



*generating ripples
...creating change*

GrazingFutures grazier participant survey Report 2019

Survey

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1 Executive summary

The findings reported here are from 45 grazier respondents who'd attended GrazingFutures events in the 12 to 18 months prior to April 2019 in the central and south regions of the project. Graziers were selected by the interviewer from the lists of attendees provided by regional coordinators for initial contact by geographic distribution across South and Central regions and chosen for attendance at multiple events in the first overlay of the list. A second overlay was that of availability and willingness to respond to the survey.

A significant change for the industry and therefore the project, was the removal of access to Grazing BMP program. For the second half of 2018 access to the program resources and database was not possible for project delivery.

Graziers frequently gave reasons for going to events and most referred to wanting to increase their skill and knowledge on the topic and most had attended events on the topic previously.

Grazier ratings in 2019 for the level of assistance GrazingFutures events gave them to prepare for drought, and their responses to whether or not events led to making drought decisions sooner are, at 27% and 29% respectively, similar to those reported in 2018. While not significantly changed it is of value to note the general trend is for improvement in both.

It is also relevant to reiterate that the previously made recommendation remains current which is that explicit reference be made in each event establishing how the outputs of the event can be used on-farm to improve business and drought resilience and to include examples from graziers who are doing so.

Of the five (5) GrazingFutures objectives, the grazier survey data provides information on Objective 2 in particular i.e. Support grazing businesses in western Queensland to improve business resilience, drought recovery and future drought preparedness. The data is assessed in this report as numbers considering change after a GrazingFutures event, those also seeking further information on a topic and then those commencing or completing a change.

For surveyed graziers 82% report considering a change to make following a GrazingFutures event which suggests GrazingFutures is bringing topics to graziers which are relevant to their circumstances at the time which, for most, was that of drought conditions. The proportion represents an increase in the numbers considering change compared to the 74% of previous surveying.

The proportion of graziers seeking extra information at 40% is less than the 51% reported in the previous surveying. While it is of interest to note the difference, it may be a

function of the more specific nature of events GrazingFutures staff designed and delivered in the surveyed time period which provided quite specific information. Previously the 51% was after the self-assessment type events for Grazing BMP workshops.

In this survey period 62% of graziers report commencing or completing a management change. That is up from 49% in the previous surveying and provides a level of realistic evidence that the impact of GrazingFutures has continued to grow through the third year of the project. It represents a practical endorsement of the relevance of the project to improving business resilience, drought recovery and future drought preparedness.

Graziers attending GrazingFutures events have made changes to their animal production and their GLM. The proportions shown here of 49% for animal production and 18% can be compared in relation to those reported in the previous surveying at 39% and 16% showing increases from both of those figures. The positive change particularly in animal production suggest that the impact of GrazingFutures is expanding.

The concept of targeting business and drought resilience through animal production is a practical one particularly in the present market conditions where there are opportunities to sell at what most grazier respondents say are good prices. And the focussing of GrazingFutures events to decrease costs (e.g. Efficient nutrition, Feed and breed, Mulga nutrition) and events on decision making about feeding (Data to decision making, Grazing fundamentals, Feed or sell, Preg testing and drought decisions) is enabling graziers to use of business decision making and planning with attendees. Such events are enabling those graziers present to manage risk and find an option for their own action, and being able to find options is known to be an element of resilience. It may however be that graziers are choosing animal production events as a preference rather than as an opportunity to improve their business or drought resilience. This may be the case when is considered that there has been no real change in grazier recognition that the GrazingFutures events are enabling them to improve their drought management.

Graziers were asked to rate their level of confidence in those delivering events. They wanted to genuinely rate presenters well and this was observable in the way they thoughtfully gave their rating and their comments. Overall 82% of graziers rated them at 6 or 7 on the 7-point scale. In doing so they also gave comments for organisers to consider for future reference. Graziers will appreciate it if GrazingFutures coordinators and staff take account of their comments as it was in that frame of reference that their comments were given. It will be important to coordinators to take into account the comments about mapping workshops while remembering that graziers are recognising the value it can add to many aspects of management.

Overall GrazingFutures is increasing its impact and is demonstrating the effective use of the investment being made in the delivery of this service to the grazing industry. Four (4) recommendations are made based on the findings and interpretations in this report and they are:

Recommendation 1. It is recommended that for all GrazingFutures events, specific attention be given to the design and delivery of them for impacts known to align with improved business resilience, drought recovery and future drought preparedness and that those delivering make clear reference to that application 'on-farm' and provide examples of what other graziers are doing to apply it in their drought management.

Recommendation 2: It is recommended that for at least one of the management practice changes that is being recommended, that the project team use the ADOPT tool to assess the expected level of and time to adoption that will promote improved business and drought resilience. That the team then use that information to develop an extension plan for how to optimise impact in relation to the project objectives.

Recommendation 3: That regional coordinators and other DAF delivery staff from each region meet at a mutually agreed place before they finalise their annual operational planning to exchange ideas on what events they will focus their region's resources on and their reasons for doing so. As well it is recommended that they also share how they intend to deliver their chosen events and to again provide their reasons for their choices.

Recommendation 4: It is recommended that the previously selected key management standards continue to be used by project staff when selecting GrazingFutures events so they are aligned meaningfully with management practices that graziers and DAF staff identified will improve business and drought resilience.

2 Background

In 2019 western Queensland areas continued to experience extended drought, with 65.2% of the state drought declared in May. For GrazingFutures project regions it is the south and central west Queensland that has been affected for the longest duration.

Since the start of GrazingFutures rain recordings in much of western Queensland were above average rain was only recorded for the June to September 2016. There have been varying degrees of relief rain in parts of the central west and in the north region in the summer of 2018/19 with falls in March being all that some areas received. Parts of the Gulf region were flooded and cold for approximately 10 days which caused cattle losses of more than 600,000 head and more than 40,000 sheep according to AgForce at the time of the rain (AgForce 2019).

Initially GrazingFutures included the use of the Grazing BMP process as an entry point for connecting with graziers. Grazing BMP was unavailable from mid-2019 and withdrawn in May 2019. For that reason, the project now focuses on the delivery activities identified as timely and relevant to industry and relevant to improved business and drought preparedness and resilience.

GrazingFutures contributes to the Queensland Government's 2015 election promise to 'work concurrently with industry to develop a suite of measures that will assist producers to improve their climate risk management and drought preparedness strategies for the longer term'. This project will build more resilient businesses by helping beef and sheep producers make informed decisions to recover from the current drought and to better plan and manage for future droughts.

The survey work reported here assesses landholder responses to the delivery of GrazingFutures activities including changes made as a result of their involvement including changes in drought management.

The preparation of the survey report again provides information relevant to components of the GrazingFutures Project Strategic Plan. They are:

- It provides methodological support for the process of enhancing graziers' skills referred to in the strategic plan, and
- It provides for management of the strategic project risk that 'Graziers don't see value in the project – they don't get involved, there is industry disinterest and lack of engagement. Workshop/engagement fatigue is an issue'. This risk can be substantially reduced by being proactive and implementing the strategies suggested for the project team throughout this report.

3 Survey methodology

Survey content

Because Grazing BMP is no longer available to the industry the questions of the 2019 survey changed from those used when reporting the participant evaluation data in 2018.

For 2019 the interviewer, in conjunction with project regional co-ordinators and other DAF staff involved in the project, developed the survey content and format to assess progress to date and allow reporting on project achievements.

Respondents

Regional co-ordinators and their teams provided the names and contact details of graziers who had participated in project activities.

Regional coordinators provided project activities graziers attended as part of GrazingFutures together with the names of delivery staff. This information was used by the interviewer to make connection to the landholders and support them in choosing to be involved in the survey by relating to the activities and deliverers. Coordinators also provided details of location.

Confidentiality of survey information has been assured because the project team agreed to anonymity through separation of landholder details and survey responses.

Response numbers

Responses were collected from participating graziers with 30 in south and 15 in central region. The variation in numbers was an agreed target with coordinators as indicative of grazer populations in each region.

The magnitude of a rain event in the north west which led to changes in project management structure made it less possible to collect data in north region in the time available. Industry body AgForce estimate the flooding generated by the rain event led to estimated stock losses of more than 600,000 cattle across the north where the project operates (Vol Norris, AgForce, pers comm). Instead the interviewer provided questions for use prior to and after some specific longer-term activities being conducted in north. Graziers in those projects will be included in the 2019/20 evaluation and reporting process.

Respondent selection

Graziers were selected by the interviewer for initial contact by geographic distribution across south and central regions. The second overlay was that of availability and willingness to respond to the survey. There were only two graziers who, when told the purpose, uses and process of the surveying, were unwilling or unable to be involved and one of those had a friend die in an on-farm accident earlier in the day on which they were contacted.

Regional coordinators listed grazer attendees in a priority order and they were contacted in that order. Where messages were left on answering machines all responded when they became available even up to a week later for one landline contact. A small number only proved un-contactable.

Collection principles

During data collection the interviewer:

- Reminded respondents of the survey purpose
- Matched the speed of interviewing with the respondent's delivery

- Matter-of-factly reminded them that their own knowledge and experience should be taken into account when thinking about the role of GrazingFutures activities in prompting any change (the process was to seek disconfirming information particularly in relation to impacts that may or may not be attributable to the project and its interventions)
- Regularly checked for understanding
- Made notes in addition to the base data being collected where those notes assisted in explaining the responses.

Collection and upload

The process used for collection and upload was:

- An initial phone contact for interest, availability and date to phone for collection and to make a first connection with the grazier through a brief conversation
- Survey emailed to each respondent for their information and/or to have available during phone survey conversations
- Phone as arranged to collect the information
- Uploading was done to the YourData site which separated each grazier's personal details and their data
- During the phone data collection, responses were recorded directly on to the YourData site while talking and expansions, corrections, explanations etc. were added soon after the interview.

4 Industry context in which GrazingFutures has operated

A significant change for the industry and therefore the project, was the removal of access to Grazing BMP program. For the second half of 2018 access to the program resources and database was not possible for project delivery staff as partners Fitzroy Basin Association (FBA), AgForce and Department of Agriculture and Fisheries (DAF) considered the position of the program. Then in May 2019 the program resources and database were deleted by program sponsor AgForce.

The change meant that GrazingFutures staff could no longer use Grazing BMP resources to begin the process of engaging with producers. As a result, fewer workshops of more limited scope were able to be provided while delivery staff adapted their activities to deliver on GrazingFutures objectives.

For project surveying this meant that graziers were being asked to respond about the time when fewer events were able to be held compared to the number being held before of the previous surveying.

The remainder of Section 4 is focussed on providing an understanding of the environmental factors in which the project operated which is important when interpreting the findings. To do that it summarises graziers' descriptions of the current industry environment for them.

1. Seasons since 2015/16

Drought is the predominant seasonal pattern reported by surveyed graziers across the project regions from 2015-2019, *No summer rain and only one lot of winter rain.*

Particularly drought affected were the south and central regions where the drought has persisted since 2013. Most have remained in drought with some areas receiving a short seasonal break with low rainfall in the summer of 2018 and some more areas again receiving a short break with low rain in late summer 2019:

- *2016 good with winter rain and then 2017 and 2018 were in the lowest 2% of rainfall readings for our property*
- *2016 good but other seasons were erratic and we could only crack one year with our head up above water but we don't get to consolidate our gains*
- *2017 rain was 276mm and 2018, 349mm. Our land responds well and quickly and freshens the mulga but the grasses don't last*
- *In and out of drought for 8 years. 2017 was 350mm and 2018, 400mm whereas our long-term average is 550mm*
- *No summer rain in 3 years and the winter rain 2016 gave Pimalea which poisoned stock*
- *From 2014 when we had 35 dams with water we are down to 2 so we have had to change to bores and cut numbers back and do what is needed such as sell up the breeding herd. Then 2018 was generally better than some years however there was no rain December to March 2019 then 42mm at the start of April*
- *2015 was a good season and the oats crop was good. 2016 and 17 we were feeding lick and getting worried by end of 2017. In 2018 we began feeding in April through until the first week of April 2019 when we had some good rain.*

Graziers again referred to the value of mulga as a feed source through even the driest times:

- *With our mulga management we don't rely on grass and our only problem was for 6 weeks a dam was dry*

- *2019 was the driest year up until late March. 2016/17 ok as winter rain helped and went until 2017. Jan 2018 100mm that kept us going to Oct and after that we were able to pull mulga.*

2. Markets

For respondents the markets when selling cattle between 2015 to 2019 have been generally good with peaks and dips when saleyard numbers increased. Most report being satisfied and are choosing to sell rather than wait:

- *Markets have been about \$1000/hd average and our last lot sold at 285c and returned an average more than \$1000*
- *Quite favourable from 2015 onwards but it does depend on the article to be sold, our average has been 2.60/kg*
- *Have sold mostly when there's been good markets – does depends on weight and meeting specifications*
- *Not too bad and we started with selling the worst and they made more than the good cattle we sold later*

Not all gained the same advantage which again seemed to be influenced by the decisions made and the timing of them,

- *During the drought we have not been able to get animals to weight and so have had to take what the market offered which was not great especially when we had to compete in Roma with cattle still on green grass*
- *Even our fat cows and steers didn't sell well!*

In this survey again, few producers were buying and for those that did experiences varied. Some studied or followed the markets and chose more affordable lines:

- *Our practice is to take profits - so we buy when people are selling and prices are down and sell when prices are up*
- *After 2016 we took on agistment, then bought when the market was quite high, they were trade steers which did well when selling even though expensive as they put on weight*
- *If cattle expensive we'd buy fewe and aim to put more kg on each one and this has worked and we are able to sell to average \$3.00 for steers that cost \$2.40.*

And like previously it wasn't like that for all buyers. Some paid more than they wanted to have to pay or had other difficulties which prevented them gaining a profit:

- *Bought some fairly expensive breeder cattle but had to sell them again when there was no season*

- *In March 2018 we bought old cows at a good price however they had health issues and were not productive so it was not the best decision.*

3. Drought subsidies

Fodder freight subsidies were claimed with 58% of graziers reporting receiving drought subsidies with 25% being for emergency water infrastructure. A number said they were ineligible for freight rebates as they either worked off-farm or had off-farm interests. And another small group found the claiming process too difficult, *"I tried on several occasions without success as the paper work is too hard to fill in."*

A few reported using the 50% water infrastructure rebate and appreciated it. Most other subsidies were provided by aid organisations such as local committees and local groups, *"From Rotary and CWA and mostly in vouchers to spend locally which is a good idea."*

4. Other things in the business

Succession planning has again been prominent having more than doubled to 25% reporting it as the main thing happening in their business, *"Joined in the family business and succession is to be done over the next 2 years."*

Others report investment in property and infrastructure, most often fencing and there are a number doing exclusion fencing, *"Purchased and additional property and did our own exclusion fencing and paid for the fence with off-farm income and even in drought we have had lambs because of exclusion fencing."* The additional country acquired is most often to expand an existing business.

5 Reporting

The findings reported here are from 45 grazier respondents who'd attended GrazingFutures events in the 12 to 18 months prior to April 2019 in the central and south regions of the project.

Of these 10 had self-replacing sheep flocks with five also having self-replacing cattle herds and one other agists cattle when conditions permit and another one has a mixed income stream from cattle, sheep and goats. A further 34 have mostly self-replacing cattle herds as their main enterprise and three have goats with their cattle. One additional respondent was destocked whilst others report running fewer numbers because they are in continuing drought.

Findings and interpretations are written under headings that respond to GrazingFutures objective 2.

6 Findings and interpretations

6.1 Events attend by respondents

GrazingFutures staff provided a list of event topics graziers attended and they are shown here:

<ul style="list-style-type: none"> • DCQ Field Day - Audreystone • Barcoo Steer Trial • Ranger Training Day • Prickly Acacia Planning Day • Barcoo Steer Trial - Presentation Dinner • Lemons to Lemon Squash • Computer Property Mapping • Feed and Breed Forum - Cattle • RFDS Day • Prickly Acacia Workshops • Grazing Fundamentals • Seasonal Forecast • Paddock Walks • Leading Sheep Forum • Data to Decision Making 	<ul style="list-style-type: none"> • EBV • After Action Review (AAR) • Mulga Veg Webinar • Efficient Nutrition • Preg Test • Brigalow Veg Webinar • AgForce Mapping • 7-Habits • Nutrition EDGE • Mulga Nutrition • Climate Forage and Finance • Feed or Sell • Excel • Yarn at the Yards • Early Weaning Webinar
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Of the graziers who gave reasons for going to events most referred to wanting to increase their skill and knowledge on the topic and most had attended events on the topic previously. The nutrition and forage events in both regions were prompted by the continuing drought and were most often well received because of that.

6.2 Level of change in drought decision making

Influence on drought decision making is a reason for GrazingFutures operating with graziers in the regions where it does and it is therefore important as a measure of how well the project is progressing.

Graziers were asked how much GrazingFutures activities assisted them to better prepare for drought. The preferred rating scale for this response was 1=Not at all; 10=Very much. And the results are shown in Table 1.

Table 1 Level of assistance to better prepare for drought

Rating	Percent	Responses
Not at all 1	46.7%	21
2	8.9%	4
3	2.2%	1
4	0.0%	0
5	8.9%	4
6	6.7%	3
7	8.9%	4
8	11.1%	5
9	6.7%	3
10 Very much	0.0%	0

On that rating scale 27% of graziers rated the activities they attended at 7 or more for enabling them to in some way improve their drought management, often providing specific examples and some of these comments came even when rating six or below:

- *I watch dung and then give lick when I see it change*
- *It is still worthwhile to pick up current information e.g. if I can save 5% on feeding that's valuable*
- *We are now preparing earlier to feed the supplement because the workshops make you think more*
- *I have not been in the mulga for long and now I look at mulga in a different way...it is like a grass as it provides the cattle feed*
- *Able to get mulga permits more easily*
- *Nothing major just the idea of our approach to feeding now being to make an early start to it and also our awareness of dates for when to do something and decide on a timeframe to feed, sell or wean light. The field days remind us and reinforce our thinking and we will follow plans better*
- *Definitely quicker on drought decisions as the mulga nutrition workshop reminded us we should make decisions sooner rather than later and start as soon as I think it rather than wait even if it is our wet season*
- *Stuff about A,B,C and D and how that affects rain infiltration and regrowth of pasture - because it was a group and we got some aha moments - good stuff*

on when go to B you can get back up to A, the message is don't use M8U because of its impact on land condition.

Others comments were more general:

- *Definitely the mulga one*
- *Seasons are dry but different so still take a lot on board from workshops and it is good to network*
- *All talked at workshop and we took ideas from all and use ones that sound like we should use them*
- *Decision making and AAR events definitely*
- *I was doing a good job and now I'm way more confident I know, so for example I don't let lick lapse.*

And a suggestion for future workshop design was included when acknowledging the value of questions in workshops:

- *In workshops make it possible to ask questions especially for women as there are many strong women who are doing much of the work.*

Others identified drought management related benefits even in events some other graziers thought had no relevance to drought management for them, "*Neither the mapping software nor the biosecurity are for drought management in particular*", instead those seeing its application to drought said:

- *It is our hope contouring will help with keeping water on our land as I've had the interest in slowing the water before to improve response to any rain but didn't know how to do it until the grader workshop*
- *Using the mapping tool will assist with drought because we are always about fencing to better rest our paddocks [When referring to FarmMap4D].*

It is understandable that quite a few graziers were of a mind that they had learnt all they needed for drought management previously, particularly knowing that for most they had years of this drought already as well as droughts in the recent past:

- *Not really as previous droughts have taught us what to do and now with how we manage mulga we haven't really had droughts*
- *I'm just managing as I usually do for drought as we do manage our grass and did still have grass after 4 years of this one.*

In the 2017/18 report 25% of how graziers rated GrazingFutures activities attended at 7 or more as assistance to prepare for drought. In 2019 the proportion is similar at 27% which is not significantly different.

A second element in assessing change in drought decision making is that of when drought decisions are being made. In 2017/18 surveying the proportion was 27% making decisions sooner and 2019 it too is similar at 29% as shown in Table 2.

There is movement in a positive direction from reported outcomes however it can't be considered significant. Reporting in 2018 recommended that for all GrazingFutures activities, specific attention be given to design and delivery of them for impacts known to align with improved business resilience, drought recovery and future drought preparedness and that those delivering make clear reference to that application 'on-farm'. The same recommendation is made here because a number of grazier comments suggest that some are yet to realise the potential of GrazingFutures events to benefit their drought management. These comments came when invited to comment on ratings which produced comments of this type about low ratings:

- *Because neither activity is for drought management in particular [Mapping; EBVs in bull selection]*
- *Because mapping is development of a property map and then don't touch it for 4 or 5 years.*

Whereas other graziers who gave higher ratings said:

- *We prefer to prepare and reduce impact of droughts e.g. with contour banks saving soil and feed rather than responding later when things happen*
- *Using the mapping tool will assist with drought because we are always about fencing to better rest our paddocks [when referring to FarmMap4D].*

That the recommendation remains important is supported by comments such as these latter two which demonstrate the applications made by graziers of the knowledge acquired at GrazingFutures events to improve their drought preparedness.

The application of practice change reported here suggest it is possible for event organisers and presenters to provide attendees with examples of how the output of workshops and other events can be applied on-farm through using actual examples.

The recommendation is both realistic and pragmatic in the context of what GrazingFutures is meant to be delivering for graziers.

It is of interest to note however that when reviewing data from 2017/18 as part of preparing the 2019 report there appear to be significantly more positive simple comments about changes made following GrazingFutures in this survey report. For example:

- *Guilty of hanging on to cattle for too long in the past*
- *Because once see we are in drought we can start to supplement straight away.*
- *To a certain extent e.g. the big thing to learn was to buy feeds smarter*

- *I will remove empty cows*
- *Where it is possible.*

While it is not possible to meaningfully compare between years in that way, in part because the 2019 had more time to focus on drought comments and keep to the committed time for the interview discussion, it is still of use to note as an observation.

Table 2 Graziers making drought decisions sooner

Value	Percent	Responses
Yes	28.9%	13
No	66.7%	30
Not sure	4.4%	2

Summary

Grazier ratings in 2019 for the level of assistance GrazingFutures events gave them to prepare for drought, and their responses to whether or not events led making drought decision sooner are similar to those reported in 2018. While not significant it is useful to see the general trend is for improvement in both. The trend is also observable when examining data from 2017/18 for GrazingFutures as part of preparing the 2019 report there appear to be more positive simple comments about changes made following GrazingFutures.

It is also relevant to reiterate that the previously made recommendation remains current that explicit reference be made in each event that says how the outputs of the event can be used on-farm to improve business and drought resilience and to include examples from graziers who are doing so.

6.3 Assessing the link between GrazingFutures events and project objectives

GrazingFutures supports grazing businesses in western Queensland to select and implement management changes that will improve business resilience, drought recovery and future drought preparedness. This was already shown to be happening in the report of surveying with graziers in 2017/18. Responses from attendees surveyed in 2019 show the intended impact is continuing to take place prompted by project events run over the 18 months prior to the surveying.

Of the five (5) GrazingFutures objectives, the grazer survey data provides information on Objective 2 in particular i.e. Support grazing businesses in western Queensland to improve business resilience, drought recovery and future drought preparedness.

The level of impact relating to this objective can be considered from practice changes made by graziers following from GrazingFutures activities. This is possible because the assumption within the project context is that improved business resilience will improve graziers' potential for recovery from drought and assist them to better prepare for future droughts and other business risks.

This section of the survey findings examines data to assess the impact GrazingFutures had directly or indirectly on practice change. It includes changes to Animal Production, GLM and People & Business management practices that can improve capacity to manage in times of drought.

Without Grazing BMP and its well-developed array of standards which allowed graziers to select standards they wished to improve in listed management areas, surveying of GrazingFutures participants was changed. The focus changed to events attended by those in grazing businesses and inviting them to say whether or not the event prompted them to think of a change they could make to their management to improve their business resilience, drought recovery and/or future drought preparedness.

Graziers in this survey were all known to have attended one or more GrazingFutures events in that time period.

Three (3) data sources in the survey responses can be combined to report impact at this level. Those examined here are:

- a) Numbers considering a change to make either at a GrazingFutures event or after it in the areas of business management, animal production or Grazing Land Management (GLM) signifying a prompt to act.
- b) Numbers seeking further information on their chosen changes as a recognised next step towards implementation.
- c) Numbers reporting having begun or completed their selected change/s at the time of the surveying as the proportion implementing a change in management practice.

6.3.1 Numbers considering a management change

For surveyed graziers 82% report considering a change to make following a GrazingFutures event which suggests GrazingFutures is bringing topics to graziers which are relevant to their circumstances at the time which for most was that of drought conditions (Table 3). Overall the proportion represents an increase in the numbers considering one change or more compared to the 74% of previous surveying.

Table 3. Graziers considering a change following GrazingFutures events

Value	Percent	Responses
Yes	82.2%	37
No	17.8%	8

For central region the proportion of graziers making one or more changes was 72% as a result of attending a GrazingFutures event. For south region the proportion is 93%. Both are increased over the 2018 reporting of 60% and 80% respectively.

6.3.2 Numbers seeking extra information

In relation to seeking extra information all graziers were asked if they had sought extra information since the GrazingFutures event. The responses show 40% did and 60% did not (Table 4).

Table 4 Seeking extra information since attending a GrazingFutures event

Value	Percent	Responses
Yes	40.0%	18
No	60.0%	27

The proportion of graziers seeking extra information is less than the 51% reported in the previous surveying. While it is of interest to note the difference, it may be a function of the more specific nature of events GrazingFutures staff designed and delivered in the surveyed time period where they provided more detailed management information than was possible in Grazing BMP assessment events. In this round of surveying the workshops more specifically targeted to particular management skill and knowledge activities e.g. learning to pregnancy test and its use in drought decision making, how to use EBV in bull selection, what to do for breeder management.

Of those seeking extra information most were after specific information to assist them to act to implement a change, for example, about animal production:

- *Contacted Roger Sneath to finalise the type of lick to have*
- *Contacted a Landmark nutritionist I work with*
- *Desiree about a custom mix for our sheep*
- *Exploring a new lick - how to use the new lick that has a biofuel by-product in it rather than urea*
- *About direct injection technologies to get injectors and pricing as I want to get away from using as much urea because I lost 5 cattle with a dry lick so we are thinking trace mineral P Ca S more so than urea as don't want to cause deaths.*

At present calculating if it is going to pay as it is \$10-15,000 per unit and would need 2 units

- *In contact with the company I manage for, about taking on the dung sampling for lick content and using pasture budgeting*
- *Contacted the preg testing trainer, rang about a cow that was straining like trying to calve, told him what I'd found and that I thought she wasn't pregnant and he said I'd done it right and vet confirmed it was not pregnant when they came*
- *Got Tim to assist as with EBVs and in selection - looking to prevent problems*
- *Went to a stud I've used to investigate how good the data they collect and submit is and they said they do weigh all calves and data used is legit*
- *Contacted Tim Emery who has helped getting equipment secondhand and explaining to other partners the role of EBV and with measurements*
- *Contacted Telstra to find out what I needed about the 5G network for use with monitoring technology*

As can be seen in these comments most are quite specific which suggests that graziers had gained ideas from the GrazingFutures events on their animal production that prompted them to act.

It appears similar in comments relating to extra information on GLM where graziers were again seeking quite specific information on how to implement practices they'd been prompted to act on:

- *Contacted DAF and DNR for Jenny and Jane to get the pasture budgeting in place*
- *I did extensive research on internet e.g. QG site, for contour and diversion banks construction information*
- *Contacted the trainer and he remotely shifted a file on my computer in FarmMap4D which I've begun using*
- *Subscribed for 12 months to Phoenix support then stopped it as daughter didn't need it and she is the one who uses it*
- *Spoke with two friends who have used Phoenix mapping about how to use it.*

Seeking extra information can be described as a 'next step' leading to an increased likelihood of actually continuing on to adopt a changed management practice¹. It

¹ As in Bennett's hierarchy in KASA and adoption theory where those wanting to take on a practice change do want implementation information.

obviously applies most in that way to those who need the extra information on how to implement a change. It is not necessarily so for others making more general comments such as, *"When I can I take time to talk to other graziers in particular anyone who is a bit progressive"* and *"If there is a field day we try to go to it"*.

GrazingFutures can claim a reasonable measure of providing the prompt to act for those graziers in this survey who chose to act and judging from the comments, to also providing a regularly used source of the extra information i.e. the trainer who presented the event. Both are important aspects of extension delivery that enable graziers to make changes in management and that is what GrazingFutures is meant to achieve especially in business resilience, drought recovery and future drought preparedness.

6.3.3 Commencing or completing management change

The third element of impact data available from the surveying is that of numbers of graziers reporting having made their selected change or changes.

Again, it can be reported that that GrazingFutures is having an impact as a majority of attendees, in this sample 62% (see Table 5) report commencing or completing a management change. That is up from 49% in the previous surveying and again it is important to note the difference in type of events where the nature of events reported on here were able to be more specific in targeting management change.

Table 5 Changes commenced or completed

Value	Percent	Responses
Yes	62%	28
No	38%	17

So it seems that GrazingFutures is achieving change in management practices at an increased level and, as well, graziers report their changes are delivering the outcomes they wanted:

- *For heifers in the calf drop since changing to smaller bulls for them it has worked and there were no calving troubles*
- *Contour banks have worked well in the rain in the last week of March so I will do more of the areas where water runs*
- *Going well and will continue with using grain to improve growth to target weights for joining and we generally have enough dry feed and it is a supplement that's needed*
- *OK on picking the lick and I am watching I don't overuse urea as I don't want the cattle to eat all the feed to the ground*

- *Changed the lick so they would eat it and they do and I can tell from the look of dung that the lick worked. Also they were more lively and they took in the P supplement*
- *Have begun adding to the map and first-off will use it for fencing*
- *The lick is in use and the Avenza mapping tool is going very well for areas for feeding mulga for compliance*
- *It is early and only figures from 2018 calves have been put into Breedplan yet, and we have had enquiries from buyers.*

These comments describe the successful changes made and graziers satisfaction with outcomes.

The data reported here shows a drop from the 80% considering change to 62% who have commenced or completed a management change. It is less of a drop-off rate at 18% than that reported by the previous surveying when Grazing BMP workshops were a key delivery area and the drop-off rate was 25%. The different delivery approach required after the withdrawal of Grazing BMP resources makes it difficult to infer anything from decrease in drop-off rate.

Regionally the proportions commencing or completing changes as a proportion of those surveyed are for south region it is 78% and for central region 33%. It is possible the large difference relates to sampling variation between regions, however it is also likely related to the type of workshop surveyed graziers chose to attend in central. In central 11 of 18 graziers report attending computer mapping workshops all of which were Phoenix based, and only one of those attended another type of workshop. In south region only three (3) report going to mapping workshops one of which used FarmMap4D.

Grazier comments relating to the mapping show they were all keen to learn about mapping programs and to use maps more in their management, for example:

- *I got a printed map for safe carrying capacity and I went so I could redo the property map and show laneways I have put in*
- *Main reason was remapping the property which I had done in my iPad with a GPS program before for our map*
- *Mapping is critical in management and my current program is out of date*
- *We are doing a dog fence so I wanted to do the mapping to calculate for the fence. I do use Phoenix system financial so have mapping but haven't used it.*

Surveying data of graziers' comments suggested there were multiple attendees who struggled to keep-up in the Phoenix workshops, left frustrated that they'd achieved little of value and found it difficult to recall and apply what they described as a difficult and costly system once they got home.

In south region both of those who attend a Phoenix workshop reported the difficulties and the expense, saying:

- *We are looking to dozing minimum mulga and we are already using Phoenix and wanted to get my husband on board and using it but that was a failure. Older people aren't catered for and won't cope with this workshop and there is a need for workshops that are age group specific for older people it could be 'come to workshop and we'll do it for you'*
- *Boss decided not to pay for Phoenix so haven't used it, however the course was fast paced and the blokes who were not computer savvy very quickly got lost. Maybe if there had been a template to follow while he was presenting then it would have been possible to keep up.*

And in central the comments from six (6) of the 11 made comment related to the difficulties they experienced, for example:

- *The cost to buy the program is expensive and I already use a different accounting package to Phoenix so this would be an additional cost*
- *Didn't come home with a map of the property*
- *The Phoenix mapping workshop needs to be different for those with less experience of computers. For me there was too much into one day, and with 5-10 people it may have worked for us but did not as there was 20. As I'm not a wiz with computers we couldn't keep up as trainers are too quick. Others with the presenter were trying to help but it was still too quick for us and I came away disappointed*
- *At Phoenix workshop there were three 60+ males who didn't have support with them and they didn't understand what it was about. I was with my wife and she understands computers otherwise I would have had to walk out or stay and pretend I understood it. At the Thargomindah [nutrition] workshop the presenter showed us Avenza maps and I came away being able to do so much on the property using Avenza mapping on my phone*
- *More 1 on 1 is needed for Phoenix mapping when people are struggling with the mapping because it is very hard otherwise e.g. I may use a computer only once a month and my wife does accounts, so I'm not experienced with using computers*
- *I am trying to learn the Phoenix process and I have looked at it since and found it a bit difficult to do with our computer skills and it is not simple. We've been using free map tools in the past but Phoenix is hard!*

And when asked what would have helped them make a change they hadn't commenced following attending a mapping workshop, several of those who attend mapping events replied in a similar way to the comments shown earlier, for example:

- *A better training workshop on the Phoenix mapping*
- *For me I just need to do hands on and muck around with it to understand and use it for the mapping (Phoenix). I would like to go and do a 1 on 1 session but that's time and spending more money. We were offered updated maps however for two of three of our properties but that will cost almost \$14,000 and that's ridiculously expensive*
- *A second Phoenix workshop will be what I need. The workshop needed two days and the presenter was too quick. And it's been dry and I haven't had another crack at it. Trying to cram that into one day is too much, the book is 1.5" thick, did have help but not enough. Maybe the workshop could be 2 levels, those who are users already and a second level for learners, for example when marking paddocks on the map I put a line in wrong place and can't remove it!*
- *Good they have detailed instruction book and that works for me – impossible to use it at home without the booklet*
- *It is expensive and I'd only use it for mapping.*

It is clear that graziers recognise the value of mapping in management however their responses reported here can support an interpretation that the choice of Phoenix as the mapping program in training events has not delivered the benefits they wanted in a single instance workshop.

Those graziers satisfied with the training events were all ones who were very familiar and skilful in the use of computers and/or had previous experience with the particular program. Those not satisfied identified their lack of experience as contributing to their difficulties, together with the fast pace of the workshop. A suggestion made was to run two levels of the training and to reduce the numbers in any one workshop.

From what graziers said would assist them to learn the process of using Phoenix there were several ways to enhance delivery and they are through multiple workshops, smaller groups sizes and more support in workshops. There is however the need to consider the time graziers have available to attend multiple events and the initial and ongoing expense of the package.

Of possibly more interest to GrazingFutures coordinators is that there appears to be at least two alternatives as mentioned by graziers. Those were FarmMap4D, "We will use the FarmMap4D in the future" and Avenza, "I can use Avenza maps on my phone for pipe lines and for pushing scrub with screen shots to use for permits to harvest mulga for feeding". Investigation of these and other alternatives may be what GrazingFutures can do to deliver the value of easy mapping as a management tool that will make it used and capable of providing improved business and drought resilience.

6.3.4 Summary

Survey data demonstrated that GrazingFutures project delivery is achieving success in project Objective 2 i.e. "Support grazing businesses in western Queensland to improve business resilience, drought recovery and future drought preparedness."

This has been achieved even with the removal of the Grazing BMP database and resources, which were considered a practical entry point for graziers to become involved in the GrazingFutures project.

Like in the previous grazier survey report it has again been possible to establish the impact of the project from tracking levels of those who, after a GrazingFutures event, did:

- Consider making a management change
- Seek more information on a topic, most often implementation information, and
- Commence or complete one or more changes.

The proportion of graziers who commenced or completed change is more at 62% than the 49% reported previously from surveying. That change may relate the practicality of market prices for well specified articles that make it possible to feed for productivity and provide an adequate margin of profit.

GrazingFutures impact has expanded to a greater proportion of attendees as shown in data presented in this section from the 45 participating graziers. It is notable that this has been achieved even with the continuing drought through the central and south regions from where respondent graziers were drawn and with the change to Grazing BMP.

The following section will consider if the data available can explain the reasons this has been possible by examining changes made in business management, animal production and GLM.

6.4 Changes in business, animal production and GLM

In providing events to improve grazier business resilience, drought recovery and future drought preparedness, the GrazingFutures project focuses on activities that do this through events related to business, animal production and GLM.

When asked in which area/s of management were their changes made the graziers report making 32 changes and Table 6 shows the distribution of them across the three management areas.

Table 6 **Changes made by GrazingFutures attendees**

Value	Percent of all graziers	Changes made
Animal production changes	49%	22
GLM changes	18%	8
Business changes	4%	2

The percent shown is the proportion of changes made in each management area is made in relation to the total number of graziers surveyed and which is required here to maintain the same basis for comparison with the way these figures were reported in previous survey results. The previous process had been prompted by the way the data was recorded as part of the Grazing BMP process in use by GrazingFutures at that time.

On that basis the proportions shown here of 49% for animal production and 18% for GLM can be compared to those reported in the previous surveying at 39% and 16% and shows increases from both of those figures. Again it suggest that the impact of GrazingFutures is expanding.

Regionally the proportions making changes to animal production were south 67% and central 22%. Both show increases in proportion to 2017/18 surveying with south being substantial have risen from 45%.

6.4.1 Animal production changes

Examples of animal production changes reported after GrazingFutures as described by graziers were:

- *Collected dung samples, had them analysed and reported on so could get a suitable lick for the steers in 2018 for weight gain*
- *Put weaner heifers onto a better feed option*
- *Deciding what to feed, the costs of doing it and preg testing in the herd particularly for sale cattle*
- *Controlled mating which will benefit breeder feeding and ease of management when we tighten our management system*
- *Bull selection with EBV info on calf size for heifer by working with Tim*
- *EBV for bulls whereas in the past have had bulls and calves don't gain weight at same rate and some take longer to grow and we want them to all mature at same time*
- *Mixing salt and urea lick and including P*
- *Lick modified to include more protein as true protein as couldn't use urea as our cattle are in an organic system*
- *Supplement but not over all cattle, it goes specifically to some groups.*

Graziers were able to describe their expectations of the impact for them of the changes made to animal production (See Table 7).

Table 7 Landholder expectations of the impact changes made to animal production

Impact area	Expected range/impact
Proportion of herd	25-79%
Proportion of property	35% of changes on 80-100% to 22% of changes on 60-80% (range)
Time to see impact	42% immediately to 17% 1-2 years (range)
Improvement in ground cover	12% Yes [down from 24%]
Increase in gross margin/AE	70% Yes [down from 95%]
Decrease in direct costs	74% No [down from 86%]
Likely to increase profit	78% Yes [down from 100%]

It is notable in this surveying that graziers expected proportion of the property on which the change will impact has increased substantially. For example, the proportion expecting an impact on 80-100% of the property has risen from 9% to 35%. In part this may be due to choices made of the proportion of animals being supplemented, "Previously we just fed cows dry lick when they started to get down in condition now we supplement earlier and do all stock." This seems a possible interpretation when taken together with:

- The size of the increase in the those expecting an immediate impact from their change, which rose from 14% to 42%, and immediacy is more likely with supplementation
- Comments relating to expected change in ground cover, "Because we use urea they will eat more" and, "It is for our production management".

While the interpretation made here is unable to be more fully substantiated with current data, it may be considered reasonable given graziers' comments on the cattle, sheep and wool markets, over the 18 months of survey period. Of graziers' comments 36 of 45 have rated markets when they sold in that period as OK or better, while acknowledging variations:

- Quite favourable from 2015 onwards, does depends on article to sell
- Good as we have been able to sit and get good prices
- Markets quite good - struck a few crook ones but generally good.

If that interpretation is reasonable then it may provide understanding of the reason graziers are seeing animal production as a means improving their business resilience, drought recovery and future drought preparedness, by maintaining production as an enterprise in the ongoing drought.

Alternatively, it may be that graziers may be conscious of the market prices situation as a means of profit making in this drought time but unwitting of it as a path to finding options to business resilience, drought recovery and future drought preparedness. This latter does seem more likely when it is considered there has been no significant shift in either the numbers of graziers who are:

- acknowledging GrazingFutures events as increasing their drought management skills, or
- the number of graziers who are making drought decisions sooner.

While the latter alternative seems the more likely it does however suggest that the current market situation could be capitalised on in the choice of GrazingFutures events to bring graziers' attention to using it to provide options for graziers to improve their business and drought resilience. This seems particularly of value given the preference graziers show for animal production management changes over other changes, and the skills and knowledge that GrazingFutures project staff, DAF staff in particular, have in knowing how to improve animal production.

6.4.2 GLM changes

At 18%, changes in GLM are substantially fewer than graziers' choices to make animal production changes. In the previous survey the proportion was similar at 16%. All eight (8) respondents described the GLM changes made:

- *Based on soils half property is steep and prone to erosion so I'm wanting to stop erosion with what I learnt*
- *For erosion because in the grader workshop they pointed out simple and easy ways to slow up water and not erode soil and eat into fence lines, and how to fix those with a loader for fence line and roads making wouboys. I have seen since that it slowed water up*
- *Decision making going forward for infrastructure and on the map I want to record when things were done and I can record type of materials used etc.*
- *I can use Avenza maps on phone for pipe lines and for pushing scrub screen shots to use for permits to harvest mulga for feeding*
- *Have completed a map for property for water infrastructure and I used it to work out where to put troughs using elevation levels and I calculated what we'd need for doing the work. As well it is handy to measure fence lines or when planning to push scrub for fodder to know how far it is to water*

- *Calculated paddock size and stocking rate figures*
- *Assessment by pasture budgeting*
- *Pasture measurement across the whole property for making stocking rate decisions.*

These changes show the most prominent change in GLM is the application of mapping to management decision making followed by pasture assessment and erosion control.

Again, landholders were able to describe their expectations of the impact changes made to land management (See Table 8).

Table 8 Grazer expectations of the impact changes made to GLM

Impact area	Expected range/impact
Proportion of herd	29-86% (range)
Proportion of property	75% on 80-100%, 12.5% on 0-20%, 12.5% of changes on 40-60%
Time to see impact	25% 1-12mths, to 37% for 2-5yrs
Improvement in ground cover	75% Yes
Increase in gross margin/AE	75% Yes
Decrease in direct costs	75% No
Likely to increase profit	88% Yes

The shift in this surveying report to more of the GLM changes impacting on 80-100% of the property may be reflective of the types of changes chosen. In particular it may be that the mapping and the pasture assessment can impact on more of the property directly than do others such as control of erosion.

In relation to ground cover changes those making GLM changes were clear about how they intended the change to deliver improvements, or in one case not significantly, saying:

- *Because we'll use maps to determine how to fence and where to put waters to make best use of our feed without overdoing it*
- *Better ground cover and improved land condition was whole point of doing the grader workshop e.g. there is water still lying in the channels between the contour banks and before it would have been gone quickly after rain*
- *Map for when cutting up larger paddocks and that will make it possible to spell country so we can stop sheep overgrazing*
- *Purpose is to stop erosion so it wouldn't be very big area*

- *It is all about ground cover as we do stock very lightly so there may be scope to increase it. We could guess and add 5% but map is more accurate for decisions. We rotational graze and have been for some time and that helps to improve feed available to cattle and we wet season spell, not always possible in dry times, however we have seen benefits of wet season spell on our country*
- *In my role in the local council we are auditors of pasture assessments for agistment of council lease areas so I will make a pro forma for use as we assess whether or not to allow agistment. It will be tick box plus photos and a report for justification for decisions*
- *Will use pasture budgeting to make stocking rate decisions to maintain land condition to get a better response after rain.*

These responses are examples of how some graziers are using GLM in the service of their enterprise's capacity to improve animal production. They are examples GrazingFutures delivery staff could consider using when introducing events such as mapping, grader use and pasture budgeting.

6.4.3 Business changes

Two (2) graziers report making changes to their business. The two reported the changes as, "For the future...succession planning" and "Use Excel for doing BAS". The succession planning arose for discussion in another workshop rather than one on that topic. The second was a an Excel workshop and this grazier reported that they didn't use it yet with stock however the presenter provided access to templates for BAS reporting and they have begun using those.

Previously in the GrazingFutures project it has been suggested that business resilience in the form of business planning become a focus of the project. That was based on the fact that there appeared to be scope for the project to create an impact because at that time there were:

- 56% of businesses without a written business plan in any form
- 72% were not doing any business performance analysis, and
- 84% had no form of financial risk management plan.

In part that suggestion was based on the apparent preference for graziers to request and attend mostly animal production events. It also appeared that GrazingFutures deliverers were keen and most capable to provide such events. From the lists of events conducted by GrazingFutures in the most recent surveying period it is possible to suggest those two condition still guided event selection and delivery as the majority were directed to animal production even in the GLM events.

The approach being taken though is evidence that the shift to using graziers' continuing interest in animal production and the buoyancy of markets are being used

by GrazingFutures deliverers as the means to achieve business resilience, drought recovery and future drought preparedness.

It appears to be a demonstrated changed approach that is not about embracing animal production outright, rather it is about embracing animal production as the vehicle to deliver the business and drought resilience which is the purpose of GrazingFutures project.

Examples of how this is being done is events such as Efficient nutrition, Preg testing and drought decision making, Mulga Nutrition, Climate Forage and Finance and Feed or Sell. It may also indicate that a reason for business changes being only claimed by two graziers is that their attention to how to use, for example, the limited feed resources they have to targets such as getting heifers and cows to target weights, is achieving an animal production target which is providing business and drought resilience in the current drought.

Such an interpretation may also be considered realistic when comments such as these are made by graziers about changes to management are being used:

- *Now know what to do to get to right weight so we changed to supplementing with feed grain and dry lick for all stock not just cows*
- *Can now look at mulga and tell what type it is and when it is best grazed by stock*
- *Know now to look at dung and assess how well cattle are doing and I could see undigested mulga leaves so I changed lick slightly as they wouldn't eat it. I added a higher protein and they ate lick and looked better*
- *I know if we don't wean then will need to feed cows to get them to joining weight and to feed calves is cheaper*
- *Preg testing from 6wks and feeding cows*
- *Making a date for decisions about our drought management and acting on it*
- *Now feed cattle when they are in the yards for more than a just in and out in a day because at the Nutrition efficiency I found out that in every 24 hours in the yards off feed that a large number of rumen bugs die so I do that for any sale cattle and weaners so they keep growing*
- *Nothing major, but an example of a small change is that we were reminded and it reinforced the idea about setting a date for deciding what to do if there's no rain and sticking to it and taking action to sell or feed so I've tried to do that more*
- *Have gone to controlled mating which will benefit breeder feeding costs*
- *Using EBVs to select bulls and improve quality of cattle part of our business*
- *Collected dung samples, had them analysed and reported on so I could get a suitable lick for the steers in 2018 for weight gain*

- *Deciding what to feed and the costs of doing it*
- *Now preg test to only keep more productive females so we put more pressure on breeding value in cow selection.*

6.4.4 Summary

The concept of targeting business and drought resilience through animal production is a practical one particularly in the present market conditions where there are opportunities to sell at what most grazier respondents say are good prices. And focussing events to decrease costs (e.g. Efficient nutrition, Feed and breed, Mulga nutrition) and decision making about feeding (Data to decision making, Grazing fundamentals, Feed or sell, Preg testing and drought decisions) are using business decision making and planning with attendees. Such events are enabling those graziers present to manage risk and find an option for their own action, and being able to find options is known to be an element of resilience.

Having access to markets that are providing good returns is seen as a positive by most of the graziers whose activities are reported here. As well, when the material presented in this section is taken all together then the process of targeting business and drought resilience through animal production can be seen to be providing graziers with resilient business practices in time of continuing drought. It highlights how GrazingFutures co-ordinators are focussing regional delivery on the purpose of the project and that is business resilience, drought recovery and future drought preparedness.

6.5 Other practice changes

As well as being asked to identify specific changes related to the topic of the GrazingFutures event graziers were known to have attended (Table 5), they were also asked to identify any other changes made following GrazingFutures events. Twenty percent (20% = 9 respondents) reported they had (Table 9).

Table 9 Making other changes

Value	Percent	Responses
Yes	20.0%	9
No	80.0%	36

Of the nine (9), three (3) reported no other change earlier in the survey discussion and two (2) reported both a GLM and an animal production change and the other four (4) all reported an animal production change, which they had reported earlier.

Notably three (3) reported using technology:

- *Now use a drone which came from attending a LS activity...looking across a paddock it can look good but from above we can see the amount of bare ground spaces and it is also good for veg management compliance*
- *Intend to go to rotationally graze to spell and look after country...using drone to sort out fence lines*
- *I want to embrace more technology as I'm involved in the research and development on NABRAC.*

Another one referred to gaining more "biosecurity knowledge" and yet another said, "I am better at handling of people in this drought" having attended a 7-Habits activity. This latter grazier also said, "... we need to make a return on capital so we are goat harvesting as they are a side asset and we can't make more use of mulga as it is part of a carbon program".

Altogether three made some reference to carbon capture and all three were from south region in mulga country as might be expected.

Two (2) who reported animal production changes here had referred to them earlier in the survey discussion. One of these included in their comment that, *Cattle have access to hay whenever in yards to keep them in 30% better condition as they don't lose rumen bugs...and at 12 months old their condition is better and where we were getting 70% we now get 85% calving.*

The changes reported as "Other changes from attending GrazingFutures events" further show GrazingFutures is delivering change in management practice in central and south regions. One point of particular interest is the twice reported use of drones, acquired elsewhere and being used in an application of a management recommendation coming from GrazingFutures for spelling country and assessing pasture. This may be a message GrazingFutures delivery staff wish to use to prompt themselves to create new ways to apply the principles of improved business and drought management practices, from a time saving and an 'ease of management' perspective.

6.6 Level of confidence in those delivering events

Towards the end of the survey discussion when grazier respondents had, in the process, reflected on the events they attended and the value to their grazing enterprise they were asked to indicate their level of confidence in presenters. All responded and the results are shown in Table 10.

On this question 82% of graziers rated their level of confidence as 6 or 7 on the 7-point scale, where 1=Not at all confident, and 7=Highly confident.

Table 10 Graziers level of confidence in presenters

Value	Percent	Responses
Not at all 1	0.0%	0
2	0.0%	0
3	2.2%	1
4	6.7%	3
5	8.9%	4
6	46.7%	21
7 Highly	35.6%	16

Most commented about their rating and a sample of the range of comments included:

- *All were excellent and put much effort into both the Challenge events and the Lemons into Lemonade Workshop*
- *Darryl Hill excellent speaker and is engaging and knowledgeable*
- *How to make the follow-up better as mapping is an activity I'm not keen on and there is still a lot of work to do when get home to develop a map fully. Maybe there could be sections of workshop recorded so we could refer back to it...KLR marketing use video tools*
- *I'm highly confident they knew about their field but they could do continued research on new ideas rather than present it as this is how it has always been done*
- *I felt like Col was a bit set in his ways and not sure how to take into account the current local situations*
- *For mapping I've no confidence in the presenters but not about their knowledge of mapping more about knowing how to get it across to us. For herd management it was very good and I have a lot of confidence in the presenters.*
- *Low for both nutrition workshops because a lot of time was spent on theory and not on practical information*
- *Presented well and I understood all they said and while I don't usually ask questions I was happy to ask questions at this workshop*
- *Trainer was very good and if we did something wrong he didn't make you feel stupid or nervous. Because of that I reckon I could preg test for the Queen! The trainer wasn't making it all too overly serious.*

- *Trainer at FarmMap4D was a designer for it and provided great support at the workshop and since.*

Graziers wanted to genuinely rate presenters well and this was observable in the way they thoughtfully gave their rating and their comments. It is the comments that were given for organisers to consider for future reference. With that in mind graziers will appreciate it if GrazingFutures coordinators and staff take account of their comments as it was in that frame of reference that their comments were given.

7 Recommendations

It is clear from the data reported here that there have been some positive advances in the effectiveness of GrazingFutures events in achieving the project's objectives especially relating to the proportion of graziers who are making management changes. When taking those gains into account it is also reasonable to suggest that GrazingFutures can continue to progress in the development of how and what extension services it delivers for improving business and drought resilience.

For that reason two of the recommendations made previously again have a place because they referred to the methods of extension and how they can be delivered. Slight modifications have been made to include information gained in this round of surveying to monitor the project's progress.

Recommendation 1. It is recommended that for all GrazingFutures events, specific attention be given to the design and delivery of them for impacts known to align with improved business resilience, drought recovery and future drought preparedness and that those delivering make clear reference to that application 'on-farm' and provide examples of what other graziers are doing to apply it in their drought management.

Recommendation 2: It is recommended that for at least one of the management practice changes that is being recommended, that the project team use the ADOPT tool to assess the expected level of and time to adoption that will promote improved business and drought resilience. That the team then use that information to develop an extension plan for how to optimise impact in relation to the project objectives.

Another recommendation is being made in response to the differences shown to exist between regions in the proportion of graziers making changes. It is important to acknowledge there are two possible externally produced reasons the difference exists:

- The first is that there are not the drought feed resources available in the predominantly Mitchell grass areas to allow graziers to capitalise on the opportunities offered by good market prices for the uptake of profitable animal nutrition changes at this time, and
- The second is that it is possible the survey figures presented here have been skewed by the numbers of respondents who had done mapping events, left unsatisfied and who were surveyed.

It is however, also of relevance to note that the differences were apparent in the previous surveying. With all of that in mind it appears prudent to consider what lessons can be learnt among the regional delivery teams that may increase the return on investment being made in the GrazingFutures project. One way to do that may be to create a more formal cross-fertilisation of ideas between regional teams in what topics are relevant and how these might be delivered.

It is relevant to note that such an approach will also deliver on an Objective 3 of the project which is, "Improve the skills and capability of grazing industry support officers from both the public and private sectors to facilitate improvement in business resilience, drought recovery and future drought preparedness of grazing businesses in western Queensland."

Recommendation 3: That regional coordinators and other DAF delivery staff from each region meet at a mutually agreed place before they finalise their annual operational planning to exchange ideas on what events they will focus their region's resources on and their reasons for doing so. As well it is recommended that they also share how they intend to deliver their chosen events and to again provide their reasons for their choices.

A fourth recommendation is being made based on the recognised value of what were the selected Grazing BMP standards that grazier and DAF staff listed as relevant to GrazingFutures to improve business resilience, drought recovery and future drought preparedness. The demise of Grazing BMP has in no way decreased the practical value of those elements of grazing animal, land and business management. It is with that in mind that the following recommendation is being made.

Recommendation 4: It is recommended that the previously selected key management standards continue to be used by project staff when selecting GrazingFutures events so they are aligned meaningfully with management practices that graziers and DAF staff identified will improve business and drought resilience.