# Science to Practice Forum 2023

Day 2 Session 4 transcript

(Duration 62 mins 41 secs)

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## Introduction

This is the transcript of one of the Future Drought Fund’s Science to Practice Forum sessions, presented by the Department of Agriculture, Fisheries and Forestry. This transcript is for Day 2 of the Forum, session 4, Tools for change.

Learn more about the [Science to Practice Forum](https://www.agriculture.gov.au/agriculture-land/farm-food-drought/drought/future-drought-fund/research-adoption-program/science-to-practice-forum).

## Transcript

[Recording begins]

Pip Courtney [00:00:04]:

Welcome back to the afternoon session of day 2 of the Science to Practice Forum. I’m Pip Courtney. It’s great to have your company. I’ll be with you for another hour or so, sharing with you some of the innovative ways Aussie farmers and communities are preparing for drought. The time farmers spend driving to check stock water when no problem exists, can be costly. Now, a simple remote water monitoring system is giving South Australian farmers back their time and peace of mind.

[Video voiceover begins]

Ian Koch [00:01:00]:

And we are just east of the Barossa Valley in South Australia. We’ve taken over the family farm from my parents. We farm Marino sheep. We have approximately between 16 and 1800 ewes, a portion of which is a Marino stud. Water is an issue for us because we rely on surface water and dams and springs, so that is quite difficult for us on some of our country. The weather patterns are changing. We seem to be having a bit more extreme events.

Jane Evans [00:01:30]:

Every drop counts in our region. This particular region has no external water security infrastructure access for the majority of regional producers. So what that means is we’re essentially quite vulnerable to the climatic conditions. Our average rainfall is about 600 millimetres per annum here and recently, it dropped to about 350 to 400 mils per annum for a few years. So our dams were empty, we were trucking water, and it was extremely stressful for producers. Water management, water security, and sustainable use of water is critical moving forward into our warming drying climate.

Warren Fargher [00:02:11]:

My wife and I moved here six months ago from the 1500 square station in the Flinders Rangers where we ran cattle and cheap and we’ve just come down to a smaller area. It’s more manageable, with a few cattle that keep us occupied. My experience up on the station was more droughts and good seasons. So the water situation had to be managed carefully. You really didn’t sleep at night because you were worried about how much water would be in the tank.

Jane Evans [00:02:40]:

The project that I’m currently coordinating is the Water Innovations on Farm project. It’s only been possible through funding from the Future Drought Fund, and by being supported by the SA Roseworthy Hub. And it’s about bringing in tank level monitoring equipment to 4 producers in the region to start with. And what we are doing is monitoring how this helps with time efficiency, with their business management and with sustainable use of water and seeing how it makes a difference to the producers’ quality of life.

Ian Koch [00:03:09]:

Prior to the monitor being put on the tank, my aging father used to check the water numerous times a week. The monitor is pretty easy to install, we just had to make a bracket up and mount it on the top of the tank. Mounting bracket on the monitor has a hole underneath so it actually beams a light down. Yeah, you just need to get an app on your phone. It measures every three hours.

Warren Fargher [00:03:34]:

And it’s made a difference already. And you look at your phone and say, the tank needs some attention, because it’s given me alarm to say that it’s below where it should be, and we need to do something about it. Yeah, it’s quite incredible.

Jane Evans [00:03:49]:

And I think the beauty of this project is that it’s so applicable to agricultural practice and farming across the nation. Early detection of leaks and water loss can help basically prevent livestock stress and can help overall highest quality of production levels being maintained in farming. So, AgTech is, I think, critical to farming as we move forward for the future, for efficiency and productivity of our businesses. So the Future Drought Fund has been life changing, by creating the opportunity for them to see how their farming practices could change moving forward to be more efficient, as we look to a hot or dry climate.

Ian Koch [00:04:32]:

It does give you peace of mind because it’s just so easy to look up and it’s one less thing you have to worry about physically going to do.

Warren Fargher [00:04:39]:

And it’ll save a lot of money, a lot of time. Basically, that’s what it’s all about. And more efficient. You have to measure everything you do these days.

[Video voiceover ends]

Pip Courtney [00:05:01]:

That was Warren Fargher from Wirrealpa Cattle Farm, talking about the benefits of the SA Hub’s remote water monitoring project. Now we’re crossing to Innisfail, far north Queensland, where Kara-Glenn Worth is on her family’s organic banana farm. Kara is a Digital Innovation Consultant and is working on projects supported by the Tropical North Queensland Hub, on the uptake of Agritech. She’s looking at how rural and regional producers can more easily understand the AgTech available in the marketplace and where it fits on the farm.

Kara-Glenn Worth [00:05:38]:

Thanks Pip. It’s great to be here today to talk to you all about the program we’ve been developing with the Tropical North Queensland Drought Hub and in partnership with James Cook University. So I’m just gonna walk you through some of the key findings that we’ve had and the process we’ve taken to get there. This program has been designed with 4 tropical far North Queensland producers, and it helps them to assess the potential for AgTech uptake on their unique farm. And when I say tropical North Queensland, it’s not just our small pocket of the world up here in the wet. Our remit actually extends quite a long way. You can see the full map of our region on the TNQ Drought Hub website. So take a look at that if you’re interested in the regions that we serve. But basically, we’ve been working on this program for quite some time now and it’s exploring how technology can address not only resilience opportunities or challenges, with, you know, extreme weather events, but it also explores how farms can actually inspire an innovation culture within their business and within their business model.

It helps them to assess their current business model and their aspirations for continuous improvement in innovation two years into the future. So basically, a now and an ‘aspired to’ comparative analysis of their business. And it highlights focus areas within that analysis to help the farm to further explore AgTech applications that are really directly relevant to their business and where they want to go. It gives options to connect with future adoption pathways and support opportunities, and that’s something that we’re continuing to build out as well to make it even more available and accessible to farmers. And the real highlight of this program is the customer assessment tool. So it gives the farmers those insights that are specific to their farm and their future ambitions as well. Here’s just a couple of sort of high-level overview stats. We’ve consulted so far with 10 farming enterprises over the last eight months, for over 50 hours of co-design consultation to design this program.

And we’ve also consulted across five Primary Production industries who are all represented in the co-design. And that co-design process resulted in four theme impact areas being identified for the workshop, the program and the tool. And these are those themes. So we’ve got Human Impact, which covers leadership succession planning, which was a really key one identified in the consultation group and skills capacity development, Economic Impact, which includes the farm output and competitive advantage, as well as their internal supply chain, Environmental Impact, which we all know about, which includes environmental responsibility as well as climate and extreme weather events such as drought and then Technology and Innovation, which is just assessing the culture of technology and innovation on the farm where they are now and again, where they’d like to be coming into the future. And to give context about why we feel this is important, we know that 93% of the domestic food supply comes from Australian producers and in our region, our remit region with the TNQ Drought Hub, 30% of that is contributing directly to domestic food output.

And we’ve got some really great goals. The National Farmers’ Federation, I’m sure everyone’s heard this stat, but the 100-billion-dollar goal for farm gate output by 2030. The recent stats from DAFF show that 23 billion is the value, the gross value, of production in Queensland’s Ag, Fisheries and Forestry sector. So we really need to capitalise on the opportunities that are available with AgTech and make that accessible for our farmers and producers. And AgTech isn’t going anywhere. You know, we might have some producers who are reluctant, some who are really early adopters, but all in all it’s here to stay. This map here is from the Australian Agritech Association and every one of those tiny logos represents an AgTech company, whether that be a startup or a more established scale-up. But there are 600 and this is growing every single month.

So to expect a producer to sit down and assess and analyse 600 companies to find one that fits their needs, the producers that we consulted with, that just wasn’t something they had time to do. So really, that’s the foundation of everything that we’ve been doing, is to make AgTech, you know, more accessible and to demystify the AgTech that is relevant for the specific farm. Our researchers that we worked with at James Cook University identified that the emerging technologies available sort of fit into these four key categories, but these do cross over and there are fusion technologies there as well, or integration technologies. But again, many of our farmers in our region just don’t have the background in internet of things or robotics or artificial intelligence or computing power to really fully understand how an integration or a combination of these technologies can benefit them on-farm.

So again, that’s part of what we’ve integrated into the program and we’re helping farmers to understand that basically technologies help to de-risk, to grow and to innovate the farm business model and resilience. And obviously with the Future Drought Fund, one of our key remits is to focus on resilience. Not just, you know, thinking about where they are now, but coming into the future. How do we create that resilience to climate and weather factors or supply chain input fluctuations or biosecurity risks, all of these things that come alongside, you know, extreme weather events? But then also, how do they grow their business and how do they embrace this innovation culture to really capitalise on the opportunities available with AgTech? And we’ve come down to one key finding that not all technologies are suitable for a farm’s unique needs. And that’s why we are really designing this tool to help put the skills and the decision-making process back in the farmer’s hands.

So here we have a picture of one of the producers we’ve worked with. This is an organic banana farm. And for instance, in this case, they didn’t need as much in the way of technology on farm, but they needed a lot of back-end support and integration that could be used to sort of, exchange data, deal with their compliance, their many compliance and reporting requirements. And so this is an example of how they used the tool to identify that that was the area that would best benefit. And then here we’ve got a couple of farmers from Olga Downs near Richmond, and these guys were actually a part of our recent preg testing trials. But these guys were already fairly innovative, and this just identified another area that they hadn’t thought of yet, which was the preg testing that they could then be a part of that trial to see how that would work on their farm.

So as I said, the assessment tool gives that now and ‘aspired to’ lens and I’ll just flick through. You can see on these slides, just some examples of how the questions are formatted. So you can see it’s a question as it is now. And then the same question will be asked as they would like it to be two years from now. And it’s basically a scale zero to 10 that they score themselves on, how they resonate with that question that’s being asked. So these on the screen are examples of our leadership questions, and then they come to this, this diagnostic, this is just an example, it’s not a real one, but you can see on this visualisation, they’re able to easily identify which areas would best benefit from AgTech adoption and we can help consult with them to bring that to life and really explore the technologies that might be relevant.

As I mentioned, we’ve had a really successful co-design process and great interest in the program and the tool, and we are really excited that there’s a potential for this to expand and grow into other regions and that we can, you know, through the Future Drought Fund, really get this program out there into the hands of as many producers as possible to scale this into the future. So going forward, we would love to roll this out in further regions and we’d love further testing of the delivery format. So both one-on-one and workshop formats have been tested, but we’re also looking to explore a train-the-trainer model, where we basically can train other organisations to deliver this to increase scale and impact. And we’re also designing as well, post-program follow-up consultation and self-evaluation that will help roll this out further. So we would love to partner with anyone and any region who is interested in helping us continue to develop this program and test it and trial it.

And really, we’re looking forward to seeing how this can really help with the issues such as drought, biosecurity, like I mentioned, and the intergenerational transfer of property ownership is a really big one as well with succession on farms. So any context, any industry, we’d love to work with you and we’d love to partner with you to really see this come to life even further. Thank you so much for your time and it’s such an honour to be able to share this with you and the great work we’ve been doing with the TNQ Drought Hub.

Pip Courtney [00:14:59]:

Thanks, Kara. We’ve got a couple of questions. Well, there’s quite a few coming in on Slido. First one is, what kind of farms were consulted in the design of the tool, and does it relate to all farms?

Kara-Glenn Worth [00:15:12]:

Yeah, so we worked with a passionfruit farmer, an organic banana farmer, cattle. We also worked with mixed farming operations, so someone who had cattle and horticulture on their farms as well. Um, we’ve, we’ve explored this with avocados as well. So really, it’s less about the industry and the type of farm and it’s more looking at the whole of business case model for exploring innovation. So it will work with pretty much any farm.

Pip Courtney [00:15:41]:

Are there some farms which don’t need to use any tech at all? Is a question that’s coming in on Slido.

Kara-Glenn Worth [00:15:47]:

I’m sure there’s probably some farms who would love to use no tech at all. But I think in this day and age, you know, even just thinking about compliance for example, and all of the reporting that’s coming through, the growing demand from consumers for providence and traceability, I think we’re all going to have to use some type of technology and even technology can include your accounting software, cloud-based accounting, you know, so I don’t think anyone’s exempt from using any technology at all. But the types of technology will depend on the business.

Pip Courtney [00:16:23]:

Some people, like myself, Kara, might be a bit tech shy. Can tech shy people be helped with this?

Kara-Glenn Worth [00:16:32]:

Absolutely Pip. I’ll let you know, I can’t even work a clicker. I had a hard time at the Charters Towers Northern Beef Expo last week. So even people who are tech shy can definitely use this tool. It’s a very easy, question-based tool. And then even the types of technology can be considered as well. There’s a lot of technologies out there that are fairly low, you know, low, I don’t want to say low skill, but low expertise to access. So again, we would work with the producers to identify the tools that are best suited for them and their skill level.

Pip Courtney [00:17:09]:

Thank you for not calling me low skilled. Another question that’s come in for you, how can farmers understand and engage with the tech tools that are out there that are appropriate for their climate, as well as their crop?

Kara-Glenn Worth [00:17:22]:

Yeah, so that’s really something that makes the TNQ region and our remit region with the Drought Hub really unique. You know, where I’m based, in Innisfail, our extreme weather events are cyclones and you know, then we’ve got out West, where we are more drought prone and there are drier areas as well. So really it depends on the region and you know, there is, I’ll say, there’s a way to go for a lot of tech providers to creating more accessible and resilient technologies. But you know, at the TNQ Drought Hub, we believe, if it works here, it will work anywhere. We’ve got such a scope of weather and climate variability that it’s a great place to test technologies as well and to validate that those technologies really are suitable for use on-farm. So we also do a lot of trials of technology, so any AgTech providers who are interested in trials should reach out to us.

Pip Courtney [00:18:21]:

We have a comment that’s come in. Hello Kara. DPI NSW are running a specific AgTech program which covers a range of the tech integration, data connectivity, and also have a list of cooperating AgTech companies with funding supporting. May be worth checking this out as well. Your approach to this is very extensive and exciting.

Kara-Glenn Worth [00:18:43]:

Thank you. And we’ll definitely check that out.

Pip Courtney [00:18:48]:

Kara, thank you very much. It was a great presentation.

Kara-Glenn Worth [00:18:51]:

Thank you. Thanks for your time.

Pip Courtney [00:18:54]:

That was Kara-Glenn Worth. Finding the right tool for the right job is more important than ever, particularly in response to the changing climate. The Climate Services for Agriculture online platform provides users with historical data, seasonal forecasts, and future climate projections for Australian farmers and communities to use in their decision making and business planning. The Climate Services for Agriculture, or CSA platform, is funded by the Future Drought Fund and delivered by the CSIRO and the Bureau of Meteorology. Stephanie Dixon works at the Bureau as Stakeholder Engagement Lead for CSA. Stephanie has a professional background in journalism and agriculture and for the past 18 months has been travelling across Australia, demonstrating CSA and its capabilities to farmers and farm advisors. She’s going to discuss climate in the context of farm planning and how using a CSA can help inform decision making and build climate resilience. Stephanie, take it away.

Stephanie Dickson [00:19:57]:

Thanks Pip, for that lovely introduction. As you just shared, the Climate Services for Agriculture project presents 60 years of historical information, seasonal outlooks on a one-to-3-month outlook. Next slide please, Simon. And of course, projections are out into the future in 30-year blocks. The project is developed by the CSIRO and the Bureau of Meteorology in partnership and is a Future Drought Fund project. The project is developed with a co-design process, and we have been travelling around for the past 18 months visiting all the pilot regions. We started in these locations and then we’ve branched out to try and fill in a couple of gaps that you can see there on a map. As you can see, our pilot regions coincided with the Drought Hubs, so a lot of you will be familiar with that on the call today. And next slide please.

So without further ado, I would like to present with to you the actual prototype of our project. If you would like to have a look at your own location and check out your own commodities as we go along, you’re welcome to scan the QR code here or navigate to Climate Services for Agriculture. It is still in a development phase, so if you follow on today and log in in a few months, you might see an overall look and feel of the platform has changed quite a lot, but the actual data and the underlying information will all be the same.

So I’ll just share my screen. So the first thing I’d like to bring to your attention on this screen is the feedback button. You can get in touch with me personally through that, or with any of our team if you’d like to get involved, help co-design a project or just reach out in any way to our team at all. We also have some more information about the underlying data of the project under the Data, and the About section. And if you need any help to with navigating the prototype or reading any of the data, you can find more information under the Help and Frequently Asked Questions section. So for the purpose of this demonstration, I’ve just selected the location of Cairns and you can look into three different ways of finding the data. We have the seasonal outlook, general climate trends for your location and key climate indicators for a specific commodity. I’m going to focus on the general climate trends for now.

So over here you can choose two historical time periods, three future time periods and two emission scenarios. The medium and high emission scenarios are represented as RCPs, that’s Representative Carbon Pathways and 4.5 is basically with total compliance to all our global goals, and 8.5 is really continuing to increase emissions at the same rate as we are now. Most scientists at the moment expect we will be somewhere in between those two. Which one to choose when you’re using a tool really comes down to your own appetite for risk basically. So what we have here on the general, is rainfall annually and broken down by season. We have a past average, a recent average, and a future average based on the emission scenario that you selected over here. You click on one of these cards and you can see the graph over on the right-hand side is changing.

This is the past 60 years of climate data broken down year by year. You can see an individual year hovering over the graph with the average for the most recent 30 years and also the 30 years before that scrolling down. You can see the future projections here, starting with those two historical blocks that we just discussed, minus the 90th and the 10th percentile with the average in the middle. Then into the future, we have the total range of model outcomes minus the 90th and 10th percentile, as well as the average range of model outcomes minus the 90th and 10th percentile. So what can we say looking at data like this? So, there’s already been significant historical variation year on year in the historical data that’s projected to continue with some, with not an obvious trend in rainfall change for this location.

Scrolling down, we can look at the same sort of information for temperature. If we have a look at average maximum temperature, we can see historically there’s been a big increase, still a lot of that same variation that we see for this location. And then into the future here we see the projections. What’s interesting to look at here is this current block that we are looking at here, the average is almost the same as what would’ve been in the 90th percentile in the historical time period up to now. So we are looking at significant increases here.

Another option is to look at specific commodity information. So if we have a look at beef for example, and this information is being curated based on consultation with lots of farmers and advisors and also researchers and industry experts to see what is the most significant climate factors for different commodities in different locations. So you can see here we’ve got wet season and dry season rainfall temperature with cold limited pasture growth. You can see these commodity indices are editable. So we can put that up to 19 and see what the difference is there. Annual heat waves and heat stress. And we also have lots of different commodities here, which will be different depending on where you are in the country when you have a look. So, if I stop sharing my screen now and just return to my slides.

Okay, great, thanks. So usually, we demonstrate this platform and then we get to a point where people are saying, okay, we’ve got all this data about the future and the historical, what do we actually have to do with this? What do you want us to do about it? So I have here two example scenarios, which are loosely based on real discussions that the CSA team have had with farmers and graziers and their advisors in various locations around Australia. Most of these scenarios come from discussions with producers, and the CSA team, or with producers and their advisors such as extension staff, Drought Hub Knowledge Brokers and anyone working in that advisory role really. And that’s really the key target for our project. Okay, so next slide please. So the first example comes from a farmer in Neergabby in WA, which is close to the coastal side of the WA wheat belt.

Well, this farmer was mixed horticulture but came to our session tossing up whether to continue growing cherries or not. Annually dislocation is experiencing around a hundred mil decrease in rainfall in spring rainfall over the last 60 years. But most of the differences in the winter and the autumn months as you can see here, there’s already quite wild seasonal variation in the spring and in the three most recent years, this producer has experienced high rainfall during fruit set, which meant all the cherries split and they weren’t even worth harvesting. They had some leeway being a mixed farmer and it wasn’t an all or nothing decision. So they were thinking of pulling out their cherries and trying something else but didn’t wanna give up on them altogether if they were just about to come good. So what could we say in this situation?

Looking at the projections, you can see that the range is fairly similar to what’s been experienced in the previous decade. However, the average range in is quite broad. So depending on a person’s risk aversion, there could be some significant highs and lows to be dealt with. Similarly, the spring rainfall overall is trending down. So if this is a new crop and likely to have a 20 or 30 plus year lifespan, you might want to determine whether the rainfall will be actually sufficient that far into the future. But this data suggests that if consecutive years of above average rainfall is the problem for cherries during fruit set, that is a showing a declining trend. Also, if you were in this location and planning for the extreme highs that you’ve experienced in the past, that could be a misplaced investment looking at the likelihood of those highs occurring again, decreasing quite dramatically. Next slide please.

So this example comes from a sheep farmer in that northern part of South Australia. In this scenario we have a generational sheep farmer wanting a brutally realistic view of the value of the farm as an asset to the future generations. As a generational farmer who recently took over full control of the farm and has a young family, they’re looking at this as a very long-term decision and of course with huge implications, as a family, do we devote our lives to the farm and continue to develop it, knowing that that might mean living remotely, sending children to boarding school, carrying a lot of risk in the business, all that sort of thing, in the hopes of passing on a profitable farm? Or will the climate change to a point where we’re actually passing on a management challenge that we’re just not equipped for?

So fertility heat risk here is among some of the information that’s on the sheep page of the Climate Services for Agriculture. And it’s an example of the data that could help see what this situation will be like in the future. Keeping in mind that the thresholds and the timings can all be edited on the platform. You can see here that historically Port Augusta receives an average of 39 days where the maximum temperature is over 32, and therefore considered a risk to sheep fertility between January and June. A date range that was chosen to represent joining. In 2070, that’s likely to be 55 days or about two and a half months out of that six-month period that will be unsuitable. This heat risk, heat stress, declining rainfall and many other issues shown on CSA sheep page, can be managed by establishing shade and shelter, improving soil quality to hold more water, and myriad other kind of adaptations. However, a lot of those are really playing the long game. So there is a lifetime worth of time to prepare for this kind of scenario. However, a lot of those adaptations need to be started now. Next slide please.

So these two scenarios are representative of the kind of discussions that we regularly have when demonstrating the CSA tool and they’re the kind of discussion that we hope come up with trusted advisors when using the CSA tool in their own engagement. Hopefully we got your interest today and if you’d like a bit more training on the data before you head out and start discussing climate change with your networks, we are currently piloting a train-the-trainer program for CSA and you’d be more than welcome to get involved. And a few items from the agenda are shown there, we will be looking at historical and future data sets, gridded data versus weather station, discussing climate change, using and discussing climate models and climate carbon pathways. So, we hope to stay in touch and hope to hear from you soon. Thank you.

Pip Courtney [00:33:51]:

Stephanie, that was fascinating. Do people have to be walked through this by someone like you or can they do it themselves?

Stephanie Dickson [00:34:01]:

At this stage, I think in the development of the project, a lot of people need to be walked through it because it’s not that intuitive. We are hoping that with the new release it will be a lot more user friendly and it won’t take as much explanation to get to the point of the data, but we are aiming at advisors and people in that sort of position because a lot of the time farmers don’t have the time to just go into data like this off the bat on their own. But an advisor could have this as one of the tools in their toolkit that they really bring out when they’re discussing business planning and future plans in that sort of environment.

Pip Courtney [00:34:47]:

You gave us those two examples of the cherry grower and the sheep producer. Were there light bulb moments for them when they were being taken through all this information?

Stephanie Dickson [00:34:59]:

Yes. I think with a lot of people they come with some historical scenario or possibly a recent run of dry or wet years in their mind and one of the first questions they wanted to know is, is this normal? Like, is this what we should be preparing for going on or is this one year that we just need to weather it out? And then, it’s business as usual. I think that a lot of people already have some idea of where the climate is going, but this just provides some reassurance and validation of the decisions that they’re already making.

Pip Courtney [00:35:38]:

And we’ve got a question here that’s come through on Slido. What on the ground changes have you seen as a result of farmers using CSA?

Stephanie Dickson [00:35:47]:

I think a lot of people, well, a lot of the time, it’s the first time we’ve showed them and a lot of these decisions are really big decisions so we don’t always see the outcome. And it’s also just one piece of information that goes into making a decision that would be based also on markets and labour availability and multiple other things that go into every farm decision. But we have seen people who are making significant adaptations, depending on where they are and what they’re growing. We’ve seen a dairy farmer with putting in feed pads very close to the dairy, putting in sprinklers over their dairy to cool down the cows as they come in to be milked morning and night. There are a lot of adaptations that people are working on, but really CSA is just a starting place to start having the discussion and have look at the situation you might be in in the future and then start making a plan.

Pip Courtney [00:36:57]:

And who’s the tool aimed at? Any producer, anywhere in the country?

Stephanie Dickson [00:37:03]:

It’s an Australia wide tool, so we would like any producer anywhere in the country to be able to use it. At this stage we think that it does take a little bit of discussing and explaining, things like that. So we’re specifically aiming it at advisors as a network, to get it out to our farmers. Really, that’s our hope at the moment.

Pip Courtney [00:37:32]:

And a question from Slido, are you engaging ag and environmental science students to see how CSA can be incorporated into courses to ensure that those students are aware of the tool before moving into the workforce?

Stephanie Dickson [00:37:45]:

That’s a great question. At this stage we have looked at adding an education element to the platform. As it is unfinished, we haven’t really gone very far down that avenue yet, but I think it’s definitely somewhere to look to in the future. It’s another useful tool.

Pip Courtney [00:38:08]:

And Stephanie, I’d just like to tell you some very exciting information. You are in the running for slide of the day.

Stephanie Dickson [00:38:16]:

Brilliant. Thank you.

Pip Courtney [00:38:18]:

With the dogs in the back of the [inaudible]. I don’t know what sort of prize the winner’s gonna get, might be a pen, but well done. I hope you took that photo yourself.

Stephanie Dickson [00:38:34]:

No, I didn’t actually. That was a photo commission from the Bureau a few years ago, but yeah, it’s a beautiful one.

Pip Courtney [00:38:42]:

Oh, you should have claimed it. Stephanie, thank you. That was absolutely fascinating.

Stephanie Dickson [00:38:49]:

Thank you.

Pip Courtney [00:38:49]:

Very well, we’ll move on now. Thanks Stephanie. So to use the online platform search Climate Services for Agriculture. When conditions dry, there’s greater pressure on people and animals. This next project being trialled in Victoria, is reducing some of the stress on both, through the use of containment feeding.

[Video voiceover begins]

Don Piper [00:39:36]:

We produce largely meat sheep, and we’ve got a Merino flock as well. We do a bit of cereal cropping as well, mainly for our own use, sheep feeding, that sort of thing. Yeah, it’s a pretty terrific office actually. Really enjoy in a way, just the variability of, you know, being at the whim of Mother Nature, not knowing what the season’s gonna be. It’s a really nice challenge. You know, when I’m three years into the next drought, I probably won’t say the same thing. The millennium drought, that was my first real experience with severe drought and it was, you know, very eye-opening, very hard on the stock, the land and the people and we just trail fed and probably sacrificed paddocks a lot more than we should have and needed to.

Sophie Hanna [00:40:11]:

When conditions become dry and there is greater pressure on the pastures, containment areas are a very valuable tool for decreasing the pressure. It can also reduce energy requirements for stock by about 10 to 15% by maintaining ground cover. It can not only help the pastures persist, which is very important for perennial species, but also reduce erosion.

Cam Nicholson [00:40:32]:

The idea is that our soils can be very fragile, particularly when we don’t get rain and therefore you lose ground cover, you lose dry matter there and the animal performance isn’t there either. So the idea of being able to contain them has a lot of benefits. One being the protection of the land, but also in the management of those stock because they’re closer together. Quite often you get better efficiencies in feeding. Cause if you’ve got stock that are, you know, a 20-minute drive away to where you’ve gotta feed them compared to if they’re in a pen like that, you can monitor their health better. And it yeah, protects your soil and allows the pastures to get away better once we do get a break. Riverine Plains who are the farming group node in Northeast Victoria, they identified that containment feeding was gonna be one of their priority areas for, for building resilience.

It was identified also in some of the other nodes in Victoria. So when we started talking with one, oh, we’ve all got something in common, here’s a way of doing something across the state. But as we were talking to colleagues in South Australia and Tasmania, became obvious was an issue for them as well and we thought, well wouldn’t it make a lot of sense to actually do cross-state collaboration. The Future Drought funding gave us that opportunity to collaborate between those other states. So the three of us could work together on a common problem. You can go back and find information on containment feeding from 1970, but what really struck us when we were looking at this, building drought resilience, is how few farmers actually had containment facilities that were in place and they felt confident to be able to deliver on those. So the beauty of the FSF funding was it allowed us to take a fresh look at it. We’d actually go back to square one and just say, why aren’t people adopting? What are the barriers?

Sophie Hanna [00:42:15]:

Probably the most valuable way of accelerating innovation of new practices is hearing farmers who have taken that first step to initially set it up and then talk about, you know, what’s worked for them, how they can improve it.

Cam Nicholson [00:42:25]:

We did in-depth interviews and workshops with more than 170 farmers, which was fantastic cuz we could really understand what were some of those key things that they were struggling with. As well as that, we had farmers like Don who were happy to show what they’d been doing.

Don Piper [00:42:39]:

We make a judgment call when we look at our paddocks and monitor them closely when the ground cover’s getting to around that sort of, you know, 80% mark, usually pull the trigger then and we’ll separate the sheep into meat sheep or Merinos and then we’ll have all our feed tests done and of the feed we’ve got, put them in the feed pens and then basically start ration feeding, monitoring the stock that are in there, bring them into the yards, doing condition scoring and just making sure everyone’s happy.

Cam Nicholson [00:43:08]:

Those pioneering farmers that we’ve engaged in the early stages have really been leading the, the sort of identification of what we really need to do. The first one was around decision making. As farmers really were challenged with, do I sell stock or do I hang onto them in the first place? Then if I do hang on to them, when do I take them off my pastures and put them in containment? And importantly it was, well what do we do once the drought breaks? When do we let them back out again?

Sophie Hanna [00:43:33]:

To build farmers’ confidence in making decisions around when to put stock into containment areas, and out from the paddock, Cam Nicholson led a few workshops with a small group of farmers to help identify what the critical factors are behind making these decisions, you know, ground cover or labour stock, suitability, paddock availability. We then work to identify what are the tipping points for each of those. And by placing a value on these tipping points, it helps farmers have a structured matrix that they can refer to, to make a decision with confidence.

Cam Nicholson [00:44:07]:

One thing that came up from a lot of the farmer discussions was that they said, if I’m gonna invest time and money in this, I want to get it right the first time. And while there’s a lot of information out there, they wanted it personalised. So it’s basically about having a one to one. So the one Don’s got here suits Don, someone else will have a different system, they’ll have a different landscape, they’ll have a different enterprise. So customising that was really important.

Don Piper [00:44:30]:

The biggest change now using confinement, pens, feed testing, knowing exactly what you’re feeding and how much you’re feeding and how many sheep, all that sort of stuff just to yeah, make it as easy on the sheep and mainly on the people as well. And looking after the land a lot better, it means you can plan a lot more easily.

Cam Nicholson [00:44:45]:

We’re sort of taking a long-term view on this and that’s really one of the beauties of the Future Drought Fund is it has that long-term intention. If we could get all the things in place that we do, we anticipate that we’ll probably be able to help nine and a half thousand farms across Southern Australia. And not only give them the knowledge and the design, but the, the skills and the confidence to be able to do it. And if we can do that, our calculations are that that will protect about 4.2 million hectares of grazing country across Victoria, South Australia and Tasmania, which will be a fantastic outcome and from a drought resilience point of view, and would actually make a mark.

[Video voiceover ends]

Pip Courtney [00:45:37]:

That was Cam Nicholson from Nicon Rural Services on the long-term impact of farmers adopting new practices, thanks to the Future Drought Fund. Sometimes, introducing a new practice or learning a new skill can have other secondary impacts. Kristie Lisle is a beef producer who lives in Central Queensland with her husband Matt and their two young children at their property, Moonkan Park. Kristie is a 2022 graduate of the Advanced Beef Leaders Program and completed a Farm Business Resilience plan over 12 months ago. She’s also the local school bus operator, a qualified bookkeeper holds a Diploma of Agri-Business Management and is passionate about being heavily involved in her local rural community. She’s going to explain how her experience in the Advancing Beef Leaders Program led to her harnessing other farm business skills and opportunities.

Kristie Lisle [00:46:34]:

Thanks Pip, I do apologise, I have been sick all week and I’ve got a bit of a croaky voice and a cough. But as Pip mentioned, I’m a central Queensland beef producer, operating a trading beef business with my husband and two young children at Moonkan Park. Moonkan is roughly 3,500 hectares and is located 41 kilometres west of Rockhampton. We purchased Moonkan in 2019, which, as you can see by the photos, was being affected by the continuous years of minimal rainfall, which turned into drought. However, we could see the opportunities and what potential Moonkan had. To start our development opportunities at Moonkan, in January 2020, we applied for and were approved for a sustainability loan through QRIDA. This assisted us with renovating the soil and pasture vegetation and noxious weed control. It also helped fund our stage one of water infrastructure, which was necessary due to the old water infrastructure becoming beyond repairable and unreliable.

With three months of planning and six months of installing, we installed roughly 30 kilometres of poly and 25 troughs. And we also have now, 750,000 litres of water storage. We were also lucky enough to secure extra funding and support through the Grazing Resilience and Sustainability Solutions, also known as the Grass Project, which our local extension officer, at Department of Agriculture and Fisheries, Kylie Hopkins, assisted us with. In early 2021, QRIDA created a client story around what we had achieved due to the sustainability loan application, which was aired at the Beef Australia Week 2021. It was a great opportunity for us to tell our story and how completing the application process provided us with drought proofing business and property improvement advantages. Throughout the beef week we had other producers asking about our water infrastructure and for advice on the application process.

And then a week later, Future Beef were advertising on their social media about an Advanced Beef Leaders program, which is a leadership and professional development program tailored to emerging producers and community leaders. ABL is jointly funded through the Australian Government’s Future Drought Fund and the Queensland Government’s Drought and Climate Adaption and Reef Water Quality Programs. I thought after telling my story, I wanted to develop a better understanding of how to be an agricultural leader and continuing the journey of helping other producers look at how to access the drought proofing business and property improvement advantages.

I was chosen to become one of 11 successful applicants within Central Queensland. The program was tailored with six modules, which we completed online in a face-to-face Zoom meeting over 12 months. Throughout my ABL program, I met like-minded people through Queensland, passionate about moving the agricultural sector forward and the opportunity to listen to other producers, their experience and possibly implement their learnings into our business and property. Our first module was the ‘understanding of self and others’, which showed me the necessary requirement of separating business and family. Our business was constantly having meetings on our family deck, which it took me six months to complete, but I finally changed our downstairs spare bedroom into a boardroom. As you can see on the slide, that’s our boardroom where we hold meetings now, which is working really well and we have plenty of comments about it.

This module also provided me with the understanding of how each single person has different ways of thinking and communicating. Our business at the time was employing two full-time employees and a contractor, which at times became very difficult with everyone being different personalities and not being on the same page. So we used our boardroom to start weekly meetings, which has now turned into a great time for all employees to enjoy my baking, great catchups, express any concerns and allow everyone to be on the same page. In an economic and financial literacy module we were lucky enough to be involved in an ABL supply chain tour, which took three days of traveling in Brisbane and Toowoomba visiting various agricultural businesses. My highlights throughout this trip were JBS Dinmore, Jim’s Jerky and Kerwee Feed Lot. At the Kerwee Feed Lot we were required to sign into their biosecurity code, which really fascinated to me and how I could implement this onto our property, which it took a little bit of working out to do.

But now we have a biosecurity QR checking code at Moonkan. As you can see on the PowerPoint, that’s our biosecurity sign-in. Over the 12 months, we were lucky enough to go through the process and choose a mentor to assist us with our journey. My mentor was Richard Holcomb, who over the 12 months, provided a listening ear and mentorship that are required throughout the busy life struggles of operating a property. My ABL experience didn’t stop after the 12 months. So I was actually chosen to be a part of the next ABL application interviewing panel, which I loved being a part of the process and interviewing the applicants because it gave me another advantage to myself and my business. On interviewing, tips and learning more about people, we also completed a technical foundations module, which provided us with information about climate change, biosecurity business growth, and the QRIDA Drought Preparedness grant and how to complete our Farm Business Resilience Plan.

At the time, I happened to be in the process of completing my Farm Business Resilience Plan, which allowed me to speak to our group of the benefits and why I was actually completing it. For anyone that may not know what a Farm Business Resilience Plan is, it provides you with the tools, skills and knowledge that you need to prepare for, to effectively manage climate and business risks. Matt and I were already active in setting goals, but the Resilience Plan also helped us further develop written, in-depth goals that assisted us with the risk within our business and property. We now have a strategy plan in place to manage all risks that we could potentially have within our business and a developed Drought Management Plan. Completing the Resilience Plan meant that we were eligible for the QRIDA Drought Preparedness grant. We had to explain in the application process that the projects that would assist us throughout drought. I took this on as a greater exercise to prepare us for drought, so we were actually approved for a fodder storage shed, which is on the slide, and also doing some exclusion fencing on our property.

For the support and process of telling our story being an ABL participant, completing the Resilience Plan and approval of the QRIDA Drought Preparedness grant, this has given our business the advantages to fulfill our goals, create a sustain sustainable business preparation into future droughts and a general platform for our business to grow. We are very proud of these achievements we have completed over the past four years. It has definitely not been an easy road. It’s been a lot of commitments, sweat and tears. However, our journey of improving Moonkan still continues, and I’d encourage anyone that is wanting to complete any project, great or small, to have a go at the programs and grants available to you and your area, or get in contact with your local beef extension officer. I really appreciate the opportunity to be part of the 2023 Science to Practice Forum and present to other producers about my story today. Thank you for listening.

Pip Courtney [00:54:52]:

Kristie, thank you very much. We have a question on Slido for you. What was the hardest part of the Advanced Beef Leaders Program? How much time did you have to put aside for it with the travel and study?

Kristie Lisle [00:55:06]:

We didn’t do a lot of travelling. I probably, over the year, we probably did five days of travelling. It was more online Zoom meetings that we took time. So each module took probably about four weeks, but it was only one day a week. And probably getting used to the Zoom meetings was definitely the hardest part of the Advanced Beef Leaders Program. Just because I’m more of a social, face-to-face person. So yeah. But it was great learning Zoom, cuz at that time, Covid was here and everyone was using it, so it was good to learn how to use it.

Pip Courtney [00:55:42]:

What was it like doing the Farm Business Resilience Plan? Was it what you thought it would be?

Kristie Lisle [00:55:50]:

Well I didn’t really know what it would be, but it was great just to have an overview plan of our business and just give us opportunities to have other things to think about in our business. So yeah, I really liked filling that kind of stuff out. I like strategies, I like cash flows. So to be able to have a bit of a plan in place for our business and our property, yeah, it went really well.

Pip Courtney [00:56:20]:

And do you feel like if there’s a drought, say in two years, you and your husband, you’re ready?

Kristie Lisle [00:56:26]:

Yes, I believe so, yes. We do a lot of rotational grazing and we trade cattle, so we are pretty lucky in that sense of that we look after our grass, we know how to manage our grass and if we need to offload cattle, we can offload cattle. There’s that option. But yeah, I am pretty confident that if a drought comes within two years, we’ll be pretty good.

Pip Courtney [00:56:52]:

And how did you get involved, is question from Slido? How do you get involved in your community and how have you used the skills you talked about, like the interview skills?

Kristie Lisle [00:57:03]:

Yeah, so in my community involvement I’ve been a secretary for the past 11 years within Show Society as a carcass society and our local school P and C. I don’t really use my interview side of things in that community, but it just was more learning about people and how they interact and how people are interacting differently and to make sure that I’m listening to people. And yeah, that’s the interview side of things is coming more back to my business if we employ someone or I have to do the interviewing. But yeah, the program more helped me with people skills really.

Pip Courtney [00:57:45]:

How valuable was having a mentor?

Kristie Lisle [00:57:50]:

It was super valuable. I hadn’t been a mentee before and my mentor hadn’t been a mentor before, so it was a really good learning experience for both of us. We always said we’d keep in touch, but unfortunately, like everybody, life just gets in the way and gets busy. But I did reach out the other day and just gave ‘em a bit of an update of where I am at. But yeah, it was really, it was different. It was good. It was just mainly someone to chat to every week.

Pip Courtney [00:58:20]:

I reckon you are gonna be sought after, sought after as a mentor.

Kristie Lisle [00:58:26]:

Now they’re trying to track me down, but yeah, life’s busy.

Pip Courtney [00:58:33]:

Well, Kristie, that was a fascinating presentation. Thank you very much for your time.

Kristie Lisle [00:58:38]:

Thank you.

Pip Courtney [00:58:40]:

Thank you. Kristie Lisle there in Queensland who, like so many farmers and producers, wears a lot of hats. Now to an FDF program offering business coaching to farmers to better prepare for and adapt to drought. Let’s meet Tom and Bella Gay in the ACT.

[Video voiceover begins]

Tom Gay [00:59:00]:

My name is Tom Gay. I have recently completed the farm business coaching and we’re sitting here on Cypress Springs, the farm that we run Angus cattle on. I decided to nominate for the farm business coaching because I knew that individually, all the partners in the partnership had the farming skills required to operate the farming business, but we didn’t necessarily have the business skills. Working with a coach helped us firstly understand our goals. We were continuing a business rather than starting a business, so we put our heads together and we defined our goals and then we’re able to track back and see how our daily decisions aligned with those goals. Since working with a coach, we’ve actually established a criteria to make decisions against, whereas before we were just kind of flying by the seat of our pants.

Stuart Goodfellow [00:59:56]:

I had a great time working with Tom. He came into the program, one of four farmers, so it was him and his wife and his sister-in-law and brother-in-law as well. One of the things we looked at with Tom is to work out what needs to happen. Him and the other family members have got some off-farm income and they’ve got on-farm stuff that needs to get done. They’ve got an operational plan, so they’ve mapped this plan out, but what we do now is we bring that operational plan to life. So they have a toolbox meeting, a standup toolbox meeting every week. They stand around the white board together, they work out, okay, what did we say we did last week? So they tick off the things that they said they were gonna do, what they’re going to do this week. So they’ve got a really good understanding of what they need to get done and then what they’re gonna do down the track or what’s not going to get done.

Tom Gay [01:00:42]:

The effect of that is that when we come out individually, during the week or maybe on a weekend, we’ve already got that planning part done and we can jump right into the work. But the business coaching has really been timely in that we feel better prepared for the next time drought comes round. We, like a lot of others, had a tough experience through the last drought and looking back, we would’ve made some decisions differently.

Stuart Goodfellow [01:01:09]:

What we actually find is that, you know, drought, it’s really about resilience and there’s two aspects to that. One aspect is preparing for drought. So you know, where they’re looking at water point, you know, wire and water and poly and tanks and all that sort of stuff. The second area is what you do after the drought. The farmers that actually survive and thrive out of the back end of the drought, are the ones that recover the fastest. So yes, you can prepare for it, but what are the things you need to do to make sure that you come out of the drought in the best possible way?

Tom Gay [01:01:41]:

I feel now that we are more prepared to, in the event of another drought or less rainfall, we’re looking forwards all the time, rather than just reacting to what’s out in the paddock. So the business coaching during a time that has been raining a lot is actually a good use of my time. If other people are thinking about doing it, I’d encourage them to put their name down and give it a go. Mainly because you don’t know what you don’t know. There’s plenty of tools that are out there to help people manage their time and manage their workload. So if you don’t use it, then there’s no harm done. But I guarantee you there’ll be something in there. There’ll be one pearl of wisdom that really stands out and helps you run your business better.

[Video voiceover ends]

Pip Courtney [01:02:35]:

That was Tom Gay from Cypress Springs, reflecting on the impact of business coaching he received under the FDF Farm Business Resilience Program. Now to Northwest New South Wales, where a group of farmers have been part of a unique project exploring the outcomes of implementing carbon farming practices to build drought resilience. Climate Friendly received a Future Drought Fund NRM Drought Resilience grant and supports farmers through education and practice change. The project explored how integrating carbon farming practices into production systems can futureproof their landscapes and businesses.

[Video voiceover begins]

Anne Coote [01:03:26]:

We’re at Byron Junction in Northwest New South Wales where we are facilitating a bootcamp in carbon farming to build more resilient landscapes and drought proof our landscapes for the future. The landscape rehydration and carbon farming project is a project designed to assist farmers with their capacity and learning.

Sam Skeat [01:03:51]:

It’s a 3-month sort of process we’re gonna go through with the landholders here, which will be some learning through a 2-day workshop that we’re doing at the moment, and then some individual site work with people on their own country, trying to make it relevant for them and their management. And it’s fantastic to be able to work with Climate Friendly and they’ve taken the approach that really, it’s landholder decision making and management that’s gonna drive both carbon projects, but also functional agricultural ecosystems.

Anne Coote [01:04:21]:

So this project was about actually getting evidence and working with people to actually demonstrate that there is direct alignment between implementation of carbon farming practices directly associated with how they manage forward for future droughts.

Tim Skerrett [01:04:40]:

This land here, my father purchased in 1950, the next property over my grandfather purchased in 1914 and that’s been in our family ever since. Angus cattle, what we graze, they’re probably the best suited to this area. We’re very interested in regenerative farming. You know, the old ways of industrial ways of farming I think aren’t really the best for the land. We’ve just been doing this for the last, what would be two or three years I suppose, and the changes we are seeing are just unbelievable. You know, there’s so many more species. The grass covers so much thicker.

Courtney Skerrett [01:05:18]:

The place is just teaming with life, lack of all forms. It’s just, it’s amazing.

Tim Skerrett [01:05:24]:

The hardest thing about all this regenerative farming is it’s hard to find somebody to give you advice.

Courtney Skerrett [01:05:31]:

And we signed up with Landcare and then we just subscribed to their newsletter and that’s how we connected with Anne about this Drought Resilient Landscapes rehydration project.

Tim Skerrett [01:05:40]:

It’s been so great because we’ve been able to get all this education through Landcare and also through Climate Friendly.

Courtney Skerrett [01:05:48]:

It was great to talk openly in a space where everyone was sharing ideas and communicating and sharing their thoughts and their experiences and making those connections with other people.

Tim Skerrett [01:05:58]:

The contacts are great. We got a grant to do a lot of stuff.

Courtney Skerrett [01:06:03]:

We went to the RCS Grazing Clinic, which was terrific.

Tim Skerrett [01:06:07]:

We’re doing, you know, paddock reduction, reducing the size of the paddocks by fencing.

Courtney Skerrett [01:06:11]:

And probably more of that time control grazing.

Tim Skerrett [01:06:14]:

Once we get our head around a little bit more,

Courtney Skerrett [01:06:15]:

I think we can make better and informed decisions. But I think too, having that rotational grazing as opposed to a set stocking rate puts us in a better starting position because if we’ve got that feed bank of food for so many months, then we’re in a better position to make decisions earlier.

Tim Skerrett [01:06:29]:

Drought resilience and carbon farming is a system and the system is about trying to keep as much photosynthesis happening as much as possible throughout the year. That process also creates carbon in the soil.

Courtney Skerrett [01:06:47]:

If we’re building soil carbon all the time, we’re increasing our water infiltration. We’re trying to remove ourselves from getting in the way of mother’s nature’s natural processes, and we’re building that soil health, which then in turn, increases our production, but then also increases our animal health. But then at the same time, we’re also building in that drought resilience. I spent most of the drought feeding actually, and in some of the darkest moments, there’s still little glimmers that remind you of why you’re here and why you’re still doing this and what it means. We had an agritourism business that wasn’t dependent on the weather. Our Jackaroo school ran throughout the drought.

Tim Skerrett [01:07:24]:

Yeah, no, it was pretty devastating time, because every time you go out to feed your stock, you know, they’re looking like they’re ready to die. And what happened in the drought is, the stock prices went down and the fodder prices went up. So it was like this, you know, just sort of seeing all your animals starving to death, your balance and the bank balance was going down, you know, really fast as well.

Courtney Skerrett [01:07:54]:

We could go about things a bit differently that we’ve learned from the previous drought. But I think the importance of having that plan, I think we’ll be in a much better position too with that matching, that carrying capacity to stocking rate and having that ground cover and, you know, being able to make available with our water storage, with our increased soil carbon. So it will go a long way to being better prepared for it.

Tim Skerrett [01:08:14]:

For the first 40 years of my life, I had no clue how the soil worked. So if we don’t sort of work with the land, we’re not gonna be here. It’s unsustainable. And I really like the idea of, you know, promoting the biology in the soil, getting more healthy cattle and just working with the environment.

Courtney Skerrett [01:08:33]:

I think it’s great to be part of that process to show that there is a way that you can have both, you know, we can continue this great farming tradition, but also care for the land. It’s kind of like that idea that we are preserving it for future generations that we will never know, but it’s just, you know, our job is to look after the land and then pass it on to the next generation.

Anne Coote [01:09:00]:

Underpinning this project is to actually make sure that we can actually multiply this out and actually expand what we’re doing so that more landholders can actually participate and learn and understand the fundamentals for change.

Roger Sendall [01:09:18]:

Growing carbon has always been something that I’ve felt has been important because that helps us hold more water holding capacity, we can capture more of the rainfall, have better ground cover, it will improve soil health. All those things will help us be more resilient in changing seasons and not only droughts, even extremely wet ones. The project aligned with my management values and I felt the project actually fitted what I was doing. It’s been wonderful to learn many new skills. But what I also did highlight that I was actually doing quite a number of things quite well.

Georgina Simson [01:09:52]:

Prior to the project, we were just looking at our sale grazing and that was the only opportunity. Whereas actually we’ve got all this land where we could be doing that green leaf matter to help the carbon cycle.

Tom Simson [01:10:03]:

Now we’ve identified the 330, 350 hectares additionally that we can add to our grazing country and with the right management, I think the business will benefit a lot from that. The connections you make within the networking and the other people you meet, you know, it’s the same mindset. You’re bouncing ideas off each other. You’re learning everyone’s there to achieve the same goals. I feel a lot more confident now. If we were to go and do a drought next year, I’d have not only the experience and the understanding, but the additional tools that we’ve been given to help us get through.

Anne Coote [01:10:42]:

What I see from the project is what each of those individual landholders have been able to contribute to the group, but also how it’s actually built their confidence. They’re just happier in the fact that they’re more confident and probably less vulnerable in terms of how they’re working toward building more drought resilience into their businesses. This project’s certainly highlighted and so has the previous drought, that we need to really implement carbon farming practices in a really positive way to make change for agriculture and also for mitigation against climate change.

[Video voiceover ends]

Pip Courtney [01:11:28]:

We’ve noticed from Slido today that people from around the country have been logging in and the numbers today We’ve got one more day to go. So let your friends know that they can just Google Science to Practice Forum, and we’ve got one more day to go tomorrow and there’ll be a lot of great content, more great videos. You can learn from farmers about how to prepare for the next drought. So thank you to today’s presenters, panellists, and video participants, and to you for all your great questions and comments. Day 2 is done, but all Forum sessions are being recorded and will be available online. I hope you can join us tomorrow for the third and final day of the Science to Practice Forum. It will focus on Community and Policy. You’ll meet Queensland’s first, regionally based Chief Entrepreneur, Julia Spicer, hear how some Australian regional communities have already put their Regional Drought Resilience Plans into action and much, much more. I’ll see you tomorrow at 10:00 AM Eastern Standard time. I’m Pip Courtney. Have a great afternoon.

[Recording ends]

**Acknowledgement of Country**

We acknowledge the Traditional Custodians of Australia and their continuing connection to land and sea, waters, environment and community. We pay our respects to the Traditional Custodians of the lands we live and work on, their culture, and their Elders past and present.

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