



# finalreport

**Project code:** B.MMS.1018  
**Prepared by:** Nicole Sallur  
Department of Agriculture,  
Fisheries and Forestry  
**Date published:** November 2013  
**ISBN:** 9781740361736

**PUBLISHED BY**  
Meat & Livestock Australia  
Locked Bag 991  
NORTH SYDNEY NSW 2059

## **MMfS State Coordination – Queensland October 2010 to November 2013**

Meat & Livestock Australia acknowledges the matching funds provided by the Australian Government to support the research and development detailed in this publication.

This publication is published by Meat & Livestock Australia Limited ABN 39 081 678 364 (MLA). Care is taken to ensure the accuracy of information in the publication. However MLA cannot accept responsibility for the accuracy or completeness of the information or opinions contained in the publication. You should make your own enquiries before making decisions concerning your interests. Reproduction in whole or in part of this publication is prohibited without the prior written consent of MLA.

## **Abstract**

Making More from Sheep (MMfS) is a majority market extension program funded by Meat & Livestock Australia (MLA) and Australian Wool Innovation (AWI). Phase II of MMfS commenced in Queensland with a business planning process in October 2010 and delivery from November 2010 until November 2013. Mr Tony Hamilton of the Department of Agriculture, Fisheries and Forestry (DAFF) was initially the State Coordinator with responsibility for planning, project implementation, monitoring and evaluation. He was replaced by Ms Nicole Sallur from DAFF towards the end of the project. Delivery involving partner organisations provided best practice management information and tools to sheep producers with target Key Performance Indicators (KPI's) exceeded across all three tiers of engagement category. 31 events were delivered to 551 participants. Satisfaction and value scores averaged across all events measured 8.7 and 8.2 respectively. Operational recommendations have been included in the report.

## Executive summary

This final report summarises the Queensland MMfS activities from October 2010 to November 2013. A total of 31 activities (22 workshops and 9 webinars) were delivered to 551 participants (394 sheep businesses) in this period. Queensland has delivered 15 'awareness' or category A activities and 16 Knowledge, Attitude, Skills and Aspirations (KASA) or category B activities.

The KPIs have been exceeded except for evaluation return rate for category B and C activities. This is because there are difficulties associated with getting people to complete and return evaluation forms e.g. reluctance to fill them out especially when greater than one page in length, and event participants arriving late and leaving early. No category C activities were conducted as there were no on-going groups to work with, and there appeared to be little interest in forming these groups.

	KPI	Actual
<b>Number of participants</b>		
Category A	195	551
Category B	70	242
Category C	35	109
<b>Evaluation return rate</b>		
Category A	65%	80%
Category B	80%	72%
Category C	80%	0%
<b>MMfS module delivery split rate</b>		
Wean more lambs, Gain from genetics, Turn pasture into product; and Plan for success	60%	75%
<b>Flock size</b>		
Greater than 2000 head	15%	86%

The MMfS events conducted throughout the project appeared to meet the needs and expectations of participants. The average satisfaction score was almost 9 out of 10, with an average value score just over 8 out of 10. Nearly 100% of participants would recommend the MMfS event to others. These events have also improved the participants' knowledge by 43% and confidence in their own ability to implement the recommendations.

As a result of these events, 40% of participants intend to change their management practices and 9% indicated that they have already made a change.

The main highlights of the Queensland MMfS project were: the synergies and very successful delivery partnership with Leading Sheep, the ongoing benefits of webinars and the value of producers as presenters, rather than technical experts. The main issue was the late clarification and implementation of the M&E system, after the contract was signed. This significantly added to the workload, initially caused much confusion and required increased in-kind contributions from the department.

The operational recommendations as a result of this project are:

1. Communicate evaluation requirements and instructions at the onset of the project, including testing prior to implementation and regular review.
2. Negotiate the incorporation of nationally relevant workshops into the M&E system, so these activities can be counted towards KPIs.
3. Develop a reporting template that focuses on extension, rather than research projects.
4. Focus on a series of events and partnerships to improve efficiency and cost effectiveness.
5. Use webinars as a tool to enhance face to face events and encourage uptake by other states, programs, projects and organisations.
6. Use more producers as presenters and support their professional development in this area.
7. Use both regional and topic specific advocates, instead of having one state advocate.
8. Add value to the State Coordinator meetings by rotating around states and utilising webinar technology where possible.

It is also proposed that MLA and AWI consider the following to take livestock extension forward into the future:

1. Target activities to the whole property and fund a joint beef/sheep (livestock) program.
2. Consider a more strategic approach to sheep and wool extension by combining Leading Sheep and MMfS into one project to optimise efficiency for all partners.

## Table of contents

1	Background.....	7
2	Project objectives.....	8
3	Methodology .....	10
3.1	Progression from Category A to B to C events.....	10
3.2	Selection of deliverers .....	10
3.3	Event promotion .....	10
3.4	Event organisation and delivery including evaluation.....	10
3.5	Innovative delivery models .....	11
3.6	Partner organisations .....	11
3.7	Advocates .....	12
3.8	Coordinator meetings.....	12
4	Results .....	13
4.1	Events .....	13
4.2	Number of participants .....	13
4.3	Evaluation return rate.....	14
4.4	MMfS Modules Delivered .....	16
4.5	Enterprise demographics .....	17
4.5.1	Property size .....	17
4.5.2	Flock size .....	18
4.6	Event Evaluation .....	19
4.6.1	Satisfaction and value .....	19
4.6.2	Knowledge and skills audit .....	19
4.6.3	Confidence .....	20
4.6.4	Practice change.....	20
4.7	Success of innovative delivery models.....	21
4.7.1	Webinars .....	21
4.7.2	Producer presenters .....	21
4.8	Benefits and limitations of partners .....	21
4.9	Benefits and limitations of advocates .....	22
4.10	Benefits and limitations of State Coordinator meetings.....	23

<b>5</b>	<b>Discussion/Conclusion.....</b>	<b>24</b>
5.1	Operational Recommendations.....	25
5.2	Future Direction.....	26
<b>6</b>	<b>Appendices .....</b>	<b>28</b>
6.1	Appendix 1: Example of a flyer for a 2012 MMfS event.....	28
6.2	Appendix 2: Example of a flyer for a 2011 MMfS event.....	29
6.3	Appendix 3: Example of a pre-event media release .....	30
6.4	Appendix 4: Example of a post-event media release .....	31
6.5	Appendix 5: Details of MMfS events conducted in Queensland. ....	34
6.6	Appendix 6: Photos taken at Queensland MMfS events 2011 - 2013 .....	36
<b>7</b>	<b>Bibliography .....</b>	<b>38</b>

## 1 Background

The Queensland State Business Plan was developed by DAFF Senior Sheep Extension Officer, Mr Tony Hamilton, and consultant Ms Pamela McAllister in February 2011. At this time, the main issues facing the Queensland sheep industry were (and primarily still are):

- drought followed by floods
- low wool prices
- declining sheep numbers
- predation (wild dogs and pigs)
- a loss of skilled labour to the mining industry

Using the funding from MMfS, and the manual's modules, procedures and tools, this was seen as an efficient avenue to deliver activities to sheep and wool producers. The aim of these activities was to improve awareness and learning, and support adoption to improve productivity, profitability and resilience.

The initial emphasis was proposed to be on awareness activities in year one, followed by KASA opportunities, particularly in years two and three, leading to increased focus on practice change activities in the final year.

Partnerships were also seen as a priority for MMfS, including sheep consultants and agribusiness such as Elders, Landmark and Rabobank and it was planned to further support and develop these relationships. The close relationship between MMfS and Leading Sheep adds value to both projects, stimulates partnerships and prevents duplication of effort.

As Queensland sheep producers are scattered over very large distances, travel times to events can be prohibitive. This project was designed to combine online social media tools with face-to-face meetings to enable greater and more frequent participation. This significantly increases value for money from events, and producers gain skills and tools for improving communication and connection in other aspects of their business.

The planned key extension activities identified in the Queensland State Business Plan included the following (and were a mixture of webinars and face to face):

- worms
- genetics
- reproduction
- blowfly
- wild dogs
- business planning
- marketing

There was also a communication and promotion focus by providing stories for the MMfS quarterly e-newsletter, MLA's Feedback magazine and AWI's Beyond the Bale, as well as media releases and case studies.

## 2 Project objectives

This project includes the MMfS Queensland State Coordinator (SC) who provides the local/regional input into the design of MMfS activities and facilitates the engagement of producers through their own schedule of local extension and communication events. Working with the National Coordinator (NC), the SC is responsible for delivering the annual state business plan to achieve the awareness, engagement and practice change targets. Additionally, the SC will deliver the defined monitoring and evaluation data specified in the State business plan.

### Objectives:

1. State business plan designed to be relevant to current and emergent Queensland industry needs.
2. Coordination of the State business plan implementation.
3. Monitoring and evaluation data

#### 1. State business plan

- Form the basis of the key deliverables.
- The business plan will include an annual operating plan of activities in line with appropriate State key performance indicators and activities targeting specified producer segments and across delivery resources (public and/or private) appropriate for A, B and C tiers of activities.
- Outline the State MMfS delivery team, including public and private deliverers.
- Engage the private sector in each State in line with the MLA extension investment principles

#### 2. Coordination of State business plan implementation

- Implement the business plan activities, direct resources, train and engage a team of public and private sector deliverers/facilitators as appropriate across respective program activity.
- Position as the key point of contact and co-ordinator for engaging the State based network of program producer advocates.
- Maintain a database of participants and provide this list to the NC on a monthly basis. An Excel template will be provided.
- Attend regular phone meetings to report on completed activities, engagement of producers and achievements towards the operational plan targets and a list of planned activities, including dates and location of events to be posted on the MLA and AWI websites and respective MLA and AWI publications.
- Attend up to two SC face to face meetings per year to present an update of key achievements and milestones and assist in continuous improvement of program delivery, activities and tools.
- Provide milestone reports promptly and to an acceptable standard to MLA.



- Coordinate and source articles for MLA and AWI publications and the e-newsletter from delivery team members.
- Coordinate and integrate activities with other existing state based networks.
- Comply with MLA standard processes for event promotion and use the program brand/s in accordance with MMfS style guidelines.
- Advise on extent of budget expenditure supporting coordination and implementation.

### **3. Monitoring and evaluation data**

All specified monitoring and evaluation processes are executed as per agreed processes, with all data collated and provide monthly and six monthly reports to the NC and MLA. The standard MMfS monitoring and evaluation processes will include:

**Category A:** Measuring awareness, satisfaction, value and intention to change.

At least 60% participant feedback sheets using the standard MMfS template are to be collected for all category A activities and entered into the supplied Excel spreadsheet.

**Category B:** Measuring shifts in knowledge, skills and confidence (KSC)

Pre and post knowledge and skills audits are to be conducted with at least 80% participants of category B activities. Full results of the pre and post knowledge and skills audits are required to be entered into the standard MMfS spreadsheet. Individuals' names will be kept separate to the skills audit results to ensure confidentiality is maintained.

#### Non accredited training KSC assessment

*Non accredited training will require the 100% usage of the generic (but adapted regionally) MMfS pre and post knowledge and skills audit questions.*

#### Accredited training KSC assessment

*Accredited training activities will ensure key MMfS audit questions are used for at least 30% of accredited courses delivered to ensure these courses can be included in the overall MMfS M&E reporting.*

**Category C:** Measuring practice change and program impact.

Practice change will be recorded for 80% of participants in all category C activities. This will require the SC to ensure shifts in practice change are recorded by group facilitators using the standard template provided and mapped against practices within the MMfS manual modules. Results are to be recorded in the standard Excel spreadsheet, including names and contact details of participants.

#### *Identifying case studies to measure impact.*

The SC will assist in identifying and recruiting case studies to enable tracking of profitability and productivity gains as a result of participating in the MMfS program.

All events (category A, B and C) will have an event record which will be provided to MLA using the standard Excel spreadsheet.

### **3 Methodology**

Initially, the project was conducted as per the Queensland State business plan, with activities planned, as per Table 6 and 7 in this document.

However, due to changes in seasonal conditions and staff as well as emerging issues, the planned activities table was updated continually as well as on a more formal basis every six months, refer to Milestone Reports three to six for updated planned activities tables.

#### **3.1 Progression from Category A to B to C events**

---

In the first year, the majority of activities were planned to be category A (awareness). While in the second and third year the focus was on category B activities (KASA). No category C activities were planned due to there being no on-going groups to work with, plus it was deemed there would not be the interest to form these groups.

#### **3.2 Selection of deliverers**

---

All activities were conducted with the support of Leading Sheep to utilise their database of producers for event promotion, and where needed, to assist with co-funding activity costs. The Leading Sheep regional coordinators and committees (as well as DAFF staff and other industry stakeholders) were also used as a sounding board for activity ideas and possible presenters. Presenters were sourced both from within Queensland (17 activities) and interstate (14 activities – from New South Wales, Victoria and Western Australia) depending on the topic and where the most experienced presenter was available.

#### **3.3 Event promotion**

---

The promotion of MMfS activities was primarily through the Leading Sheep network of producers via an email distribution list, plus media releases where applicable and relevant. Events were also advertised on the MMfS and Leading Sheep websites as well as through other State extension networks, local catchment groups and FutureBeef. See Appendix 1 and 2 for examples of flyers that were distributed by email, Appendix 3 for an example of a pre-event media release and Appendix 4 for a post-event media release.

#### **3.4 Event organisation and delivery including evaluation**

---

MMfS activities were organised by either the Queensland SC or their nominated representative (a DAFF staff member from the sheep team). These people briefed the presenters (mainly other DAFF staff members and private consultants) on the requirements for delivering an MMfS activity, namely:

- MMfS purpose
- project funders
- MMfS website including relevant modules, procedures and tools

- presentation needed to be aligned to MMfS module and use or highlight relevant tools out of this module
- evaluation requirements

At the actual MMfS activity, the presenter focused on the technical aspects of the activity. While the Queensland SC or their nominated representative:

- gave the introduction and conclusion
- facilitated the activity as necessary
- conducted the evaluation

As part of the introduction the following points were highlighted:

- funders of the activity – MMfS is a joint initiative of MLA and AWI
- where to find/order the MMfS manual from (including having a hard copy on display that people could browse through)
- ability to download MMfS manual and modules from the website
- which module, procedures and tools were the focus for this activity
- importance of evaluation and process for this activity (i.e. pre and post)

These points were then summarised again as part of the conclusion to the activity. For category B activities the correct answers to the multi-choice questions were covered off at the end of the day as summary/wrap up session covering the key points from the workshop.

### **3.5 Innovative delivery models**

---

As Queensland sheep producers are scattered over very large distances, travel times to events can be prohibitive. To overcome this issue webinars (online seminars) were used to deliver information to producers to improve their knowledge, as well as connecting them with other producers. Producers also seem to learn best from their peers, so where possible we invited other producers to talk about their experiences on a particular topic or encouraged producers to host the event on-farm.

On one occasion a webinar was used as a follow up event (approximately. six weeks later) with people who had attended a face to face workshop. The main aim of the webinar was to give participants the opportunity to ask the expert presenter any further questions they had after the workshops, clarify any issues they still did not understand and to discuss any problems they had in implementing the original workshop recommendations.

### **3.6 Partner organisations**

---

For all MMfS activities in Queensland, Leading Sheep was a supporting partner either through promotion of the activity through its producer network or co-funding the event, where warranted. Besides Leading Sheep, the following people and organisations have partnered with MMfS to deliver activities in Queensland:

- Department of Agriculture Fisheries and Forestry (DAFF) – eight events
- Queensland Rural Adjustment Authority (QRAA) – one event

- Queensland Parks and Wildlife Service (QPWS) – one event
- Invasive Animals Cooperative Research Centre (IACRC) – one event
- Bred Well Fed Well (BFWF), (Murdoch University, Department of Agriculture and Fisheries Western Australia and a private consultant) – seven events
- Elders & Landmark – three events
- Private Consultants: Devine Agribusiness (two events), Peter Whip (four events), John Milton (five events) – eleven events.

There have also been eight events with producer partners either as a presenter or hosting the activity.

### **3.7 Advocates**

---

The formal advocate for Queensland MMfS was Mr Mark Murphy “Karbullah” Goondiwindi. Mr Murphy has hosted two BFWF workshops on his property one in 2010 and another in 2012. He also supplied rams for two other BFWF workshops at Cunnamulla and Dirranbandi in 2012. Mr Murphy has also talked about his experiences with ASBVs and breeding for worm resistance in two webinars, both in 2011.

As mentioned previously there have also been a number of informal producer advocates for MMfS and they have been the producers who have either hosted an event on their property or presented some of their practical experiences in face to face workshops or on webinars. Credit should be given to the following producers:

- Mr Michael Moody, Cunnamulla
- Mr Duncan Banks, Dirranbandi
- Mr Noel O’Dempsey, Texas
- Mr Pat Hegarty, Longreach
- Mr Bean Schmidt, Wyandra
- Mr Will Roberts, Morven
- Mr Ross Batzloff, Augathella
- Mr Phil Bell, St George.
- Mr Jeff Betts, Thallon

### **3.8 Coordinator meetings**

---

Two face-to-face coordinator meetings were held every year with the NC and other SCs. These were held primarily in Sydney. The primary focus of these meetings was for the SCs to network and learn from each other as well as to receive updates and relevant information from the NC and MLA and AWI.

## 4 Results

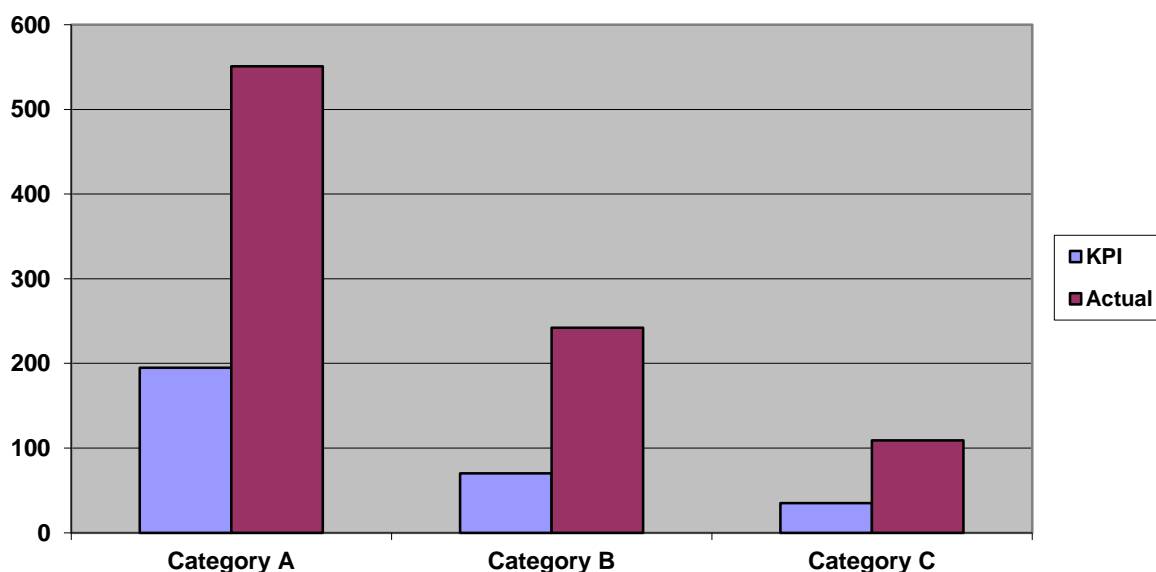
### 4.1 Events

In Queensland, a total of 31 MMfS activities (22 workshops and 9 webinars) were organised and delivered to 551 participants (394 sheep businesses) between October 2010 and November 2013. Refer to Appendix 5 for a full listing of the MMfS events conducted in Queensland and Appendix 6 for photos from some of these events. Fifteen of these activities have been category A (awareness) with a total attendance over the life of the project of 309 and an average event attendance of 21. Sixteen were category B (KASA), with a total attendance of 242 and an average event attendance of 15.

### 4.2 Number of participants

Queensland has exceeded its participation KPI targets for all category types, see Graph 1 and Table 1. The category A participation target (195) has been met by 283%, category B target (70) has been met by 346% and category C target (35) by 311%. Please note that these figures are calculated based on the Standard Operating Procedures:

- Counting category A – all participants in all categories i.e. A + B + C
- Counting category B – all participants in category B events
- Counting category C – all participants from category B and C which completed a pre and post skills audit as well as completing the section that indicates “intention to change practice” with details or “already practice change” with details and module.



**Graph 1:** Queensland category A, B and C participation targets and actual participation.

**Table 1:** Queensland percentage of three year target achieved for 'Number of Participants' in category A, B and C activities.

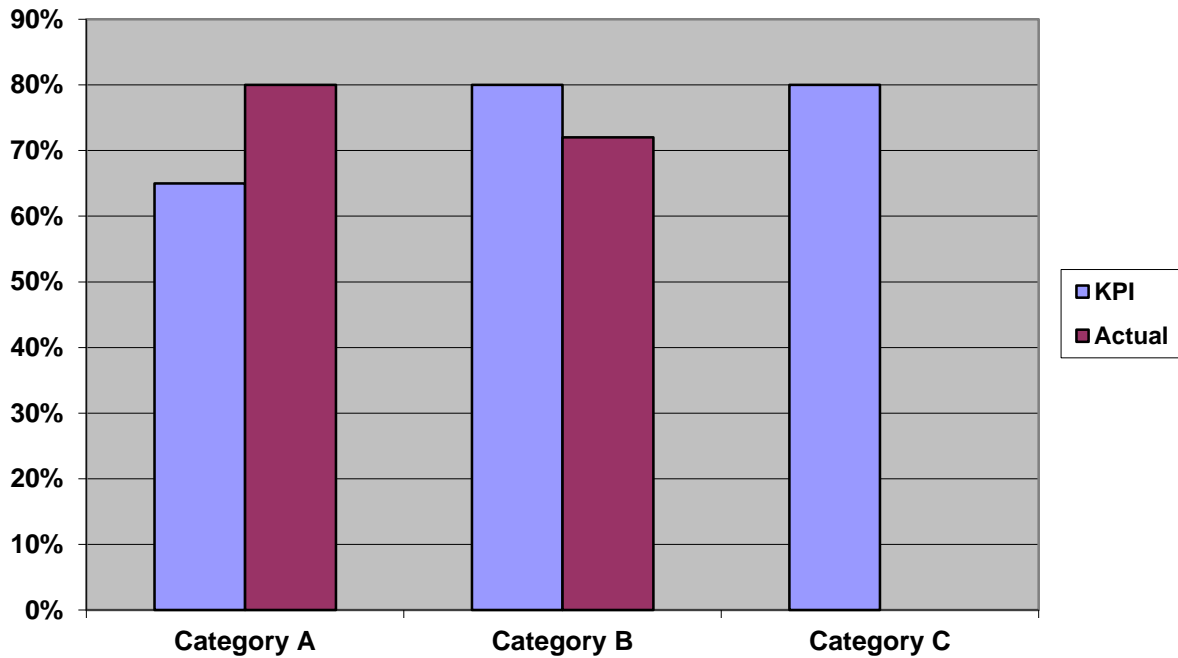
	Category A	Category B	Category C
<b>KPI</b>	195	70	35
<b>Actual</b>	551	242	109
<b>% Achieved</b>	<b>283%</b>	<b>346%</b>	<b>311%</b>

### 4.3 Evaluation return rate

Graph 2 and Table 2 shows the achieved evaluation return rate as per the Standard Operating Procedures. Queensland has exceeded its target for category A activities, almost achieved the category B target, but did not meet the category C target. This is because no category C activities were conducted and hence no evaluations were completed. Please note that these figures are calculated based on the Standard Operating Procedures:

- Counting category A evaluations: category A event participants which entered in either Satisfaction, Value, Learning or Plan to Change information divided by category A attendees only
- Counting category B evaluations: category B event participants which entered in BOTH Pre and Post Knowledge and Skills scores divided by category B attendees only
- Counting category C evaluations: category C event participants which completed Pre and Post Skills Audit as well as completing "Intent to Change Practice" (Yes,No,Not Sure) with a reason OR "Already Practice Change" (Yes,No,Not Sure) with reason and module divided by category C attendees only.

Table 3 provides the evaluation return rate as a proportion of participants.



**Graph 2:** Queensland percentage of three year target achieved for 'Evaluation Return Rate' in category A, B and C activities

**Table 2:** Queensland percentage of three year target achieved for 'Evaluation Return Rate' in category A, B and C activities

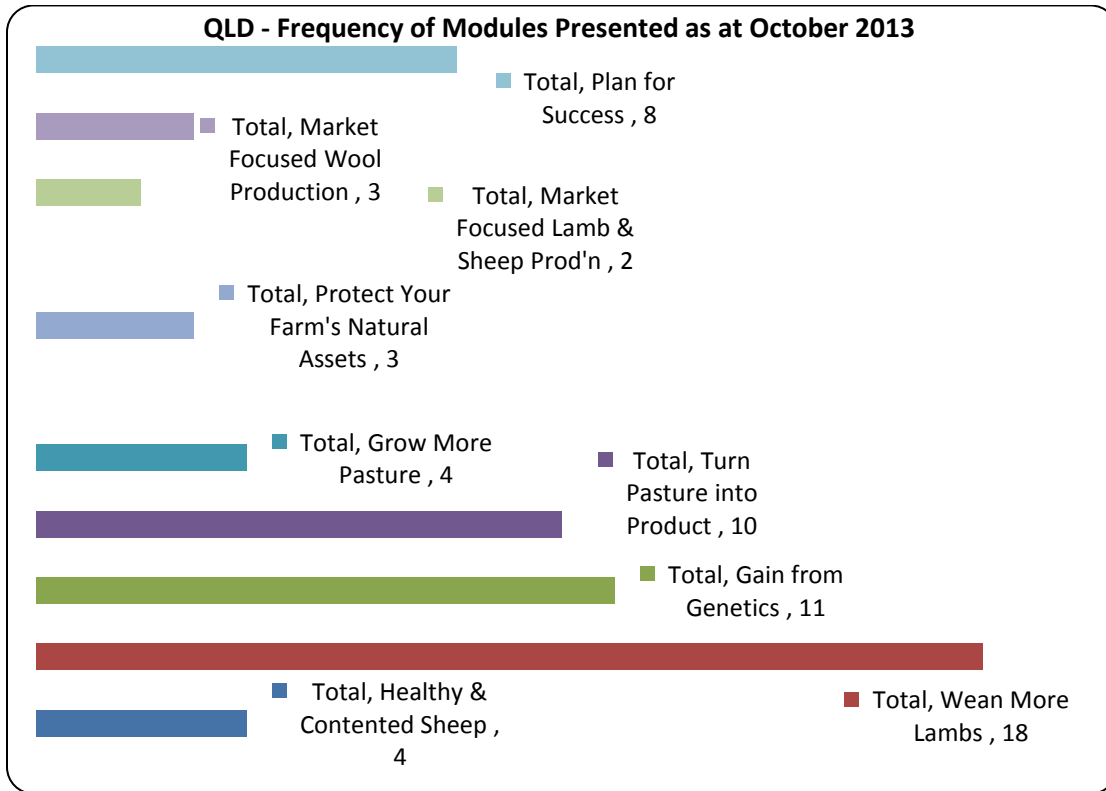
	Category A	Category B	Category C
<b>KPI</b>	65%	80%	80%
<b>Actual</b>	80%	72%	0%

**Table 3:** Queensland evaluation return rate as a proportion of participants

Category	Percentage
<b>A</b>	81%
<b>B</b>	92%
<b>C</b>	0%
<b>Average</b>	<b>86%</b>

#### 4.4 MMfS Modules Delivered

All but two of the MMfS modules (Capable and Confident Producers and Healthy Soils) have been delivered at events throughout the project's life, see Graph 3. The four most commonly delivered modules were Wean More Lambs, Gain from Genetics, Turn Pasture into Product and Plan for Success. The KPI for module delivery was 60% focussing on these four modules. Queensland has exceeded its KPI with 75%, see Table 4.



**Graph 3:** Frequency of modules presented by Queensland



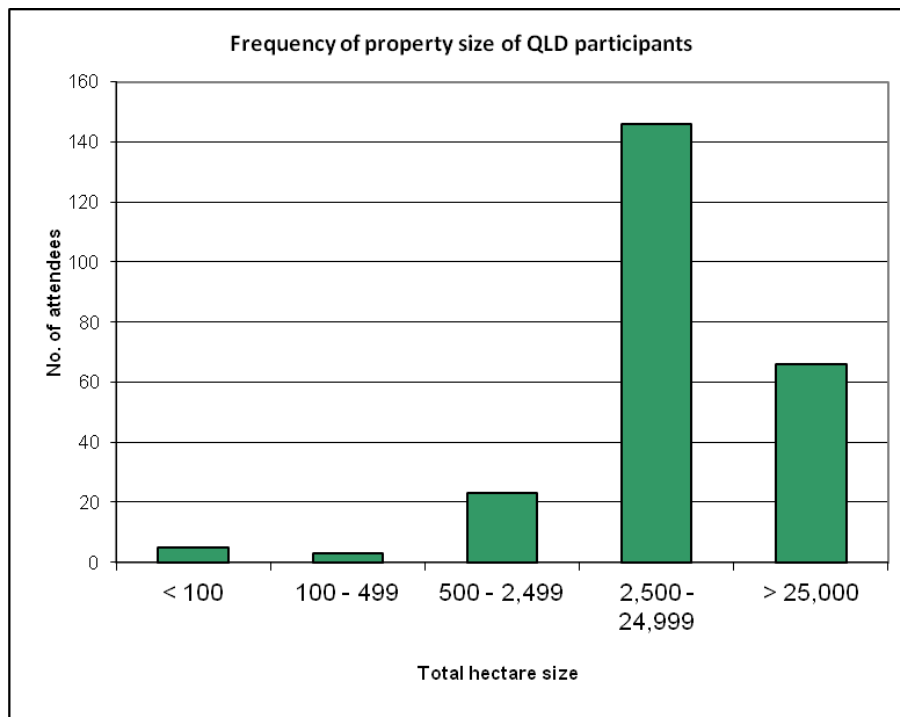
**Table 4:** Queensland percentage of three year target achieved for 'Modules Delivery Split Rate' in Category A, B and C activities

Module	No. delivery times
Gain from Genetics	11
Wean More Lambs	18
Plan for Success (Business Plan)	8
Turn Pasture into Product	10
<b>Percentage of Modules delivered as per KPI</b>	<b>75%</b>

## 4.5 Enterprise demographics

### 4.5.1 Property size

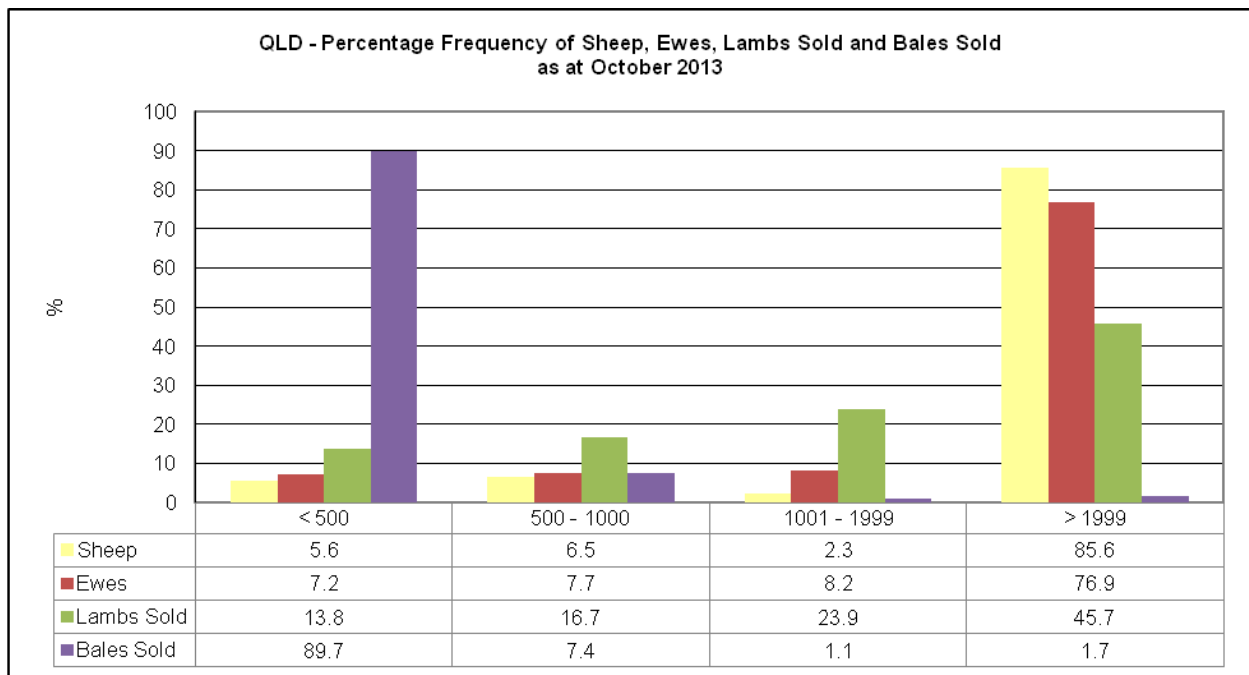
Participants were asked to indicate the number of hectares owned or managed. Of the participants who supplied property size information (51%), the median property size was 12,141 ha, with the majority of the producers, 60%, managing between 2,500 - 24,999 hectares, see Graph 4.

**Graph 4:** Frequency of property size in Queensland

#### 4.5.2 Flock size

Participants were asked to indicate the total number of sheep owned, total number of breeders, lambs sold and bales sold, see Graph 5. The Queensland three-year target for flock size is for 15% of participants to have greater than 2000 head. 86% of Queensland participants have greater than 2000 head.

Of the participants who supplied flock size information (46%) the median number of sheep was 5700, ewes 3000, lambs sold 1550 and wool bales sold 150, see Table 5.



**Graph 5:** Queensland percentage frequency for number of sheep, ewes, and lambs sold and bales sold split by number of head

**Table 5:** Queensland participant flock demographics

	Average Number	Median Number
<b>Sheep Flock Size</b>	8467	5700
<b>Ewe Flock Size</b>	4887	3000
<b>Lambs Sold</b>	3229	1550
<b>Bales Sold</b>	287	150

## 4.6 Event Evaluation

### 4.6.1 Satisfaction and value

Events are meeting the expectation of participants with the average satisfaction score being 8.7 out of 10 for all event category types. Producers also rated these events as of value to their business, with an average score of 8.2 out of 10. See Table 6. This was further endorsed by almost 98% of participants saying they would recommend this MMfS event to others.

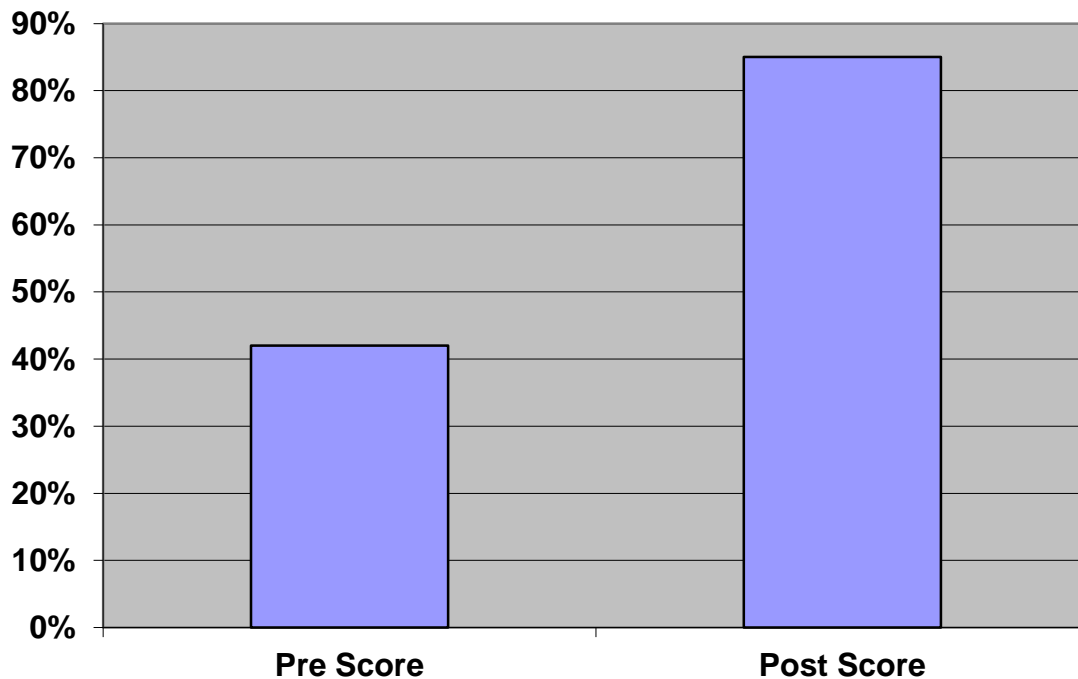
**Table 6:** Average satisfaction and value scores and category breakup

	<b>Satisfaction</b>	<b>Value</b>
<b>Average Score</b>	8.7	8.21
<b>Average Score category A</b>	8.46	7.8
<b>Average Score category B&amp;C</b>	8.95	8.73

### 4.6.2 Knowledge and skills audit

Evaluation for category B and C style events involved pre and post activity knowledge and skills questions to assess 'how well' producers understand and can subsequently implement what they have learned. The assessment questions consist of a number of objective (right / wrong) multiple choice questions. The final option in the multiple choice answers is 'unsure', with participants encouraged to answer 'unsure' rather than guess if they do not know the correct answer. The number of questions asked depended on the duration of the workshop and the breadth of content covered.

Out of the 223 category B participants who returned an evaluation form, 175 completed pre and post audits. The average pre-workshop score was 42% correct answers, with a post-workshop score of 85%, see Graph 6. This indicates a change in knowledge and skills as a result of the events.



**Graph 6:** Queensland knowledge and skills – pre and post average % scores

#### 4.6.3 Confidence

Participants at B and C category events were also asked to self assess with a score out of 10 on how confident they felt about their ability to implement the particular topic of the workshop. This question was asked both before and after the workshop.

Pre and post confidence scores were collected from 136 participants out of the 242 category B participants (56%). The average confidence score prior to taking part was 5.4 out of 10, and the average after taking part was 7.3 out of 10.

#### 4.6.4 Practice change

A total of 98 participants (40% of the category B participants) indicated intent to change their management practices as a result of attending an MMfS activity. Of these, 92 (94%) indicated what that practice change would be.

A total of 22 participants (9% of the category B participants) indicated that they had already made practice changes, 18 (82%) of these aligned with MMfS modules. Wean more lambs is the most 'influential' module delivered in encouraging practice change, being cited 13 times.

Beyond the scope of this project and project report MLA have contracted Dr Kristy Howard from Inspiring Excellence to complete phone surveys and case studies to assess the impact of MLA's Southern Majority Market Program (MMfS is part of this program). This work is currently underway and due to be completed before January 2014.

## 4.7 Success of innovative delivery models

---

### 4.7.1 Webinars

Webinars continue to be a great tool to overcome the tyranny of distance in Queensland. Nine webinars were conducted to 156 people with an average of about 17 participants per webinar. The main benefit of these webinars is that people do not have to travel and can participate from wherever they are located in the state or Australia. They do not have to be in their office, if they have a smart phone or iPad/tablet (and reception) and they can participate from wherever they may be – in the car, on a tractor or waiting at an airport. Some feedback from producers supporting the use of webinars:

- *“Excellent information provided with easy access ie. no travelling”*
- *“I thoroughly enjoyed the webinar and think it’s a great idea that we can ask questions and not have to be there in person”*
- *“An excellent resource that can be so easily attended from home. My second experience on a webinar and very worthwhile”*
- *“The speakers were all fantastic and it was an easy way to transmit information to a greater audience”*
- *“My first webinar - excellent innovation, and yes, very easy. Anyone could tune in, so they could be held in place of field days in some instances”.*

Also, on one occasion, a webinar was used as a follow-up to a face-to-face event, so producers could ask further questions and clarify any issues. While the concept seemed like a good idea, out of the 80 attendees at the face to face event, only 10 participated in the webinar. Even though there were only 10 participants after a 15 minute summary presentation by the expert, there was approximately 45 minutes of questions which indicates that those who participated certainly found it beneficial and wanted to know more.

### 4.7.2 Producer presenters

Using producer presenters has also been very successful. Where this has occurred participants have commented that they really liked hearing from someone who has tried to put it into practice in the real world. Eight producers have spoken at the Queensland MMfS events. Some feedback about producers presenting included:

- *“Great to get grower input and ideas”*
- *“Excellent event and format, great to hear from the professionals and also seeing and hearing the practical side from the farmers directly”*
- *“It was good to have my questions answered and have a producer explain how it works or the problems”.*

## 4.8 Benefits and limitations of partners

---

For all of the Queensland MMfS events, Leading Sheep was a supporting partner primarily through promotion through their extensive network of sheep producers but sometimes with funding. Besides

Leading Sheep, MMfS partnered with eight other organisations (DAFF, QRAA, QPWS, IACRC, Elders and Landmark) to host events as well as private consultants. The benefits and limitations of these partnerships are highlighted in Table 7. However, for the most part it was more beneficial for Queensland MMfS to partner with other organisations for events.

**Table 7:** Benefits and limitations of event partners

Benefits	Limitations
Extra funding	Takes longer to plan/organise as need to include other people
More people to help organise and run the event on the day	Have to incorporate both organisations requirements for promotion, evaluation etc.
Access to their experience	Expectations may differ
A wider range of ideas about what to include, how to run the day etc.	
May encourage a wider audience to participate – particularly their clients	

#### 4.9 Benefits and limitations of advocates

The formal advocate system did not work particularly well in Queensland due to a number of reasons:

- large distances between each MMfS event in Queensland and hence the advocate could not physically travel to each event
- the advocate would not have been well known in certain parts of Queensland
- the advocate was not the best/most knowledgeable person on all event topics.

However, the concept of an advocate would have merits if there was more than one person nominated as an advocate by region and/or topic area. If the advocate(s) were given more guidance and assistance and the role requirements were clearly set out then the individuals would be able to successfully fulfil these roles and promote MMfS.

In Queensland, informal advocates were used either as on-property hosts of events or speakers at events. These worked well as these producers were known locally and/or had the appropriate topic knowledge.

#### **4.10 Benefits and limitations of State Coordinator meetings**

---

The SC meetings were a great way for each of the coordinators to connect and network with people performing similar roles to them. It was also a useful way to hear first hand about some of the activities the other state MMfS projects were conducting and learn from their experiences. It also gave the funders and the NC the opportunity to update the states on any important and relevant information and a chance for the states to ask any questions. The downside is that it takes a reasonable amount of time and cost to travel to these meetings.

## 5 Discussion/Conclusion

Queensland has **exceeded all of its KPIs** (participation, evaluation return rates, module delivery and flock size) **except for category B and C evaluation return rates**. This is because for category B activities it is still difficult to get everyone to return their evaluation forms, particularly when it is more than one page long. The other issue is that some event participants arrive late (and hence don't complete the pre-survey) and others leave early (and don't do the post survey) and so these people are not counted in this KPI. No category C activities were conducted as at the time there were no on-going groups to work with and the feedback from producers was that they would not be interested in forming any groups.

The MMfS events delivered in Queensland were extremely successful with participants rating them as 8.7 out of 10 for satisfaction and 8.2 out of 10 for value. 98% of participants would also recommend these events to others. Participants also improved their knowledge by 43%, as evidenced by the pre and post survey scores and their confidence in their ability to implement the activities recommendations.

Forty per cent of participants indicated their intention to change their management practices and 9% indicated they had already made a change. The most influential model delivered was 'wean more lambs'.

The **main highlights** of this project were the synergies and very successful delivery model in conjunction with Leading Sheep, the ongoing benefits of webinars and the value of producers as presenters.

Delivery in conjunction with Leading Sheep proved to be very successful due to the similarities between these two projects and the fact that the one activity could be co-funded by both projects. This allowed the coordination and delivery budget to be stretched further and more activities conducted under the banner of both these projects.

Webinars continue to benefit Queensland producers and overcome the issue of distance. They are also a convenient method of getting information out to producers in a timely manner when a hot issue arises e.g. high risk of worms, fire threat etc. Plus webinars have also been useful as a follow up to a face to face activity to give the participants a chance to digest the information and then ask further questions. Queensland producers are becoming more familiar with this technology as more and more organisations are using it.

The value of producers as presenters can not be underestimated. Time and time again feedback from participants has highlighted the importance that they place on hearing first hand from their peers. In particular, they highly value hearing about how they have tried to practically implement the recommendation on-farm and their successes and failures.

The main item that **did not work** particularly well and caused some issues was the late clarification and implementation of the M&E system and requirements. The main issue was that it was introduced late into the project (after contracts were signed) and significantly added to the work load. Also, initially there seemed to be some confusion and limited understanding of this system by all parties (AWI, MLA, the NC and the SC) and in particular how to implement it and what could/couldn't be counted under the different KPIs. Unfortunately, this was not rectified until late in the project.

Due to this misunderstanding and confusion the data reported for Queensland in previous milestone and evaluation reports will be different to that reported in this final report (and evaluation report) due to the following reasons:



- evaluation data was not collected for various reasons e.g. it was a field day with just people 'enquiring' about issues and technical difficulties
- with the departure of the previous SC some evaluation data could not be located (primarily for some of the events at the start of the project)
- names were not being recorded on evaluation sheets (mostly events from the start of the project)
- webinar registrations were being recorded rather than attendees (mostly from earlier webinars)

These discrepancies were rectified for this final report (and evaluation report) by deleting some of the events from the record as they were not needed to meet the participant KPI and 'assigning' unmatched data to individual attendees.

## **5.1 Operational Recommendations**

---

A number of operational recommendations have been identified which if implemented would improve the efficiency and effectiveness of future MMfS projects.

### **1. Clear evaluation requirements**

Evaluation requirements need to be clear right from the start and not implemented part way through the project. There also needs to be clear written instructions for data entry and how the KPIs are calculated and these need to be available at the commencement of the project as well. The system needs to be tested prior to roll out and should be reviewed and refined on an ongoing basis. The current evaluation questions need to be objectively reviewed using the following criteria: (i) are these questions really needed, (ii) do they relate to the KPI and (iii) how will the data be used. Reducing the number of questions will help to improve the evaluation return rate as will the use of technology such as Keypad Clickers.

### **2. National workshops aligned with evaluation requirements**

Due to the increasing number of nationally developed workshops e.g. Bred Well Fed Well, RamSelect etc. MMfS, MLA and AWI should negotiate to incorporate the relevant category evaluations into those workshops.

### **3. Develop an extension project reporting template**

It needs to be clear in the contract what needs to be reported on for both the milestones and final report. To facilitate this, a final report template for extension projects should be developed.

### **4. Conduct a series of events in partnership with other organisations**

To save time and money, a series of events should be delivered rather than just one off events. For example, instead of just organising one nutrition workshop, organise a series of them across the region. Secondly, focus on partnerships so that the funding goes further and there is less competition for participants between the different groups/organisations. This could be achieved by MMfS conducting events in collaboration with Elders or local catchment groups etc. This will also help to reduce the amount of coordination time needed compared to delivery funds.

### **5. Enhance and encourage the use of webinars**

For those States/organisations that are frequently using webinars they should be encouraged to use them as a tool to enhance face to face events. A webinar could be conducted as an introduction to

the topic, and then again as a follow up to the face to face events so participants can ask further questions. Other States that are not using webinars should be encouraged to and MLA/AWI should demonstrate their acceptance and use of webinars by using them for their internal meetings and some of the MMfS meetings.

## **6. Encourage producer presenters and support their development**

Where possible and practical, other producers should be utilised in the MMfS activities as presenters. Producers learn best from their peers and will get a lot more out of the activity hearing from someone who has practically tried to implement the recommendation and learning from their experiences. At the very least, it would be invaluable if these producer presenters could be informal advocates for the project. If they were interested, MMfS could support their development by providing funding for public speaking skills, developing a presentation, photography/video making, etc

## **7. Regional and topic specific advocates**

Due to the large distances between events in Queensland (and some of the other states), one advocate for the whole State is not appropriate or viable. Consideration should be given to there being a number of region specific advocates for MMfS e.g. one in the south west, one in central west, one in southern inland and one in the south east. These producers would be the 'champion' for the region and would be a producer that most of the local producers would know of. Some of their time and costs could be covered by the MMfS project, as long as the specific requirements of this position were documented.

As well as these regional advocates it would also be good if there were 'topic specific' advocates. These would be people (preferably producers) who have a passion for a particular subject area and would be well known for their interest in this area. They would not have to be state based but could in fact be national. They could be used to promote events and attend at least one event/state each year. For this to be attractive to these people, their costs and time to attend would need to be remunerated.

## **8. Improve MMfS State Coordinator meetings**

To get the most out of the SC meetings and to improve networking, they should be rotated around the different States at least once per year. For those meetings held in between face-to-face events they should be via webinar. Also, the invitation list to these meetings should also include the person responsible for collecting and collating the M&E data. Their inclusion is imperative so we can ask them any questions and clarify issues or put suggestions to them directly.

## **5.2 Future Direction**

---

As a result of the knowledge and learnings from this project and other extension projects it is proposed that MLA and AWI consider the following opportunities to take 'livestock' extension forward into the future.

### **1. Joint beef/sheep initiatives**

Due to the fact that most sheep producers in Queensland also run cattle, consideration should be given to a joint beef/sheep program that is funded by MLA, AWI and other potential partners. This would allow events to be targeted at the whole property level, rather than just running enterprise specific activities. Some of this funding could come from the designated MLA beef activities in

Northern Australia e.g. BeefUp and MeatUp forums. It would be great to see Northern Australia with a similar program to the southern beef targeted 'More Beef from Pastures'.

## **2. Strategic approach to sheep and wool extension**

MLA and AWI review the MMfS and AWI network projects with a view to a more strategic approach of enabling these projects to be combined into one extension project for each state so as to optimise all partners' participation. This would enable significant efficiency savings for all partners from the current duplication of two separate extension projects, resultant contracts, administration, management, evaluation and reporting processes. This could be part of a more strategic approach to sheep and wool extension as part of the National Research, Development and Extension (RD&E) strategy to foster increased delivery of events to industry.

## 6 Appendices

### 6.1 Appendix 1: Example of a flyer for a 2012 MMfS event



Leading Sheep, in conjunction with Making More from Sheep, are hosting:

## Building your Business Workshops

*Tuesday 20th November, Quilpie*

*Wednesday 21st November, Thargomindah*

*Thursday 22nd November, Wyandra*

All workshops are from 8.30 am - 3 pm

Smoko and lunch included

Come along and learn:

- How to evaluate your current business situation
- How to test which on-farm improvements are best for your business
- Investing in non-farm assets ... what, why & when?
- Banking and finance — common assessment techniques, credit risk and interest rate risk management strategies

Presented by Tony Koch (Consultant), Devine Agribusiness Charleville

Please RSVP by Thursday, 15th November to:

Nicole Sallur, DAFF Charleville on 07 4654 4220 or [nicole.sallur@daff.qld.gov.au](mailto:nicole.sallur@daff.qld.gov.au)



LEADING SHEEP — Leading the way for a more profitable Queensland sheep and wool industry through new technologies, knowledge and skills



## 6.2 Appendix 2: Example of a flyer for a 2011 MMfS event



### **WEBINAR:** **Making worm management easy!**

**Friday 28th October 1pm – 2pm (Qld time)**

Local Australian Times: NSW 2-3 pm, WA 11 am-12 noon & SA 1.30-2.30 pm

[To register click here](#)

Maxine Lyndal-Murphy, Senior Parasitologist, WormBuster Lab

- Choosing the right drench & worm checking
- WormBoss

Plus hear some producers talk about what they are doing on their property to help stop worms.

- Noel O'Dempsey "Linallie" Texas
- Mark Murphy "Karbullah" Goondiwindi
- Phil Bell "Miltonise" St George

**For further information contact:**

Nicole Sallur, DEEDI Charleville, 07 4654 4220 or [nicole.sallur@deedi.qld.gov.au](mailto:nicole.sallur@deedi.qld.gov.au)

*Support with registering and joining the webinar is available from:*

- Amanda Hicks 07 4620 8125 or [amanda.hicks@deedi.qld.gov.au](mailto:amanda.hicks@deedi.qld.gov.au) or
- Greg Bath 0418 988 579 or [greg.bath@deedi.qld.gov.au](mailto:greg.bath@deedi.qld.gov.au) or
- GoToWebinar Helpline on 1800 356 792

#### **What is a Webinar?**

- A webinar is a seminar in which you can participate *without leaving your home or office*
- You participate while sitting at your desk in front of your computer and using a nearby phone. *Please allow 15 minutes prior to log in.*
- It *only takes an hour* out of your time and you don't have to travel anywhere to hear the latest information.
- It won't cost you a cent, just an hour out of your time.

## 6.3 Appendix 3: Example of a pre-event media release



27 March 2012

### **Bred Well Fed Well is coming to Southern Queensland**

A new training initiative is being rolled out nationally to help sheep producers combine top genetics with superior ewe feed management to boost reproduction rates and productivity.

Producers have an opportunity to attend a Bred Well Fed Well workshop in Cunnamulla (April 16, Abbadoah Station), Dirranbandi (April 17, Dunwold Station) and Goondiwindi (April 18, Karbullah Poll Merinos), starting at 8.30am.

The workshops are funded by Meat & Livestock Australia (MLA) and Australian Wool Innovation (AWI) through their Making More from Sheep initiative. The workshop was developed by the Sheep Cooperative Research Centre (Sheep CRC) as a part of a national program to increase sheep industry productivity and profitability.

Mark Ferguson from Murdoch University said the free, hands-on, one-day workshops would give producers practical tools to optimise reproduction and profitability in their ewe flocks.

"The day is squarely aimed at improving the profitability of ewe flocks because they are the engine room of the industry," said Mr Ferguson.

"For example, important elements of the practical one day workshop will be setting breeding goals for ewe flocks and how using tools like Breeding Values can help producers meet their goals.

"We are excited about the opportunities that combining good breeding with good feeding will bring to the sheep industry," he said.

The workshops focus on the following:

- improved understanding of how to use reliable breeding tools to improve enterprise profitability;
- how to develop a breeding objective for your sheep enterprise;
- better management of ewe nutrition for reproductive performance and flock profitability; and
- skills in assessing ewe condition and developing simple energy budgets for the ewe flock.

Practical sessions include condition scoring, feed budgeting, ram rankings and ram selection. Follow-up courses in these areas will be offered for those wishing to further develop skills in breeding and nutritional management.

The workshop is free of charge and lunch and morning tea will be provided.

The Queensland workshops are a part of a series of Bred Well Fed Well events being rolled out nationally in 2012. For more information and to RSVP by April 13, contact Alex Stirton on 0428 109 620 or alex.stirton@deedi.qld.gov.au, or visit the Making More from Sheep website [www.makingmorefromsheep.com.au](http://www.makingmorefromsheep.com.au).

<ends>



## 6.4 Appendix 4: Example of a post-event media release

---

### Converting Sheep Breeding into Business Profits

Nearly 70 sheep industry stakeholders gained valuable tips on how to convert breeding efforts into business profits at the recent Bred Well Fed Well workshops in Cunnamulla, Dirranbandi and Goondiwindi.

These free, one-day Making More from Sheep/ Leading Sheep workshops were supported by the Department of Agriculture, Fisheries and Forestry (DAFF), Meat & Livestock Australia (MLA), Australian Wool Innovation (AWI) and the Sheep Cooperative Research Centre (Sheep CRC) as a part of a national program to increase sheep industry productivity.

The on-property workshops focused on: using Australian Sheep Breeding Values (ASBVs) to improve enterprise profitability; how to develop a breeding objective for sheep enterprises; better management of ewe nutrition for reproductive performance and flock profitability; and skills in developing simple energy budgets for the ewe flock.

DAFF Sheep Extension officer Mr Alex Stirton said many producers who attended the workshops found the days very beneficial and provided some excellent feedback.

“Producers took home some very practical principles that could be applied to their own businesses and 100% of these producers said they would recommend these workshops,” Mr Stirton said.

Attending the Dirranbandi day was local producer Mr Tom Perkins from “Nelyambo” who found the targeted feeding information most valuable.

Mr Perkins said while they already pregnancy scanned their ewes, his family could now better use this information to help improve reproduction rates and management decisions.

“We will now do more targeted feeding of mobs, such as feeding the twin carrying ewes more,” he said.

“We also plan to divide and run mobs according to their condition score, and not their age - for the sheep between three and five years-of-age”.

“Running them in condition scores means they are getting fed the correct amount of feed and the poorer ones can get some more to help with reproduction and lamb survival”.

“Instead of having to feed the whole flock, we can just target which mobs get the better paddocks and supplementary feed accordingly.

DAFF Sheep Extension officer Mr Stirton said the Bred Well Fed Well workshops provided practical training to show how genetic selection, good animal nutrition and best practice management could produce high performance sheep that maximised profits.

“The keys to success include choosing rams that can deliver genetic progress to advance the profit drivers of individual enterprises, and understanding the energy requirements of sheep and allocating feed appropriately,” he said.

“We demonstrated the economic advantages of building a more robust and resilient sheep that produces more lambs on a regular basis, by improving ewe nutrition and condition scoring and feeding ewes at critical points of pregnancy to meet their requirements”.

“Research shows that for each increase in ewe condition score for a particular year, there is the potential to get an average of 20 extra lambs born per 100 ewes, in that year”.

Mr Stirton said pregnancy scanning was a good management tool, as producers could split mobs up into pregnancy status (dry, single, twin) with very different feed requirements.

“For instance, it is good to lamb ewes in smaller mobs but if it’s not always practical then maybe just the twinning ewes could be put into smaller mobs, also less single-lamb and dry ewes in the mob will help to reduce mis-mothering,” he said.

“Ewes carrying twins should go in better paddocks with some extra supplement”.

“Having well bred ewes with good fat and muscle can really pay dividends when it gets to the tougher times of the year and the pastures start to fall apart”

Mr Stirton said designing a feed budget was also valuable for producers to determine how valuable the pasture they have is, and knowing what and how much supplement is needed to meet the animal’s requirements.

At the Bred Well Fed Well workshops, participants completed a breeding objective exercise and worked out the main objectives for their sheep enterprise, to set a clear business focus.

“They identified the ASBVs that matched their objectives, so they know what to look for when working through a ram catalogue before a sale. ASBVs provide producers with the information to help choose animals that meet their objectives”.

On the days, producers also took part in practical demonstrations in condition scoring ewes, which can be done on their own flocks to get an understanding of how the sheep are going at critical points of the year. They also looked at rams with ASBV data and compared visual characteristics to genetic data.

“Some producers are now keen to follow on their learning experience and form Lifetime Ewe Management (LTEM) producer groups, which will follow through with the practices learnt over a 12 month period,” he said.

Presenters were Dr Mark Ferguson from the Department of Agriculture and Food Western Australia and Victorian lamb producer and industry consultant, Dr Jason Trompf.

Central West Queensland sheep producers have the opportunity to attend Bred Well Fed Well workshops at:

- ‘Goolma’ Winton – 18 June
- ‘Verastan’ Muttaborra – 19 June
- ‘Benalla’ Blackall – 20 June

#### Workshop Tips

1. Define breeding goals. Merino producers need to determine major profit-driving traits, and then develop three or four key breeding objectives to pursue progress in those traits.
2. Environmentally fit animals. Breeding sheep that are better adapted to the local environment allows the animals to cope better with seasonal conditions that could otherwise hinder productivity.
3. Nutrition and Feeding. To optimise the potential economic gains from a genetic improvement program, good nutrition and feeding management are vital.

For more information, call DAFF on 13 25 23 or visit [www.sheepgenetics.org.au](http://www.sheepgenetics.org.au)



Captions:

1. At “Karbullah”, Goondiwindi Bred Well Fed Well presenter Dr Jason Trompf (inside pen, far right), and producers compare some rams ASBV data to their visual characteristics as part of one of the day’s practical sessions.
2. At “Karbullah”, Goondiwindi Bred Well Fed Well presenter Dr Mark Ferguson, speaking about the bred well aspects, which producers can implement into their own enterprises.
3. At “Karbullah”, Goondiwindi producers taking part in practical demonstrations, learning how to condition score their ewes.
4. Sheep producer Mr Tom Perkins from “Nelyambo” Dirranbandi found the targeted feeding information most valuable.

**Media:** Ms Louisa McKerrow 07 4688 1277

## 6.5 Appendix 5: Details of MMfS events conducted in Queensland.

Date	Event	Location / Webinar	MMfS Modules	Total participants	Sheep Businesses	Evaluation Category
18 Oct 2010	Current Worm Burdens in the Pastoral Zone	Webinar	11	12	12	A
9 Dec 2010	Bred Well Fed Well	Goondiwindi	9 & 10	41	33	A
4 Mar 2011	Flood Information (QRAA)	Webinar	1 & 4	8	7	A
15 Mar 2011	Market Focused Sheepmeat	Webinar	3	13	10	A
25 Mar 2011	Fire: Master or Servant	Webinar	5 & 6	30	19	A
15 April 2011	Best Practice 1080 Baiting	Webinar	10	23	15	A
17 June 2011	Worm Management Strategies	Nindigully	11	38	25	B
26 Sept 2011	Worm Egg Counting	Thallon	11	15	7	B
28 Oct 2011	Making Worm Management Easy	Webinar	11	24	19	A
14 Nov 2011	ASBVs put simply	Webinar	9	11	10	A
16 Apr 2012	Bred Well Fed Well	Cunnamulla	9 & 10	13	10	A
17 Apr 2012	Bred Well Fed Well	Dirranbandi	9 & 10	22	19	A
18 Apr 2012	Bred Well Fed Well	Goondiwindi	9 & 10	25	23	A
18 Jun 2012	Bred Well Fed Well	Winton	9 & 10	17	14	A
19 Jun 2012	Bred Well Fed Well	Muttaburra	9 & 10	27	19	A
20 Jun 2012	Bred Well Fed Well	Blackall	9 & 10	18	14	A
14 Sept 2012	Wet Season Spelling	Cunnamulla	7 & 8	9	6	B
16 Oct 2012	Making More From Pasture	Augathella	7 & 8	18	13	B
17 Oct 2012	Making More From Pasture	Morven	7 & 8	20	10	B
30 Oct 2012	Getting Back to Business	Winton	1	8	6	B
31 Oct 2012	Getting Back to Business	Ilfracombe	1	10	7	B
1 Nov 2012	Getting Back to Business	Yaraka	1	11	6	B
2 Nov 2012	Getting Back to Business	Longreach	1	12	7	B
20 Nov 2012	Building Your Business	Quilpie	1	5	3	B
21 Nov 2012	Building Your Business	Thargomindah	1	6	3	B
12 Aug 2013	Nutritional Management of Merinos for Optimum Reproduction	Longreach	10	28	18	B
14 Aug 2013	Nutritional Management of Merinos for Optimum Reproduction	Cunnamulla	10	17	9	B
15 Aug 2013	Nutritional Management of Merinos for Optimum Reproduction	Bollon	10	17	13	B
16 Aug 2013	Nutritional Management of Merinos for Optimum Reproduction	St George	10	18	16	B

---

<b>Date</b>	<b>Event</b>	<b>Location / Webinar</b>	<b>MMfS Modules</b>	<b>Total participants</b>	<b>Sheep Businesses</b>	<b>Evaluation Category</b>
25 Sept 2013	Follow up to Nutritional Management of Merinos for Optimum Reproduction	Webinar	10	10	8	B
30 Oct 2013	Controlling your pigs	Webinar	10	25	13	A
<b>TOTAL</b>		<b>22 face to face events and 9 webinars</b>		<b>551</b>	<b>394</b>	<b>15 Cat. A events 16 Cat. B events</b>

6.6 Appendix 6: Photos taken at Queensland MMfS events 2011 - 2013





## **7 Bibliography**

- Hamilton, T (2011) MMfS State Coordination – Queensland, Milestone Report 2, 8 August 2011
- Hamilton, T (2011) MMfS State Coordination – Queensland, Milestone Report 3, 15 December 2011
- Hamilton, T (2012) MMfS State Coordination – Queensland, Milestone Report 4, 15 June 2012
- Hamilton, T (2012) MMfS State Coordination – Queensland Milestone Report 5, 15 December 2012
- Hamilton, T (2013) MMfS State Coordination – Queensland Milestone Report 6, 14 June 2013
- Hamilton, T and McAllister, P (2011) Making More from Sheep State Business Plan 2011-2013 Queensland.