen their drought preparedness and resilience.

A total of 279 people participated in the in-person and online hybrid Node workshops at Wudinna, Port Augusta, Loxton, Orroroo, Roseworthy, Naracoorte, and Coober Pedy.

The workshops, which were open to all community members, attracted a good cross section of producer and industry representation.

The seven workshops and additional feedback generated a total of 991 ideas, providing the SA Drought Hub with the confidence that responses to questions around drought preparedness were well canvassed.

Workshop participants identified that community, and farm business operations and financial resilience would need to all be realised before drought resilience could be achieved.

A consistent message from participants was for organisations, programs and projects to work more collaboratively to avoid duplication and optimise outcomes on the ground. Participants felt that this could be improved from current delivery models which they viewed as often being disconnected from community.

Other key messages delivered by participants included the need for their involvement in the design and delivery of programs that were being implemented in their communities.

Community resilience and wellbeing was a prominent topic at all workshops. Many of the ideas proposed related to maintaining services and town businesses in the community, provision of services and activities for a range of ages and interests, retention of people in local areas, and measures to attract new people.

Capacity to maintain these services in regional communities was also discussed as a significant issue at a number of the workshops.

This report captures the comprehensive feedback and input provided during and after the workshops.



*Figure 1: The Orroroo Node Workshop*

## Acknowledgements

The SA Drought Hub sincerely thanks everyone who participated in the seven workshops or provided additional feedback through group facilitated workshops and directly to the Hub.

The breadth of input and ideas provided will inform and help underpin the co-design process and will be used to guide the design and delivery of projects in each of the Node regions.

The success of the SA Drought Hub can only be realised through partnerships and collaboration. We acknowledge the valuable contributions and support from each of the SA Drought Hub partners. Without this support the Hub would not be able to deliver the volume and quality of work required to build drought resilience across South Australia through adoption on farm and in communities.

The SA Drought Hub is proudly co-delivered by:



## SA Drought Resilience Adoption and Innovation Hub Members

### Grower Groups

- Ag Excellence Alliance (Ag Ex)
- Agricultural Innovation & Research Eyre Peninsula (AIR EP)
- Agricultural Bureau of South Australia
- Barossa Improved Grazing Group (BIGG)
- Buckleboo Farm Improvement Group (BFIG)
- HART Field Site Group (HART)
- MacKillop Farm Management Group (MFMG)
- Mallee Sustainable Farming (MSF)
- Murray Plains Farmers Group
- Upper North Farming Systems (UNFS)
- South Australian No-Till Farmers Association (SANTFA)

### Universities

- The University of Adelaide (UoA)
- Flinders University (Flinders)
- University of South Australia (UniSA)
- UniHub Spencer Gulf

### Government

- Bureau of Meteorology
- Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- Department of Primary Industries and Regions (PIRSA)
- Indigenous Land and Sea Corporation (ILSC)
- Landscape South Australia including Eyre Peninsula, Hills and Fleurieu, Kangaroo Island, Limestone Coast, Murraylands and Riverland, Northern and Yorke, and Arid Lands Landscape Boards
- Legatus Group

- Local Government Association (LGA)
- Outback Communities Authority (OCA)
- Regional Development Australia (RDA) - RDA Far North and RDA Whyalla & EP
- South Australian Department for Environment and Water (DEW)

### Agribusinesses

- AgCommunicators
- Australian Grain Technologies (AGT)
- FarmMap Analytics
- Naracoorte Seeds
- Rural Business Support (RBS)
- Elders Rural Services including Thomas Elder Institute (TEI)

### Industry RD&E Partners

- Meat Livestock Australia (MLA)
- South Australian Cattle Industry Fund
- South Australian Grain Industry Trust (SAGIT)
- South Australian Sheep Industry Fund

### Peak Industry bodies

- Primary Producers SA (PPSA)
- Grain Producers SA (GPSA)
- Livestock SA

### Industry Organisations

- Landcare Australia
- Murray Darling Association (MDA)
- Australian Society of Soil Science
- Southern Australia Livestock Research Council (SALRC)

The SA Drought Hub continues to welcome new partners who are able to provide positive contributions towards the Hub's objectives and programs.

## Introduction

The SA Drought Hub is one of eight drought hubs being established across the nation through the Australian Government's Future Drought Fund. Led by the University of Adelaide, the SA Drought Resilience Adoption and Innovation Hub comprises the core Hub at the University of Adelaide's Roseworthy Campus, and five regional nodes at Minnipa on Eyre Peninsula, Port Augusta in the Far North, Orroroo in the Upper North, Loxton in the Riverland, and Struan in the South-East. The location of the Nodes ensures state-wide coverage of all pastoral, low, medium and high rainfall agricultural production zones, and horticultural and viticultural production regions.

The 59 partners involved in the SA Drought Hub are collectively injecting \$11.47 million of cash and in-kind support into the Hub. This is in addition to the initial \$8 million of funding over four years from the Australian Government's Future Drought Fund.

A key platform of the SA Drought Hub is to undertake a co-design process with Hub partners and the wider agricultural community throughout South Australia. This aims to determine the highest priority and most effective measures that should be progressed in each of the Node areas to realise adoption and practice change for increased on-farm resilience to drought and dry times. Figure 2 shows the principles which are being employed in the co-design process.

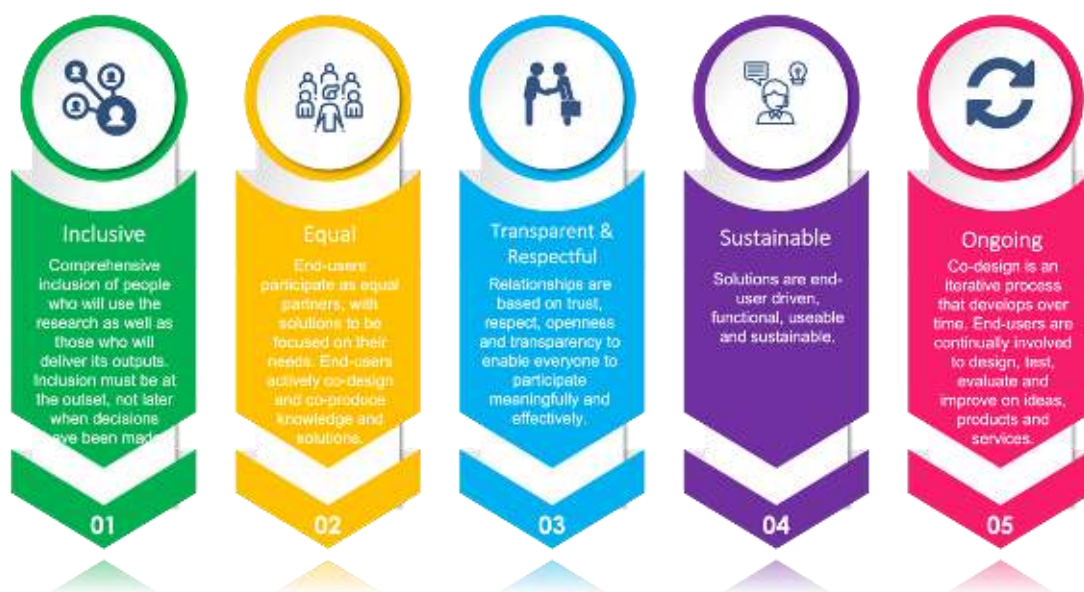


Figure 2: The principles of co-design – Source: Australian Government - Future Drought Fund Website

## Node Workshops

To commence the co-design process, a series of seven workshops were held in each of the Node regions and at the central Drought Hub at Roseworthy. These were conducted between August 26, 2021, and October 22, 2021, with dates and locations listed below:

- Eyre Peninsula (medium & low rainfall) – Wudinna Community Club, Thursday, August 26
- Pastoral Zone (South) (rangelands) – Port Augusta Central Oval, Friday, August 27
- Murraylands & Riverland (low rainfall, viticulture, horticulture) – Loxton Hotel, Monday, September 13
- Upper North (low rainfall) - Blacksmith's Chatter, Orroroo, Tuesday, September 14
- Mid North (medium rainfall) - University of Adelaide Roseworthy Campus, Thursday, September 16
- South-East / Mount Lofty Ranges (high rainfall) – Naracoorte Town Hall, Friday, September 17
- Pastoral Zone (North) (rangelands) – Coober Pedy Greek Club, Friday, October 22<sup>nd</sup>

Each workshop ran for four hours, with a total of 279 people participating in the seven workshops. Opportunity was provided to attend in person or online, with 78% of all people attending in person and 22% attending online.

- |                |  |
|----------------|--|
| • Wudinna      | 34 people (26 in person and 8 online)  |
| • Port Augusta | 28 people (22 in person and 6 online)  |
| • Loxton       | 56 people (48 in person and 8 online)  |
| • Orroroo      | 51 people (41 in person and 10 online) |
| • Roseworthy   | 44 people (33 in person and 11 online) |
| • Naracoorte   | 49 people (32 in person and 17 online) |
| • Coober Pedy  | 17 people (all in person)              |

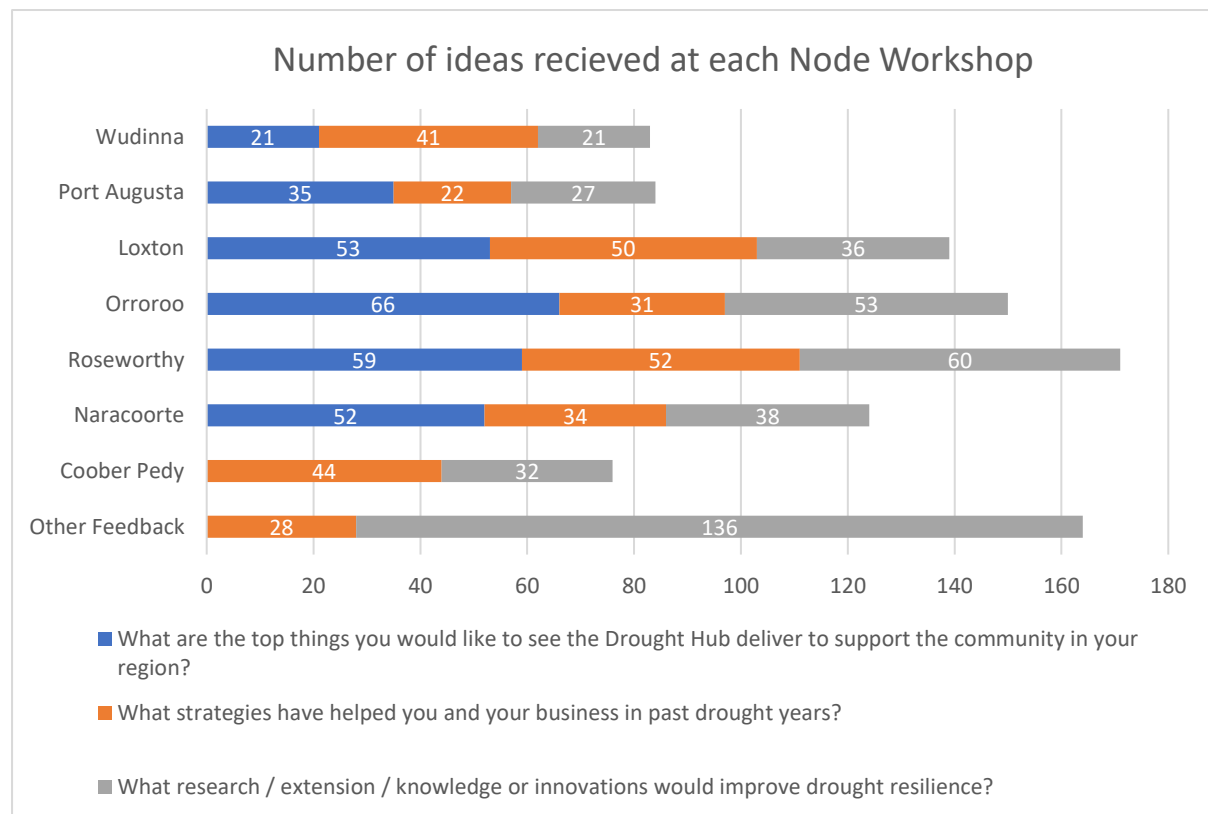
Further feedback was encouraged from workshop participants who had additional ideas on drought resilience after the workshops had been completed, from people who were unable to attend the workshops, and from mini workshops held opportunistically at meetings organised by Hub partners.

All workshops except for Wudinna and Coober Pedy were conducted using Group Map, a web-based program that allows workshop participants to add their ideas online to the questions being asked, and for participants to also comment on the ideas being put forward. This allowed for ideas to be built upon, linked, and validated/voted on by all participants in a real-time and transparent manner. Three key questions were asked at each of the Node workshops and when receiving additional post-workshop ideas. These were:

1. What are the top things you would like to see the Drought Hub deliver to support the community in your region?  
*(Consider what YOUR community needs to be resilient)*
2. What strategies have helped you and your business in past drought years?  
*(Consider: Technology > Farming Systems > Business planning)*
3. What research / extension / knowledge or innovations would improve drought resilience?  
*(Consider: Applied Research > Application > Varieties > Farming system > Future Research)*  
*Participants were asked to vote on what they saw as the highest priorities for this question.*

*NB: Question 1 was not asked at the Coober Pedy meeting as the focus for this workshop was on the drought resilience needs of pastoral properties and their operations. Feedback received outside of the workshops also focused on what had worked previously and what was needed to build drought resilience.*

A total of 991 ideas were received from workshop participants and through other feedback received post-workshop. Each of the ideas received from participants is listed in Appendices A, B, and C, whilst Figure 3 below shows the total number of ideas received for each of the three questions asked at each Node workshop.



*Figure 3: The number of ideas received for each of the three questions asked at each Node workshop.*

All workshop ideas received by participants were grouped by SA Drought Hub staff into 10 themes to assess the most important issues within each Node area. Data analysis for each workshop was based upon the themes, whilst the project development phase of the co-design process will use the themes and the ideas presented at the workshops to identify and design the projects in each Node area. The themes and their brief descriptors are shown in Table 1, whilst Table 2 shows the number of ideas received for each theme collectively across all workshops and from other feedback.

*Table 1: Themes that emerged from the Node Workshops and their descriptions.*

Theme Number	Theme	Description
1	Access to drought information and technical support	A one-stop shop for drought information. Improve farmer and community access to and knowledge of the full range of drought resilience, management, and support opportunities and initiatives. This includes wellbeing initiatives, family and community support services, community engagement initiatives, financial support, and technical support. Provision of technical support and information directly to growers relating to farm management and operations that increase resilience to drought.
2	Community resilience and wellbeing through support, collaboration, and access to technologies	Develop community leaders, build capacity and resilience in individuals and groups, identify and address community strengths and weaknesses to increase overall community resilience. Delivery of ongoing community-based support services, events and initiatives that support communities to build networks, capacity, and resilience. Ensure community service providers are directing service provision towards businesses under stress. Undertaking actions and activities that support town and community services so they are prepared for drought and are better equipped to manage through drought. Increase collaboration in project delivery between agencies, organisations and the community to tailor to local needs and maximise community participation. Access to reliable and fast internet services to enable the adoption and use of current, new, and emerging technologies that enhance on-farm production systems and community connectivity to services and networks. Ensure regional built infrastructure that contributes to drought resilience is maintained, improved and fit for purpose.
3	Farm Business Management	Improving farm business financial preparedness for drought and financial management during drought. Access to and adoption of financial risk management strategies to buffer against production and market variabilities. Improved financial literacy, diversification of income source, and financial reserves to improve business sustainability and longevity.
4	Farm planning and decision making to manage climate and operational risk	Adoption of farm management planning processes and decision support tools to improve farm operational decision making. Use of trigger points to determine farm management actions. Improve interpretation of weather forecasting information and link forecasts to farm management actions Improve forecasting accuracy and reliability. Use of BOM climate services for agriculture and other credible weather and climate forecasting tools and information to guide on farm decision making and manage risks. Use of the drought resilience self-assessment tool (DRSAT) and other benchmarking tools and products to identify farm business and management risks and opportunities.
5	Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Implementing initiatives that increase on farm and landscape scale resilience of the natural resource base through native vegetation management, biodiversity enhancement and pest plant and animal management. This includes enhancement of natural capital and provision of ecosystem services. Promote and encourage opportunities for carbon farming.

		Support for the access, testing and adoption of technologies that will assist growers to drive innovation and prepare for drought, build on farm resilience to drought, and manage farm operations leading into and during drought.
6	Soil and land management strategies, technologies, and innovations	<p>Undertake initiatives and activities that increase and maintain the health and function of soils to improve the resilience and sustainability of crop and pasture production.</p> <p>Promote and encourage opportunities for carbon farming.</p> <p>Increase water and nutrient holding capacity of soils.</p> <p>Matching soil and land capability to production for optimal and sustainable use.</p> <p>Support for the access, testing and adoption of technologies that will assist growers to drive innovation and prepare for drought, build on farm resilience to drought, and manage farm operations leading into and during drought.</p>
7	Livestock and fodder management strategies, technologies, and innovations	<p>Undertake initiatives and activities that optimise animal production and management in livestock, mixed farming and pastoral systems. Apply learnings from research and development at the farm level. Understanding feed availability and budgeting requirements and improving knowledge and capability of implementing on-farm fodder storage. Improve confinement feeding adoption and management practice that considers animal nutrition, husbandry and welfare.</p> <p>Support for the access, testing and adoption of technologies that will assist growers to drive innovation and prepare for drought, build on farm resilience to drought, and manage farm operations leading into and during drought.</p>
8	Crop and pasture management strategies, technologies, and innovations	<p>Undertake initiatives and activities that build resilience in farming systems. Apply learnings from research and development at the farm level. Increased water use efficiency leading to improved productivity through new and emerging agronomic practices.</p> <p>Optimise agronomic practices to best suit seasonal conditions including time of sowing, variety selection, crop selection, and fertiliser use and timing.</p> <p>Support for the access, testing and adoption of technologies that will assist growers to drive innovation and prepare for drought, build on-farm resilience to drought, and manage farm operations leading into and during drought.</p>
9	Water security and management strategies, technologies, and innovations	<p>Undertake initiatives and activities that improve and optimise on-farm water capture, storage, and retention. Improve on-farm reticulation and optimising efficiency of water use.</p> <p>Increase water literacy including understanding of water markets and appropriate risk management strategies for access to water.</p> <p>Support for the access, testing and adoption of technologies that will assist growers to drive innovation and prepare for drought, build on-farm resilience to drought, and manage farm operations leading into and during drought.</p>
10	Upskilling advisors, researchers, and key influencers	<p>Providing researchers and advisers with the skills to engage growers and their communities in co-design of drought resilience and other research initiatives. Ensuring that advisers and researchers have a good working knowledge of extension processes and practices to better engage the farming community in facilitated discussion about drought preparedness and the opportunities that are available.</p> <p>Training advisers and researchers in the use of key drought resilience tools and strategies so they can support growers with implementation.</p>

*Table 2: The number of Ideas received for each theme collectively across all workshops and other feedback.*

<b>Theme</b>	<b>Total number of responses (collectively across all workshops)</b>
Access to drought information and technical support	108
Community resilience and wellbeing through support, collaboration, and access to technologies	240
Farm business management	115
Farm planning and decision making to manage climate and operational risk	173
Native vegetation, biodiversity, pest management strategies, technologies, and innovations	17
Soil and land management strategies, technologies, and innovations	47
Livestock and fodder management strategies, technologies, and innovations	110
Crop and pasture management strategies, technologies, and innovations	104
Water security and management strategies, technologies, and innovations	62
Upskilling advisers, researchers, and key influencers	15
<b>TOTAL</b>	<b>991</b>

Additionally, in-person workshop attendees were asked to complete a multiple-choice paper survey during the workshop to determine information about their farming enterprise, the impact drought has had and is likely to have, drought resilience information sources, and key factors contributing to drought resilience on-farm. The survey had a completion rate of 90% by in person attendees. Table 3 shows the percentage of total attendees that completed the survey at each of the Node workshops.

*Table 3: Node Workshop Survey Completion.*

<b>Workshop</b>	<b>In-Person Attendee Survey Completion Rate (%)</b>
Wudinna	95
Port Augusta	100
Loxton	76
Orroroo	86
Roseworthy	96
Naracoorte	80
Cooper Pedy	100
<b>TOTAL</b>	<b>90%</b>

## Analysis of ideas received, themes, and survey responses

### Workshop ideas and associated themes

The following section provides an analysis of the number of ideas received for each theme at each of the workshops and analysis of the multiple-choice paper survey that workshop participants were asked to complete. The analysis identifies key trends only and does not identify priority ideas to progress to projects. This will be undertaken through ongoing program co-design with SA Drought Hub partners through the Hub, five Nodes, and their associated stakeholder advisory groups.



*Figure 4 (top): The Loxton Node workshop.*



*Figure 5 (bottom): The Naracoorte Node workshop*

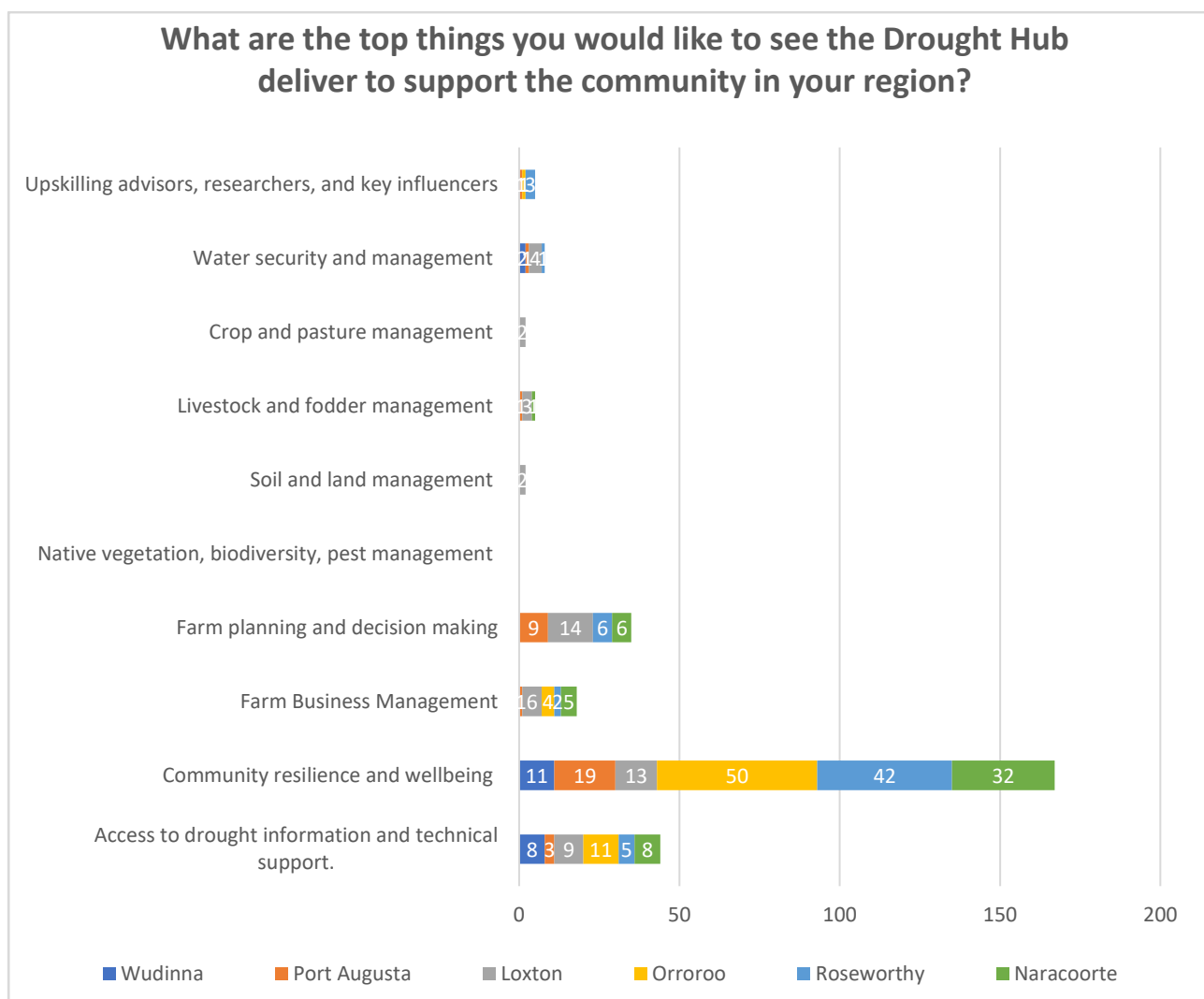
The total number of ideas received from workshop participants at each workshop and through other feedback is displayed in Table 4 below. Ideas have been grouped into themes to determine where different communities saw the highest priorities. All ideas that were provided through the workshops and other feedback are displayed in appendices A, B and C.

Table 4: the number of ideas received per theme at each Node Workshop

	Wudinna	Port Augusta	Loxton	Orroroo	Roseworthy	Naracoorte	Cooper Pedy	Other Feedback	Total
<b>Access to drought information and technical support.</b>	10	10	18	16	16	14	8	16	<b>108</b>
<b>Community resilience and wellbeing</b>	16	23	22	56	55	42	11	15	<b>240</b>
<b>Farm business management</b>	15	6	14	22	21	13	6	18	<b>115</b>
<b>Farm planning and decision making</b>	7	18	34	17	36	18	10	33	<b>173</b>
<b>Native vegetation, biodiversity, pest management</b>	1	4	0	6	1	1	1	3	<b>17</b>
<b>Soil and land management</b>	2	0	11	6	6	5	6	11	<b>47</b>
<b>Livestock and fodder management</b>	11	8	11	14	9	11	13	33	<b>110</b>
<b>Crop and pasture management</b>	18	2	16	9	17	14	7	21	<b>104</b>
<b>Water security and management</b>	3	12	13	2	5	5	14	8	<b>62</b>
<b>Upskilling advisers, researchers, and key influencers</b>	0	1	0	2	5	1	0	6	<b>15</b>
<b>Total</b>	<b>83</b>	<b>84</b>	<b>139</b>	<b>150</b>	<b>171</b>	<b>124</b>	<b>76</b>	<b>164</b>	<b>991</b>

- Community resilience and wellbeing received the highest number of ideas and was a prominent topic at all Node workshops and especially at Orroroo, Roseworthy and Naracoorte.
- Farm planning and decision making also received a high number of ideas across all workshops
- Access to drought information and technical support, farm business management, crop and pasture management, livestock and fodder management were also well represented with ideas contributed across most workshops.

Figures 6, 7 and 8 show the ideas received in response to each of the three questions that were asked at each workshop. The figures allow comparison between Node workshops and themes. The number of ideas received for each theme at each workshop are displayed as numerical values on the bar charts.



*Figure 6: Ideas received to the question - What are the top things you would like to see the Drought Hub deliver to support the community in your region?*

- Not surprisingly, the community resilience and wellbeing theme had the most ideas to the question about community resilience. Many of the ideas received spoke of the need to maintain services in the whole community (not just farm businesses), the need to assist town business to survive through droughts, and the need for a diversity of drought support services and events that cater to a range of age groups and interests.
- Access to drought information and technical support and farm planning and decision making both drew a significant number of ideas from participants. This was not just provision of information during drought, but also between droughts to enable resilience building.

## What strategies have helped you and your business in past drought years?

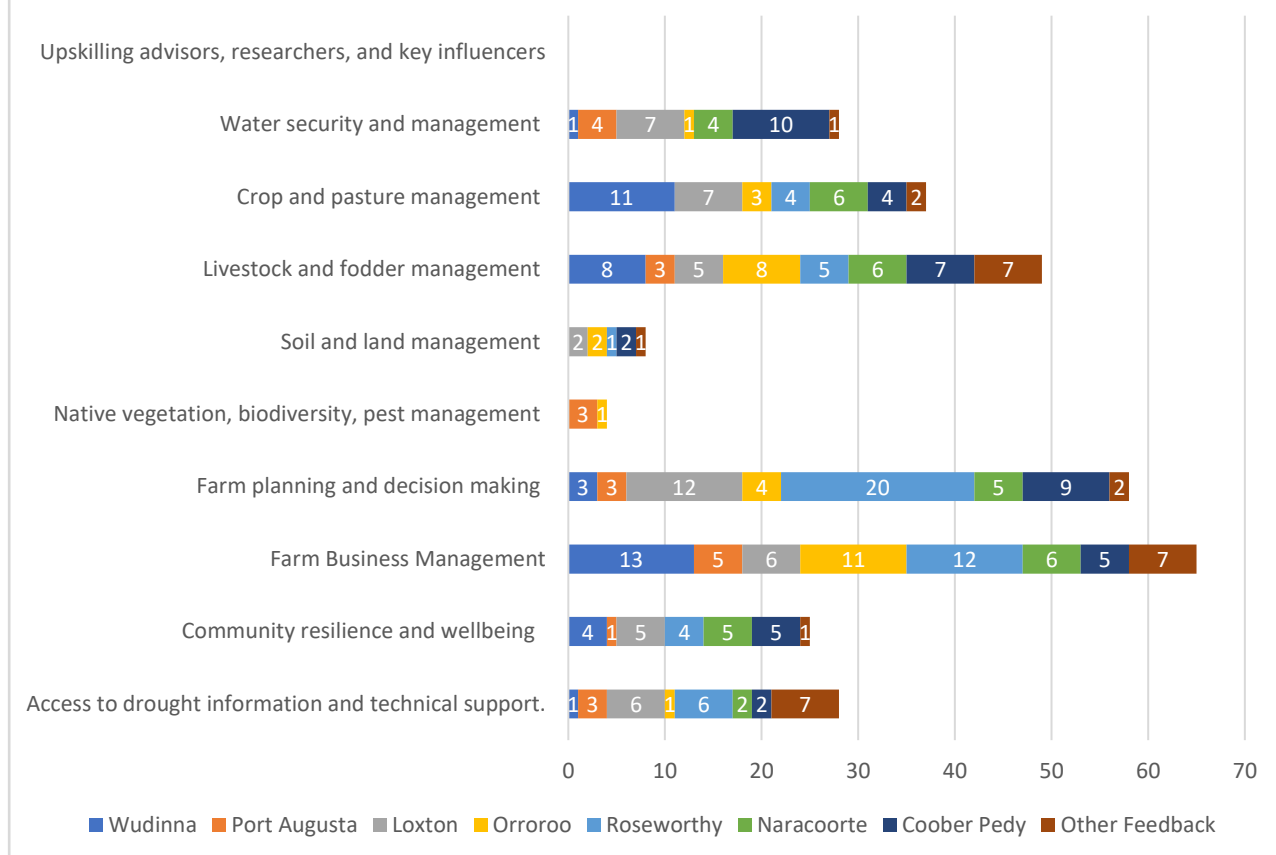


Figure 7: Ideas received to the question - What strategies have helped you and your business in past drought years?

- Farm business management and farm planning and decision making were the themes where most ideas were submitted, and this was generally consistent at each of the workshops. Both themes had a particularly high number of ideas at the Roseworthy workshop, with farm business management also high at the Wudinna and Orroroo workshops, and farm planning and decision making high at Loxton.
- Livestock and fodder management and crop and pasture management also received a significant number of ideas.
- Whilst native vegetation, biodiversity and pest management received few ideas overall, the majority came from the Port Augusta workshop.
- Water security and management was highest at the Coober Pedy and Loxton workshops. This is reflective of both the arid pastoral landscape in the North of the State and the irrigation industries in the Riverland.

## What research / extension / knowledge or innovations would improve drought resilience?

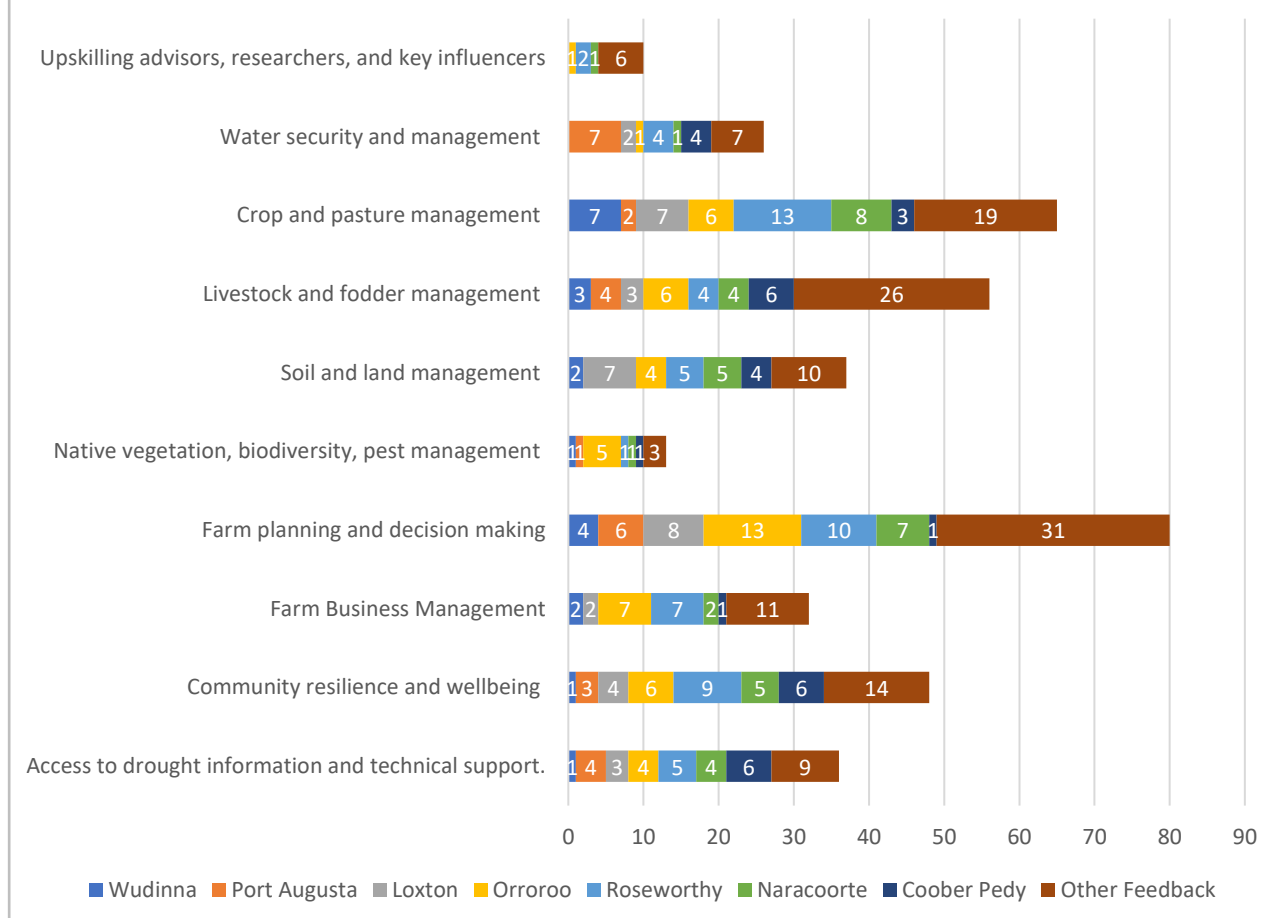


Figure 8: Ideas received to the question - What research / extension / knowledge or innovations would improve drought resilience?

- Farm planning and decision making received a large number of ideas from feedback received outside of the Node workshops.
- Key themes for improving drought resilience were: farm planning and decision making, crop and pasture management, livestock and fodder management, and community resilience and wellbeing had a good number of responses in most workshops.
- Native vegetation, biodiversity and pest management did not rate as highly.
- The farm business management, access to drought information and technical support, and soil and land management themes also received a significant number of ideas in most workshops.

## Highest priority ideas from the workshops

Participants at workshops where GroupMap was employed were asked to vote on all participant responses to the question: What research / extension / knowledge or innovations would improve drought resilience? Each participant had three votes and assigned one vote to each of their three most favored ideas. For the Wudinna and Coober Pedy meetings where GroupMap wasn't employed, and Port Augusta where voting wasn't undertaken, analysis of the responses has been undertaken to identify where like ideas were presented by several people. This has been used as a determinant of importance and priority and a surrogate for voting. Table 5 below shows the top ranked ideas for each of the Node workshops. Whilst we had intended to display the top five ranked ideas for each Node workshop, ties in the voting have meant that more than five priorities are shown.

It is important to note that where ideas put forward at the workshops are already being addressed by another organisation or program, the SA Drought Hub we will not replicate this effort, but will partner to enhance the work being undertaken as required. Where ideas from the workshops sit outside the SA Drought Hub scope, the information will be passed on to appropriate organisations and programs to take carriage of the idea. This may include other Future Drought Fund programs, State Government Departments, Local Government, or through SA Drought Hub partner operations.

*Table 5: Highest priority ideas from each of the Node Workshops*

Workshop	Rank	Idea	Theme
Wudinna	1	Mixed species pastures – how they fit into local farming systems. What is their water use, biomass and feed value. Better adapted, longer season pastures. Transferability of low rainfall pastures from the pastoral zone.	Crop and pasture management strategies, technologies, and innovations
Wudinna	2	Technologies to reduce the impact of drought – soil preservation, ground cover preservation, selectivity of weeds within crops. Increase the soil bucket size.	Crop and pasture management strategies, technologies, and innovations
Wudinna	2	Revisit the economics of mixed farming (ie are sheep a risk management tool).	Farm business management
Wudinna	4	How do we adapt to a dry forecast – consider flexibility in the farming system, stored soil water etc.	Farm planning and decision making to manage climate and operational risk
Wudinna	5	Know the risk of and have options to adapt to: wet droughts; price droughts; harsh springs; frost; heat stress.	Farm planning and decision making to manage climate and operational risk

Wudinna	6	Capacity building/best bets: Have a plan in place; transfer knowledge from those with high drought resilience to those that haven't experienced drought or are yet to adopt best practice. Develop innovative ways of doing this (avoid duplication, maximise time at events, use different techniques, peer-to-peer and small groups work best, utilise social media).	Farm planning and decision making to manage climate and operational risk
Wudinna	7	Working with nature – what regenerative ag practices are suitable for a low rainfall environment? Consider: maintaining soil cover all year-round; increased soil carbon/health; collect quantitative data on impacts and determine locations on the landscape/farm where it has application. The value of biodiversity on-farm (with a focus on carbon) – improve the quality of existing biodiversity/revegetation programs and develop income streams to support activities/programs/incentives.	Soil and land management strategies, technologies, and innovations
<b>Workshop</b>	<b>Rank</b>	<b>Idea</b>	<b>Theme</b>
Port Augusta	1	Practical case studies on what others have done in the past to improve their drought resilience – these could include videos. Peer-to-peer case studies – pre-planning for drought	Access to drought information and technical support.
Port Augusta	2	Desktop audit of all the resources currently available from MLA & AWI and then assist with implementing them.	Access to drought information and technical support.
Port Augusta	3	Forecasting ground cover based on historical ground cover trends and forecast climate data, climate modelling, and tools for planning and adaptation. Maintaining ground cover – understanding the capacity of the land and be able to measure that.	Crop and pasture management strategies, technologies, and innovations
Port Augusta	4	Recognising early drought indicators to help with planning. Mapping of traits – soil moisture, ground cover, health, feed quality; useful information to drive decisions. Mapping properties and extracting useful information. Better data linkage, water points, walk over weighing, feed quality, property planning which integrates the farming systems intel to help give a picture of the business. Need relevant and cost-effective data. Need new innovation.	Farm planning and decision making to manage climate and operational risk

Port Augusta	5	Grazing management extension – clear extension activities at the local level. Pull information together on the pastoral resources, i.e. drought indicators, templates for management plans, road test with the community. Two way learning and share the knowledge.	Livestock and fodder management strategies, technologies, and innovations
Port Augusta	6	Feed base measurement of shrubs and trees (Mulga). Current systems can only measure grass and vegetation close to the ground. Maintaining ground cover – understanding the capacity of the land and be able to measure that. Remote sensing and telemetry.	Livestock and fodder management strategies, technologies, and innovations
Port Augusta	7	Tools/ideas to reduce water evaporation – pipelining bore water waterways/troughs Accurate terrain-based modelling to maximise efficiency of water pipeline infrastructure water management – telemetry. Exploring alternative water options.	Water security and management strategies, technologies, and innovations
<b>Workshop</b>	<b>Votes</b>	<b>Idea</b>	<b>Theme</b>
Loxton	9	Regional capacity building. Improving the skills and leadership of people in the region.	Community resilience through increased support, collaboration, and access.
Loxton	7	Better use of the data about our current situation that we know. Broadacre – nutrient levels, growth stage of crops, nutrient requirements, soil moisture. Horticulture – compiling all previous data for irrigation techniques, mulching and time of application, daytime versus night-time irrigating. Particularly in regard to previous drought decisions.	Crop and pasture management strategies, technologies, and innovations
Loxton	6	Motivation of producers to take early action to be better prepared for drought; develop local networks.	Farm planning and decision making to manage climate and operational risk.
Loxton	6	A comprehensive network and dashboard of existing and new weather stations and soil probes, tethered to decision support tools.	Farm planning and decision making to manage climate and operational risk.
Loxton	5	Focus on de-risking the seeding program in dry starts to the season – dry sowing, variety choice.	Crop and pasture management strategies, technologies, and innovations

Loxton	5	What is the cost benefit of leaving farms out of productivity in drought years/benefits good year? Farming to land capability, using new technologies to monitor landscapes (satellite, PA, etc).	Farm planning and decision making to manage climate and operational risk.
Loxton	5	Developing an extension series for climate/weather forecasting, understanding the climate models, taking the information at various points in the season and being able to apply it to decision making in your business to manage risk. Comparing with flowering time/crop phenology and understanding the impacts of decisions.	Farm planning and decision making to manage climate and operational risk.
<b>Workshop</b>	<b>Votes</b>	<b>Idea</b>	<b>Theme</b>
Orroroo	8	Mixed species cropping and grazing (intercropping) – peer-to-peer education, learning from each other; farmers coming together to learn about what each other are doing. Shifting people's thinking for a single purpose and turn them into little projects.	Crop and pasture management strategies, technologies, and innovations
Orroroo	6	One-stop shop for information on the web for drought information.	Access to drought information and technical support.
Orroroo	6	Innovative methods to improve WUE.	Crop and pasture management strategies, technologies, and innovations
Orroroo	6	Train farmers to better undertake planning and make better decisions.	Farm planning and decision making to manage climate and operational risk.
Orroroo	5	Farmer apprenticeship scheme.	Community resilience and wellbeing through support, collaboration, and access to technologies
Orroroo	5	How to use NDVI to use as trigger points – training and tools are available to make decisions with confidence.	Farm planning and decision making to manage climate and operational risk
Orroroo	5	Kangaroo management – exclusion from pastures, virtual fencing. Consideration of another way to manage them. Innovation needed in this area. Without this unable to conserve feed.	Native vegetation, biodiversity, pest management strategies, technologies, and innovations

Orroroo	5	Better understanding of soil water infiltration and soil constraints – how to identify and remediate soils.	Soil and land management strategies, technologies, and innovations
<b>Workshop</b>	<b>Votes</b>	<b>Idea</b>	<b>Theme</b>
Roseworthy	5	Focus on improving combined water use efficiency and heat tolerance of our crops.	Crop and pasture management strategies, technologies, and innovations
Roseworthy	5	Development of an optimisation project which looks at surveying farmers who cope and respond well to drought. Need a survey designed which analyses the attributes of personality/affiliation with risk/technology adoption etc. so we can better understand the drivers and personality types and how they respond to drought. Can then design training to support. Also need case studies of people and what they have done.	Farm planning and decision making to manage climate and operational risk
Roseworthy	5	Livestock health in livestock containment situations – how to do it better.	Livestock and fodder management strategies, technologies, and innovations
Roseworthy	5	Water security, water quality and water saving in farm dams.	Water security and management strategies, technologies, and innovations
Roseworthy	4	Development of a drought innovators think tank. Bring farmers together in a forum to share learned experiences.	Community resilience and wellbeing through support, collaboration, and access to technologies
Roseworthy	4	Have a crop/pasture prediction tool to determine how much moisture, what the forecast is, and to assess? crop/pasture volume to assist with early decision making.	Crop and pasture management strategies, technologies, and innovations

Workshop	Votes	Idea	Theme
Naracoorte	9	Upskilling advisers and agronomists about decision making process in difficult times and how to engage with their clients.	Upskilling advisers, researchers, and key influencers
Naracoorte	8	Develop an online toolbox that has links and access to all relevant learned information and observations to assist planning.	Access to drought information and technical support
Naracoorte	5	Agronomy research that sharpens our decision support/measuring tools. Improve understanding of WUE to forecast crop yield/pasture DM yield, temperature effect on WUE, solar radiation effect on WUE. If we can predict/forecast yield better during drought we can make better input decisions.	Crop and pasture management strategies, technologies, and innovations
Naracoorte	4	Create a template for farm businesses in the region to produce a drought plan and get Todd Woodard (workshop presenter) to share his experience.	Farm planning and decision making to manage climate and operational risk
Naracoorte	4	Identify regions in Australia that are currently where KI will be climate-wise in 10, 20, 50 years.. How are they farming, what can we adopt?	Farm planning and decision making to manage climate and operational risk
Naracoorte	3	A case study publication of growers who have tackled drought in the past – what worked, what didn't what will they do differently next time.	Access to drought information and technical support
Naracoorte	3	Drought planning for main street businesses so they are prepared for drought and manage the impacts better.	Community resilience and wellbeing through support, collaboration, and access to technologies
Naracoorte	3	Demonstration sites using rainout shelters to showcase agronomic strategies to inform decision making.	Crop and pasture management strategies, technologies, and innovations
Naracoorte	3	Provide small group facilitated learning opportunities where groups of farmers can learn together in a low key environment. Requires skilled extension facilitators – not skilled presenters. This builds community and peer networks that provides a range of social benefits. There appears to be demand for a revamped Property Management Planning (PMP) type service, for example. Topics can cover all the new innovations available.	Farm planning and decision making to manage climate and operational risk

Naracoorte	3	A property management planning program with meaningful, in-depth, innovative and on-going whole-of-farm management and business training for land managers.	Farm planning and decision making to manage climate and operational risk
<b>Workshop</b>	<b>Rank</b>	<b>Idea</b>	<b>Theme</b>
Coober Pedy	1	Planning and feed management. Feed budgeting. Grazing charts. Planning to destock on trigger dates. Destocking early and fast.	Farm planning and decision making to manage climate and operational risk
Coober Pedy	2	Livestock handling (LSS Pty Ltd). Mineral supplements for animals. New tech from Symbio Laboratories? for feed analysis.	Livestock and fodder management strategies, technologies, and innovations
Coober Pedy	3	Landscape rehydration techniques. Land regeneration – however, expensive to do; smaller paddocks focus?	Soil and land management strategies, technologies, and innovations
Coober Pedy	4	Improving water infrastructure to open up and utilise unused country. Opening up new water points to give other points a good spell. Telemetry - auto water monitoring. Using technology – farmbot/water monitoring. Installation of farmbots – water telemetry. Emergency water rebate to allow to develop new country. Water pipes and pressure points – distribution and use of telemetry. Telemetry – auto water monitoring. Cleaning out dams.	Water security and management strategies, technologies, and innovations
Coober Pedy	5	Rotational/time-controlled grazing (40% off and wait for rain event). Smaller paddocks to manage rotational grazing. More infrastructure to allow rest-based grazing. Use stock rotation systems.	Crop and pasture management strategies, technologies, and innovations
Coober Pedy	6	Previous knowledge from past generations and experience. Share knowledge from other similar pastoral regions like WA.	Access to drought information and technical support

## Workshop survey responses

The results of the multiple-choice paper surveys were analysed by Dr Rhiannon Schilling, Deputy Director of the SA Drought Hub. A summary of the survey results is provided below in Figures 9 to 21 to with the survey data displayed as a percentage of response by location.

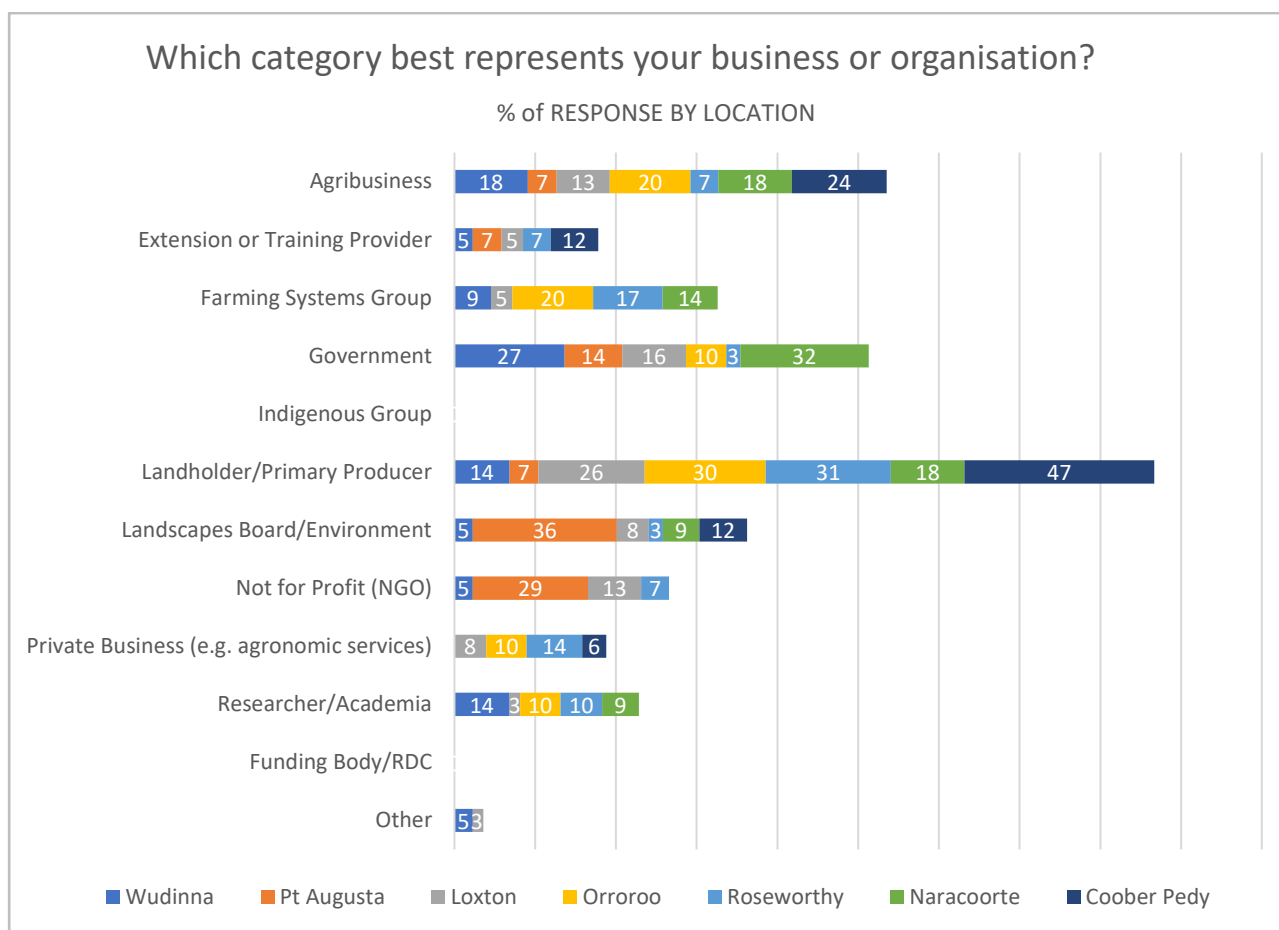


Figure 9: Business or organisation type of attendees at the workshops.

- Landholder/primary producer had the highest attendance out of all categories surveyed. Pt Augusta, Wudinna and Naracoorte had less landholder/primary producer attendees than other Node locations indicating further follow-up is required.
- Follow-up is required with Indigenous groups and funding body/RDC organisations due to no representation in-person at all workshops.
- Strong representation from growers, government, agribusiness, farming systems groups and landscape boards/environment at most locations

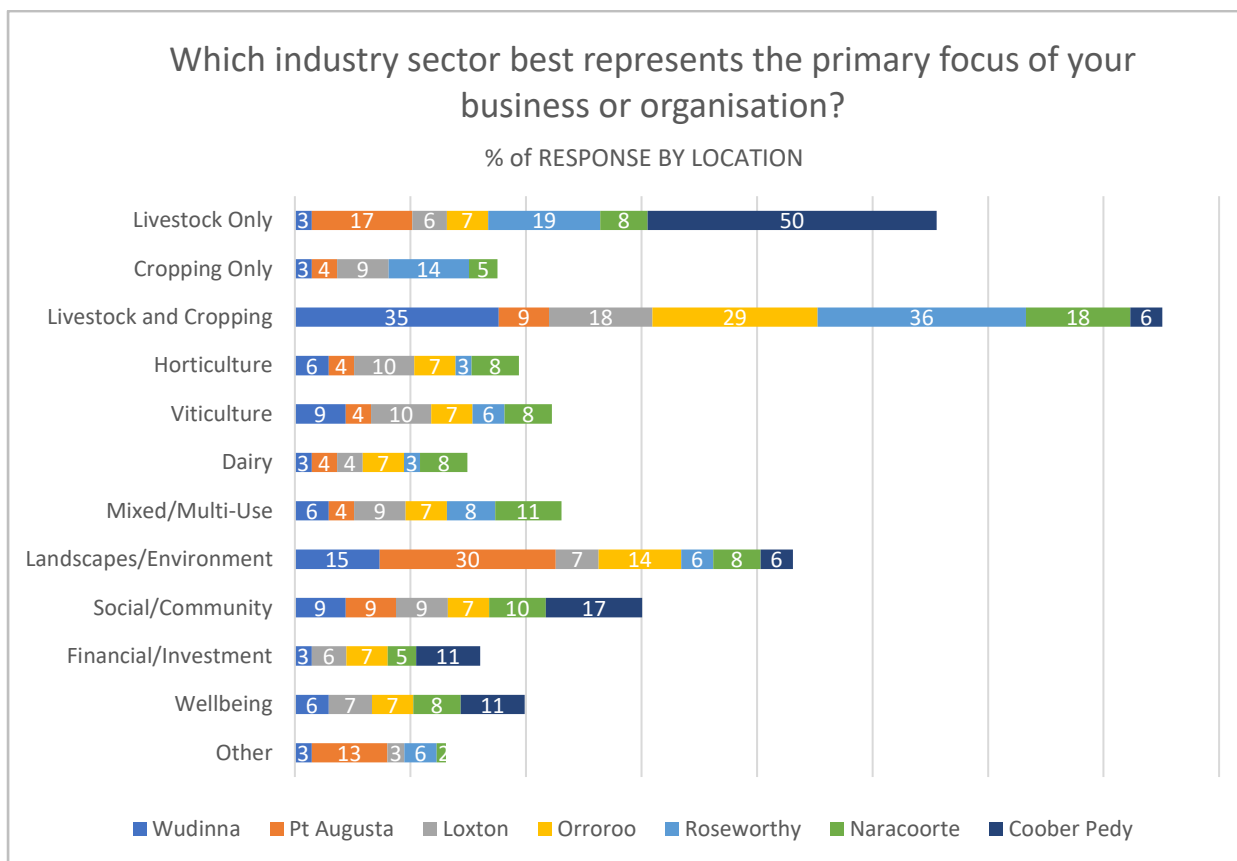
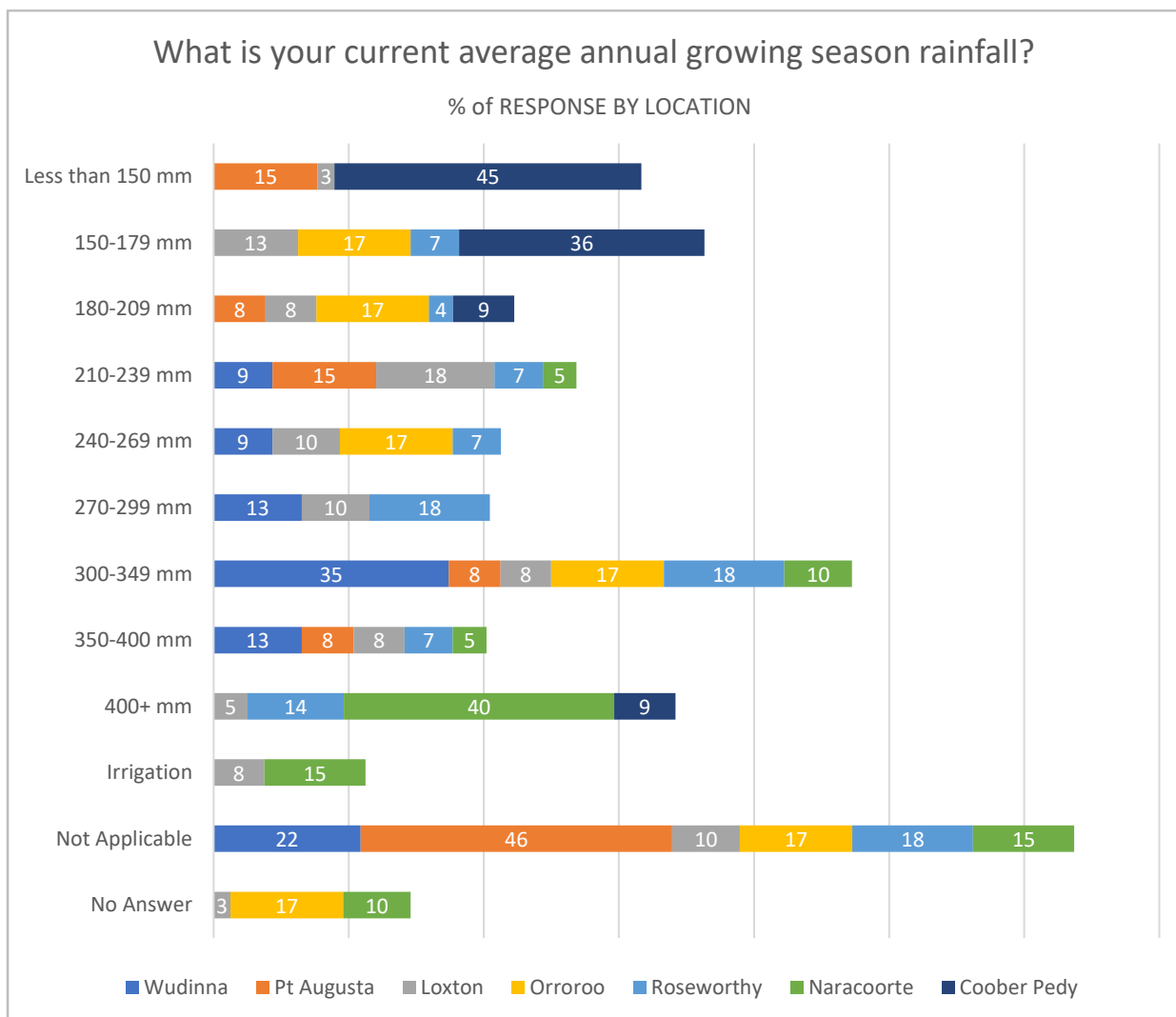


Figure 10: Business or organisation sector / focus.

- A diverse range of attendees were present at all workshops across all industry sectors surveyed.
- Livestock and cropping was the industry sector with the most attendees, followed by livestock only and landscapes/environment.
- Pt Augusta had low representation of the livestock and cropping sector and high landscapes/environment sector representation, further supporting the need for additional follow-up with pastoralists and the reason a workshop was also held at Coober Pedy.



Figure 11: the Roseworthy Hub Workshop.



*Figure 12: Current average annual growing season rainfall.*

- Attendees of the workshops were present from across the rainfall zones of South Australia, from less than 150 mm to 400+ mm, with attendees who use irrigation represented at both Loxton and Naracoorte workshops.

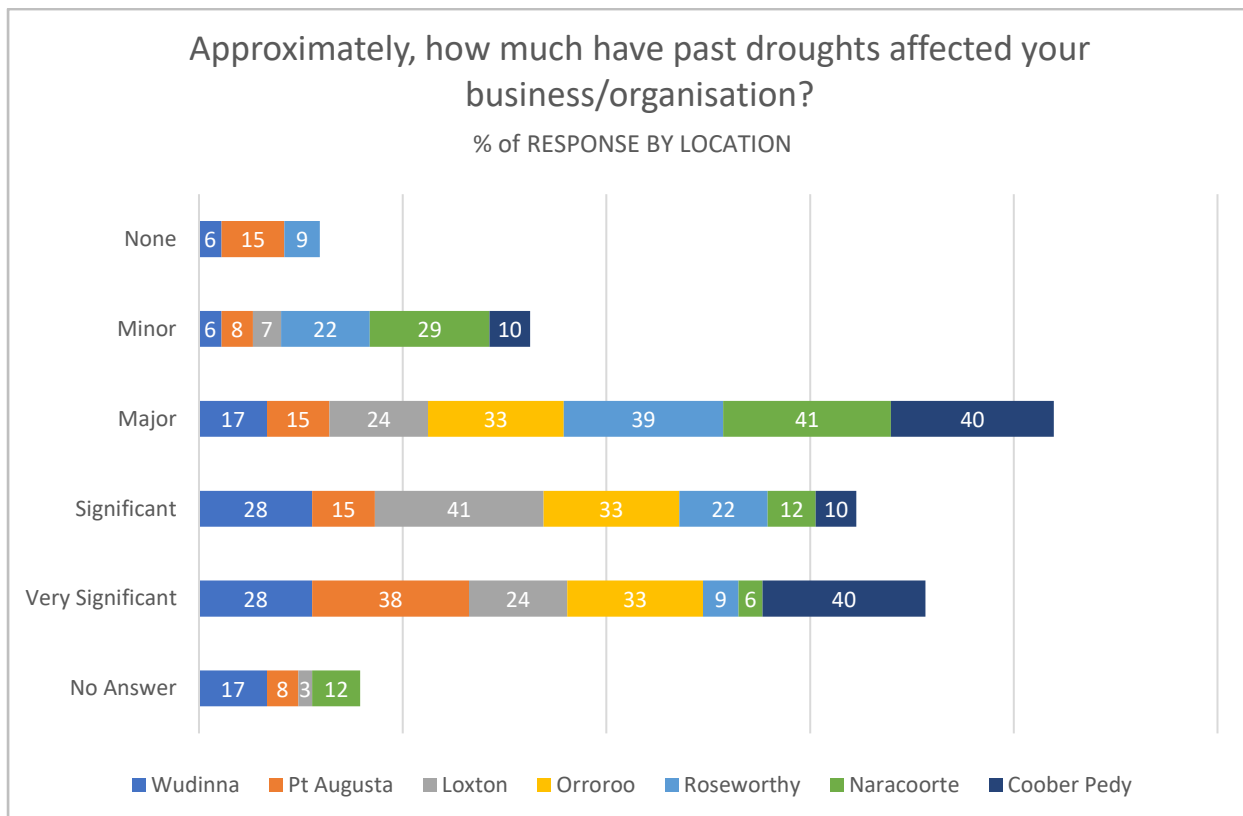
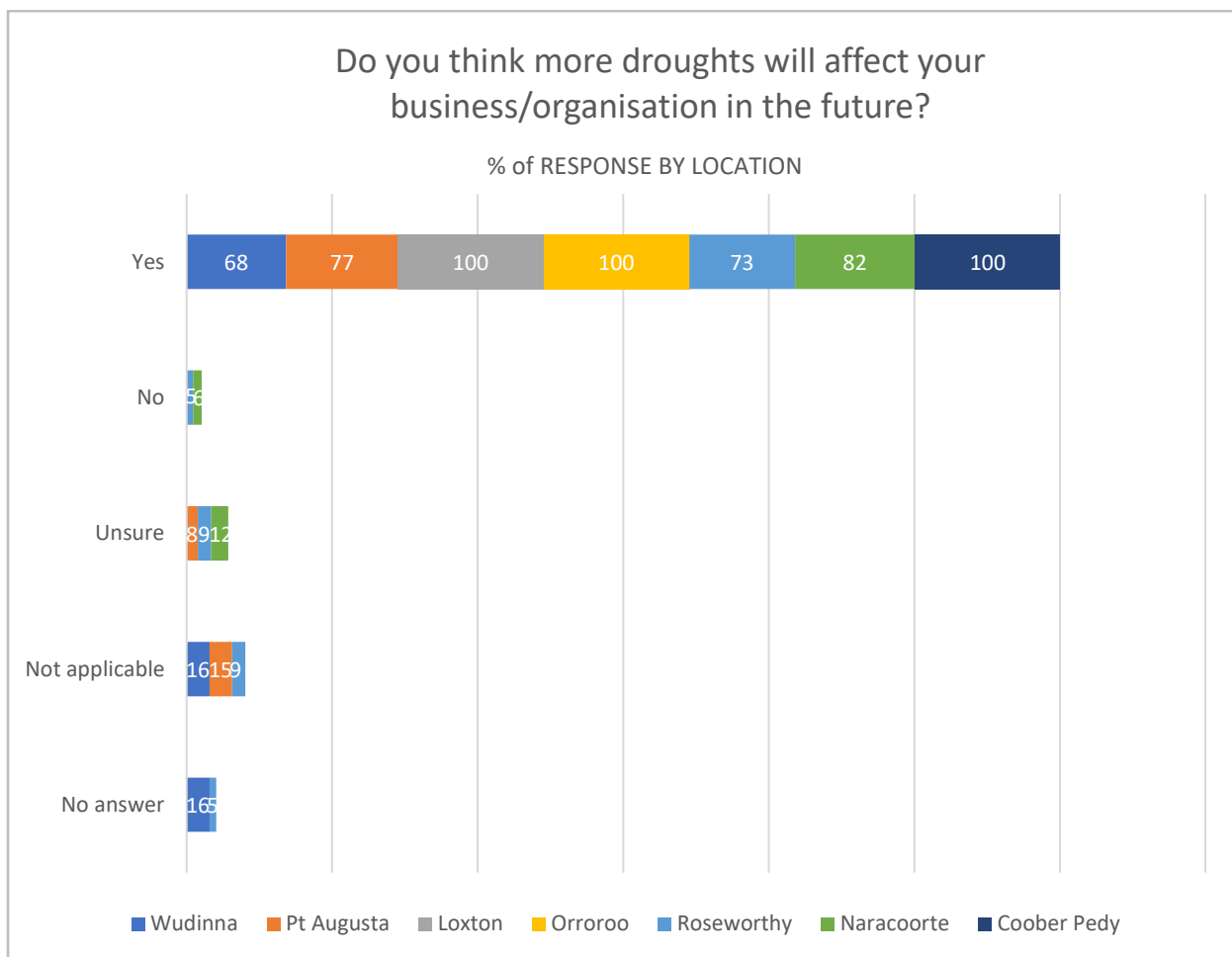


Figure 13: Impact of past droughts

- Responses indicate that past droughts have had a major influence on business/organisations with this category having the highest response.
- Drought in lower rainfall areas of Coober Pedy, Wudinna, Pt Augusta and Orroroo has had a very significant influence and at Loxton a significant influence.
- Higher rainfall zones of Naracoorte and Roseworthy tended to indicate past droughts were major and tending to minor influence for these regions.



Figure 14: Wudinna Node workshop



*Figure 15: Future drought impact*

- A very clear response indicating that attendees think drought will impact their business/organisation in the future, particularly in lower rainfall locations of Coober Pedy, Loxton and Orroroo (100% of respondents).
- Higher rainfall zones of Roseworthy and Naracoorte were the only locations where 5-6% of respondents did not consider that drought will impact their business/organisation in the future.

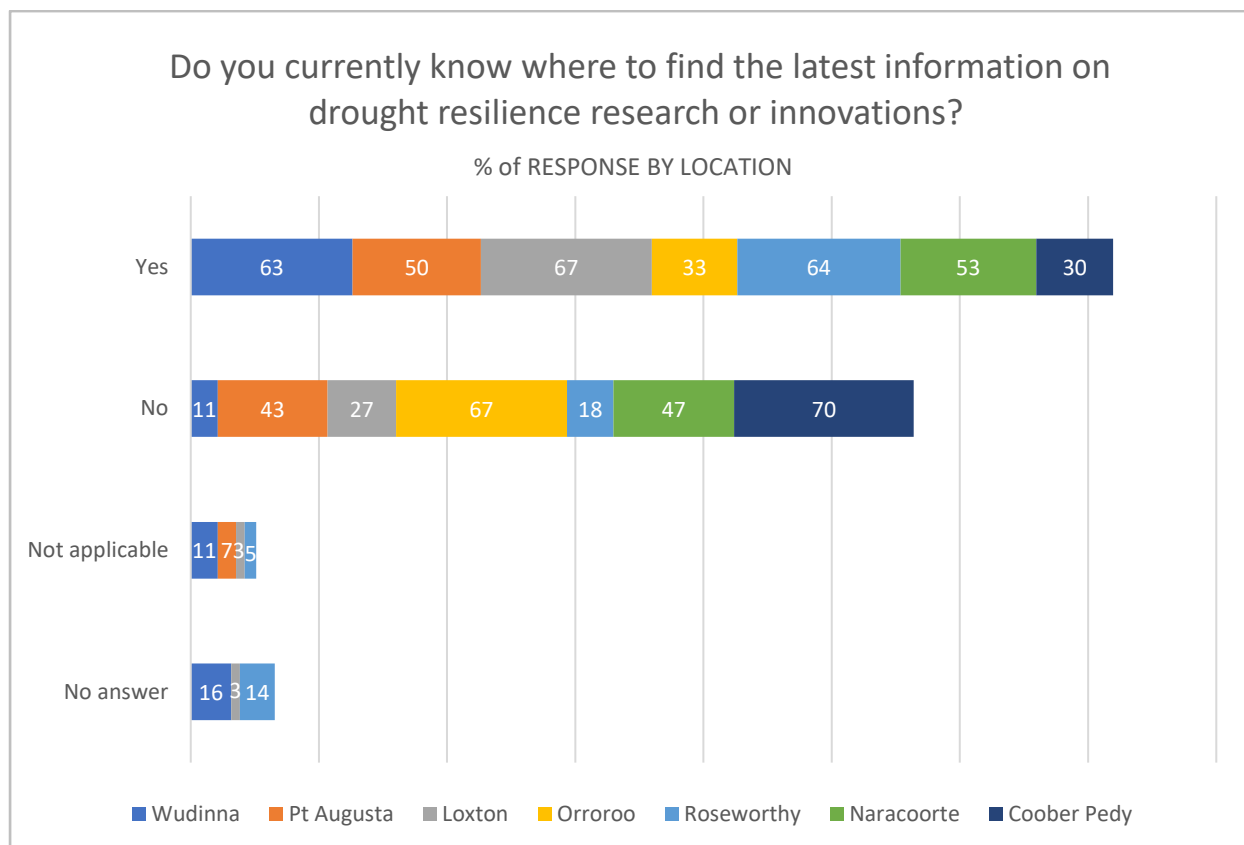
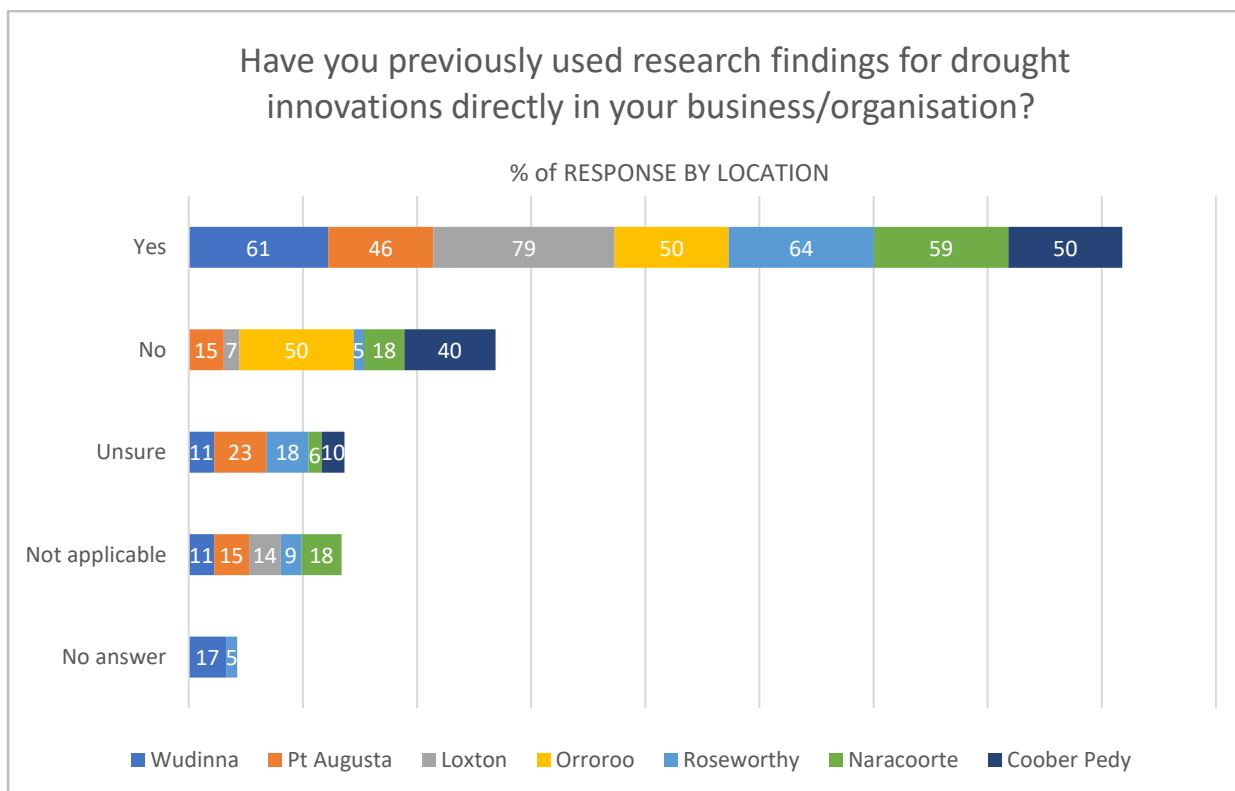


Figure 16: Accessing drought resilience information.

- Most responses indicated they know where to find the latest information on drought resilience research or innovations with notably exceptions being attendees at Coober Pedy (70%), Pt Augusta (43%), Orroroo (67%) and Naracoorte (47%).



Figure 17: the Coober Pedy workshop

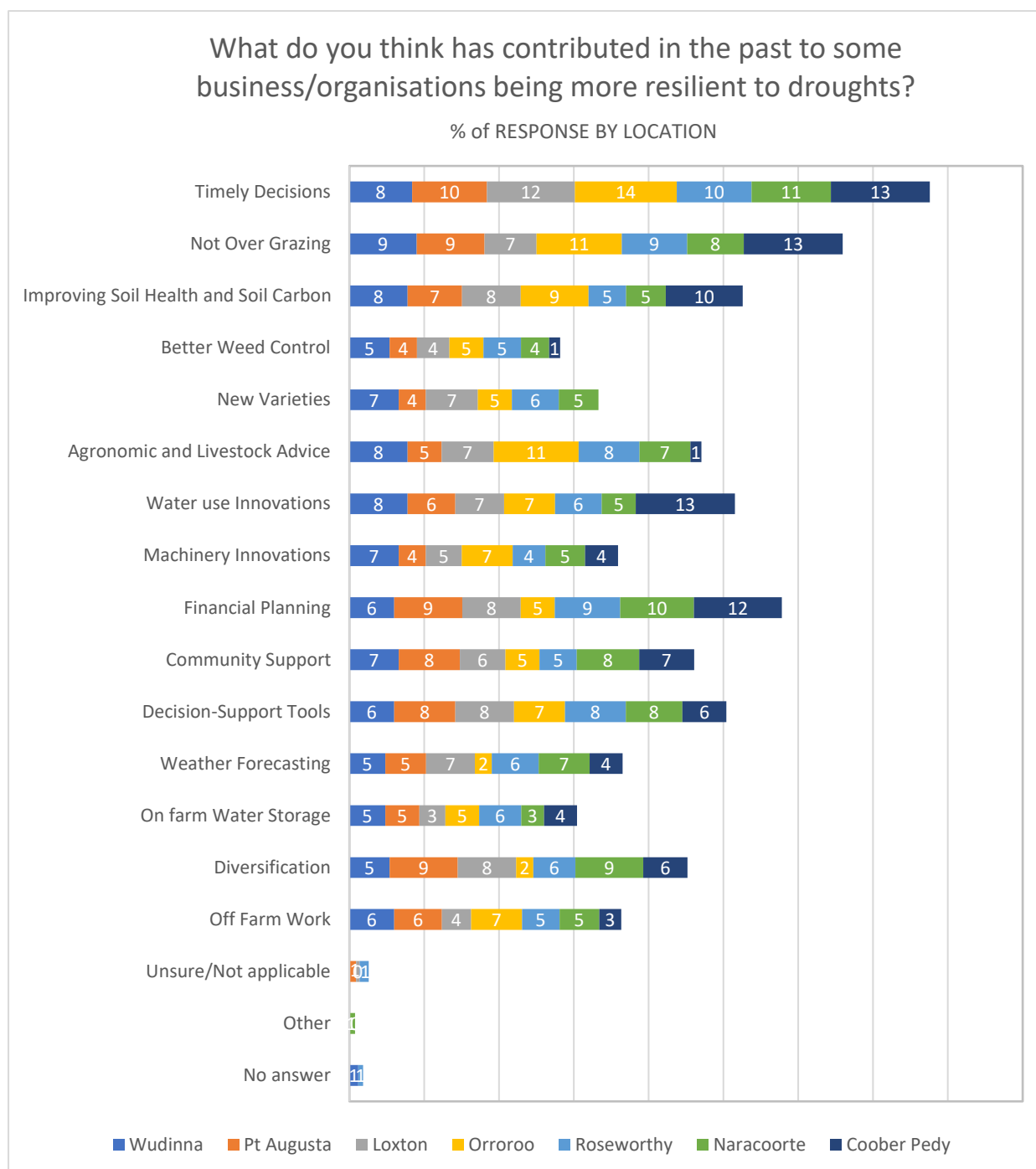


*Figure 18: Use of research findings for drought innovation*

- The highest response was yes, indicating attendees at each location have previously used research findings for drought innovations directly in their business/organisation.
- Notable exceptions were Orroroo where the result was split (50% yes vs 50% no), Coober Pedy (50% yes vs 40% no) and Pt Augusta (15 % no + 23 % unsure = 38%) suggesting more guidance of where to find research outcomes and innovations for drought is needed.



*Figure 19: The Port Augusta Node workshop*



*Figure 20: What has made businesses more resilient to drought.*

- Timely decisions, not over grazing, financial planning, agronomic and livestock advice, decision support tools, improving soil health and soil carbon and diversification were among the highest ranked items considered to be contributing to business/organisations being more resilient to droughts.
- Results also suggest all items listed here somewhat contribute towards drought resilience at all locations.
- Better weed control, on-farm water storage and weather forecasting tended to be considered of less contribution to building drought resilience overall with many handwritten notes indicating a lack of trust for current weather forecasting.

## What do you think has contributed to some businesses/organisations having poor resilience in past droughts?

% of RESPONSE BY LOCATION

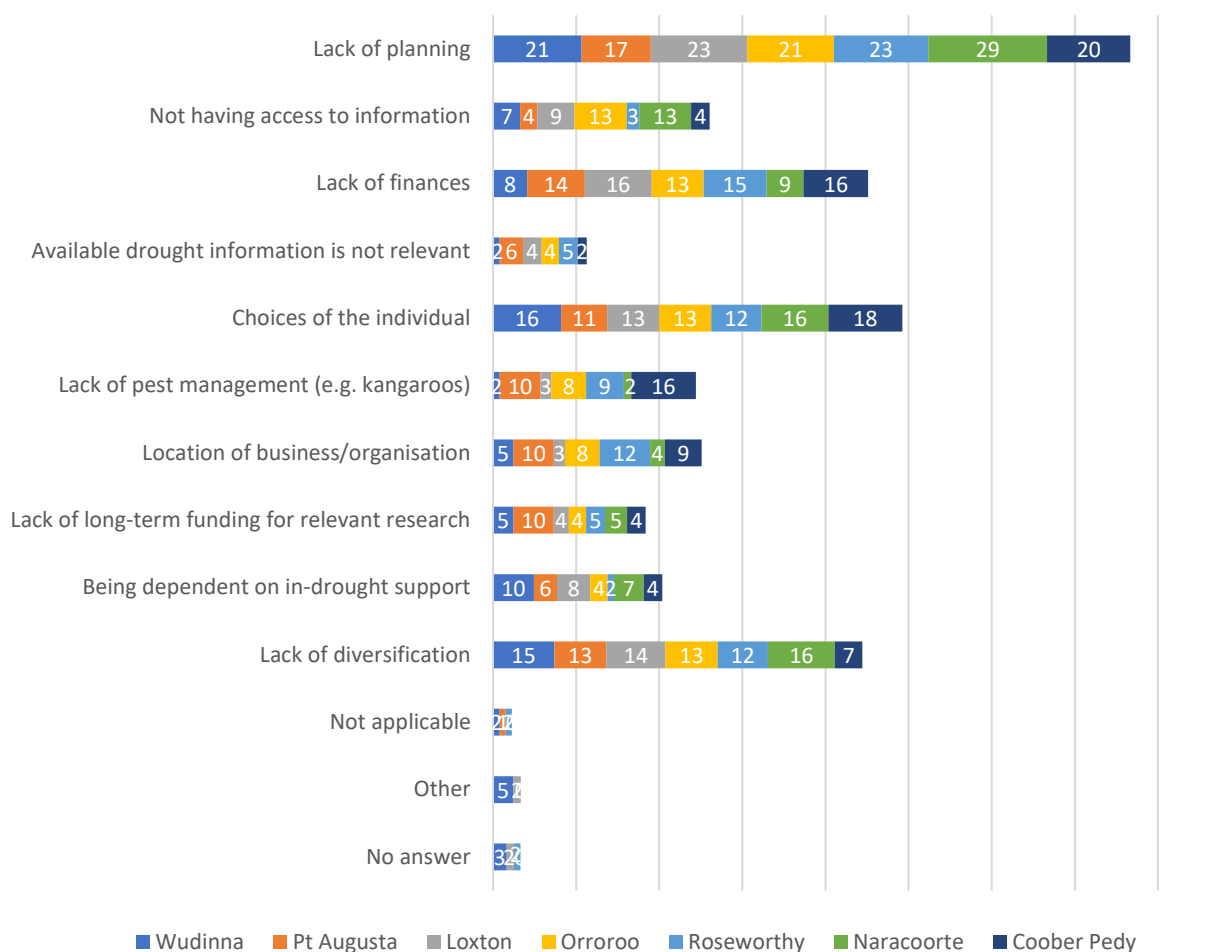


Figure 21: What has contributed to poor resilience to drought.

- Lack of planning (highly ranked with 17-29% of responses at each location), lack of diversification, choices of the individual and lack of finances were among the highest ranked items considered to be contributing to why some business/organisations had poor resilience to past droughts.

## Summary

- Given the busy time of the year, participation in the seven SA Drought Hub co-design Node workshops was extremely good with 279 people attending. These workshops attracted a good cross section of farmer and industry representation.
- A total of 915 ideas were provided across the seven workshops and through additional feedback received post workshops which gave us confidence that responses to questions around drought preparedness were well canvassed and covered the range of options available.
- Most people thought they would be impacted by drought into the future.
- Workshop participants identified that community, farm business and operations and financial resilience would need to all be realised before drought resilience could be achieved.
- A consistent message from participants was for organisations, programs, and projects to work more collaboratively to avoid duplication and optimise outcomes on the ground. Participants felt that this could be improved from current delivery models which they saw as often being disconnected from community.
- Participants wanted to be involved in the design and delivery of programs that were being implemented in their communities.
- Community resilience and wellbeing received the highest number of ideas and was a prominent topic at all node workshops, especially Orroroo, Roseworthy and Naracoorte. Many of the ideas proposed related to maintaining services and town businesses in the community, provision of services and activities for a range of ages and interests, retention of people in local areas, and measures to attract new people. Capacity to maintain these services in regional communities was also discussed as a significant issue at a number of the workshops.
- A 'one-stop shop' for drought information was raised by workshop participants. Improved farmer and community access to and knowledge of the full range of drought resilience, management, and support opportunities and initiatives was seen as critical. However, how this would work best for communities was not clear. Websites, whilst useful, can be frustrating for regional communities where connectivity is problematic. Having people based in the regions who can field these questions and support drought preparedness initiatives is seen as being the most effective, however, these people would need to be well connected.
- Researchers and advisers need to have the skills to engage growers and their communities in co-design of drought resilience and other research initiatives. They need to have a good working knowledge of extension processes and practices to better engage the farming community in facilitated discussion about drought preparedness and the opportunities that are available.
- Farm planning and decision making was also a topic which received a large number of ideas at most workshops and through other feedback. Lack of planning was also seen as the biggest reason for businesses and organisations having poor drought resilience, with timely decision-making being the top response when asked what has contributed in the past to business and organisations being more resilient to droughts.
- Access to drought information and technical support, farm business management, crop and pasture management, livestock and fodder management were also well represented with ideas across most workshops.
- The ideas ranged from what could be achieved in the short term, to ideas that would need to be implemented over the medium and long terms.

## Next Steps

The completion of the seven workshops and receipt of additional feedback was a key step in the SA Drought Hub co-design process and the commencement of Hub engagement with the agricultural industry and wider community in the development of projects and activities.

This report will be used to identify the priority projects and activities for each of the Node areas. Nodes are scheduled for establishment in early 2022, with Node meetings involving SA Drought Hub partners to be held in late 2021 and early 2022. These will identify the priority projects for delivery within each Node, with on- ground projects and activities commencing in 2022.

Projects will be overseen by a Stakeholder Advisory Group and supported by a Node Co-ordinator in each of the Node areas. Ongoing feedback from the Hub partners and farming community within each Node area is vital to shape the projects and activities so they best meet local needs and realise high rates of practice adoption.

The co-design process will be ongoing amongst SA Drought Hub partners and the farming community across South Australia throughout the life of the Hub. This will allow for new ideas, technologies, and innovations to be tested and demonstrated as they emerge and as the Node communities seek information on their potential to increase drought resilience.

## Appendix A - Responses to the question: What are the top things you would like to see the Drought Hub deliver to support the community in your region?

Idea	Comments from other participants	Theme	Workshop
Promote peer-to-peer learning.		Access to drought information and technical support.	Wudinna
We need to engage better with the lower third of farmers.		Access to drought information and technical support.	Wudinna
Help young people get into farming.		Access to drought information and technical support.	Wudinna
Local groups are the best for extension.		Access to drought information and technical support.	Wudinna
Consider timing of extension events (downloading webinars/having access during free time is important).		Access to drought information and technical support.	Wudinna
The ability to interact with leading farmers.		Access to drought information and technical support.	Wudinna
Information that has local relevance.		Access to drought information and technical support.	Wudinna
Knowledge of the tools available to make decisions to support families and animals for financial resilience.		Access to drought information and technical support.	Wudinna
Mental health support programs and roadshows – lobbying for increased support for mental health services.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
Support (dollars) for RD&E practitioners/facilities/farming systems groups.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
Support for SMEs and ag support businesses (lobby for increased support and acknowledgement of situation).		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
Social outlets such as sport, art, events, green areas.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
Social spaces to interact to maintain social relations and mental health. Sport has a role to play. Comment: Covid has been almost worse than drought in terms of social isolation.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
Morale-raising activities.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna

Access to support services, especially professional mental health.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
Employment. Opportunities to access off-farm employment.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
Other industries, such as tourism, to provide alternative income streams. Off-farm income.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
Encouraging volunteer participation.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
Opportunities to share ideas within the community.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
Develop a water plan – include data, highlight the vulnerabilities, create target programs based on intelligence around crop and pasture locations and growth.		Water security and management strategies, technologies, and innovations	Wudinna
Water security.		Water security and management strategies, technologies, and innovations	Wudinna
Idea	Comments from other participants	Theme	Workshop
Grants to support community events – local need to advocate and support locals. Send team to individual pastoralists, take on two or three properties to help support distance/isolation.		Access to drought information and technical support.	Port Augusta
A central shopfront/portal offering relevant, useful, practical resources.		Access to drought information and technical support.	Port Augusta
Information and support from a trusted source (any Government Dept is not a trusted source).		Access to drought information and technical support.	Port Augusta
Want direct input, ie direct and guide policy.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Holding activities in the region – and these must be co-designed and owned.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Context of pastoral rangelands is understood fully – need to understand the complex, dynamic needs, and recognise what is different. IT is not a one size fits all, the Node needs to be different. Need stewards to the landscapes.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta

Establishment of a network made up of a broad range of regional stakeholders for ongoing interaction and monitoring of community needs.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Need to talk to policy developers so they understand the need.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Diversification of businesses – how do you maintain communities with lack of services?		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Acknowledge how resilient this region is and how amazing the people are.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Legal and policy changes need to be considered. Look at how the hub can connect with it -i.e. total grazing pressure, consider kangaroos/grazing relationship and needs.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Self-determination – people can speak their own truths and self-regulate. Be able to access resources and seek own resolution or options.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Support from the Landscape Boards/RDC/LGA's etc.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Indigenous lands need to be considered. Need follow up to ensure engagement and participation.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Support for businesses to thrive – tourism is well supported, but not in pastoral as it should be, seek new opportunities.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Support services which are relevant for the different communities.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Face-to-face interaction with other community members on a regular basis.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
A voice at the decision making table.	So many decisions are made for us without thought as to how they will impact our lives and businesses. Or without the knowledge of the unique circumstances of the Far North	Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
	Action – to include input from a relevant regional/local body (committee) in gathering information before making key policy decisions. Bottom up (or on the ground) information		

Strong social networks.	Identify online groups that can work as a stronger support/communication network	Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
	Online platforms		
Community space which is free, where we socialise and feel supported.	Yes, great idea – need this at a council with mental health services	Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Support for existing community events,		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Better connect people in relevant ways given remoteness.		Community resilience through increased support, collaboration, and access.	Port Augusta
Better information on global trends.		Farm Business Management	Port Augusta
Need more quality information relevant to businesses. Info around management decisions when to destock, look at other opportunities. Share successes i.e. peer-to-peer learning so they can look over the fence.		Farm planning and decision making to manage climate and operational risk	Port Augusta
Making computer-based tools as easy and intuitive to use - so uptake is stronger.		Farm planning and decision making to manage climate and operational risk	Port Augusta
Education and training in using computer-based land management tools.		Farm planning and decision making to manage climate and operational risk	Port Augusta
Investment in training of people on the ground in modern management practices – preg testing, FWC, ground cover assessment, property planning for best utilisation of waterpoints and handling facilities.		Farm planning and decision making to manage climate and operational risk	Port Augusta
LOCAL rainfall and temperature measurement that feeds back in to climate modelling.	Lobbying BOM etc – real time monitoring of temp, ground water etc. Need to shape long term models to help manage and plan our businesses. Need to be able to plan and need better modelling of rangelands and pastoral lands	Farm planning and decision making to manage climate and operational risk	Port Augusta
	MLA need to be present in this region – need to engage better with sheep and cattle producers/visit properties and set up trials. Be more proactive in being in this region and make effort to have trials on the ground in the rangelands.		
Not about hand outs or cash support – support planning. A lot of isolation/they are resourceful people.		Farm planning and decision making to manage climate and operational risk	Port Augusta

Individuals need to take ownership of resilience and build capacity to make informed decisions. Make individuals more prepared.		Farm planning and decision making to manage climate and operational risk	Port Augusta
Planning and management tools that are relevant to the region.		Farm planning and decision making to manage climate and operational risk	Port Augusta
Support for decision making.	Especially hard decisions like destocking, personal relationships, schooling for kids	Farm planning and decision making to manage climate and operational risk	Port Augusta
Work with MLA to carry out trials to demonstrate the benefits of increased nutrition to livestock (feeding P & other mineral supplements).		Livestock and fodder management strategies, technologies, and innovations	Port Augusta
Research in the arid lands is pretty non-existent. Research needs to be taught and looked at.	Research into the capacity for livestock production needs to be considered. Currently all available research is focused on the environmental impacts of livestock and how to minimise that - no how to maximise profit whilst minimising impact. It needs to be done with a production focus, not an environmental focus.	Upskilling advisors, researchers, and key influencers	Port Augusta
Live (and remote) water level monitoring.		Water security and management strategies, technologies, and innovations	Port Augusta

Idea	Comments from other participants	Theme	Workshop
Support for farming systems groups and their extension programs to take messages out to the wider farming communities		Access to drought information and technical support	Loxton
Assist farmers to adopt and implement new technologies and systems that will increase drought resilience. One on one extension and support. Establish benchmarking support and groups.		Access to drought information and technical support	Loxton
Hub support for the groups that are already in existence to ensure extension can occur - and take the pressure off volunteers in drought situations		Access to drought information and technical support	Loxton
Access to info & funding support for Dryland agriculture and livestock water security		Access to drought information and technical support	Loxton
improved point of contact for information dissemination and "clearing house" of information / data.		Access to drought information and technical support	Loxton

learn from shared experiences in other regions	Field trips to other regions, understand what options are available, innovation, technology options that can be applied	Access to drought information and technical support	Loxton
More definitive case studies that contain benchmarking info relative to cropping practices and techniques, productivity and productivity in specific Agro climatic scenarios e.g. around rainfall, humidity and rainfall conditions		Access to drought information and technical support	Loxton
Knowledge from past droughts	Where is this information? Agree, many rainfall zones can learn from others There is great Open Knowledge Management Systems and methodologies available. It's the collation and trustworthiness that would be a huge challenge in something like this.	Access to drought information and technical support	Loxton
Better water market information	Access to info & funding support for livestock containment feeding Access to info & funding support for feed storage options Access to info & funding support for Dryland agriculture and livestock water security Better networking of existing weather stations and better forecasting overall When to turn off / retain livestock	Access to drought information and technical support	Loxton
Bring the community along for the ride - ask them what they need		Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Better collaboration and coordination of activities and ensuring effective integration of the different programs		Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Value add to existing networks		Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Integrated project interactions with district-based agencies to optimise community engagement		Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Improve mobile phone access across the region to allow digital access to a greater number of tools and resources.	Not only mobile phone access link to pending State Connectivity Strategy that is wider than mobile and NBN coverage - i.e. alternative options This should probably include some high-bandwidth 5G data networks for farm machinery and drones. As well as long-range low-bandwidth networks for cost-effective sensing and monitoring.	Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Coordination of agencies, etc	Includes all stakeholders i.e., grower groups, industry bodies Kym Walton: de-silo information	Community resilience and wellbeing through support,	Loxton

	between industries (dryland, irrigated, industry, council) communicate extensively across region	collaboration, and access to technologies	
Road infrastructure to improve access to properties		Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Avoid duplication of existing or past activities, communicate between & across Future Drought Fund programs		Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Council-funded positions to run community events (ie, Karoonda East Murray Council and their drought support officer funded by commonwealth drought funds)		Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Industry leadership when it comes uptake of new innovations - rather than innovative growers only leading the way		Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Not working in silos between different industries	Even breaking down different silos between same industries different regions Better coordination of research activities between groups - avoid duplication.	Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Ensuring there are functional ag groups for extension purposes - both ensuring there is coverage but also for existing groups, ensuring there is sufficient support	Ensuring that there is diversity of skills in the group to ensure groups function	Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Sense of community for people to work together		Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Improved water use efficiency for dryland crops, use of variable rate farming.		Crop and pasture management strategies, technologies, and innovations	Loxton
Knowledge about rootstocks and their performance in drought		Crop and pasture management strategies, technologies, and innovations	Loxton
not everyone is at the same point in their business so segmenting based on needs		Farm business management	Loxton
Analysis of key characteristics of farmers who stay profitable / positive during drought		Farm business management	Loxton
Workshops that identify the problem, pros / cons, options and information to make business decisions that are relevant to your business (e.g. re-stocking post drought / recovery)		Farm business management	Loxton
Business and financial literacy to help farmers understand with confidence how their business can withstand drought		Farm business management	Loxton
Bank and finance support in our towns for loans etc		Farm business management	Loxton

data acknowledgement, validation and acceptance by agencies i.e. insurance		Farm business management	Loxton
Scenario planning for businesses for drought impacts		Farm planning and decision making to manage climate and operational risk	Loxton
Fusion products developed between the hub and BOM that represent finer scale in season predictions at sub regional scales - increasingly empower growers/farmers to understand how macro climatic events relate to actual condition in distinct districts		Farm planning and decision making to manage climate and operational risk	Loxton
An extension series on climate, forecasting and the primary drivers of weather and how we can use these in decision-making.		Farm planning and decision making to manage climate and operational risk	Loxton
Better networking of existing weather stations and better forecasting overall	Probably not just the networking but also access to these data-sources. This data should be available under some permissive Open Data license so it can be shared and re-used for hyperlocal forecasting (i.e. localised disease modelling)	Farm planning and decision making to manage climate and operational risk	Loxton
Better networking of existing weather stations and better forecasting overall		Farm planning and decision making to manage climate and operational risk	Loxton
Plan prior to drought - identify deficiencies in businesses capacity before crisis, avoid playing catch-up during drought		Farm planning and decision making to manage climate and operational risk	Loxton
Flexibility to make short term decisions quickly without being exposed to too much risk		Farm planning and decision making to manage climate and operational risk	Loxton
Reliable, accurate BOM forecasting to assist with decision making and timing of practices		Farm planning and decision making to manage climate and operational risk	Loxton
Better weather forecasting for seasonal forecasting. Better understanding of how to interpret the info. How do I make the best decisions based on the information provided? Need interpretation by someone who understands the implications for farming systems.		Farm planning and decision making to manage climate and operational risk	Loxton
Drought and climate literacy ongoing		Farm planning and decision making to manage climate and operational risk	Loxton
Having the plan ready to start when drought occurs, business plan		Farm planning and decision making to manage climate and operational risk	Loxton
Higher farmer productivity to support the community		Farm planning and decision making to manage climate and operational risk	Loxton

Improved (trustworthy) long medium and short term rainfall forecasting	<p>Agreed - more site specific and increased accuracy for shorter timeframes.</p> <p>coordinated data management and coordination of ALL relevant data sources</p> <p>More localised forecasting data using local weather data not just BOM data sources which are fewer in number and less density.</p> <p>This however requires weather data from different sources to be combined and publicly available.</p> <p>Would be great to also access some hindsight assessment/analysis of the accuracy levels of more localised forecast...</p> <p>Great point! This comes back to this data being a available under permissive Open Data licensing. Allowing such uses rather than having them stored in silos.</p>	Farm planning and decision making to manage climate and operational risk	Loxton
site specific modelling as a decision-making tool incorporating forecasts, past seasons, flowering/yield projections to help farmers decide on whether to take the risk on a cropping		Farm Planning and Decision Making to manage climate and operational risk.	Loxton
Access to info & funding support for livestock containment feeding		Livestock and fodder management strategies, technologies, and innovations	Loxton
Access to info & funding support for feed storage options		Livestock and fodder management strategies, technologies, and innovations	Loxton
When to turn off / retain livestock		Livestock and fodder management strategies, technologies, and innovations	Loxton
Farming and livestock practices to preserve fragile soils in the mallee. To prevent the cycle of erosion and rehabilitation of 30% of the mallee soils. Stopping drought driven soil movement on farms, productivity and community.		Soil and land management strategies, technologies, and innovations	Loxton
Enable each community i. Defined Agro-climatic zones to better understand the production potentials and limitations of specific soil types - steering farmers to better understand and apply agronomic limitations in differing zones		Soil and land management strategies, technologies, and innovations	Loxton
New technologies that enable utilisation of alternative (non River Murray) water sources e.g. cost effective desalination		Water security and management strategies, technologies, and innovations	Loxton

Access to more than one water source (backup when plan A fails)		Water security and management strategies, technologies, and innovations	Loxton
Better water market information updated monthly including future forecasts. What does it look like rolling forward, not just current year but 18 months out based on forecasted predictions		Water security and management strategies, technologies, and innovations	Loxton
Affordable access to water		Water security and management strategies, technologies, and innovations	Loxton

Idea	Comments from other participants	Theme	Workshop
Farm businesses need to be registered with the Hub and the Hub personally contacts each business to discuss the opportunities the Hub has to offer.		Access to drought information and technical support.	Orroroo
Implement a strategy to attempt to reach the farmers who are often hard to reach.		Access to drought information and technical support.	Orroroo
Organiser of and collector of rural drought issues.		Access to drought information and technical support.	Orroroo
One-stop shop for available funding and grants for the community and help with grant processes, e.g. community grants officer.		Access to drought information and technical support.	Orroroo
The Hub as an information centre to showcase drought resilience opportunities, activities, strategies that have worked locally and from other regions.		Access to drought information and technical support.	Orroroo
The Hub as a one-stop shop where community members can go and speak to someone on all aspects of drought including grant opportunities, Farm Business Support, Drought Hub programs, etc.	Having someone roving and coming to you would be better than having it all in one place – more likely to get engagement at a kitchen table than in an office	Access to drought information and technical support.	Orroroo

Communication strategy to inform all producers what is available.	<p>Do you mean what is available as in support through the Hub project outcomes etc? We do hope to do this, what would be the best way to reach you? Personal emails? Newspaper etc? Welcome any ideas!</p> <p>I think it needs to be many pronged because what will work for me might not work for everyone. It's about keeping everyone informed, not just the producers. It needs to be the youth, shopkeepers, council, etc it also needs to be a 2 way strategy so the information can be fed up to policy makers etc.</p> <p>We are developing the project comms strategy at the moment. It includes direct emails, media campaigns and social campaigns. Plus videos/podcasts etc. The Nodes will also liaise directly through their communities. Case studies to showcase producers that are thriving through drought. What do they do differently? Challenge the mindsets of our producers. These might be about best practice and new research - how they lessen their risk and take up opportunities.</p>	Access to drought information and technical support.	Orroroo
Support the farmer-to-farmer learning model that is a social fabric	Safe place for people to ask for help, learn new tools and latest research that can get them a better outcome. Manage risk. Work with groups that are already established – don't try and reinvent the wheel.	Access to drought information and technical support.	Orroroo
Ensuring that the people who most need the information on drought resilience are getting the right information. Not everyone in on the internet or knows how to use it or is comfortable using it		Access to drought information and technical support.	Orroroo
Joint events with other regions with a purpose such as stock feed.		Access to drought information and technical support.	Orroroo
Information sharing hub – either physical or online.		Access to drought information and technical support.	Orroroo

Employing a community support officer (or similar terminology) to inform community groups, businesses & individuals about what grant funding and support services are available. And then assisting and working with those who are interested in applying for support or grants. To overcome the disconnect and barrier of red tape that can intimidate.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Linking the Orroroo and Minnipa Nodes and having joint activities.	Bus tours/field trips. Share learnings and experiences	Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Capture supporting the businesses that support the industry.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
How to better use the urban resources that we already have and how to reuse water and make the best value out of these.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Support councils to better engage and support agribusiness and novel industries in smaller towns.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Needs to be long term to build networks, trust, and partnerships with local community.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Create tele spaces (eg Telehealth, online events and online training).		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Supports need to be delivered in a range of ways to allow for differences in computer skills, internet connectivity etc.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Create agribusiness networks.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Be the middleman between policy setters and impacted rural communities in ways of information flow.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Provide opportunity for businesses in the community to access financial overview and upskilling.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Outcomes - the Hub needs to measure the positive outcomes it is achieving.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Opportunity for community to maintain anonymity when going into the Hub for help or support.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Simpler funding to be found in a centrally located one-stop and include startup (seed) funding to support community owned businesses.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo

Finding ways to increase spending on infrastructure in the region, such as reducing the costs for the swimming pool and activities for kids.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Funding for community events – support people to come together. Opportunities for community events – provide speakers, marquees, advertising. Community then puts in as well.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Drought Hub coordinator to be a local and working/living within the industry.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Place for people to meet and come together between the farms and community businesses.	as well as the local, state and fed gov.	Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Better coordination for mental health and wellbeing services at a regional level.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Business support for all businesses to ensure community services remain not just focused on farming business viability.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Work on better use of resources from urban environment such as waste and water to make towns more liveable; greening.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Semi regular (quarterly) engagement meetings between policy decision makers in the city and impacted rural folk – giving information and getting share feedback.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Better access to mental health services, incl. access to tele-health.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Free or low-cost activities for kids in the area.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Recognition of drought when people are being impacted – needs to be communicated like the way we heard about NSW. People in Adelaide had no idea, need that recognition from the State about what is going on. People then feel heard and seen.	Rating for drought like bushfire	Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Education – build the next ag generation.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Easy access to essential services to support community members.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo

Collaboration and bringing out the knowledge and sharing resources.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Community engagement officer with council to help farmers prepare for future droughts build relationships help access resources.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Strong networks.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Local councils being flexible to enable new initiatives.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Need understanding from 'townies' about how the drought impacts the rest of the community – don't have the interest or linkage to farming/agriculture.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Link interface between the town and farming businesses – not wanting to lose services.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Ensure community groups are supported to provide assistance and information to community in times of drought on support opportunities, programs, and activities.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Non-sporting social outlets.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Local Government needs to be sympathetic to the plight of farmers and farming communities and offer support mechanisms such as community gatherings, discounted rates, drought information and support.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Having drought information days that are relaxed and informal, allowing people to attend at the time that suits them; having a bbq and a beer; need to have these regularly during drought periods.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Working ways to keep young people coming back to the farm, workers within farm businesses, new people within the businesses.	Is this also about not promoting being a farmer as a poor business to be in – do we need to be more positive as an industry?	Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Having the people to facilitate social and wellbeing events in the community.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Accessible mental health services like using telehealth.	Opportunities to bring people to the community to talk as a group – are you bogged mate, mates on a mission etc	Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo

Maintaining population and capacity to undertake social events.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Need to maintain activities to keep people engaged and participating in the community and social interaction. Social interaction events are very important. The day in the dust social events were terrific at getting people together.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
9am meeting place at post office.	Suggest out of towners meet at GPO at a regular time of day to get community interaction	Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Programs like job keeper to keep people in the community during droughts supporting businesses- - problems with household support rules meant not all could access.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Social events.	Social events which are ongoing, developing social calendar driven by community groups in the smaller towns to build continued connections rather than just one offs	Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Sporting.	Having clubs remain open; and having them during drought for social aspect. Having events that bring people together and keep them connected; provide a distraction. Having a relaxed atmosphere people will attend. Maintaining vibrancy and support of sporting clubs as a social outlet.	Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Retention of Government services – decentralisation		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Opportunity to come together		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Town shops to remain open.	Support local businesses; keeping business there	Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Green space	Viable town services Recreational opportunities Increased volunteers Develop innovative uses for resources of water and waste to make communities for liveable	Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Agribusiness with production/outputs.		Crop and pasture management strategies,	Orroroo

		technologies, and innovations	
Cooperatives – working together to tackle issues and meet market demands.		Farm Business Management	Orroroo
Rural sector to be profitable. This supports the wider community.		Farm Business Management	Orroroo
Diversity of income.		Farm Business Management	Orroroo
Profitable farm businesses to support businesses in the community.		Farm Business Management	Orroroo
Training hubs around mental health for community leaders.		Upskilling advisors, researchers, and key influencers	Orroroo

Idea	Comments from other participants	Theme	Workshop
Connect Regional/Rural schools with City/Urban schools (1:1 type matchups) to share the good and the bad ...		Access to drought information and technical support.	Roseworthy
utilise local expertise and experience in training/extension events - landholders or consultants, encourage skills development from within the community, diversity of income streams		Access to drought information and technical support.	Roseworthy
Support and work with the farming systems groups and ag bureaus	What work in particular or is this in general?	Access to drought information and technical support.	Roseworthy
Positive stories in drought - spread the message		Access to drought information and technical support.	Roseworthy
Awareness	Could you please expand on this one ... love more info for typing up in the report	Access to drought information and technical support.	Roseworthy
Funds to support shed meetings with an innovation focus and come together and have a BBQ to talk		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Facilitate a blaze aid type program where people can come and assist on farm.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Provide things that can assist families. Provide even little things that can assist family life.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Ensure there is a pool of funds to support community initiatives.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy

Facilitate training in financial literacy in all businesses in the community		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
If the Drought Hub is to improve Adoption, then it should be leading in advance of a drought to build resilience before the hammer falls ... should it not have "Resilience" in its name ... if people think it only stands up when a drought is declared, then it wont deliver ...		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
"Drought Keeper" for SME's in regional towns		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Places for those that work from home to come to a central shared space to connect		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Financial literacy for businesses in the community		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Concern that social media is making the drought stuff worse - people presenting themselves in particular way; but also comparing yourselves to others		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Make sure everyone is engaged, included and supported in the community - ring a neighbour program. Set up local contact trees.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
community event insurances (sme no longer funded eg Gymkhana, rodeo) need to be funded as they are important community events for local people		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
access to medical, mental health, professional advice in drought - eg travelling roadshows		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Provide opportunities for people to just have fun. No learning outcomes, no drought support initiatives just fun. BBQ, Esky and music. Community Care Officers running a drought fun bus.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Need to have good reasons to attend an 'aggregated response' (organisations working together)...especially relevant for pastoralists		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Maintaining community population for delivering social events and not being dependent on a small number of people to run them		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy

Need more events to be organised for a 'we' rather than gender based	The farm stuff needs to be together, rather than separating out men & women	Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Access to services at the local level		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
community structures that allow for shared experiences about managing drought, recovery from drought and drought proofing		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Better mental health support - wait times are long; distance to travel is far; under-resourced		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
"drought shed" like 'men's shed' (a place to drip in and get out of the day to day drought		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
having reliable and accessible support services such as health and education and maintaining good infrastructure		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Having off-farm purposes that takes their minds off the farm e.g. sports		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
access to reliable internet allows for access to technology		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Sport; key to rural communities; keeping connections and a release for people; people and families getting together; country sport is about community rather than the sport itself	People take pride in their ovals and club rooms Drink driving laws have really killed the community being able to celebrate together	Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
"air tasker" for regional and remote areas		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Support needs to be delivered without people feeling that accessing it is a sign of failure		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Support for children and broader family members. Make sure schools know and understand the impacts of drought and are able to assist children.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Viable employment and business - need the community to be a critical mass of energetic people; need to be a number of shops; as community dwindles then can only keep a few things alive. As lose services lose people	Shouldn't expect young people to keep a community alive; they should be able to get support where it works for them	Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Need to identify, manage and respect burnout		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy

need distractions other than hearing and talking about drought		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Ag Bureau has "guardians" that look out for people who are withdrawing	Sounds great - could we offer them training via the Drought Hub partners in occasional counselling etc?	Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
People staying and new people coming into the community.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Supporting core businesses in the community so that they are able to provide services to the community.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Greenness in the community - whether in town or elsewhere	yes, this is essential for well being I think places for people to gather that are green and peaceful, a place to escape. Keeping the local oval green, supporting clubs	Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
infrastructure for more remote professional roles to keep towns viable		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Stop the handout mentality - creates victims; people don't have to do much because there's always a fall back	Invest money in other ways, build preparedness and resilience No one seems to care if the local deli dies - in a drought; but in covid there's a lot of support for small business	Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Make events easy to access, easy to get to, money shouldn't be a barrier.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Maintaining the regular community events, rather than letting them go because it is a drought	Weave in some subtle wellbeing info (presented by farmer guest speakers so farmers can relate) at these events.	Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Community events to lift people's spirits and get people together - e.g. vegetable growing competition		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
A way to have support during GOOD times and bad so that the networks and sense of community exist when the dry comes again	Nice idea. (hope you are well!) ... Did you have any particular vision for what this might look like? Cheers Bel	Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
community discussions about implications of drought		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Opportunities for work off-farm		Farm business management	Roseworthy
Business viability		Farm business management	Roseworthy

Producers to be able to have an understanding of self and how they make decisions. Understanding self and how and why I make the decisions I do and don't make the decisions I need to. Best this is self-assessed		Farm planning and decision making to manage climate and operational risk	Roseworthy
tools/toolkit to do it yourself, rather than having to be told and suffering the embarrassment. Like 'flat pack' kitchen...buy it, build it and use it		Farm planning and decision making to manage climate and operational risk	Roseworthy
If planning and having early actions in place prior to the full effects of the drought is important then there needs to be something put in place to encourage and support this process.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Coordinate workshops around "Seasonal Outlooks" and what that might mean ahead of time		Farm planning and decision making to manage climate and operational risk	Roseworthy
Recognised definitions of drought severity.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Stop paying high prices for land when there's not a drought	Not viable to pay the current prices	Farm planning and decision making to manage climate and operational risk	Roseworthy
Engage with sales agronomists and advisors to improve skills in listening and connecting	How are you thinking? Is it training them in mental health first aid or other? Would the hub partner to do this or other ... Keen to learn more!	Upskilling advisors, researchers, and key influencers	Roseworthy
Engage with the consultants to improve their skills and to listen to each other		Upskilling advisors, researchers, and key influencers	Roseworthy
Need to have a focus on the 'people' stuff - from consultants and agronomists	Ability to check in with people while working with them	Upskilling advisors, researchers, and key influencers	Roseworthy
to what extent can water be stored in good times for bad times (in communities). Key infrastructure for communities		Water security and management strategies, technologies, and innovations	Roseworthy

Idea	Comments from other participants	Theme	Workshop
Better understanding of and action to address barriers to practice change – it's more about people taking action and less about whether info and services are available.		Access to drought information and technical support	Naracoorte

Provide professional development/technical training in farming practices to keep abreast of newest practices. Technical, agronomic and business: need to bring everything together.		Access to drought information and technical support	Naracoorte
Capitalise on the opportunities that drought presents – new business opportunities, professional development, diversification.		Access to drought information and technical support	Naracoorte
Positive stories about how people are still resilient rather than the doom and gloom stories on the news.		Access to drought information and technical support	Naracoorte
Collate and make information available – place to go to get the information.	And to keep it updated Create a package to offer to farmers to have a drought action plan relevant to this area agree with this	Access to drought information and technical support	Naracoorte
How to know what support is out and how to access it.		Access to drought information and technical support	Naracoorte
Community event (partnership with others) with a pre-season type of briefing; supporting good decisions making. Don't have the Drought Hub do its own events, work in with others.		Access to drought information and technical support	Naracoorte
Provide good quality and timely information and expertise.		Access to drought information and technical support	Naracoorte
To get a doctor's appointment – we can't!		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Keeping the services going in the town.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Need to know and understand the things and issues in the community to look out for and where the pressure points are for community and families and then target support to these areas.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Small businesses.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Diversity in community businesses, so that towns just don't stop during a drought.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Community events and wellbeing.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Community needs to be proactive rather than reactive – plan ahead for drought as droughts will always happen.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte

Need more support services in regions, especially mental health support. Extra stress during drought periods – it becomes even more important.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Main street businesses being more attuned to how drought impacts them. Support for service sector so that town services/core services can continue through drought.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Programs to allow farmers to get away from the farm and refresh.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Have access to activities, ability to connect with one another, networking – think these should be run regular whether there is drought or not, so that something is already established in the community.	Having farming systems meetings is on version of this. Agree with the need for activities	Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Need to include all family members in drought support initiatives.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Increased importance of connectivity in rural areas. Really matters when things aren't going well.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Lack of mobile coverage is a problem in the region.	Absolutely: prevents adoption of technology and WHS issues	Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Mental health support and programs. High risk in Limestone Coast as farmers not used to managing through drought.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Green space – having somewhere to go off farm as an oasis; when surrounded by the visual cues of dry and drought this helps.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Wellbeing support – ability to access support if you need it and a recognition of this (like ifarmwell); have access to person to person services available; can be implemented quickly when needed.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Local events to share knowledge and experience and to know you are not alone. Having free events in the community.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Connectivity to people, information, shared experiences, support to navigate the journey.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Extreme events – fire, wind storms, beach erosion – creating stress on communities. HELP please.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte

Just because it has rained it doesn't mean the drought or the impact of drought is over. Need broader understanding of this as the financial and mental health impacts can go on for long after the rain.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Engaging with champions in regions – getting to the influencers; identify them, work out what info to give them, support to get that information out.	Agree	Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Face-to-face interaction with others is critical. Arranged gatherings essential.	Agree	Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Work with the media to manage their messaging so that regional communities are promoted positively in times of drought and industries such as tourism aren't adversely affected.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Support for the whole community, not just farmers. Town businesses need drought plans with trigger points and actions to respond to changing conditions.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Feedback on what are the best type of events to be doing to get practise change on farms – to make sure being effective Why people aren't doing this is a people question not a technical question.	Need to offer a range of ways farmers can buy-in. One on one with a trusted advisor is always best when working with a stressed business operator	Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Teenagers not into sport or other community activities can be left isolated – more services needed.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Develop with the community a drought blueprint for managing through a drought.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
More town hall meetings – to discuss what assistance is available etc, identifying what's available. Regular meetings that are in-person to inform locals about services on offer.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Need to reframe how we refer to the Drought Hub – not seen as necessarily an issue down here, but people can get themselves in trouble quite quickly		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Keilira tennis – every Tuesday has been a great support tool for the community post-fire.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Understanding that agriculture is a big industry in your community – it is not just tourism.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte

Ability for partners moving into the region to build an online business, or start a professional service.		Farm Business Management	Naracoorte
Benchmarking and profit margins – per 100ml rainfall what can you get for pastures and livestock industry (exists for cropping).		Farm Business Management	Naracoorte
Engage all in the business about the discussion rather than just focusing on the 'farmer'.		Farm Business Management	Naracoorte
Tailored financial advice to enable informed decision making.		Farm Business Management	Naracoorte
Developing programs that encourage micro business to be established – eg using the professional skills of the farming business. (AKA married a lawyer – how do we encourage them to set up from home on the farm).		Farm Business Management	Naracoorte
Support farmers to be able to do planning that includes a drought plan and triggers – personalised to your situation as each are quite different; linked to the Drought Resilience planning (part of FDF).	Taking emotion out and making objective decisions	Farm planning and decision making to manage climate and operational risk	Naracoorte
Better understanding of seasonal forecast in context of production and decision managements.	Better seasonal forecasts.	Farm planning and decision making to manage climate and operational risk	Naracoorte
Create and provide farm business/contractor businesses a package that assists them creating a drought response plan. Including decisions, decision support tools (agronomic, financial like P2P), location for info, case studies, including the first year out of drought.		Farm planning and decision making to manage climate and operational risk	Naracoorte
Need an early warning system (local state of play) that coming into a drought. Identify the indicators in the community and generate a shared understanding of what is really happening.		Farm planning and decision making to manage climate and operational risk	Naracoorte
Capture what worked well in the last drought so it is not forgotten.		Farm planning and decision making to manage climate and operational risk	Naracoorte
Workshops on strategies of how to better manage dry times and understanding of trigger points.		Farm planning and decision making to manage climate and operational risk	Naracoorte
Financial and technical support for establishing and managing confinement feeding.	Agree	Livestock and fodder management strategies, technologies, and innovations	Naracoorte
Support for what may be considered non-essential farm activities such as pest and weed management.		Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Naracoorte

## Appendix B - Responses to the question - What strategies have helped you and your business in past drought years?

Idea	Comments from other participants	Theme	Workshop
Learn from and lean on mentors, colleagues, advisers, peers.		Access to drought information and technical support.	Wudinna
Community-driven projects and locally-run initiatives generate good attendance and are more effective than a top-down approach.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
Support groups are essential – mental health/suicide prevention; pre-harvest check and tune; day sessions for women.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
A positive mentality/mindset is important.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
Maintain a positive attitude as much as possible.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
Dry sowing for early feed (cereals/mixtures) enables options for grazing/harvesting grain/cutting hay. Maintaining ground cover and weed control important.		Crop and pasture management strategies, technologies, and innovations	Wudinna
Strategic use of crop varieties.		Crop and pasture management strategies, technologies, and innovations	Wudinna
Timing and timeliness of weed control and knowing weed history.		Crop and pasture management strategies, technologies, and innovations	Wudinna
Don't sow DAP/N with seed – seed system set-up.		Crop and pasture management strategies, technologies, and innovations	Wudinna
Strip and disc system.		Crop and pasture management strategies, technologies, and innovations	Wudinna
Herbicide residues – understand the impact on crop selection and pastures, especially in dry years.		Crop and pasture management strategies, technologies, and innovations	Wudinna
A reliable legume on sands is lacking.		Crop and pasture management strategies, technologies, and innovations	Wudinna
Diversity in crop types.		Crop and pasture management strategies, technologies, and innovations	Wudinna

Mixed winter crops to increase residues for ground cover.		Crop and pasture management strategies, technologies, and innovations	Wudinna
Look at most effective long-term storage of grain/hay.		Crop and pasture management strategies, technologies, and innovations	Wudinna
Have seed for suitable varieties on hand in storage to underpin flexible sowing programs.		Crop and pasture management strategies, technologies, and innovations	Wudinna
Establish cash reserves in the good years. Manage debt levels so when hard times hit, the economic impact is lessened (have a low debt load).		Farm business management	Wudinna
Know your gross margins and manage inputs appropriately.		Farm business management	Wudinna
Establish long-term economic modelling for the farm.		Farm business management	Wudinna
Document/share drought planning with business partners and family members.		Farm business management	Wudinna
On-farm and off-farm income stream diversity.		Farm business management	Wudinna
Maintain low debt levels.		Farm business management	Wudinna
Farm Management Deposits.		Farm business management	Wudinna
Understanding the cost of production.		Farm business management	Wudinna
Understand what you can/can't control.		Farm business management	Wudinna
Having someone to talk to.		Farm business management	Wudinna
Get off the farm/take a break.		Farm business management	Wudinna
Family and friends.		Farm business management	Wudinna
Lower your expectations and don't compare yourself to others.		Farm business management	Wudinna
Early decision making is key – make decisions/preparations in advance of drought. Droughts are inevitable in this environment so be prepared.		Farm planning and decision making to manage climate and operational risk	Wudinna
Planning is essential – look at rotations, stocking rates, finances, feed availability/reserves etc.		Farm planning and decision making to manage climate and operational risk	Wudinna
Timeliness of operations, such as early sowing, early de-stocking, strategic pasture utilisation/containment feeding, weed management. Conservative approaches recommended.		Farm planning and decision making to manage climate and operational risk	Wudinna
Automated feed-tech feeders.		Livestock and fodder management strategies, technologies, and innovations	Wudinna

Scanning ewes and culling dries.		Livestock and fodder management strategies, technologies, and innovations	Wudinna
Sow pastures on poorer cropping ground, preferably early.		Livestock and fodder management strategies, technologies, and innovations	Wudinna
Know the feed value of pastures and weeds.		Livestock and fodder management strategies, technologies, and innovations	Wudinna
Know when to remove stock and understanding ground cover requirements/thresholds.		Livestock and fodder management strategies, technologies, and innovations	Wudinna
Understand your feed reserves, including the feed value of different feed types.		Livestock and fodder management strategies, technologies, and innovations	Wudinna
Baling of stubble/chaff at harvest for fibre source.		Livestock and fodder management strategies, technologies, and innovations	Wudinna
Strategies for feeding through pregnancy and lambing.		Livestock and fodder management strategies, technologies, and innovations	Wudinna
Knowing your water quality and when to sample.		Water security and management strategies, technologies, and innovations	Wudinna

Idea	Comments from other participants	Theme	Workshop
Continual learning/support to help look at other options		Access to drought information and technical support.	Port Augusta
Partnerships/peer-to-peer learning/sharing lived experiences/field days/landscape groups/community managing up.		Access to drought information and technical support.	Port Augusta
Innovation grants for transition planning – succession, mentoring and coaching.		Access to drought information and technical support.	Port Augusta
Maintaining a positive outlook and look for future opportunities.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Have an evidence-based business plan (under property management plan).		Farm business management	Port Augusta
Off farm diversification/ ash flow.		Farm business management	Port Augusta
Understanding cash flow.		Farm business management	Port Augusta

Good business management – ability to make a decision. No decision is not a good thing. Know decision points i.e. what are your decisions based on and have clear trigger points made in advance so you are not making decisions when you are stressed.	Make dependent on your business not your neighbours	Farm business management	Port Augusta
Establish ongoing relationships with buyers to ensure a decent market for the livestock.		Farm business management	Port Augusta
Climate knowledge to help make decisions.		Farm planning and decision making to manage climate and operational risk	Port Augusta
Good transport options to move stock within and around property, agistment options.		Farm planning and decision making to manage climate and operational risk	Port Augusta
Sell early and sell often to reduce pressure on environment, retain breeding stock, maintain cow condition, continued production.		Farm planning and decision making to manage climate and operational risk	Port Augusta
Maintaining ground cover – look at palatable species near water point, look for signs to get stock off.		Livestock and fodder management strategies, technologies, and innovations	Port Augusta
Maintain adequate nutrition through supplemental feeding (molasses and mineral supplements).	Confinement feeding is not allowed in the pastoral areas. Some people would argue that feeding molasses is a type of feedlotting (?) and should not be allowed. Not all in the far north are in the pastoral areas.	Livestock and fodder management strategies, technologies, and innovations	Port Augusta
Reducing stock numbers in a profitable way (culling barren cows and feeding them in a different location).	If your cows keep producing a product and there is a market, work to continue cash flow and try to meet requirements. The smaller an animal the less cost to feed/water – sell more of them. Need to keep cows in good condition/maintain health and condition so they could continue to produce a product and maintain a cash flow.	Livestock and fodder management strategies, technologies, and innovations	Port Augusta
Culling of feral animals.		Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Port Augusta
Building pastoral sustainability program – best practice land management. Landscape literacy, ecological management strategies, water, adaptive management, rotational grazing, technology.		Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Port Augusta

Knowing thresholds of the land – know ecological thresholds so there is better management. People who come out of drought have these decision points pre planned.		Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Port Augusta
Monitoring water points remotely.		Water security and management strategies, technologies, and innovations	Port Augusta
Water infrastructure planning – pipelines so they can spread out and utilise whole area.		Water security and management strategies, technologies, and innovations	Port Augusta
Installing remote telemetry system to monitor waterpoints to save labour, minimise stress.		Water security and management strategies, technologies, and innovations	Port Augusta
Identifying permanent water sources.		Water security and management strategies, technologies, and innovations	Port Augusta

Idea	Comments from other participants	Theme	Workshop
Bringing in expertise/knowledge/networks/connections who are trusted and have solutions.		Access to drought information and technical support.	Loxton
Outsourcing some of the decisions – agronomists, financial adviser, people with outside perspective. Helps to relieve decision making pressure and provides stress relief.	Grain marketing, water trading etc. Also frees up 'brain space' and gives more time for family. Ensures people who are skilled at making those difficult decisions are doing so	Access to drought information and technical support.	Loxton
Group field days for grower networking. The loss of Ag Bureau groups has meant slower spread of ideas, also it has resulted in far less networking between chaps in the same situation/s. The groups had a strong role in community and information.		Access to drought information and technical support.	Loxton
Recognising different learning styles – some growers will learn in a group, others will learn one on one, some will learn online. Have a suite of ways to get the information across.		Access to drought information and technical support.	Loxton
One on one support made available to farming families to assist adoption of new technologies and management strategies.		Access to drought information and technical support.	Loxton

Linking with R&D facilities to syphon key research, ideas and useful farming systems approaches to the local level – investigate and address barriers to adoption at the local scale through workshops or even individualised sessions.		Access to drought information and technical support.	Loxton
Support for businesses that support agriculture, not just farmers.		Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Having local advocacy who understand the local environment that could put issues through the right channels.		Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Program support and funding for farmers in drought.		Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Regional people to deliver the message to make it more trustworthy.		Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
Small local catch-ups to chew over issues.	Millennium drought Shed sessions were fantastic ways to share information and create support	Community resilience and wellbeing through support, collaboration, and access to technologies	Loxton
The no-till farming systems and capacity to cover large areas quickly for timely seeding, spraying and harvesting has been key to efficient farming in the Mallee.		Crop and pasture management strategies, technologies, and innovations	Loxton
Variable rate precision viticulture.		Crop and pasture management strategies, technologies, and innovations	Loxton
Use of no-till and dry sowing and environmental sustainability.		Crop and pasture management strategies, technologies, and innovations	Loxton
Maintaining ground cover at all costs.		Crop and pasture management strategies, technologies, and innovations	Loxton
Protecting the stubble at all costs and keeping the ground cover.		Crop and pasture management strategies, technologies, and innovations	Loxton
Incorporation of fodder cropping and more diverse feed options, eg, feed radish in mixes.		Crop and pasture management strategies, technologies, and innovations	Loxton
Diverse crop rotations including legumes.		Crop and pasture management strategies, technologies, and innovations	Loxton
Businesses that survived drought well, had low/little debt.		Farm business management	Loxton

Decisions need to be based on understanding of true financial position of business. Can't manage what you choose not to measure. Too many businesses do not understand the true state of business health.		Farm business management	Loxton
Farm Management Deposits (FMDs) used for wrong purpose (tax write-off) at wrong time. Very little drawn down during recent 2018-2020 dry period.		Farm business management	Loxton
Financial awareness, know your business.		Farm business management	Loxton
Enhanced communication between farmer and key providers (banks, consultants etc). Independence can provide an outside perspective and ensure accountability in your decision making.		Farm business management	Loxton
Risk diversity (in LRZ is different to MRZ and HRZ).		Farm business management	Loxton
Tight cost management, identifying risks in advance and knowing how we would handle them if they occur.		Farm planning and decision making to manage climate and operational risk	Loxton
Leveraging drought to make better management decisions that you might not have otherwise made.		Farm planning and decision making to manage climate and operational risk	Loxton
Have a plan, make decisions early, access expertise (e.g. consultants) where relevant. Trying to save costs (on consultants) may cost more in the long run if poor, uninformed decisions made.		Farm planning and decision making to manage climate and operational risk	Loxton
Identifying business trigger points in advance – knowing the decisions that will save you money or make you money.		Farm planning and decision making to manage climate and operational risk	Loxton
Being proactive and not reactive, ie, don't wait to lock-up livestock to reduce erosion and keep cover.		Farm planning and decision making to manage climate and operational risk	Loxton
Proactive decisions with business structure that enables effective decisions without the emotion.	Recognising the need to have an effective decision making process on the farm business.	Farm planning and decision making to manage climate and operational risk	Loxton
Avoid knee jerk reactionary decisions based on emotion, make informed decisions after careful thought based on available relevant information.		Farm planning and decision making to manage climate and operational risk	Loxton
Adoption of locally based weather stations and soil probes.		Farm planning and decision making to manage climate and operational risk	Loxton

Confidence to go ahead with the decision (looking back can give you confidence ... but it can be really tough when you've not experienced something before, such as record drought).		Farm planning and decision making to manage climate and operational risk	Loxton
Make a decision, procrastination is a killer and rarely pays off. At least if you make a decision, you can own it.		Farm planning and decision making to manage climate and operational risk	Loxton
Experience and looking back over decisions made in previous years on what has worked and what has not - ie, what seeding decisions you took in the last dry April/May.		Farm planning and decision making to manage climate and operational risk	Loxton
Planning early and setting trigger points in time and practice.	Feed rations, soil testing before fertiliser programs are developed	Farm planning and decision making to manage climate and operational risk	Loxton
Confinement feeding.		Livestock and fodder management strategies, technologies, and innovations	Loxton
Holding on to breeding stock through the drought to start up after the drought.		Livestock and fodder management strategies, technologies, and innovations	Loxton
Livestock feed budgeting to keep livestock in good condition. Understanding markets and cost of feeding to determine if viable to carry stock through a drought.		Livestock and fodder management strategies, technologies, and innovations	Loxton
Livestock drought confinement feeding lots - to keep sheep off of fragile hills until such time as they are sufficiently covered.		Livestock and fodder management strategies, technologies, and innovations	Loxton
Livestock feed storage options.		Livestock and fodder management strategies, technologies, and innovations	Loxton
Better management of vulnerable soils, applying different management strategies on vulnerable soils.		Soil and land management strategies, technologies, and innovations	Loxton
Keeping high soil organic carbon levels.		Soil and land management strategies, technologies, and innovations	Loxton
Purchase more water where available at the beginning of the drought.		Water security and management strategies, technologies, and innovations	Loxton
Increase water security through purchase of permanent water entitlements.		Water security and management strategies, technologies, and innovations	Loxton

Irrigation efficiency – adoption of drip irrigation, use water at the right time when crops need it through use of sensors. Monitor water use and apply to crop requirements.		Water security and management strategies, technologies, and innovations	Loxton
Seek information - for horticulture, water security is a relatively new problem (since 02). There are other areas of the world which have had these problems before us so seek the info, take it to your industry group.		Water security and management strategies, technologies, and innovations	Loxton
Adoption of water security saving and monitoring technologies.		Water security and management strategies, technologies, and innovations	Loxton
Testing of new technology e.g. netting.		Water security and management strategies, technologies, and innovations	Loxton
Turn water off on replants to save water.		Water security and management strategies, technologies, and innovations	Loxton

Idea	Comments from other participants	Theme	Workshop
Having expert from outside the farm business to provide advice about the business.		Access to drought information and technical support.	Orroroo
Focus on good agronomy.	Can't beat good agronomy – it usually pays! Weed management, nutrition, early sowing, etc	Crop and pasture management strategies, technologies, and innovations	Orroroo
Strong focus on water use efficiency.		Crop and pasture management strategies, technologies, and innovations	Orroroo
Minimum till/no till/summer weed control have been good for cropping.		Crop and pasture management strategies, technologies, and innovations	Orroroo
Making sure half the income comes from non-seasonal sources.		Farm business management	Orroroo
An income strategy that has risk management.		Farm business management	Orroroo
Maximising the good years, eg hay storage, hold back or disseminating income, using FMDs.		Farm business management	Orroroo
Aggressively built up equity while years were good.	Having a good level of equity in the business	Farm business management	Orroroo

Reducing overheads, no labour, decreasing insurance, doing more mechanical jobs yourself, delayed projects. Reducing any expenditure – including not going to the pub or buying new clothes. Don't register equipment that you don't use as regularly.	You need to make sacrifices to be successful and survive	Farm Business Management	Orroroo
Detailed business plan which has key deliveries and what to do when, with clear trigger points.	Property management plans to keep on track and focus on clear outcomes	Farm Business Management	Orroroo
Strong relationships within the business, with business partners and supporting agri-business.		Farm Business Management	Orroroo
Regular off-farm income as a part of business planning.		Farm Business Management	Orroroo
Off-farm income – sometimes means biting the bullet and doing something you didn't want to do.	Off-farm income/employment opportunities is important. Investment into off farm ventures and investments also important to diversify income streams	Farm Business Management	Orroroo
Farm management deposits have been very important.		Farm Business Management	Orroroo
Clear understanding of the cost of production and the finances of the business.	And using technology to measure inputs and outcomes	Farm Business Management	Orroroo
Livestock prices have been a saviour during the recent drought.		Farm planning and decision making to manage climate and operational risk	Orroroo
Pulling poorer performing paddocks from production.	Change options	Farm planning and decision making to manage climate and operational risk	Orroroo
Selling stock prior to them losing condition.		Farm planning and decision making to manage climate and operational risk	Orroroo
Diversity of income where possible within your system. Diversity of crops, diversity of enterprise.		Farm planning and decision making to manage climate and operational risk	Orroroo
Confinement feeding to conserve stubble.	Consistent discussion on this table	Livestock and fodder management strategies, technologies, and innovations	Orroroo
Choosing not to join ewes or access agistment.		Livestock and fodder management strategies, technologies, and innovations	Orroroo
Buying feed in early rather than waiting until all the feed was used.		Livestock and fodder management strategies, technologies, and innovations	Orroroo

Timeliness of farm operations are important. Having next generation interested in livestock has been good and the availability of livestock management courses to assist with livestock management and handling strategies and practices.		Livestock and fodder management strategies, technologies, and innovations	Orroroo
Having completed a training course on sheep management (Livestock you) and developed trigger points for managing stock.		Livestock and fodder management strategies, technologies, and innovations	Orroroo
Confinement feeding of livestock.	Sheep in one location being fed every day – containment feedings, in one paddock: this is becoming an every year focus to maintain ground cover	Livestock and fodder management strategies, technologies, and innovations	Orroroo
Reducing cash outlays – agisted out on crop stubbles rather buy lambs in.		Livestock and fodder management strategies, technologies, and innovations	Orroroo
Making early decisions on livestock management. Have a plan to assist with decision making.	If do this and then kangaroos move it, you don't get the benefit of making the decision early	Livestock and fodder management strategies, technologies, and innovations	Orroroo
Culling roos.	You can de-stock but if the roos move in you have no benefit from it.	Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Orroroo
Soil moisture probes, stripper front.		Soil and land management strategies, technologies, and innovations	Orroroo
Maintaining ground cover, ground cover, ground cover.	Using technology to measure this and then acting on it – if it gets low destock. Any tips here? Doesn't matter what type of cover or how much cover – just need to maintain cover to not lose water	Soil and land management strategies, technologies, and innovations	Orroroo
Investing on water infrastructure in good seasons		Water security and management strategies, technologies, and innovations	Orroroo

Idea	Comments from other participants	Theme	Workshop
Multi-focus field days and activities covering agronomy, livestock, finances and mental health and wellbeing.		Access to drought information and technical support.	Roseworthy
Having money to undertake demonstrations to showcase what works to build resilience. Needs to be locally relevant.		Access to drought information and technical support.	Roseworthy

Strategies when they're a shared experience are really good – ie when we're all in drought; but when only a proportion of people are hurting is no good.		Access to drought information and technical support.	Roseworthy
Not making false promises, eg the drought tolerant wheat or frost tolerant; be realistic,		Access to drought information and technical support.	Roseworthy
Access to research and information that assists farmers to make in-season decisions and change strategies according to seasonal changes. Knowing the range of options available to you. This means having done sufficient planning with trigger points. Need to get better with trigger point identification.		Access to drought information and technical support.	Roseworthy
Technological changes and agronomical changes/advice, eg wheat varieties.		Access to drought information and technical support.	Roseworthy
Planning, timeliness, summer weed management, variety selection, grain storage.		Crop and pasture management strategies, technologies, and innovations	Roseworthy
No-till and earlier seeding of crops.		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Handle on GM, profitability, benchmarking.		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Maintaining soil cover		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Frontline responders such as CWA that are integral to response and support within communities.		Community resilience through increased support, collaboration, and access.	Roseworthy
Getting time away from all the problems.		Community resilience through increased support, collaboration, and access.	Roseworthy
Focus on people's health and wellbeing – the 6 Bs.		Community resilience through increased support, collaboration, and access.	Roseworthy
Welfare payments rather than handouts are better perceived by producers affected.		Community resilience through increased support, collaboration, and access.	Roseworthy
The right level of diversification (and not being over diversified).		Farm business management	Roseworthy
Prudent investment in good years matched with good risk management ("it's what you do in the good years that determines how you survive the poor years").		Farm business management	Roseworthy

Business coaching and having direction with benchmarking for how to make improvements going forward.		Farm business management	Roseworthy
Enterprises that are not reliant on climate (a form of diversification).		Farm business management	Roseworthy
FMDs are a good tool – they need to be tweaked to allow more for drought, drought year not necessarily a good tax year. Consider redeveloping.		Farm business management	Roseworthy
ATO amortised the (drought) forced sell down of livestock but should have come in earlier.		Farm business management	Roseworthy
People not hanging on to the drought – being willing to farm in the good years after a drought, considering each season on its own merits rather than being scarred by what has come before.		Farm business management	Roseworthy
Strategies seem to work for the first 2 years, but after that becomes more difficult to manage; in year 3 looking to borrow money – and this includes top of the range farmers, with decent size enterprises.		Farm business management	Roseworthy
Real financial impact of a drought is dependent on the year before a drought, eg you might have had a frost, or wind storm, or a personal crisis.	And emotionally	Farm business management	Roseworthy
Farm Management Deposits were really helpful.		Farm business management	Roseworthy
Business diversification and/or off farm income.		Farm V	Roseworthy
Putting away money/resources in the good years.		Farm V	Roseworthy
Responsibility – producers who accept that their management has got them in the drought; then able to see that they are the issue (not lack of rain – uncontrollable) and change management.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Establishing infrastructure in the good times to buffer the bad times, ie water security measures.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Producers who accept that their management (responsibility) has got them in the drought, are then able to change their management to adapt.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Identified and minimised the risks that are not drought to free up head space and capital for the drought,		Farm planning and decision making to manage climate and operational risk	Roseworthy

having solid business plan so know your trigger points; do the pre-thinking when you're not stressed and not panicked.	When sit down with your agronomist at the start of the season and consider what you're going to do if it goes wrong	Farm planning and decision making to manage climate and operational risk	Roseworthy
Having a plan with well-defined trigger points for your change strategies. These need to be individual for each farming business.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Better facilities for storing feed (eg bunkering grain; silage pits).		Farm planning and decision making to manage climate and operational risk	Roseworthy
Reduce livestock numbers using evidence-based data to support decisions.	Determine paddock carrying capacities, and how these change over time.	Farm planning and decision making to manage climate and operational risk	Roseworthy
Acknowledgement of drought.	People are having different experiences and are all individuals	Farm planning and decision making to manage climate and operational risk	Roseworthy
Having a traffic light system based on key environmental/weather, financial and social indicators to allow people to judge where they are on the spectrum. Sometimes you don't know you are in trouble until it is too late. These indicators can be based on past experiences and use the collective wisdom of successful people in business.		Farm planning and decision making to manage climate and operational risk	Roseworthy
The conversion of weekly feed costs into long term land prices (ie consider feed costs as interest in purchase of land in more reliable areas). Dry years use 'southern country' for own breeders; wet years use southern country for finishing.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Confronting the brutal facts; eg looking at crop and cutting or putting sheep on or doing something else; not being caught up in the emotion of it all.	People getting too invested in being responsible for what has happened when it is weather controlled. Can be blame game between partners in the enterprise	Farm planning and decision making to manage climate and operational risk	Roseworthy
Having someone assist with decision making and guide farmers through the process. For livestock – buy, sell, or feed.		Farm planning and decision making to manage climate and operational risk	Roseworthy

Current decile 9 livestock commodity prices allow for profits and reinvestment and can buy more feed reserves.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Fodder reserves for grazing – need to be larger now.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Build up hay reserves for droughts to use or sell.		Farm planning and decision making to manage climate and operational risk	Roseworthy
What is the definition of drought? Seasonal vs prolonged over years. Impacts of each in different locations ie: Roseworthy compared to Orroroo.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Planning for all outcomes – good scenario analysis before the season starts.		Farm planning and decision making to manage climate and operational risk	Roseworthy
A forward plan that lays out key decisions and pre-determined triggers for action (aka Bushfire response/evacuation plan). Making some of these decisions is too hard once you are in the midst of the issue, depressed, worried etc.	Drought Hub could produce a "Workbook" that was work-shopped with farmers at a local level to prompt/lead/facilitate the sorts of decisions and information sources to work through	Farm planning and decision making to manage climate and operational risk	Roseworthy
Training around improved climate outlooks and education around forecasts.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Focused on sheep during droughts as they have been the winner and have reduced cropping.		Livestock and fodder management strategies, technologies, and innovations	Roseworthy
Grazing industry - "destock early, de-stock less; de-stock late, de-stock lots".		Livestock and fodder management strategies, technologies, and innovations	Roseworthy
Lifetime ewe management course – learned what the needs of the sheep are through mentoring and small group peer support learning.		Livestock and fodder management strategies, technologies, and innovations	Roseworthy
Containment lots to maintain stock numbers. Dependent upon feed price and livestock price to determine if viable. Needs more consultants/support to assist with feed budgeting. Farmers need support to address livestock health issues related with containment feeding. Understanding causes of livestock mortality in confinement. Understanding better containment management strategies ie: age class segregation to manage disease risk.		Livestock and fodder management strategies, technologies, and innovations	Roseworthy

Managing stock with reduced feed production, and using containment feeding.	Prioritise which class of livestock to sell. Seek agistment	Livestock and fodder management strategies, technologies, and innovations	Roseworthy
Soil moisture probes, NDVI maps, other decision support tech.	Dry seasons workshop run by BIGG which looked at strategies and trigger points. Water level monitors at watering points/dams?	Soil and land management strategies, technologies, and innovations	Roseworthy

Idea	Comments from other participants	Theme	Workshop
One-on-one support services for people. One-on-one technical support particularly important where people aren't used to asking for assistance and don't want to do it publicly.		Access to drought information and technical support	Naracoorte
Having good, diverse and timely communication channels to make sure everyone is kept informed of information and opportunities. Needs to be carefully balanced so that there isn't information overload. Recognise that the type of information often needs to change over time.		Access to drought information and technical support	Naracoorte
Personal resilience allows a person to run with the changes, challenges and make decisions and come out the other side; cope with the stressors; this is built before any trauma occurs.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Drought support groups where a range of sectors and community leaders come together and discuss drought issues from a community and social perspective and the assistance measures that are needed.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Improved knowledge of access to drought support services. Having good contacts in the government service sector to be able to direct people to get assistance.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Engaging with existing services and networks to they are aware of drought issues and can redirect their services and support mechanisms to meet the needs of drought affected communities..		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Talking to the finance sector, rural financial counsellors, and accountants was useful to ground truth what is going on around the region and district.	Paying debt down in the good years. Consideration of when to expand, you can have good years and expand and then end up in a bad year	Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte

Having diversity across the farming system – early and late sowing, different varieties of wheat based on their tolerance, use of Clearfield technology.		Crop and pasture management strategies, technologies, and innovations	Naracoorte
Having perennials as part of the pasture mix. Allows some grazing all year round and also provides ground cover.	But MLA work has shown that we need to change from Mediterranean to Sub-Tropical pastures – so need a big program to talk about these changes	Crop and pasture management strategies, technologies, and innovations	Naracoorte
Timeliness of sowing, use of nutrition and disease control – considering the whole system but use tools to measure these things to make decisions. Use soils test.		Crop and pasture management strategies, technologies, and innovations	Naracoorte
Use of technology including press wheels, seed and fertiliser placements.		Crop and pasture management strategies, technologies, and innovations	Naracoorte
Use of gibberellic acid and nitrogen in tight winters.		Crop and pasture management strategies, technologies, and innovations	Naracoorte
More cropping areas in good years.		Crop and pasture management strategies, technologies, and innovations	Naracoorte
Flexibility of business – be able to pivot with resources, eg selling stock to a different market.		Farm business management	Naracoorte
Financial strength: diversity of income, balance sheet strength, understanding cost of production, capacity in terms of your commitments.		Farm business management	Naracoorte
Diversify the business through investing to provide some off-farm income. Invest in the good years to provide some income during droughts. Tax becomes the motive for spending in good years, rather than strategic investments.		Farm business management	Naracoorte
Get on the front foot and communicate with the bank early, rather than waiting until there is an issue. Take charge of the discussion with the bank, don't wait for them to contact you.		Farm business management	Naracoorte
Understanding your financial position so as to make timely informed decisions.	Also understanding what costs you can cut. Having a contingency plan that allows you to make the decisions you need to make without the stress	Farm business management	Naracoorte

Financial strategies such as FMDs.	Also having a financial plan for the drought and recovery from it.	Farm business management	Naracoorte
Don't worry about things you cannot change. Focus on the decisions you can make.		Farm planning and decision making to manage climate and operational risk	Naracoorte
Having good planning in place for all circumstances – use farm business software/scenario planning		Farm planning and decision making to manage climate and operational risk	Naracoorte
Making decisions early (by learning the hard way from last drought). Using all the measuring tools available (soil tests, DM models, variety info).	P2P	Farm planning and decision making to manage climate and operational risk	Naracoorte
Understanding what the risk is to your business and then being able to manage that.	Through a business plan ...	Farm planning and decision making to manage climate and operational risk	Naracoorte
Trigger points for different management systems/strategies as starts get later or springs cut off earlier.		Farm planning and decision making to manage climate and operational risk	Naracoorte
Previous extensive network of abattoirs supported producers wanting to offload stock, ie created options.		Livestock and fodder management strategies, technologies, and innovations	Naracoorte
Networks of producers helped to underpin livestock genetics base stability.		Livestock and fodder management strategies, technologies, and innovations	Naracoorte
De-stocking; making timely decisions about what stock to sell and when, not delaying, using triggers already decided.		Livestock and fodder management strategies, technologies, and innovations	Naracoorte
Containment feeding	For the purpose of pasture growth in autumn, not just for drought. Maximising labour resources is a well-known practise, but the extension work hasn't been done well so that everyone uses fit when they need to. LTEM has helped with this	Livestock and fodder management strategies, technologies, and innovations	Naracoorte
Implementing pasture budgeting to make feed and stock selling decisions.		Livestock and fodder management strategies, technologies, and innovations	Naracoorte
Reduced stocking in poor years.		Livestock and fodder management strategies, technologies, and innovations	Naracoorte
Improve run-off capture into dams, i.e. sealing of graded catchments.	Any tips on what sealing techniques work best or other?	Water security and management strategies, technologies, and innovations	Naracoorte
Cost effective desal options.	Any ideas on what you are looking for? Not an issue for the Limestone Coast. Maybe for irrigation water?	Water security and management strategies, technologies, and innovations	Naracoorte

Techniques to reduce farm dam evaporation	What techniques in particular Are there some you would recommend to others?	Water security and management strategies, technologies, and innovations	Naracoorte
Underground water is an important resource in the SE – don't need to destock due to stock water.		Water security and management strategies, technologies, and innovations	Naracoorte

Idea	Comments from other participants	Theme	Workshop
More communication and support on new innovations available and sharing information.		Access to drought information and technical support	Coober Pedy
Education/training opportunities for diversification.		Access to drought information and technical support	Coober Pedy
Early education of future farmers – kid drought workshops in rural and remote schools.		Access to drought information and technical support	Coober Pedy
Sharing knowledge – proven ideas/structures that work.		Access to drought information and technical support	Coober Pedy
Have a connection with SA ICPA (Isolated Children's Parents Association) to get ideas out into rural and remote families.		Access to drought information and technical support	Coober Pedy
RCS funding to attend.		Access to drought information and technical support	Coober Pedy
Maintaining community services – insurance brokering for community events.		Community resilience and wellbeing through support, collaboration, and access to technologies	Coober Pedy
Involve more people in the communities to facilitate workshops/be employed in projects.		Community resilience and wellbeing through support, collaboration, and access to technologies	Coober Pedy
Outback areas are often forgotten in a lot of drought type programs as needs are a lot different.		Community resilience and wellbeing through support, collaboration, and access to technologies	Coober Pedy
Support to assist when dealing with governments.		Community resilience and wellbeing through support, collaboration, and access to technologies	Coober Pedy
Help when it comes to grants/funding – not sure where to find them and which ones are best chance of success.		Community resilience and wellbeing through support, collaboration, and access to technologies	Coober Pedy
Help to find help – finding workers to get through hard times.		Community resilience and wellbeing through support, collaboration, and access to technologies	Coober Pedy
Drought tolerant plants that are highly productive.		Crop and pasture management strategies, technologies, and innovations	Coober Pedy
Forage budgeting knowledge.		Crop and pasture management strategies, technologies, and innovations	Coober Pedy

More research in the benefits of time-controlled grazing in the arid areas.		Crop and pasture management strategies, technologies, and innovations	Coober Pedy
Diversification in business – property processing, bush food industry, kangaroo harvesting and better utilisation of native and pest species.		Farm Business Management	Coober Pedy
Pasture from Space.		Farm planning and decision making to manage climate and operational risk	Coober Pedy
Funding to trial innovations.		Livestock and fodder management strategies, technologies, and innovations	Coober Pedy
Virtual fencing – game changer out here.		Livestock and fodder management strategies, technologies, and innovations	Coober Pedy
Livestock breeding – right animal for right environment.		Livestock and fodder management strategies, technologies, and innovations	Coober Pedy
Methane studies in arid areas where dry compared to the studies in wet areas.		Livestock and fodder management strategies, technologies, and innovations	Coober Pedy
Access to agistment or a hub/portal where people with land or feed can register to lease out to connect with those who need it.		Livestock and fodder management strategies, technologies, and innovations	Coober Pedy
Walk over weighing systems.		Livestock and fodder management strategies, technologies, and innovations	Coober Pedy
Research on the financial benefit of having biodiversity grazing operations, e.g. stewardship type credits,		Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Coober Pedy
Soil research in the SA Arid Lands,		Soil and land management strategies, technologies, and innovations	Coober Pedy
Soil carbon,		Soil and land management strategies, technologies, and innovations	Coober Pedy
Benefits of storing more carbon in soil in arid areas,		Soil and land management strategies, technologies, and innovations	Coober Pedy
Funding for soil regeneration,		Soil and land management strategies, technologies, and innovations	Coober Pedy
Desalination in quantity and affordable.		Water security and management strategies, technologies, and innovations	Coober Pedy
Pipeline technology and affordability.		Water security and management strategies, technologies, and innovations	Coober Pedy

Water management systems.		Water security and management strategies, technologies, and innovations	Cooper Pedy
More automation or trialling of equipment on pastoral properties and support to do this.		Water security and management strategies, technologies, and innovations	Cooper Pedy

Idea	Comments from other participants	Theme	Workshop
Small group supported learning is best.	Many of these projects have involved small group learning, coaching and mentoring that are "labour intense" by the trainer/facilitator/coordinator, but also deliver high impact/practice change (and that is why MLA is going down the "Profitable Grazing Systems – Supported learning Program" pathway). BIGG's projects were not quite as structured as LTEM (ie. over 30% of Aust sheep producers have done this course).	Access to drought information and technical support	Other Feedback Received
Winter pasture improvement.	The Winter Pasture NRM project (Group learning, BIGG's original project, 2012). Involved training, developing an "action plan", coaching, mentoring, documenting the champions <a href="https://biggroup.org.au/project/winter-pasture-nrm/">https://biggroup.org.au/project/winter-pasture-nrm/</a>	Access to drought information and technical support	Other Feedback Received
Support from NRM/Landscapes, AWI etc. for resources and running sessions/workshops etc.		Access to drought information and technical support	Other Feedback Received
Pasture Challenge Project.	(Small group learning, everyone likes a bit of a competition). In the past, groups such as Ag Bureau have run Statewide Pasture Competitions. These were good for commercial partnerships/funding, but were sadly assessed very subjectively (eg. the undergrazed, overly fertilised and pampered pasture often won!). The BIGG Pasture Comp addressed many of these issues, and was based on similar project in The Mallee on crops "Have a red-hot go" <a href="https://biggroup.org.au/project/pasture-challenge/">https://biggroup.org.au/project/pasture-challenge/</a>	Access to drought information and technical support	Other Feedback Received
Having established groups who understand local farming systems and producer needs.	Drought Hub should work through established groups.	Access to drought information and technical support	Other Feedback Received

Longer term projects	Longer than 12 months. Provides security, staff retention, builds a story, has greater impact, more meaningful outcomes, results not as easily skewed by a bad or good season, opportunity to build relationships with growers and troubleshoot issues	Access to drought information and technical support	Other Feedback Received
Calendar of events – single calendar in a location that everyone is aware of and can go to.		Access to drought information and technical support	Other Feedback Received
Emotional intelligence.		Community resilience and wellbeing through support, collaboration, and access to technologies	Other Feedback Received
Pastures in a variable climate	(Once again, another possible opportunity for the Hub to partner with RDCs). This project has led BIGG members into many different places. One area is “poly-cultures for graze and grain options” – this is a high area of interest for BIGG and needs more applied research, maybe even some basic research (from one of the other 8 Drought Programs) <a href="https://biggroup.org.au/project/maximising-pasture-production-in-a-variable-climate/">https://biggroup.org.au/project/maximising-pasture-production-in-a-variable-climate/</a>	Crop and pasture management strategies, technologies, and innovations	Other Feedback Received
Knowing what is in the bank and how best to employ it – whole of business	Including: Feed and fodder resources (pasture hay, grain etc.), CS Sheep, bank / financial, and Human Resources.	Farm business management	Other Feedback Received
Understanding risk management and the level of risk you are prepared to accept.		Farm business management	Other Feedback Received
Diversity on and off farm.	Financial, mental 'mealth', flexibility within program to employ trigger points	Farm business management	Other Feedback Received
Pastoral - diversification and robust business model with different forms and sources of income, ie carbon opportunities.		Farm business management	Other Feedback Received
Farm Management Deposits	Financial reserves in drought. Also need income diversification to spread risk.	Farm business management	Other Feedback Received
Understanding your market, having a strong business model, diversification.		Farm business management	Other Feedback Received
Understanding your finances and having financial buffers – FMDs/other.		Farm business management	Other Feedback Received
Be accountable to planning decisions. Drought is coming but when? Have a plan for this and enact it		Farm planning and decision making to manage climate and operational risk	Other Feedback Received

Developing a drought/dry times policy and plan for your business.	With trigger points for action. Allows decisions to be made to a plan and with a clear head.	Farm planning and decision making to manage climate and operational risk	Other Feedback Received
Virtual fencing.	Provides opportunity to better manage livestock grazing. <a href="https://biggroup.org.au/project/virtual-fencing/">https://biggroup.org.au/project/virtual-fencing/</a>	Livestock and fodder management strategies, technologies, and innovations	Other Feedback Received
Ewe containment areas.	Who would have thought, this is still a work in progress, even though the SA MDB started its grants some 10-15 years ago. It's more about the fine tuning now, reducing the losses, increasing the multiple benefits. <a href="https://biggroup.org.au/project/e-we-containment-areas/">https://biggroup.org.au/project/e-we-containment-areas/</a> Its also a project area of interest to RDC's such as MLA and AWI. ( so a great partnership opportunity)	Livestock and fodder management strategies, technologies, and innovations	Other Feedback Received
Grow, make, and store silage as part of overall feed budgeting strategy in conjunction with grain purchase and training livestock.	The use of silage in double wrapped bales (2 bale sausage) has been a boon for our autumn feed gap and drought resilience. The storage of a feed buffer in hay in the shed rather than hand to mouth helps in feed budgeting. The annual purchase of barley and a protein grain, ie beans, for a one year supply for a normal autumn feeding. (This is done straight of the header usually). The feed training of lambs on their mothers so they at least take to feeding reasonable quickly.	Livestock and fodder management strategies, technologies, and innovations	Other Feedback Received
Having a yearly feed budget in advance.		Livestock and fodder management strategies, technologies, and innovations	Other Feedback Received
Containment feeding.		Livestock and fodder management strategies, technologies, and innovations	Other Feedback Received
Ability to maintain core breeders (through containment).	Helps with mental fitness	Livestock and fodder management strategies, technologies, and innovations	Other Feedback Received

Increased fodder preservation and storage - need a how to/why to guide.	Silage has been good in South East. Key risks with mice and fire. Need environmentally friendly/compostable silage wrap Assessing feed quality.	Livestock and fodder management strategies, technologies, and innovations	Other Feedback Received
Soil moisture probes	Soil moisture monitoring (a project of national significance and catalyst for national action in this space). Seek co-invest (producers/other orgs) to add soil moisture meters to selected Mesonet weather stations to value add the weather station. Forecast drying seasonal conditions/moisture bank in the soil obviously very low in 2021) to assist in exit plans, and or tactical decisions when moisture is un-seasonally high. Of course, there is such a network in Victoria across the grazing regions. <a href="https://extensionaus.com.au/soilmoisturemonitoring/about/">https://extensionaus.com.au/soilmoisturemonitoring/about/</a> (Which I see is also part of Extension AUS) BIGG would value an update/replace of old/tired out of date equipment at its long-term sites.	Soil and land management strategies, technologies, and innovations	Other Feedback Received
Pastoral - desalination for water supply to stock. Needs to be developed further.		Water security and management strategies, technologies, and innovations	Other Feedback Received

## Appendix C - Responses to the question - What research / extension / knowledge or innovations would improve drought resilience?

Idea	Comments from other participants	Theme	Workshop
What is the best commercialisation pathway for best adoption and quick/effective practice change)?		Access to drought information and technical support.	Wudinna
Continuous community support to prepare for droughts (rather than being reactive), such as full-time family counsellors (Centre Care model), support for groups to come together.		Community resilience and wellbeing through support, collaboration, and access to technologies	Wudinna
Transferability of low rainfall pastures from the pastoral zone.		Crop and pasture management strategies, technologies, and innovations	Wudinna
Mixed species pastures – how they fit into local farming systems. What is their water use, biomass and feed value.		Crop and pasture management strategies, technologies, and innovations	Wudinna
Better adapted, longer season pastures.		Crop and pasture management strategies, technologies, and innovations	Wudinna
Manage moisture and heat stress better (ie early crop establishment, innovative technologies, better adaptative agronomy).		Crop and pasture management strategies, technologies, and innovations	Wudinna
Technologies to reduce the impact of drought – soil preservation, ground cover preservation, selectivity of weeds within crops.		Crop and pasture management strategies, technologies, and innovations	Wudinna
Use of drones for spot operations rather than blanket operations. Green-on-green recognition and spray technology for targeting weeds and pasture preservation).		Crop and pasture management strategies, technologies, and innovations	Wudinna
Integrated approaches to reduce weed resistance to chemistries.		Crop and pasture management strategies, technologies, and innovations	Wudinna
Revisit the economics of mixed farming (ie are sheep a risk management tool).		Farm business management	Wudinna
Extend information from Rural Directions report on top 20% of farmers – the common areas of success/what makes a resilient business.		Farm business management	Wudinna

How do we adapt to a dry forecast – consider flexibility in the farming system, stored soil water etc.		Farm planning and decision making to manage climate and operational risk	Wudinna
Know the risk of and have options to adapt to: wet droughts; price droughts; harsh springs; frost; heat stress.		Farm planning and decision making to manage climate and operational risk	Wudinna
Capacity building/best bets: Have a plan in place; transfer knowledge from those with high drought resilience to those that haven't experienced drought or are yet to adopt best practice. Develop innovative ways of doing this (avoid duplication, maximise time at events, use different techniques, peer-to-peer and small groups work best, utilise social media).		Farm planning and decision making to manage climate and operational risk	Wudinna
Accurate seasonal forecasting.		Farm Planning and Decision Making to manage climate and operational risk	Wudinna
Automated sheep feeding.		Livestock and fodder management strategies, technologies, and innovations	Wudinna
Pregnancy scanning – extension required to increase adoption rates.		Livestock and fodder management strategies, technologies, and innovations	Wudinna
Virtual fencing could be a game-changer – miniaturised scale, low-cost, sheep friendly options needed).		Livestock and fodder management strategies, technologies, and innovations	Wudinna
The value of biodiversity on-farm (with a focus on carbon) – improve the quality of existing biodiversity/revegetation programs and develop income streams to support activities/programs/incentives.		Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Wudinna
Working with nature – what regenerative ag practices are suitable for a low rainfall environment? Consider: maintaining soil cover all year-round; increased soil carbon/health; collect quantitative data on impacts and determine locations on the landscape/farm where it has application.		Soil and land management strategies, technologies, and innovations	Wudinna
Increase the soil bucket size.		Soil and land management strategies, technologies, and innovations	Wudinna

Idea	Comments from other participants	Theme	Workshop
Carbon farming – carbon neutrality – what this means in the pastoral areas. Carbon industry/carbon market and where this is going globally. Policy which underpins this.		Access to drought information and technical support.	Port Augusta
We need 'boots on the ground' in the more remote areas to help with implementing (adoption) of innovations. There isn't the in-person practical support available to be able to do a lot of these things. Send the uni students out every holidays or for practicums – it will help inform and develop their learning and also assist the take up of new practices by pastoralists.		Access to drought information and technical support.	Port Augusta
Practical case studies on what others have done in the past to improve their drought resilience – these could include videos.		Access to drought information and technical support.	Port Augusta
Desktop audit of all the resources currently available from MLA & AWI and then assist with implementing them.	No point in reinventing the wheel. And not only implementing, but to measure the improvements/challenges/difficulties when using new technologies. This is often beyond the capacity of pastoralists to do due to reduced workforce.	Access to drought information and technical support.	Port Augusta
Internet connectivity – people need this for their business, educating children, remote monitoring, feral pest monitoring, health services.		Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Put childcare on the list of essential workers for agriculture.	And support parent home tutors by paying them. Emotional sustainability needs to be considered. Look at policy to support families and how their children work on their business.	Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Dedicated drought extension officers (if they don't already exist).	"Sustainability" Officers	Community resilience and wellbeing through support, collaboration, and access to technologies	Port Augusta
Remote sensing and telemetry.		Crop and pasture management strategies, technologies, and innovations	Port Augusta
Forecasting ground cover based on historical ground cover trends and forecast climate data.	Not sure we have enough data across the rangelands to accurately model this? But nothing to stop us gathering data now.	Crop and pasture management strategies, technologies, and innovations	Port Augusta

Climate modelling and tools for planning and adaptation.		Farm planning and decision making to manage climate and operational risk	Port Augusta
Mapping of traits – soil moisture, ground cover, health, feed quality – useful information to drive decisions. Mapping properties and extracting useful information. Better data linkage, water points, walk over weighing, feed quality, property planning which integrates the farming systems intel to help give a picture of the business. Need relevant and cost-effective data. Need new innovation.	And we need to be clear from the outset who will pay for this. Pastoralists often don't have the capacity to invest in this technology, especially when it could possibly disrupt their existing enterprise (if it ain't broke, don't fix it) but any data needs to be collected in a real-world commercial operation in order to be relevant.	Farm planning and decision making to manage climate and operational risk	Port Augusta
Recognising early drought indicators to help with planning.		Farm planning and decision making to manage climate and operational risk	Port Augusta
Maintaining ground cover – understanding the capacity of the land and be able to measure that.		Farm planning and decision making to manage climate and operational risk	Port Augusta
Case studies on peer -opeer pre-planning drought.		Farm planning and decision making to manage climate and operational risk	Port Augusta
Property management planning.	Business planning	Farm planning and decision making to manage climate and operational risk	Port Augusta
Grazing management extension – clear extension activities at the local level. Pull information together on the pastoral resources, ie. drought indicators, templates for management plans, road test with the community. Two way learning and share the knowledge.		Livestock and fodder management strategies, technologies, and innovations	Port Augusta
Profitability of size vs numbers of stock turn off (pretty sure MLA has done some of this but not in a pastoral context).		Livestock and fodder management strategies, technologies, and innovations	Port Augusta
Mapping cattle movement – ie. distance from water.		Livestock and fodder management strategies, technologies, and innovations	Port Augusta
Feedbase measurement of shrubs and trees (mulga). Current systems can only measure grass and vegetation close to the ground.		Livestock and fodder management strategies, technologies, and innovations	Port Augusta
Environmental stewardship.		Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Port Augusta
Finding and locating water resources.		Water security and management strategies, technologies, and innovations	Port Augusta

Exploring alternative water options	De-sal	Water security and management strategies, technologies, and innovations	Port Augusta
Water management – telemetry.		Water security and management strategies, technologies, and innovations	Port Augusta
Heavily subsidising water management tools/sensors..		Water security and management strategies, technologies, and innovations	Port Augusta
Tools/ideas to reduce water evaporation – pipelining borewater waterways/troughs.		Water security and management strategies, technologies, and innovations	Port Augusta
Comprehensive historical groundwater bore database online with GPS location.		Water security and management strategies, technologies, and innovations	Port Augusta
Accurate terrain-based modelling to maximise efficiency of water pipeline infrastructure.		Water security and management strategies, technologies, and innovations	Port Augusta

Idea	Comments from other participants	Theme	Workshop
Demonstration of successful tactics from previous droughts, eg mulches		Access to drought information and technical support	Loxton
Validate farm data in a protected and shareable way (weather, soils, management decisions)		Access to drought information and technical support	Loxton
Need targeted extension to get more consistent adoption of best practice across the landscape, not just on a few farms.		Access to drought information and technical support	Loxton
Regional capacity building. Improving the skills and leadership of people in the region.		Community resilience through increased support, collaboration, and access.	Loxton
Farmers to be represented professionally across all industries together, not as a silo.		Community resilience through increased support, collaboration, and access.	Loxton
Research on the motivators to improve the productivity skills of 'quadrant 4' farmers (in RBS terms) to improve land management/outcomes for the whole ag sector.		Community resilience through increased support, collaboration, and access.	Loxton
Networking amongst farmers.		Community resilience through increased support, collaboration, and access.	Loxton

Better use of the data about our current situation that we know. Broadacre – nutrient levels, growth stage of crops, nutrient requirements, soil moisture. Hort – compiling all previous data for irrigation techniques, mulching and time of application, day time vs night time irrigating. Particularly in regard to previous drought decisions.		Crop and pasture management strategies, technologies, and innovations	Loxton
Focus on de-risking the seeding program in dry starts to the season – dry sowing, variety choice.	New technologies to improve dry seeding outcomes	Crop and pasture management strategies, technologies, and innovations	Loxton
Ground up, grower-led, on ground tangible demonstration that can be judged as to success or otherwise.		Crop and pasture management strategies, technologies, and innovations	Loxton
Better benchmarking of N mineralisation potentials in differing agro-climatic and soil provinces based on indicator sites which implement an 'average practice' – integration of broader scale trends into community promotion for consideration with regards to considering up fronts or foliar N decisions around climatic outlooks.		Crop and pasture management strategies, technologies, and innovations	Loxton
Diversification options.		Crop and pasture management strategies, technologies, and innovations	Loxton
Better benchmarking of a mixture of varied cropping/grazing systems across a variety of agro-climatic land systems across a variety of deciles – ie sliding scale potentials that are on promoted as part of continuous info feed by designated agro-climatic/soil province (aggregate as reality dictates).		Crop and pasture management strategies, technologies, and innovations	Loxton
Variable rate farming and PA, improved adoption and assistance with adoption.		Crop and pasture management strategies, technologies, and innovations	Loxton
Need for benchmarking of farms.		Farm business management	Loxton
Skills for financial management and drought proofing – business management, risk management, investing in off-farm income sources (property, shares).		Farm business management	Loxton
Motivation of producers to take early action to be better prepared for drought develop local networks.		Farm planning and decision making to manage climate and operational risk.	Loxton

A comprehensive network and dash board of existing and new weather stations and soil probes, tethered to decision support tools.		Farm planning and decision making to manage climate and operational risk.	Loxton
What is the cost/benefit of leaving farms out of productivity in drought years/benefits in a good year? Farming to land capability, using new technologies to monitor landscapes (satellite, PA, etc).		Farm planning and decision making to manage climate and operational risk.	Loxton
Developing an extension series for climate/weather forecasting, understanding the climate models, taking the information at various points in the season and being able to apply it to decision-making in your business to manage risk. Comparing with flowering time/crop phenology and understanding the impacts of decisions.		Farm planning and decision making to manage climate and operational risk.	Loxton
Weather forecasting and improved accuracy – better 7 and 14-day forecasts, months (ie, August/ ept is when the LRZ has had big dry spells in recent years) seasonal, long-term.		Farm planning and decision making to manage climate and operational risk.	Loxton
Dashboard of existing climate information and data and forecasts on one app on one phone that provides local climate and weather information.		Farm planning and decision making to manage climate and operational risk.	Loxton
Net cost benefit of doing nothing for a season – measure benefits of yield improvement in following season vs sowing a failed crop, moisture retention vs drift costs.		Farm planning and decision making to manage climate and operational risk.	Loxton
There is a gap in farmers zoning the farm for risk management.		Farm planning and decision making to manage climate and operational risk.	Loxton
Sheep – improved understanding of rations for confinement feeding and helping people take the information that is available and rolling it out on-farm. Almost a one-on-one or small group scenario that provides targeted assistance. Understanding ASBVs to ensure best selection of genetics for faster growing lambs/quicker turn-off.		Livestock and fodder management strategies, technologies, and innovations	Loxton

Livestock feed options and turn off decision support tools.		Livestock and fodder management strategies, technologies, and innovations	Loxton
Decision support tools for livestock feed and turn off, livestock water security.		Livestock and fodder management strategies, technologies, and innovations	Loxton
Hydrophobic/water repellent and non-wetting Mallee sands. There is significant areas of light Mallee sands which have these properties and seriously affect crop emergence and therefore fragile soil protection.		Soil and land management strategies, technologies, and innovations	Loxton
Cost effective soil amelioration to improve soil moisture holding.		Soil and land management strategies, technologies, and innovations	Loxton
Soil moisture probes, easier access to information and interpretation of information to make better risk management decisions.		Soil and land management strategies, technologies, and innovations	Loxton
Need more soil moisture probes in the Murray Plains area.	Need the data from the existing probes be available for aggregation as well. Currently locked away in silos.	Soil and land management strategies, technologies, and innovations	Loxton
Establishing ground cover on difficult soil types, eg. saline soils.		Soil and land management strategies, technologies, and innovations	Loxton
Better understanding of how to manage different soil types and soil constraints.		Soil and land management strategies, technologies, and innovations	Loxton
Carbon baselines across different soil types and land uses to determination whether any gains can be made.		Soil and land management strategies, technologies, and innovations	Loxton
Optimisation trials to save water, improve quality and yield in wine grapes and other industries.		Water security and management strategies, technologies, and innovations	Loxton
Livestock dryland water security decision support tools.		Water security and management strategies, technologies, and innovations	Loxton

Idea	Comments from other participants	Theme	Workshop
One-stop shop for information on the web for drought information.		Access to drought information and technical support.	Orroroo
Farming to land profitability.		Access to drought information and technical support.	Orroroo
Travel together to similar but different regions to learn together.	Bus tours?	Access to drought information and technical support.	Orroroo
Focus farms to trial ideas and present the scientific extension to farmers in an applied situation.		Access to drought information and technical support.	Orroroo

Farmer apprenticeship scheme.	Including farm business training about becoming a farmer, not a farm labourer – we know lots of younger people have not been able to come back to family farms due to drought, there is a hole in the age bracket impacted by this latest drought. Is there a way to reduce paperwork/ training accountability from the farmers? A central agency managing the apprentices? Support for farmers to keep/get farm laborers on farm. Build knowledge for farm trainees, reducing pressure on farmers to meet full employment requirements	Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Mechanism, encouragement and support for young farmers to stay during drought. mentoring programs.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Stronger and more widespread mobile network stations for internet connectivity – to gather info.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Connecting producers to consumers more directly.	Creating the conversation to bring these groups together to better understand and be informed of each other	Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Genuine work for the dole program – bring out to farms and use as a workforce.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Integration of renewables across the region; towns, micro-grids, EV/machinery, etc.		Community resilience and wellbeing through support, collaboration, and access to technologies	Orroroo
Mixed species cropping and grazing (intercropping), peer-to-peer learning from each other, farmers coming together to learn what each other are doing. Shifting people's thinking for a single purpose and turn them into little projects		Crop and pasture management strategies, technologies, and innovations	Orroroo
Innovative methods to improve WUE.	And maximise productivity, profitability and land management	Crop and pasture management strategies, technologies, and innovations	Orroroo
Better and more resilient pastures in med to low rainfall areas, ielegumes.		Crop and pasture management strategies, technologies, and innovations	Orroroo
Agronomic packages for improving pulse production in low rainfall areas.	and development of decision support tools for growers to utilise in low rainfall seasons as well as looking at alternative and novel systems and end-uses for pulses/break crops	Crop and pasture management strategies, technologies, and innovations	Orroroo

Improved wheat varieties for low rainfall/drought. Provision of more information on these.		Crop and pasture management strategies, technologies, and innovations	Orroroo
Improved measurement and monitoring of feed base in rangeland areas to assist with decision making for livestock movements between paddocks and when to lighten off stocking numbers. Satellite key here.		Crop and pasture management strategies, technologies, and innovations	Orroroo
Creating a workforce database – shared farm base employees with or without skills.	Good suggestion. I recommend checking on the following recently established website: <a href="https://www.regionalwork.sa.gov.au/">https://www.regionalwork.sa.gov.au/</a>	Farm Business Management	Orroroo
Facilitate small business review groups		Farm Business Management	Orroroo
understanding the benefits and the how to of carbon farming and what are the implications to our businesses.		Farm Business Management	Orroroo
Strategic business and risk planning that is reviewed ongoing for businesses.	Developing a real life App with trigger timing	Farm Business Management	Orroroo
Better financial literacy extension and training.	Peer-to-peer farmer groups for learning and idea sharing. A rising tide floats all boats.	Farm Business Management	Orroroo
Better understanding price hedging strategies and knowledge of agriculture financial markets.		Farm Business Management	Orroroo
Building communication and conflict resolution skills within the businesses and families.		Farm Business Management	Orroroo
How to use NDVI to use as trigger points – training and tools are available to make decisions with confidence.		Farm planning and decision making to manage climate and operational risk	Orroroo
Focus on profitability and land management outcomes with productivity as an outcome.	As well as profitability	Farm planning and decision making to manage climate and operational risk	Orroroo
Tools to allow farmers to determine which enterprises are making money on the farm and able to keep on top of changes to the farm.		Farm planning and decision making to manage climate and operational risk	Orroroo
Storage of grain and hay. Where to do store, what is available, how to do it.		Farm planning and decision making to manage climate and operational risk	Orroroo
Better long-range weather forecasting and better related to farming outcomes.		Farm planning and decision making to manage climate and operational risk	Orroroo
Overlaying yield maps with profitability maps to better understand correlation.		Farm planning and decision making to manage climate and operational risk	Orroroo
Low emissions farming and accounting.		Farm planning and decision making to manage climate and operational risk	Orroroo

Identifying input thresholds for different regions and enterprises.		Farm planning and decision making to manage climate and operational risk	Orroroo
Weather station at Jamestown.	Linked individual weather stations on farm for the use of everyone. Why not in Orroroo UNFS have a smaller weather station placed in Jamestown – the data can be reached through the UNFS website. UNFS have 2 smaller ones close to Orroroo!	Farm planning and decision making to manage climate and operational risk	Orroroo
Decent weather station set up around Peterborough.	Is this like the mesonet project?	Farm planning and decision making to manage climate and operational risk	Orroroo
More extensive weather station monitors - particularly in remote areas.		Farm planning and decision making to manage climate and operational risk	Orroroo
More accurate seasonal weather forecasts on the Jamestown side of the range.		Farm planning and decision making to manage climate and operational risk	Orroroo
Train farmers to better undertake planning and make better decisions.	Provide better information, tools and support then to provide farmers with resources to make effective decisions on how to utilise scarce resources. Equip those working with farmers with simple tools to introduce to farmers. Recognising how intertwined farming business/family/relationships and community are. Equipping farmers and those who work with farmers with the tools to build connection and have effective conversations	Farm Planning and Decision Making to manage climate and operational risk.	Orroroo
Virtual fencing for improved overall land management and to manage high stock pressure/high risk areas. Needs to be developed for sheep.		Livestock and fodder management strategies, technologies, and innovations	Orroroo
Livestock weight gain electronic scales. Calculates weight gain since previous feed via electronic ear tag so stock feed budgeting can be better managed.		Livestock and fodder management strategies, technologies, and innovations	Orroroo
Better management of fly strike in sheep.		Livestock and fodder management strategies, technologies, and innovations	Orroroo
Better grazing practices over summer.	Is this a demo strip or training program? Is the knowledge already there or need new? Some research already being done on the EP but would be good to do one in the Upper North with different treatments and measure grazing productivity	Livestock and fodder management strategies, technologies, and innovations	Orroroo

Donated straw stockpiled for times of drought. Apply a freight subsidy for donated straw and cover fuel costs for baling. Donated straw stockpiled for times of drought see: <a href="https://recovery.gov.au/stories/straw-run-sa-farmers-helping-farmers#:~:text=Coordinated%20by%20the%20Laura%20Ag%20Bureau%2C%20a%20convoy,-%20and%20lots%20of%20other%20helpers%20involved%2C%20too%21">https://recovery.gov.au/stories/straw-run-sa-farmers-helping-farmers#:~:text=Coordinated%20by%20the%20Laura%20Ag%20Bureau%2C%20a%20convoy,-%20and%20lots%20of%20other%20helpers%20involved%2C%20too%21</a>		Livestock and fodder management strategies, technologies, and innovations	Orroroo
Reproductive performance of our livestock.		Livestock and fodder management strategies, technologies, and innovations	Orroroo
Kangaroo management – exclusion from pastures; virtual fencing. Consideration of another way to manage them. Innovation needed in this area. Without this unable to conserve feed.	Vermin control as well – not just kangaroos. Sterilisation of kangaroos. Have you considered organising for professional commercial harvesters to conduct harvesting on your property?	Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Orroroo
Assess decline in vegetation condition and diversity of canopy structure in the landscape over the past drought(s). Extend messaging about need for healthy vegetation communities to be resilient to changing climatic conditions. Not a never-ending supply of vegetation.		Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Orroroo
Extend messaging around the value of shelter, shade and green in landscape to humans during extreme environmental conditions – 30 % green/shelter/tree canopy = better mental health.		Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Orroroo
Biodiversity stewardship project demonstrated in the region.		Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Orroroo
Better quantification of the economic value of functioning ecosystem.		Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Orroroo
Better understanding of soil water infiltration and soil constraints – how to identify and remediate soils.		Soil and land management strategies, technologies, and innovations	Orroroo
Maintaining ground cover. Satellite imagery to determine feed volume and quality to advise management. Align to rainfall forecast to forward predict feed volume.		Soil and land management strategies, technologies, and innovations	Orroroo

Generous Government subsidies for drought proofing equipment like water point monitors and moisture sensors.	And investing in capital works to promote land hydration, prevent erosion, etc. The third round of the On-farm Emergency Water Infrastructure Rebate Scheme is currently open: <a href="https://www.pir.sa.gov.au/grants_and_assistance/drought_support/financial_assistance/on-farm_emergency_water_infrastructure_rebate_scheme">https://www.pir.sa.gov.au/grants_and_assistance/drought_support/financial_assistance/on-farm_emergency_water_infrastructure_rebate_scheme</a>	Soil and land management strategies, technologies, and innovations	Orroroo
Researching the most valuable use of resources such as waste to assist with water retention and improvement to soils.		Soil and land management strategies, technologies, and innovations	Orroroo
Facilitate train the trainer of farmers/professional advisors (agronomists eg)/community leaders with simple tools to improve communication, resilience strategies for farmers/farm businesses and communities		Upskilling Advisors, researchers, and key influencers	Orroroo
Establish water efficiency demonstration sites using strategies such as embankments and sheeted catchments.		Water security and management strategies, technologies, and innovations	Orroroo

Idea	Comments from other participants	Theme	Workshop
A coach to support the establishment of a farming system group.	Also need to consider a "Future Farming Systems" group – what is going to work in 20-30 years	Access to drought information and technical support.	Roseworthy
Continuing/ongoing workshops for education for get togethers, learning and adoption.		Access to drought information and technical support.	Roseworthy
Develop grower case studies on drought management. Tell the drought success stories.		Access to drought information and technical support.	Roseworthy
Need longer research projects focused on drought resilience.	What is this looking at though? What are they researching? Discussion around this – not specific projects but the process for how research is being done and delivery of this research. Agree, they also need to have a focus on what the future climate landscapes are likely to look like. I think specifically it would be good to have research that focuses on develop sustainability indexes of our common systems compared to some more innovative and diverse systems.	Access to drought information and technical support.	Roseworthy

Increased support to local grower groups for local issue regarding drought resilience.	Target projects for drought resilience, less for pushing boundaries for current practices	Access to drought information and technical support.	Roseworthy
Development of a drought innovators think tank. Bring farmers together in a form to share learned experiences.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Commit to local funding to ovals for water/water security to introduce green areas.	2 agree	Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Support mental health first aid training for people who are in contact with farmers on a regular basis. Also need to support the people who are supporting the farmers with mental health support.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Influence internet connectivity across all of SA.	Agree, definitely needed to give access to resources and tools. .This would be great to help attract more people to regional areas and strengthen regional economies in general.	Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Opportunity to get agencies, organisations, farmers and groups working together collaboratively to overcome key issues.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Farmers gathering to get away from farms and having time away from work.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Understanding that change is OK. Wellbeing and resilience training.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Better collaboration between RDCs and Drought Hubs.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Shared knowledge by all and with all the Drought Hubs – what are the innovative ideas to be shared across regions.		Community resilience and wellbeing through support, collaboration, and access to technologies	Roseworthy
Focus on improving combined water use efficiency and heat tolerance of our crops.		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Have a crop/ asture prediction tool to determine how much moisture, what the forecast is, and to crop/pasture volume to assist with early decision making.		Crop and pasture management strategies, technologies, and innovations	Roseworthy

Need to develop pasture species that are more suited to lower rainfall areas.		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Improving crop and pasture establishment in dry hostile conditions e.g. saline, acidic		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Cropping research and extension on diverse species planting: inter-cropping, covers etc – production + soil health.		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Research into/trials into reducing evaporative losses.		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Find a balance between the ideas of regenerative and current farming practices for a more balanced system.		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Other pastoral species to be added to Pastoral zone.		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Native species for grazing need greater efforts into breeding better options (current species not productive enough).		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Managing pesticide spraying in a dry year.		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Cost effective separation of polyculture crops.		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Champions of polycultures for grain and graze.		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Livestock, living with drought when a business focuses on cropping only is easier.		Crop and pasture management strategies, technologies, and innovations	Roseworthy
Training in economics to allow financially viable decision making. helping people identify trigger points and develop a plan.		Farm business management	Roseworthy
Financial literacy improvement.		Farm business management	Roseworthy
Influence ATO to assist with tax concessions for forward thinking producers in drought, eg more flexibility with FMDs, destocking amortisation earlier.		Farm business management	Roseworthy
On farm hay storage option – when and why to invest.		Farm business management	Roseworthy
Understanding global markets and price signals.		Farm business management	Roseworthy
Advocating for market access.	Markets that penalise insect damage instead of rewarding IPM, emerging carbon market access or benefits	Farm business management	Roseworthy

Increasing computer literacy by having one-on-one training sessions.		Farm business management	Roseworthy
Development of an optimisation project which looks at surveying farmers who cope and respond well to drought. Need a survey designed which analyses the attributes of personality/affiliation with risk/technology adoption etc so we can better understand the drivers and personality types and how they respond to drought. Can then design training to support. Also need case studies of people and what they have done.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Improve growers' understanding of trigger points and what decisions to make when those points are reached.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Producers understanding self and how they make decisions – as self-assessment tool.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Universal tool kit for communities that can be adapted – decision making, risk, uncertainty, planning. Don't want to be told – work through solutions own solution with the tools.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Incorporation of renewable tech into farming and communities: remote monitoring, micro-grids, EV etc.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Improving accuracy of 3-month meteorological (seasonal) outlook to 6 or 12-month accuracy.	Especially autumn reliability better than 50%! Better understanding of seasonal forecast risk. Link current pasture production with seasonal forecasts to predict future FOO (so can better match stocking rate with future FOO)	Farm planning and decision making to manage climate and operational risk	Roseworthy
Managing dry autumns for winter conditions, livestock and cropping decisions.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Fast tracking adoption of emissions reduction practices.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Build Digital Twins (a virtual representation that serves as the real-time digital counterpart of a physical object or process) of stations for predictive purposes.		Farm planning and decision making to manage climate and operational risk	Roseworthy
Provide growers with a better understanding of climate forecast accuracy, timeliness understanding etc.		Farm planning and decision making to manage climate and operational risk	Roseworthy

Livestock health in livestock containment situations – how to do it better.		Livestock and fodder management strategies, technologies, and innovations	Roseworthy
Get virtual fencing working and commercialised.		Livestock and fodder management strategies, technologies, and innovations	Roseworthy
Need for more applied research on animal population health to better determine trigger points and management strategies.		Livestock and fodder management strategies, technologies, and innovations	Roseworthy
Improvement in understanding of feed gaps throughout the season for better livestock management.		Livestock and fodder management strategies, technologies, and innovations	Roseworthy
Better understanding on biodiversity/stewardship and carbon programs, and how they can be useful to landholders into the future.		Native vegetation management and improvement, biodiversity enhancement, pest plant and animal management.	Roseworthy
Satellite imagery, and real time monitoring of moisture sensors and water levels. Machine Learning algorithms on the collated data sets across regions in support of decision making.		Soil and land management strategies, technologies, and innovations	Roseworthy
Increasing access to subsoil water through improving tolerance to subsoil constraints.		Soil and land management strategies, technologies, and innovations	Roseworthy
Precision ag and farming to land capability – knowing where to farm with what level of inputs.		Soil and land management strategies, technologies, and innovations	Roseworthy
Carbon in soils – understanding soil carbon, how to build etc.		Soil and land management strategies, technologies, and innovations	Roseworthy
Qualitative and quantitative research into biological farming as this cohort of farmers do have better yields with early finishes to the year.		Soil and land management strategies, technologies, and innovations	Roseworthy
Support for consultants to take on trainee consultants, employees, and undertake mentoring.		Upskilling advisors, researchers, and key influencers	Roseworthy
Train consultants to be better aware of health and wellbeing awareness of clients.		Upskilling advisors, researchers, and key influencers	Roseworthy
Water security, water quality and water saving in farm dams.	Poly lined catchment to capture rainfall that then runs into a dam (advantage of soil profile doesn't have to be wetted up to capture rain. Water security, lined catchments, water shandying (saline with fresh)	Water security and management strategies, technologies, and innovations	Roseworthy
Feasibility studies into desalination plants around the coast of SA.		Water security and management strategies, technologies, and innovations	Roseworthy

Water storage in aquifers for use in future droughts.		Water security and management strategies, technologies, and innovations	Roseworthy
Catching or keeping water on farm – is it possible and how.		Water security and management strategies, technologies, and innovations	Roseworthy

Idea	Comments from other participants	Theme	Workshop
Develop an online toolbox that has links and access to all relevant learned information and observations to assist planning.		Access to drought information and technical support	Naracoorte
A case study publication of growers who have tackled drought in the past – what worked, what didn't, what will they do differently next time.	Case studies of top 20% of farm businesses including benchmarking	Access to drought information and technical support	Naracoorte
A consolidated resource of available.		Access to drought information and technical support	Naracoorte
Communication strategy that reaches the whole community.		Access to drought information and technical support	Naracoorte
Drought planning for main street businesses so they are prepared for drought and manage the impacts better.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Make sure that children and teenagers are well supported through drought, with involvement in their communities and giving them a seat at the table to be able to convey what they are feeling.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Drought Hub membership/involvement needs to include local councils, not just their representative bodies. Local councils have their ears to the drought and can be more responsive.	Ears to the grounds, not drought!	Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Connecting drought grants to landholders/groups.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Bring some joy to rural communities by putting entertainment (movies/music) into halls.		Community resilience and wellbeing through support, collaboration, and access to technologies	Naracoorte
Agronomy research that sharpens our decision support/measuring tools. Improve understanding of WUE to forecast crop yield/pasture DM yield, temperature effect on WUE, solar radiation effect on WUE. If we can predict/forecast		Crop and pasture management strategies, technologies, and innovations	Naracoorte

yield better during drought we can make better input decisions.			
Demonstration sites using rainout shelters to showcase agronomic strategies to inform decision-making.	Used to test options for drought breaking summer rainfall, such as the 4 inches of rain we got in January following the 2006 drought	Crop and pasture management strategies, technologies, and innovations	Naracoorte
More research required to identify productive drought tolerant (ie plant breeding) pasture and crop varieties		Crop and pasture management strategies, technologies, and innovations	Naracoorte
Maybe south Australia should be the world first to use GMO to develop a drought tolerant crop - lol!		Crop and pasture management strategies, technologies, and innovations	Naracoorte
On-ground demonstration trials of new pasture species for a drying environment.	Maybe there is something in the Pasture Gene Bank that could be explored as well.	Crop and pasture management strategies, technologies, and innovations	Naracoorte
How can we maximise rainfall regardless of when it falls (i.e. kikuyu and summer storms).		Crop and pasture management strategies, technologies, and innovations	Naracoorte
Selection of best hay, crop and animals to hit finishing targets in varying seasons.		Crop and pasture management strategies, technologies, and innovations	Naracoorte
MLA has done some research on change of pasture species with changing climate for our region. We will move from Mediterranean to Sub-tropical species over the next 10 years. This is a very big change for our region. We need to know this now, as pasture renovation only occurs every 10-15 years, max. So we need to be sown now to prevent productivity losses.	Just sow your whole farm down to digit grass now and be done.	Crop and pasture management strategies, technologies, and innovations	Naracoorte
Including activities to understand and build individual/personal resilience into business resilience activities.		Farm Business Management	Naracoorte
Discussion groups based on benchmarking and financial skills.	A pilot has been done previously through red meat program, benchmarking profit margin after considering your books Need to keep doing the type of thing, because there's a new generation that have missed out on this when it has been done before. Capacity building for younger farmers as well as others. Outcome to be about what you would be doing to improve – practical and useable outcomes.	Farm Business management	Naracoorte

Create a template for farm businesses in the region to produce a drought plan and get Todd Woodard to share his experience.	Using famers to train and support farmers? Is this a workshop road show, booklet or other?	Farm planning and decision making to manage climate and operational risk	Naracoorte
Identify regions in Australia that are currently where KI will be climate wise in 10, 20, 50 years. How are they farming, what can we adopt.		Farm planning and decision making to manage climate and operational risk	Naracoorte
Provide small group facilitated learning opportunities where groups of farmers can learn together in low key environment – requires skilled extension facilitators, not skilled presenters. This builds community and peer networks that provides a range of social benefits. There appears to be demand for a revamped Property Management Planning (PMP) type service for example. Topics can cover all the new innovations available.		Farm planning and decision making to manage climate and operational risk	Naracoorte
Small group facilitated learning – we have had a generation change of farmers, now there is another need for the type of work (back to basics like Property Management Planning (PMP) etc. that was done 20 years ago; these small groups develop networks, people are willing to share more in the smaller groups.		Farm planning and decision making to manage climate and operational risk	Naracoorte
A property management planning program with meaningful, in-depth, innovative and on-going whole-of-farm management and business training for land managers.		Farm planning and decision making to manage climate and operational risk	Naracoorte
Accuracy and timeliness of weather forecasts, eg start of the week 20mm predicted and by Friday it's down to 1mm; need to understand the risk and probability; need the forecasts to be done in a format that a farmer can use to make decisions easily.		Farm planning and decision making to manage climate and operational risk	Naracoorte
Locally relevant decision support tools assist with forward planning. Integrated and related to pasture crop cover, soil moisture, weather forecasting to be able to provide cop and pasture predictions.		Farm planning and decision making to manage climate and operational risk	Naracoorte

Containment feeding – build a hub of info that's relevant locally; run sessions around the practicalities of it, how and why you do it; how do you ration properly; what to do when you have ewes lambing in containment; local demonstrations of it.		Livestock and fodder management strategies, technologies, and innovations	Naracoorte
Use technologies from other industries such as netting in horticulture to look at viability for stock shade and shelter.		Livestock and fodder management strategies, technologies, and innovations	Naracoorte
Identify and selection of stock for efficient feed conversion, ie ASBV for feed conversion ratio.		Livestock and fodder management strategies, technologies, and innovations	Naracoorte
Timing of lambing/calving/seeding to suit possible shorter growing seasons.		Livestock and fodder management strategies, technologies, and innovations	Naracoorte
Create cool spaces on farm through strategic tree planting that delivers co-benefits to livestock and may have carbon farming opportunities.	And pick species that also benefit native pollinators	Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Naracoorte
More networks of soil moisture probes and weather stations to start collecting data to get better local predictions in the future.		Soil and land management strategies, technologies, and innovations	Naracoorte
Best practice soil nutrient management (nutrition, soil pH, increasing soil carbon) that will enable us to grow more feed with less rainfall. Need to include cost benefit analysis.	This might include improving the accuracy of soil tests, tissue tests and their response curves to better predict the chance of likely response from costly fertilisers	Soil and land management strategies, technologies, and innovations	Naracoorte
Better knowledge of moisture holding capacity of different soil types and what that means for moisture probe data.		Soil and land management strategies, technologies, and innovations	Naracoorte
Demonstrating strategies to increase carbon in the soil in this region and the soil types in the region.		Soil and land management strategies, technologies, and innovations	Naracoorte
More attention needs to be paid to the water bank deep in soil profile being topped up through deeper rooted pastures etc.	We need greater knowledge around getting moisture further into the profile, less run-off. Pasture productivity will improve with deeper moisture in the profile. It's drought-proofing the pasture base.	Soil and land management strategies, technologies, and innovations	Naracoorte
Upskilling advisors and agronomists about decision making process in difficult times and how to engage with their clients.		Upskilling advisors, researchers, and key influencers	Naracoorte
Identify and support water security measures. Undertake demonstrations and do case studies on the cost benefits. Include lined catchments.		Water security and management strategies, technologies, and innovations	Naracoorte

<b>Idea</b>	<b>Comments from other participants</b>	<b>Theme</b>	<b>Workshop</b>
Utilising support available (water infrastructure grants).		Access to drought information and technical support	Coober Pedy
Previous knowledge from past generations and experience.		Access to drought information and technical support	Coober Pedy
Accepting that drought is normal.		Community resilience and wellbeing through support, collaboration, and access to technologies	Coober Pedy
Staying involved with community.		Community resilience and wellbeing through support, collaboration, and access to technologies	Coober Pedy
Broad shoulders and good mind set.		Community resilience and wellbeing through support, collaboration, and access to technologies	Coober Pedy
Community grants.		Community resilience and wellbeing through support, collaboration, and access to technologies	Coober Pedy
Staying emotionally and mentally healthy when times are tough.		Community resilience and wellbeing through support, collaboration, and access to technologies	Coober Pedy
Traditional Kidman stock movement model – move stock around the country to utilise good local conditions.		Crop and pasture management strategies, technologies, and innovations	Coober Pedy
Smaller paddocks to manage rotational grazing.		Crop and pasture management strategies, technologies, and innovations	Coober Pedy
Rotational/time controlled grazing (40% off and wait for rain event).		Crop and pasture management strategies, technologies, and innovations	Coober Pedy
More infrastructure to allow rest-based grazing.		Crop and pasture management strategies, technologies, and innovations	Coober Pedy
Livestock trading (KLR Marketing)		Farm Business Management	Coober Pedy
Training my staff and crew.		Farm Business Management	Coober Pedy
Business literacy.		Farm Business Management	Coober Pedy
Knowing the markets and the best time to buy/sell cattle.		Farm Business Management	Coober Pedy
Financial help – access to low/no interest loans.		Farm Business Management	Coober Pedy
Feed budgeting.		Farm planning and decision making to manage climate and operational risk	Coober Pedy
Grazing charts.		Farm planning and decision making to manage climate and operational risk	Coober Pedy

Planning to destock on trigger dates.		Farm planning and decision making to manage climate and operational risk	Coober Pedy
Forward planning.		Farm planning and decision making to manage climate and operational risk	Coober Pedy
Treating the last rain as your last.		Farm planning and decision making to manage climate and operational risk	Coober Pedy
Destocking early.		Farm planning and decision making to manage climate and operational risk	Coober Pedy
Planning and feed management.		Farm planning and decision making to manage climate and operational risk	Coober Pedy
Destocking early and fast.		Farm planning and decision making to manage climate and operational risk	Coober Pedy
Regular monitoring on the ground - two rounds of muster of stock and country.		Farm planning and decision making to manage climate and operational risk	Coober Pedy
Livestock handling (LSS Pty Ltd).		Livestock and fodder management strategies, technologies, and innovations	Coober Pedy
Sensible and knowledgeable livestock management.		Livestock and fodder management strategies, technologies, and innovations	Coober Pedy
Symbio Labs – animal faecal tests to know more about what cattle are eating.		Livestock and fodder management strategies, technologies, and innovations	Coober Pedy
Fencing off highway for stocking.		Livestock and fodder management strategies, technologies, and innovations	Coober Pedy
New tech from Symbio for feed analysis.		Livestock and fodder management strategies, technologies, and innovations	Coober Pedy
Mineral supplements for animals.		Livestock and fodder management strategies, technologies, and innovations	Coober Pedy
Stock rotations.		Livestock and fodder management strategies, technologies, and innovations	Coober Pedy
Landscape rehydration techniques.		Soil and land management strategies, technologies, and innovations	Coober Pedy
Land regeneration – however expensive to do, focus on smaller paddocks.		Soil and land management strategies, technologies, and innovations	Coober Pedy
Improving water infrastructure to utilise unused country.		Water security and management strategies, technologies, and innovations	Coober Pedy
Telemetry – auto water monitoring.		Water security and management strategies, technologies, and innovations	Coober Pedy

Improving water infrastructure to open up unused areas of land.		Water security and management strategies, technologies, and innovations	Coober Pedy
Using technology – farmbot/water monitoring.		Water security and management strategies, technologies, and innovations	Coober Pedy
Installation of farmbots – water telemetry.		Water security and management strategies, technologies, and innovations	Coober Pedy
Emergency water rebate to allow to develop new country.		Water security and management strategies, technologies, and innovations	Coober Pedy
Water pipes and pressure points – distribution and use of telemetry.		Water security and management strategies, technologies, and innovations	Coober Pedy
Opening up new water points to give other points a good spell.		Water security and management strategies, technologies, and innovations	Coober Pedy
Cleaning out dams.		Water security and management strategies, technologies, and innovations	Coober Pedy
Telemetry – auto water monitoring		Water security and management strategies, technologies, and innovations	Coober Pedy

<b>Idea</b>	<b>Comments from other participants</b>	<b>Theme</b>	<b>Workshop</b>
Information, easily accessible, from a common point, that is not biased to a supplier or similar, that is up to date and locally relevant.	In our group, we talked of a TOOLBOX concept, I think that was the one that received the second highest vote. Technology can provide this so easily, but it is the content that is important. Long ago, PIRSA, or its predecessor had things called 'Fact Sheets' for everything you need to know agriculture, from how to care for chickens, to how to feed lambs etc etc. Similar concept. Develop a plan, well ahead of the event. Sometimes throughout a season, circumstances change from what was planned, so learn how to recognise these events and adjust accordingly.	Access to drought information and technical support	Other Ideas
Gather together all of the past research, present in a useful form.		Access to drought information and technical support	Other Ideas
Climate change, carbon story, where to for the future. Not scare tactics, just the facts.	What can we do to mitigate the impact, what is agriculture's role in zero carbon emission target?	Access to drought information and technical support	Other Ideas
More consultants on the ground, succession planning for consultants (cost in drought).		Access to drought information and technical support	Other Ideas

Make use of/build on existing primary producer networks. Do not reinvent the wheel.		Access to drought information and technical support	Other Ideas
Technology updates.	Have days or articles that provide updates on new technologies, how to integrate technologies, benefits of certain technologies, the strengths and weaknesses etc.	Access to drought information and technical support	Other Ideas
Breaking down precision agriculture to support adoption.	Toolbox approach, we don't need full adoption to get started. Potential for introductory workshops	Access to drought information and technical support	Other Ideas
Growers accessing and adopting research outcomes.		Access to drought information and technical support.	Other Ideas
Producers taking on more animal husbandry procedures.		Access to drought information and technical support.	Other Ideas
How do we get those that need to hear it get the messages.		Community resilience and wellbeing through support, collaboration, and access to technologies	Other Ideas
The need for community groups, to share, care, learn and grow together.	This is a role that Ag Bureau groups can fill so easily. So these groups need support, existing and new. There could be a whole lot more collaboration of many local groups, recognising though the delicate nature of a group of people and the group needs to function for those in it, to be useful.	Community resilience and wellbeing through support, collaboration, and access to technologies	Other Ideas
Engage with the community, share the load, and ensure everyone understands the impact on our world.	Bit like the CoVid impact, every day we hear of another change to the world we once knew. It will affect everyone.	Community resilience and wellbeing through support, collaboration, and access to technologies	Other Ideas
Mental health services - need more longer term localised services.		Community resilience and wellbeing through support, collaboration, and access to technologies	Other Ideas
Increased understanding of drought by urban, rural and regional town communities.		Community resilience and wellbeing through support, collaboration, and access to technologies	Other Ideas
Address workforce issues on and off farm/lack of workforce in rural and regional Australia in general.		Community resilience and wellbeing through support, collaboration, and access to technologies	Other Ideas
New entrants actively seeking a career in livestock production (across all parts of the value chain).		Community resilience and wellbeing through support, collaboration, and access to technologies	Other Ideas

Interconnected relationships between industry, farmers and farming communities.	In our discussions it seems that the underlying problem of drought is complexity and the interdependent and interconnected relationships between industry, farmers and farming communities. While that is probably obvious we do know enough about how to co create greater resilience in that system and we want to work with communities to develop best practices for assessing the state of resilience, the affordances and the practical steps that can be taken that build community/farming resilience including greater adaptability, buffering and response capacities. .Hope that makes enough sense.	Community resilience and wellbeing through support, collaboration, and access to technologies	Other Ideas
New recruits enjoying diverse and fulfilling roles and staying long-term in the livestock production sector.		Community resilience and wellbeing through support, collaboration, and access to technologies	Other Ideas
Diverse career pathways across animal production .		Community resilience and wellbeing through support, collaboration, and access to technologies	Other Ideas
Increase consumer support of livestock production.		Community resilience and wellbeing through support, collaboration, and access to technologies	Other Ideas
Upgrade Rural Financial Counselling Incentives to do financial audits of farm businesses.		Community resilience and wellbeing through support, collaboration, and access to technologies	Other Ideas
Better access to mental health services incl access to telehealth.		Community resilience and wellbeing through support, collaboration, and access to technologies	Other Ideas
Localised get together events for farmers.	Hubs (local grower groups in the UNFS area) already exist and are perfect for this. BBQ and informal. Can be just get together for a chat.	Community resilience and wellbeing through support, collaboration, and access to technologies	Other Ideas
Flexibility of farming systems?	Easier to prioritise paddocks in a diverse system. Have to be prepared to use correct pre-em package (spend money). Sow pulses earlier (more weed options). Have to cover large areas of ground so need to start sowing 15 April anyway to get it all done. But that stops all flexibility from then on.	Crop and pasture management strategies, technologies, and innovations	Other Ideas
Education on chasing yield with inputs in LRZ.		Crop and pasture management strategies, technologies, and innovations	Other Ideas

Stripper/disc systems (does this improve surface cover in the face of grazing, or improve resistance to grazing for wind erosion control, does it result in more water storage, and what soil types and textures?).		Crop and pasture management strategies, technologies, and innovations	Other Ideas
Get the agronomy right.	-	Crop and pasture management strategies, technologies, and innovations	Other Ideas
Understanding crop production costs and opportunities to reduce inputs .		Crop and pasture management strategies, technologies, and innovations	Other Ideas
To avoid heat stress, need to be able to establish crops early on minimal/less moisture. Need to flower in the right window.		Crop and pasture management strategies, technologies, and innovations	Other Ideas
Diversification to manage risk (heat stress, frost risk, business risk).	Crop phenology and management, eg establishing crops on marginal moisture, use of faster developing winter wheats, time of sowing. Better suited break crops, intercropping	Crop and pasture management strategies, technologies, and innovations	Other Ideas
Opportunistic sowing after harvest for improved surface cover – modelled cost-benefit analysis across soil/texture types.		Crop and pasture management strategies, technologies, and innovations	Other Ideas
Use of triticale as a drought season risk management crop for farmers.	Triticale emerged quicker than the other cereals, stopped soil drift and did not need to be resown, despite the later, drier start and strong winds which caused soil erosion and crop resowing on neighbouring farms	Crop and pasture management strategies, technologies, and innovations	Other Ideas
Pastoral – management of native species for improved grazing opportunity.		Crop and pasture management strategies, technologies, and innovations	Other Ideas
Pasture improvement in low rainfall areas – later varieties, perennials, multi-species pastures, native grasses.		Crop and pasture management strategies, technologies, and innovations	Other Ideas
Extended growing season.		Crop and pasture management strategies, technologies, and innovations	Other Ideas
Native grasses demonstration site. Different species and profitability of biomass production.		Crop and pasture management strategies, technologies, and innovations	Other Ideas

Quantifying the impact of various stubble management options	The project will increase the capacity of primary producers to prepare for drought and increase their resilience by comparing the operational, soil moisture and economic influences of three different stubble management methods. This project will establish two demonstration sites where all three stubble treatments can be assessed side by side at farm implement scale, as a means of exposing farmers to achievable adaptation strategies for increasing drought resilience. The way straw is managed at harvest requires a whole-of-system analysis because the equipment costs, knock-on effects and management expertise to change from one method to another is significant. Equally, the benefits in soil health, soil moisture retention and productivity under drought conditions also change under each straw management method.	Crop and pasture management strategies, technologies, and innovations	Other Ideas
Stubble management in LRZ – what is the optimum residue level?	Rotation options vetch etc to fill an early feed gap and manage weeds. Balance between sheep and cropping enterprise. Role of early cereal grazing and then locking it up to reap. Using this period to allow vetch to get away. Full integration of livestock and cropping enterprises. Maximising dry matter growth to ensure full year feed availability. Mixed cropping of pasture paddock — oats + vetch sown, then oats sprayed out mid season.	Crop and pasture management strategies, technologies, and innovations	Other Ideas
Analysis on the long-term profitability of rotations and enterprise mixes in the Upper North area, i.e. continual cropping vs mixed farming and the risk vs reward of various cropping rotations.	It would require a number of assumptions, validation of knowledge, and would probably use a risk analysis program such as @risk. A long-term view on this would be required, to avoid getting caught up by current weather and prices.	Crop and pasture management strategies, technologies, and innovations	Other Ideas
Maximising soil cover and rainfall infiltration rates — making maximum use of rainfall.		Crop and pasture management strategies, technologies, and innovations	Other Ideas

Optimise seed placement and germination - seeder bar set-up		Crop and pasture management strategies, technologies, and innovations	Other Ideas
N Management in dry years.	Optimal N management in dry years. Flexibility in N application strategies. Links to farm planning and decision making	Crop and pasture management strategies, technologies, and innovations	Other Ideas
'High' levels of debt increases vulnerability.	There are millions being spent on capital/land/inputs so the impact can be big. More around business management than agronomy. The greatest levels of debt are held in this area. People are way over capitalised. The Lower EP/MRZ is a reliable production area. Can handle a poor year (drought/price). In the second year, issues arise when you have expanded/spent more on machinery/increased debt levels. Farmers are expected to carry more risk (eg need to order and pay for products early such as fertiliser) and retailers are not holding carryover stocks (pesticides etc.). Machinery cost/income blow outs	Farm business management	Other Ideas
Make use of FMDs	Taxation changes implications Financial buffers are critical	Farm business management	Other Ideas
Emerging issue – COVID, tax depreciation all in one year, not over x years. This will increase taxable income for many farms and reduced opportunity for write off.		Farm business management	Other Ideas
Producers effectively accessing off-farm income opportunities.		Farm business management	Other Ideas
Lenders providing tailored and farm-appropriate support when agreeing on financial strategies to navigate cash-flow challenges resulting from (e.g.) drought.		Farm business management	Other Ideas
Financially literate producers, who understand the current financial status of different enterprises across their business, and the financial resilience of each.		Farm business management	Other Ideas
Producers developing and implementing successful succession planning in their business.		Farm business management	Other Ideas
100% traceability along value chain.		Farm business management	Other Ideas
Improved access to international markets.		Farm business management	Other Ideas
Improved marketing outcomes for product.		Farm business management	Other Ideas

Identify farm business weaknesses and learn how to strengthen them. Undertake farm business and strategic planning targeted to local farming business needs.		Farm business management	Other Ideas
Having flexibility and diversity in the farming system (ability to capitalise in good years and reduce losses in poor years).	Businesses that do well are those that manage their business well consistently, eg get timing right for operations, good agronomy, stable, understand what they are good at and stick to it. (See Rural Directions study on profitable businesses).	Farm planning and decision making to manage climate and operational risk	Other Ideas
Understanding risk (climate variability and change).		Farm planning and decision making to manage climate and operational risk	Other Ideas
Accurate seasonal forecasting.	Does it help? Hard to trust. Take it with a grain of salt. 2020 canola – worst year ever but best set up and forecast looked good for winter. I like forecasts but experience has shown differently. Prices, seasons are unpredictable so forecasting does not influence sowing program (pre-set year before). No up-front strategies change. The only thing that changes is in-season N. Still sow everything.	Farm planning and decision making to manage climate and operational risk	Other Ideas
Personal awareness of the situation you and your business and community are grappling with.	But this is hard to get your head around when you are in the middle of such difficulty. So, if we are preparing for drought, then let's learn now, what is it like, what and when do I need to put things in place, what are the signals, red, green and amber to make changes. Complex decision making.	Farm planning and decision making to manage climate and operational risk	Other Ideas
Business and our communities and economy thrives if we make bankable, sustainable profits.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Innovation at all levels.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Data about climate history for a particular area, linked to soil types and land use.	So utilising and increasing the soil moisture probes and weather stations around the state, accessing easily understood and relevant climate history, "what did I do when that happened, and did it work, so what should I be doing now?"	Farm planning and decision making to manage climate and operational risk	Other Ideas

Use established methods of risk management and better decision making.	2020 publication by Annie Duke who describes the Six Steps to Better Decision Making. Step 1. (For each option) Identify the reasonable set of possible outcomes. Step 2. Identify your preference using the payoff for each outcome. Step 3. Estimate the likelihood of each outcome unfolding. Step 4. Assess the relative likelihood of outcomes you like and dislike for the option under consideration. Step 5. Repeat Steps 1-4 for other options under consideration. Step 6. Compare the options to one another.	Farm planning and decision making to manage climate and operational risk	Other Ideas
	Courses on feed budgeting and costings including trigger points for selling stock etc. In higher rainfall areas. The value of perennial pastures	Farm planning and decision making to manage climate and operational risk	Other Ideas
How to do feed budget – Life Time Ewe management feed budgeting, condition scoring skills.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Need financial and technical assistance for individual farms to develop drought management plans, employ trigger points.		Farm planning and decision making to manage climate and operational risk	Other Ideas
BOM - having reliable maps, accurate forecast, provision of indicators.	Forecasting for SA often not accurate as climatic influences are stronger on east and west coast. Need SA specific modelling.	Farm planning and decision making to manage climate and operational risk	Other Ideas
Better use of local weather stations, ie landscapes mesonet.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Weather forecasting accuracy – understanding forecasting, what it means, why was a forecast inaccurate?		Farm planning and decision making to manage climate and operational risk	Other Ideas
Everyone along the value chain can explain the potential impact on their role, business (and the sector) of (a) optimum biosecurity and (b) a biosecurity emergency.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Production systems optimal for region where farm is situated.		Farm planning and decision making to manage climate and operational risk	Other Ideas
IT literate producers competently accessing and fully utilising on-line resources, information and data.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Weather forecasting which is accurate and reliable.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Better on farm decision-making enabled by effective use of eID data.		Farm planning and decision making to manage climate and operational risk	Other Ideas

Producers empowered by auditing processes and consistency improved.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Highly effective, accessible and streamlined education, extension and adoption programmes.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Key state and national bodies informed by accurate, real-time, complete data.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Abattoir surveillance systems in every SA abattoir with feedlots and all pastoral producers in supply chain receiving timely feedback and enabled/supported to act on that feedback.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Prevention strategies implemented consistently by more producers.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Accreditation for producers using best practice animal welfare.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Australian Cn30 standards that meet international market requirements.		Farm planning and decision making to manage climate and operational risk	Other Ideas
A single maintained dashboard of existing weather stations platforms. Use this to build better forecasting overall.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Improve decision making for the next season through integrated tools approach, ie: soils mapping, nutrient profiles, moisture profiles, weather forecast, etc. all overlaid to optimise decisions.		Farm planning and decision making to manage climate and operational risk	Other Ideas
Smart Farm Development.	Demonstration farm showing full uptake of tech for cropping and livestock management, showing cost benefit analysis, issue identification for comms and mgmt. Partnership opportunity with need for management funding.	Farm planning and decision making to manage climate and operational risk	Other Ideas
Local weather stations.	Increase the weather station network, improve reliability of the stations, improve user interface, link with soil moisture probes (need to be established), get some 10m towers for inversion monitoring.	Farm planning and decision making to manage climate and operational risk	Other Ideas
Weather forecasting.		Farm planning and decision making to manage climate and operational risk	Other Ideas

Livestock management leading into and during drought. Livestock decision making.	Drought lot/confinement feeding yard set-up/design. Confinement feeding management. Pasture management to maximise ground cover, so as to reduce wind erosion risk after drier seasons. Benefits of scanning ewes to manage flock. Help identify what stock can move off-farm in dry times. Maximise lamb survival through management	Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Economics of livestock in mixed farming systems – review across deciles	Livestock hard to have/keep in a drought. Used to be lower risk as capital expenses were much lower. Livestock has got more intensive, capital expenses have increased and therefore risk has increased. WHS issues (eg need better shearing facilities, sheep handling etc.)	Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Stockpile fodder in good times to have reserves for community wide support during drought.	<ol style="list-style-type: none"> <li>1. Long subsidies work better than short subsidies</li> <li>2. Freight is 50% of hay bill.</li> <li>3. Donated hay, straw, grain needs funding to bale and fuel to transport.</li> <li>4. At destination depot, dig a big hole and bury it for future years. Eliminates roo, mice and weather damage and infrastructure shedding issues.</li> <li>5. Graziers run out of feed before water.</li> <li>6. "Nov 2019 drought was at its worst but not one person wanted pity".</li> <li>7. Sept 2021 lambs sold for \$200/hd 45 to 50 kg live weight.</li> <li>8. "If you have 2 years of less than 50mm/yr rain then at the end of 2nd year they've ended anxiety by selling all stock".</li> <li>9. Large stations consumed 15 road trains of hay and still sold all stock.</li> <li>10. Land values used to be \$100/DSE area but now are \$1000.</li> <li>11. Goyders Line is the line in the sand that moves.</li> </ol>	Livestock and fodder management strategies, technologies, and innovations	Other Ideas

Training to cut and grow good quality silage and hay.	The use of silage in double wrapped bales (2 bale sausage) has been a boon for our autumn feed gap and drought resilience. The storage of a feed buffer in hay in the shed rather than hand to mouth helps in feed budgeting. The annual purchase of barley and a protein grain ie beans for a one year supply for a normal autumn feeding.(this is done straight of the header usually). The feed training of lambs on their mothers so they at least take to feeding reasonable quickly.	Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Pastoral - managing total grazing pressure. Need to have been controls of total grazing pressure.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Pastoral Conservation Groups buying land and employing vastly different management to graziers. Need landscape scale planning and management approach.	ie: closing water points forces kangaroos/goats to move to grazing properties. Good conservation outcome but poor pastoral outcome.	Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Individual auto feeding for stock in confinement – this is available in intensive livestock industries: pigs/dairy. Need the technology to employ low cost for temporary containment feeding.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Understanding nutritional needs of livestock. Improve feed budgeting.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Understanding 'fit to load' requirements for livestock.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Producers, sale yard managers and processors update stock yard design and management to reflect 'best practice'.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
More producers consistently delivering 'best practice' pain relief.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
More producers investing in wellbeing.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Reduction in unnecessary painful procedures.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas

Individuals and organisations in the biosecurity space are clear on their roles and how they all work together to secure a robust biosecurity status for SA growers.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
More producers implementing 'best-practice' weaner management.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
A long-term trend in the decrease of OJD and foot rot in SA flocks.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Clearer processor/saleyard guidelines about destroying "down" sheep.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Increase in retention of females in herd, resulting in greater capacity to build herd numbers.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Increase in lamb percentage.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Producers using new research.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Tactical nutrition.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Effective fodder conservation.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Access to info and funding support for feed storage options.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Access to info and funding support for livestock containment feeding.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Decision support tools to assist with: when to turn off/retain livestock, use of frosted crops, feed options etc.		Livestock and fodder management strategies, technologies, and innovations	Other Ideas
NDVI monitor for pasture to track change and provide alerts when 50% decline reached.	Current systems able to track change, establish a system to provide alerts and updates across paddocks. Could work for biomass and also changes in plant repro status.	Livestock and fodder management strategies, technologies, and innovations	Other Ideas
Creating a beneficial and pollinator rich environment on farm in the LR Zone.		Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Other Ideas

Kangaroo population management — better management options to reduce grazing pressure and conserve ground cover.	Confinement feeding significant downfall is the residue kangaroo populations. Farming systems and sarming business , frost management.	Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Other Ideas
Native vegetation quantification for value to production.		Native vegetation, biodiversity, pest management strategies, technologies, and innovations	Other Ideas
Soil amelioration to increase bucket size and reduce drought impact.		Soil and land management strategies, technologies, and innovations	Other Ideas
Increasing PAWC (soil amelioration, soil carbon/health, rotations, infiltration, evaporation).	Some soils have better response to amelioration. Need to better understand what works and what doesn't. Multiple constraints complicate activities. Refining machinery (different set ups required for different soils). Non-mechanical options such as tillage radish	Soil and land management strategies, technologies, and innovations	Other Ideas
More producers implementing effective soil management strategies consistently.		Soil and land management strategies, technologies, and innovations	Other Ideas
Non-productive sandhills management. Non-wetting, low fertility, coarse sandy soils. Potential for deep ripping, economic analysis of value, need for ameliorants?		Soil and land management strategies, technologies, and innovations	Other Ideas
Plant water availability.	Water mobility through the soil profile. Functionality of crop roots in comparison to weed roots. Precision agriculture being limited by lack of understanding of some of the soil properties. Need for a quick and easy soil assessments rapid soil cores.	Soil and land management strategies, technologies, and innovations	Other Ideas
Soil water infiltration — measurement of soil management/topsoil management, seeding methods, and its effect on infiltration and water availability.		Soil and land management strategies, technologies, and innovations	Other Ideas
Soil moisture probes under different conditions. Usage of moisture when it is available, store where possible but utilise it if you can't store it. Role of Upper North to have a moisture probe network. Link it to existing weather station network		Soil and land management strategies, technologies, and innovations	Other Ideas

Soils focus, summer weed control — potato weed/paddy melons etc, water use efficiency. Moisture penetration, maximum soil cover to ensure zero water run off. Sodic soils, compacted hard clay soils limiting plant available water.		Soil and land management strategies, technologies, and innovations	Other Ideas
Understanding and increasing soil water holding capacity across different soil types.	French Schultz model not always accurate for some areas and soils. Increase soil water storage. increase plant access to soil water	Soil and land management strategies, technologies, and innovations	Other Ideas
Improve pasture / crop management to maintain soil water holding capacity and enhance it.	Seeding systems, seeding timing, timing of operations, avoid compaction.	Soil and land management strategies, technologies, and innovations	Other Ideas
Engage the researchers to learn more about the outcomes with those on the ground who have to implement the decisions. The 'E' of RD&E.		Upskilling advisors, researchers, and key influencers	Other Ideas
Easily accessible training and development opportunities and choices from Certificate 1 upwards.		Upskilling advisors, researchers, and key influencers	Other Ideas
More and better skilled livestock advisors.		Upskilling advisors, researchers, and key influencers	Other Ideas
Agents recruited, enabled and recognised for informing and facilitating enhanced on-farm practices.		Upskilling advisors, researchers, and key influencers	Other Ideas
Increase in producers sourcing reliable and timely information and advice from veterinary professionals.		Upskilling advisors, researchers, and key influencers	Other Ideas
Key influencers in industry educate and influence producers on 'best practice' biosecurity.		Upskilling advisors, researchers, and key influencers	Other Ideas
Farm water infrastructure planning.		Water security and management strategies, technologies, and innovations	Other Ideas
Improving understanding of water demand – through improved understanding of the effect of climate on livestock water.		Water security and management strategies, technologies, and innovations	Other Ideas
Use of dam-liner/covers to improve dam water storage, enhance run-off technology – update economics.		Water security and management strategies, technologies, and innovations	Other Ideas
Use of branch-line/point of use water meters to understand actual water use so as to understand if current water resources are sufficient prior to critical levels.		Water security and management strategies, technologies, and innovations	Other Ideas

Water security/water capture and storage options – lined catchments, other?		Water security and management strategies, technologies, and innovations	Other Ideas
Access to info and funding support for dryland agriculture/livestock water security technology opportunities.	There is a big opportunity here to take work done by CTLAP and on EP and apply it state-wide. Mark Scobie and I presented to the BIGG in early September and our minds were blown about the different ways they are looking at what we have been doing within their own context. Their limiting factor to utilising feed is ability to access enough stock water.	Water security and management strategies, technologies, and innovations	Other Ideas