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More Beef from Pastures state coordination – Victoria

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Executive summary

Victoria has exceeded all key performance indicators (KPIs) for participation at Category A, B and C activities. Email based newsletters, phone seminars and webinars, producer conferences, BetterBeef producer discussion group sessions, as well as new animal health and reproduction and business management workshops were the primary form of engagement with beef producers during the period.

During the period January 2014 to November 2016, 4,113 beef producers, service providers and agribusiness partners have attended 118 field days, workshops, phone seminars/webinars and on-farm producer group events across Victoria where More Beef from Pastures (MBfP) was delivered by state government and private consultants working collaboratively as a network of service providers.

Despite concerted efforts to maximise the return rate of at-event participant evaluations, Victoria achieved an average evaluation return rate (ERR) of 57% across all categories. Reasons behind this lower than desired ERR can be attributed to all concerned with event planning, delivery and participation; ie the State Coordinator, event managers and presenters, and the participant who makes a choice about completing the evaluation.

MLA's resource deployment via MBfP and state-based MBfP delivery efforts are intended for professional beef producers seeking to adopt practices that improve their business. Herd size provides a useful indicator of producers' aspirations with respect to improving productivity and profitability. The KPI for Victoria was to engage a minimum of 36% of producers managing herds greater than 100 head in size. Victoria achieved 80%, that is, 80% of all participants at MBfP events managed herds in excess of 100 head. Median herd size is 250 head, and average farm size is 284ha.

Participant evaluation of MBfP activities in Victoria was very positive:

- Participants, on average, rate the satisfaction and value of MBfP activities at 8.6 and 8.4 respectively (out of 10).
- Overall change in skills and knowledge as indicated in pre and post event multiple choice quizzes based on MBfP modules, was an average of +22% for Category B and C events.
- 98.9% of producers attending a MBfP activity and completing the evaluation would recommend the event to another producer.
- 61% of participants at Category B events and 92% at Category C events have documented a practice change they have already, or planned to implement as a result of attending a MBfP activity or series of activities.

The Setting Directions MBfP module was the most frequently delivered module in Victoria between January 2014 and November 2016. Pasture based modules accounted for 58% of all practice changes documented, followed by Setting Directions (20) and Meeting Market Specifications (6%).

A total of 1,881 practice changes, either intended or actual, were documented by event participants. Social research has found that 75% of producers, who documented a change they intended to make as a result of attending a MBfP activity, went ahead and made the

change or a similar change. It can therefore be estimated that 1,629 actual changes have been implemented in beef enterprises as a result of MBfP delivery in Victoria.

Communications and marketing to create awareness of MBfP and MBfP events to Victorian beef producers involved a variety of channels. These included email and hard copy newsletters to subscribers, phone seminars, radio interviews and articles and advertisements in the rural press. Agriculture Victoria has compiled a database of over 3,050 beef producers and service providers as a result of coordinating and delivering MBfP activities. MLA assisted with event marketing to MLA members using the Friday Feedback email newsletter,

While hard to quantify, MBfP has also delivered clear personal and social benefits to individual producers, their families and the communities in which they live and work. MBfP has also contributed to improved land management practices to ensure beef production remains environmentally, as well as financially sustainable.

Agriculture Victoria continues to have a strong working relationship with private service providers who have been directly involved with the majority of MBfP delivery in Victoria.

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1 Background

1.1 The focus and goal of More Beef from Pastures

Meat and Livestock Australia's (MLA) More Beef from Pastures (MBfP) program is an adoption platform based on a framework of proven, relatively static managerial principles designed to build producer confidence and elicit practice change.

The goal of MBfP is to achieve a sustainable increase in the productivity and profit of beef enterprises (kilograms of beef produced per hectare) through optimising the management (production and utilisation) of the feedbase.

First developed in 2004 as a delivery framework for outputs from research and development (R&D) activities in southern beef production systems, the MBfP producer manual was updated in 2013 to include outcomes of recent research and development, and adapted for online accessibility. The program has seven modules, each containing a set of procedures and tools to support producers' learning.

MBfP has achieved this through the provision of principle and procedure-based information extended through partnerships with public and private service providers; coordinated by state coordinators in the southern states of Australia (all states except NT and Qld).

1.2 MBfP key imperatives

- Address the heightened needs of the red meat industry to remain competitive and sustainable in the face of a changing physical, financial and social environment.
- Account for the variable and segmented nature of public and sector research, development and extension resourcing and capability across the country.
- Robustly align with, and extend applicable components of the National RD&E strategy.
- Be positioned as the preeminent southern beef communication and extension framework that enables the harvesting of new, and evaluation and attribution of existing R&D ideas and investments.

1.3 MBfP coordination and delivery in Victoria

Beef production is Victoria's second largest agricultural industry with an estimated gross value of agricultural production of \$2.01 billion in 2014-15¹, and is Victoria's most extensive industry.

Declining terms of trade, low overall productivity, low prices, increasing costs of production and slow rates of adoption of latest industry R&D were the main challenges to the beef industry productivity in Victoria in 2011-12.

In 2011 the Victorian Department of Primary Industries (DPI) established the 'BetterBeef Network' to complement the long-standing Victorian government sheep industry extension project BestWool/BestLamb.

¹ ABS data. Value of Agricultural Commodities Produced, Australia, 2014-15.

The aim of BetterBeef Network (BBN) was to increase the rate of adoption of practices and technologies that resulted in sustainable improvement in beef enterprise productivity and profitability.

The Department was successful in being awarded the contract for coordination and delivery of MBfP in Victoria in 2011, and again in 2014 for a two-year period that was extended by an additional twelve months in January 2015. MBfP state coordination and delivery ceased in all states as at December 31st 2016.

MBfP state coordination in Victoria was managed through the BetterBeef Network project in collaboration with more than 80 public and private service providers. The role of the Victorian MBfP State Coordinator was performed by the BetterBeef Project Leader.

2 Project objectives

2.1 State business plan

The state coordinator provided the local/regional input into the design of MBfP activities and facilitated the engagement of deliverers and producers through their own schedule of local extension and communication events.

Working with the National Coordinator, the State Coordinator was responsible for delivery of an annual state business plan to achieve the awareness, engagement and practice change targets. Additionally, the State Coordinator delivered the defined monitoring and evaluation data specified in the State Business Plan.

2.2 Monitoring and evaluation

Execute all specified monitoring and evaluation (M&E) processes as per the Standard Operating Procedures that is collated and provided to the National Coordinator and MLA at a minimum quarterly.

3 Methodology

3.1 The MBfP learning pathway

MBfP delivery was structured using campaign-based approaches with timely messages along with defined learning pathways to underpin extension, adoption and communication.

Annual state-based MBfP key performance indicators (KPIs) provided a three-tiered learning pathway and include

- Category A activities: communications based awareness level activities.
- Category B activities: Products and services to increase producer knowledge attitude, skills, aspirations and confidence (KASA, KASC).
- Category C activities: Participatory learning to elicit effective practice change.

Activities were structured to engage a mass market of producers to accommodate the spectrum of learning styles, that is, active and passive, visual, kinesthetic and auditory.

Activities were structured to engage producers across the social spectrum, that is, those who prefer solitary learning versus those prefer learning in groups of their peers.

Activities were structured to engage producers who have aspirations and the capacity to improve productivity of their beef enterprise.

Activities were structured on adult learning principles², that is,

- Adults want to know why they need to learn something.
- Adults should be offered choices in learning, and be encouraged to participate in setting individual or group learning goals.
- Adults have life-experience, problem solving skills, and knowledge that should be acknowledged and incorporated into the learning environment.
- Adults are always ready to learn when an opportunity or situation presents itself, necessitating the need to acquire new skills or knowledge.
- Adults have a learning orientation that is centred on what will help them get better at performing tasks, solve problems, and plan for the future.
- The best motivators for adult learning are internal motivators such as better job satisfaction, better quality of life and personal improvement.

3.2 MBfP monitoring, evaluation and reporting

Centralised and standardised M&E was a key focus of the program. A monitoring, evaluation and reporting (MER) framework was developed and implemented across southern Australia in all MBfP delivery. This framework was developed to progressively collect M&E data against MBfP program logic design. The framework supported partial and full program evaluations to inform program partners and state coordinators of achievement against KPIs and impacts and benefits to industry and identify aspects of the program for change or improvement.

MBfP MER was performed in accordance with MBfP MER Standard Operating Procedures. The national extension and adoption framework looks at the delivery and uptake of practices and technologies that drive industry improvement at the local, regional and national or state level and sets outcomes, approaches, engagement formats and KPIs at each level. As a result, Category A, B and C level activities are designed and implemented, using a campaign-based structure to deliver timely information, to achieve participation (as well as producer contribution), KASC and practice change outcomes.

Category A activities are designed to build awareness. The primary KPI for Category A activities is producer engagement within the target segment using passive communication approach such as forums and rural media. The SOPs require the state coordinator to collect participant data, as well as participant ratings for event satisfaction and value to their beef enterprise.

² <https://ala.asn.au/adult-learning/the-principles-of-adult-learning/>

Category B activities are designed to increase producers' knowledge, aspirations, skills and confidence using an active group engagement approach such as workshops and training sessions. The SOPs require the state coordinator to collect the same data as per a Category A event, plus data on participant pre and post skills assessments, and any participant intentions to implement a practice change.

Category C activities are designed to support adoption and practice change using an applied group engagement approach such as producer groups, demonstration and participatory research sites. The SOPs require the state coordinator to collect the same data as per a Category A and B event, as well as any actual changes the participant has implemented as a result of attending the activity/is.

All activities were monitored in terms of their alignment with the MBfP program modules. This allowed program partners and state coordinators to determine the elements of MBfP that are having the greatest engagement and provide the most impact to a beef enterprise.

3.3 BetterBeef network project model

MBfP was incorporated into all aspects of BetterBeef Network producer engagement. Three pillars provided a foundation for the delivery of MBfP in Victoria. The three pillars are

- Sector Engagement
- Product and Service Development
- Sector Capability Building

3.3.1 Sector Engagement

Producers

Social research in 2011 and ABS data provided a target market for the delivery of MBfP in Victoria. This market included the segment of Victoria's beef producers who:

- Have the capacity and aspiration for farm/enterprise productivity growth.
- Tend to be more reliant on their farm income rather than off-farm income, that is, they are willing to sacrifice their standard of living and/or live off less household income in order to maintain a farming lifestyle.
- Are not phasing down or exiting the industry.

Victoria has approximately 15,200 specialist beef establishments. The target market for the purposes of MBfP engagement and delivery, based on social research and ABS data is approximately 5,500 beef establishments. No event or activity in its design or delivery actively excludes producers who fall outside of this segment, and their participation is counted towards state coordinator KPIs.

Service Providers

A strategy of working closely with the private sector in the design and delivery of MBfP activities in Victoria was a key component in the BetterBeef Network project model and preparing the annual Victorian MBfP Business Plan. A collaborative approach between state government extension services and the private sector ensures that producers, and the industry as a whole, benefit from the combined capability and expertise.

3.3.2 Product and service development

The underlying principles of product and service development in BetterBeef Network supporting MBfP delivery have been:

- Products and services that align with adult learning principles outlined in paragraph 3.1 above have the most potential to be successful and drive change and improvement.
- Producers will engage with services where there is perceived interest and value (time and/or money) to themselves, their family, and their business.
- Products and services must be timely, relevant and accessible.

MBfP was incorporated into a range of new products and services developed and delivered to Victorian beef producers. Products and service development can be categorised as follows:

- Accredited training
- Non-accredited training
- Extension delivery resources for service providers
- Group-based programs
- Communication and awareness products

3.3.3 Sector capability

The beef sector requires competent and capable service providers to support, challenge and inspire producers to apply the necessary scientific rigour and evaluation to new practices and technologies, and to drive ongoing innovation and improvement in the industry.

MBfP coordination and delivery in Victoria included regular capability building activities for service providers in both the public and private sectors. Activities are designed to connect service providers with latest R&D in the industry, as well as connecting them with each other for mutual benefit. The strategy is to develop and maintain a network of service providers integrated into, and supporting the growing network of producers engaged through MBfP activities.

4 Results

4.1 Victoria MBfP state coordinator key performance indicators

4.1.1 Participation KPIs

Participation at MBfP events was counted in accordance with the MBfP MER SOPS. Category A participation includes participants at all Category A, B and C events. Over three years of MBfP delivery, Victoria had 4,113 participants counted. Category B participants is the number of participants logged at a Category B event. Category C participants are counted from all participants logged as having attended **either** a Category B or C event, **and** completed the pre and post skills assessment, **and** documented either a change they intend to make, or have made as a result of attending the event. Where a participant documents more than one practice change aligned to a different MBfP module, the participant is counted twice.

Two-year participation KPIs, and results against each KPI (over a three year period), are summarised in Table 1.

Table 1. Victoria MBfP state coordination participation and results.

	Two-year KPI	Result over three years	% Achieved against KPI
Category A	2216	4113	186%
Category B	391	1012	259%
Category C	323	555	172%

4.1.2 Evaluation Return Rate

Evaluation Return Rate (ERR) is the proportion of participants who complete the exit survey at the completion of the event. Evaluations received from participants at a Category B event are counted towards the ERR if they complete **both** the pre and post event skills assessment. Participants at a Category C event are counted if they complete the pre and post skills assessment **and** document either a change they intend to make, or have made as a result of attending the event. There is no double-counting of evaluations for the Category C ERR.

The ERR KPI is the desired return rate.

Two-year ERR results against the desired ERR for each category (over a three year period), are summarised in Table 2.

Table 2: Victoria MBfP state coordination evaluation return rate

	Two-year KPI (ERR %)	Actual evaluations that meet SOP	Actual ERR %
Category A	65	1531	59%
Category B	80	695	69%
Category C	80	231	44%

Evaluation Return Rate is affected by the number of participants who complete the evaluation. Factors that affect this include:

- Couples or groups of people attending an event (eg husband/wife) and one person from the couple or group fills in the evaluation on behalf of others. All people in the couple/group are counted as participants however the ERR is affected.
- Participants who leave an event early and miss the evaluation; often completed at the conclusion of the event.
- Participants who miss out on completing either the pre or the post skills assessment. It is a requirement that both are completed for the evaluation to be included in the ERR.
- Participants who did not fully document a practice change, that is, indicated “Y” but did not describe the change.

Overall ERR is also affected by:

- Events that run over the scheduled time resulting in the evaluation being cut short or cancelled. In these cases event managers have offered participants the opportunity to complete the evaluation online using an online survey tool such as QuestionPro or Survey Monkey. ERR using these tools is generally low-moderate (20-45%).
- A data processing error by the state coordinator where the MBfP module was not allocated to any documented practice changes. Any documented practice changes must be aligned to a MBfP module in order for the evaluation to count towards the ERR. If this is missed in the data, then the evaluation by a participant will not count.

4.1.3 Frequency of MBfP modules delivered

Every event delivered was aligned to one or more MBfP modules. The information was provided to the state coordinator by the event manager. The module indicated by the event manager depends on the subject matter covered during the event. The most frequently delivered MBfP module in Victoria was 'Setting Directions'; a module concerned with business planning. The second most frequently delivered module was 'Meeting Market Specifications' which guides producers to increasing their financial returns by better meeting target market requirements. Pasture Growth and Pasture Utilisation follow third and fourth respectively in their frequency of delivery.

The total count of MBfP modules delivered in Victoria to November 2016 is 331.

Figure 1 shows the frequency of MBfP modules delivered in Victoria over a three year period to November 2016.

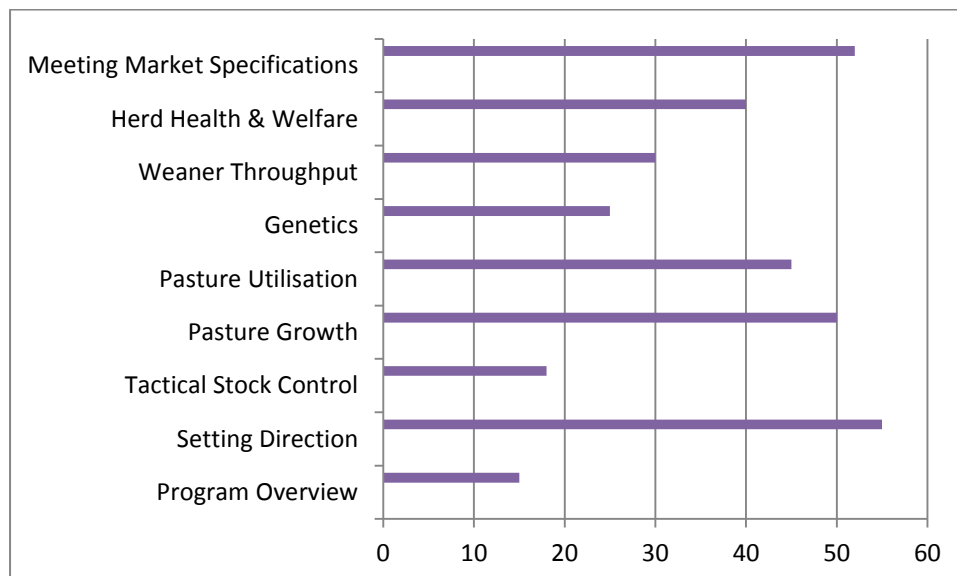


Figure 1: Frequency of MBfP Module delivery in Victoria

4.1.4 Engaging the target segment of producers

The MBfP program considers the target segment of beef producers (southern Australia) as those who manage a beef herd with 100 or more head in total. This data was captured on

the exit survey completed by participants that asked for the total number of cattle in their beef herd.

In Victoria, 80% of participants of MBfP events manage in excess of 100 head. The remaining 20% were producers with fewer than 100 head in their herd, and service providers, researchers, students and agribusiness representatives (who may or may not have reported the size of their personal beef herd). Figure 2 shows the MBfP KPIs for Victoria for participant herd size, and distribution of event participants based on the size of their herd as indicated on the exit-survey.

The average herd size of participants attending MBfP in Victoria was 250 head, and the average farm size was 284ha.

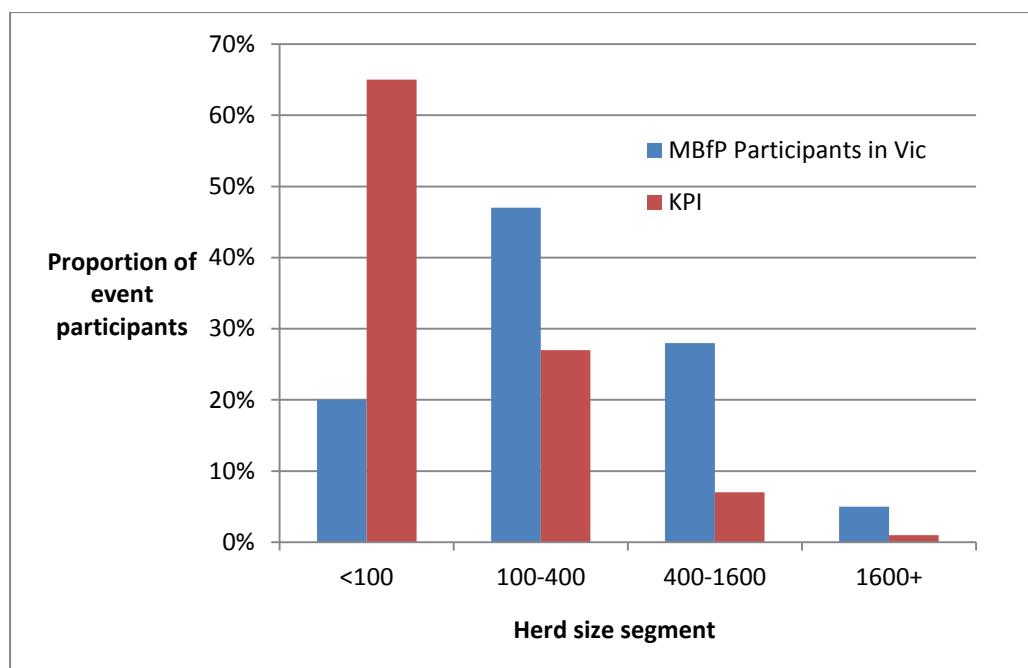


Figure 2: Producer participation in MBfP events segmented on herd size (total head)

4.1.5 Evaluation results

Evaluation results indicate that participants were very positive about the events they have attended and the value the event provides to their business. M&E was collecting useful data on practice changes (intended or actual) that provided improved understanding of the events that have the greatest impacts on a beef enterprise. The M&E also collected useful information for event managers to assist them run better events with greater impacts.

- i. Satisfaction. *“How satisfied are you with this event?”*
Participants are asked in the exit survey to rate their overall satisfaction with the event on a scale of 0 (low) -10 (high). The response rate to this question was 63.5% of all event participants. The average satisfaction rating for events delivered to November 2016 was 8.6 out of 10. See Table 3.
- ii. Value. *“How valuable was this event in managing your livestock enterprise?”*
Participants are asked in the exit survey to rate the event in terms of the value it provides to managing their beef enterprise on a scale of 0 (low) -10 (high). The

- response rate to this question was 62.7%. The average rating for events delivered to November 2016 was very similar at 8.4 out of 10. See Table 3.
- iii. Recommend to Others. Participants are asked in the exit survey to indicate if they would, or would not, recommend the event to others. The response rate to this question was 61.6% and 99% of participants who responded answered “Yes”. See Table 3.
 - iv. Knowledge and Skills Assessments. Pre and post knowledge and skills assessments were carried out at Category B and Category C events. This was done in the form of a multiple choice quiz using a mix of stock MBfP questions provided by the National MBfP Coordinator, and questions developed by the presenter or event manager. In Victoria, the overall, average change in skills and knowledge to November 2016 is an improvement of 22.1% between pre and post scores.
 - v. Intended Practice Change. Participants are asked to document a change they intend to make in their business as a result of attending the event.
 - Overall, 24.4% of all Category A, B and C participants recorded an intention to make a change in their business as a result of attending the MBfP activity.
 - At Category B and C activities where there is greater emphasis on stimulating practice change, 42.7% of all participants documented intent to make a practice change.
 - This proportion increases to 53.3% if only the producers who completed the evaluation are included in the calculation.

Table 4 provides a summary of intended and actual practice changes documented as a proportion of survey respondents of Category B and C activities. Table 5 summarises the number of intended and actual practice changes documents by event participants.

- vi. Actual Practice Change. Participants were asked to document a change they have made in their business as a result of attending the event (or series of sessions that made up the event). Emphasis was placed on this question at Category C events, particularly events that were made up of several sessions over a time period such as BetterBeef producer groups. The State Coordinator aligns the practice change to the most appropriate MBfP module prior to submitting the M&E data to MLA for processing.
 - Overall, 16.2% of all Category A, B and C participants recorded an intention to make a change in their business as a result of attending the MBfP activity.
 - At Category C activities where the focus is on supported practice change, 55.3% of all participants documented a change they had already made as a result of attending the activity.
 - The proportion of producers participating in Category C events, who responded to the evaluation, and documented an actual practice change is 82.3%.
 - A total of 548 actual documented practice changes were aligned to MBfP modules. The Pasture Growth and Pasture Utilisation modules each had 29% of the practice changes aligned to them. The Setting Directions module was next with 20% of practice changes aligned to this module. Only 1%, or a total of 8 practice changes were aligned to the Cattle Genetics module. See Table 6 and Figure 3.

- vii. **Overall Practice Change; Intended or Actual, Evaluation Respondents Only:** The proportion of producers attending either Category B or Category C activities, who participated in the event evaluation, and documented a change that they intend to or have made as a result of attending the activity (or series of activities), was 92%.
- viii. **General Comments.** Participants are invited to make general comments about the event or the activity they have attended. Table 7 provides examples of general comments recorded by participants.

Table 3: Average ratings by participants for event satisfaction, value and recommend to other evaluation questions.

	<i>“Satisfaction with the event”</i>		<i>“Value in managing my livestock enterprise”</i>		<i>Recommend to Others</i>	
	Average Rating	Response Rate	Average Rating	Response Rate	% = “Yes”*	Response Rate
Category A	8.8	56.6%	8.7	55.4%	98.6%	57%
Category B	8.5	89.2%	7.9	86.5%	98.6%	76.8%
Category C	8.5	58.5%	8.4	61.6%	99.5%	58.9%
Category A,B,C	8.6	63.5%	8.4	62.7%	98.9%	61.6%
Category B,C	8.5	75.6%	8.1	75.5%	98.9%	68.9%

* value only includes participants who completed the event evaluation.

Table 4: Practice changes (intended, actual) as a proportion of event participants who completed the event evaluation.

	<i>Intent to Practice Change</i>	<i>Actual Practice Change</i>	<i>Intent to, AND/OR Actual Practice Change</i>
	% = “Yes”*	% = “Yes”*	% = “Yes”*
Category A	25.2%	9.0%	28.4%
Category B	53.2%	22.2%	60.7%
Category C	53.4%	82.2%	91.5%
Category A,B,C	37.7%	24.2%	50.3%
Category B,C	53.4%	43.4%	70.5%

* value only includes participants who completed the event evaluation.

Table 5. Number of practice changes (intended or actual) documented by event participants

	<i>Intent to Practice Change</i>	<i>Actual Practice Change</i>	<i>Intended and Actual</i>
	No, of Practice Changes	No, of Practice Changes	Total No, of Practice Changes
Category A	365	142	507
Category B	408	206	614
Category C	235	525	760
Category A,B,C	1,008	873	1,881
Category B,C	643	731	1,371

Table 6. Alignment of actual practice change documented to MBfP module

MBfP Module	Category A	Category B	Category C	Total
Setting Direction	4	39	79	111
Pasture Growth	26	33	144	157
Pasture Utilisation	46	36	121	161
Cattle Genetics	3	2	8	8
Weaner Throughput	16	16	21	43
Herd Health and Welfare	3	15	19	35
Meeting Market Specifications	7	2	48	33

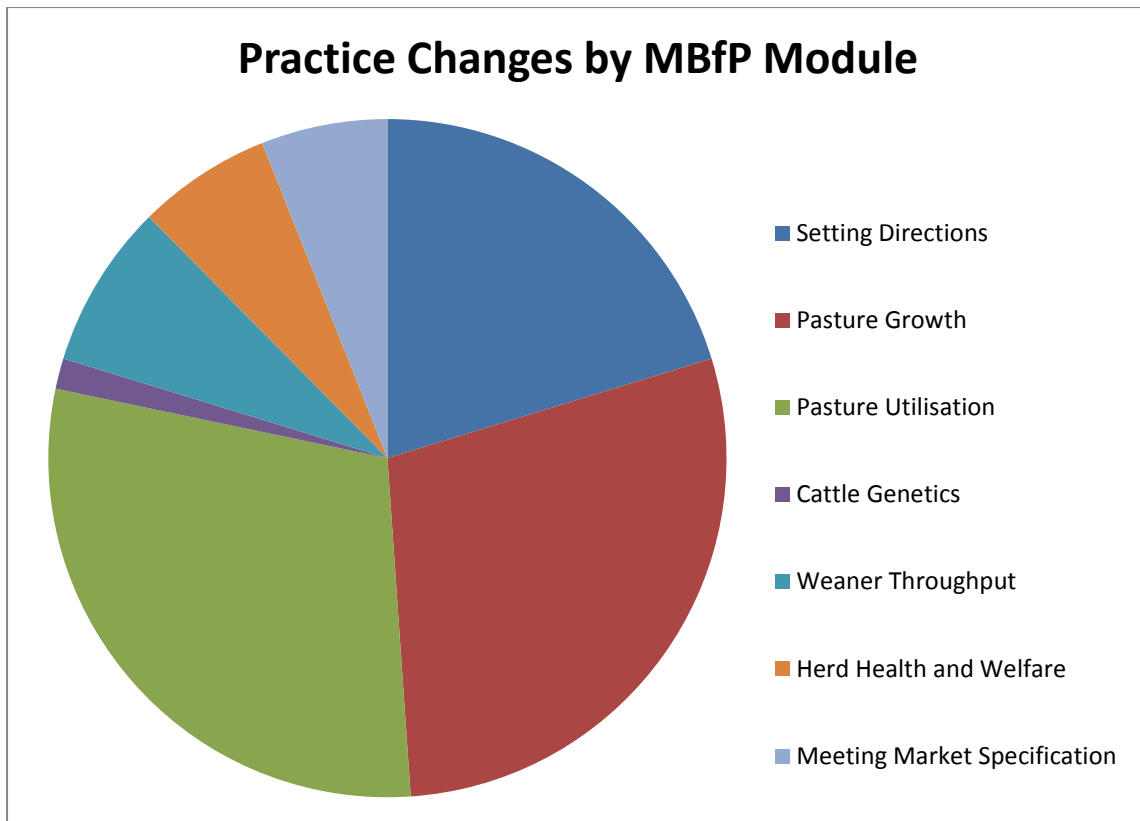


Figure 3: Table 6. Alignment of actual practice change documented to MBfP module.

Table 7. Examples of comments provided by event participants

<i>"Loved the practical element in the yards etc. but we weren't warned of outside lectures so we froze"</i>
<i>"Well planned and looked after surprised by the lack of knowledge by producers"</i>
<i>"Good information offered. Leads to more questions for continual improvement and advancement in farming practises"</i>
<i>"A very well run, good day with such a variety of top speakers. Congratulations and thank you."</i>
<i>"Found the talk by producer Mark Ritchie very informative"</i>
<i>"The design of the day was sequential and logical. Also the sessions by actual beef farmers were very informative"</i>
<i>"Great. Will implement learnings."</i>
<i>"Great day! Very relevant topics which flowed well from one speaker to another"</i>
<i>"We would be interested in joining a beef discussion group"</i>
<i>"Excellent presentation, well explained, especially MSA. Given me confidence to work through the database in my own time."</i>
<i>"Difficult to suggest improvements after attending many of these types of seminars. Excellent speakers."</i>
<i>"As a vet ag student there was a lot of useful information"</i>
<i>"Excellent. Great to promote and highlight youth and enthusiasm. Future events showing innovation would be good."</i>
<i>"First time webinar, good experience, easy to do. will invite a couple of mates next time who don't have internet access."</i>
<i>"Session on cattle management valuable as it challenged some of my ideas. Very worthwhile"</i>

5 Discussion

5.1 The MBfP delivery network and team

The success in achieving the objectives of the MBfP delivery program in Victoria can be attributed to a network of trusted, dedicated, skilled and very knowledgeable research extension professionals, producer advocates and support staff in both Agriculture Victoria and the private sector working collaboratively to achieve the common goals of MBfP and Agriculture Victoria.

Since 2011, more than 80 private service providers and 19 Agriculture Victoria staff have been engaged in the design and delivery of activities. An overview of main members of the project management and delivery team and their location is provided in Figures 4 and 5 below.

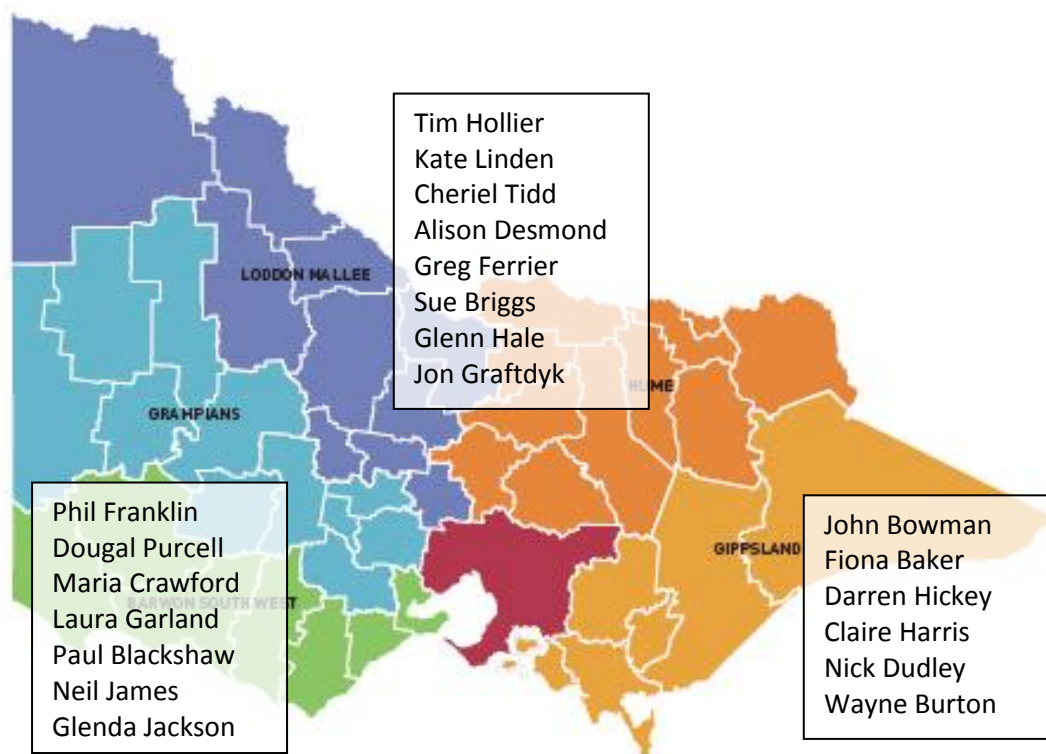


Figure 4, Agriculture Victoria project team members

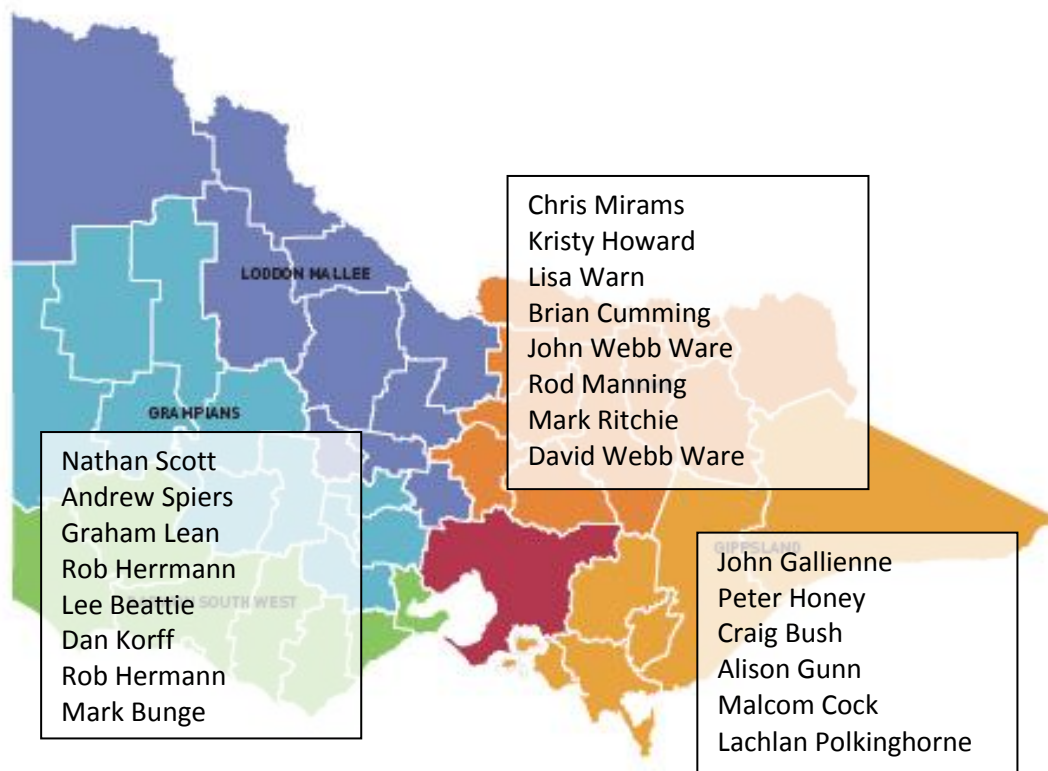


Figure 5. Private consultants and producer advocates engaged in design and delivery of MBfP in Victoria in partnership with Agriculture Victoria

5.2 Achievement of Victorian MBfP state coordination KPIs

5.2.1 Participation

Victoria exceeded all Category A, B and C KPIs for participation (see Table 1). The annual state business plans were structured to ensure that Category A KPIs were met from a series of mass-market engagement type activities (state-wide or regionally) that create awareness of industry issues and provide an entry point for producers who had not as yet engaged with any MBfP activities to lead them into more intensive learning activities, such as Category B activities.

The state business plans provided for a mix of Category B activities. The business plans generally did not define the subject matter or time of delivery in order to provide flexibility for service providers to be able to design and deliver events that meet the demands and needs for beef producers in a local area or region. Category B events provided for service providers to deliver specialist workshop type activities in areas such as MSA, NLIS, cattle health and reproduction, business management and growing and utilising more pasture. New programs such as BullSelect, BusinessEDGE and the Zoetis Reproactive workshops were accommodated into the MBfP program delivery plan in Victoria as a result of providing for unspecified Category B activities in the business plan.

Category A participation came primarily (63% of all Category A participation) from the BetterBeef/MBfP Phone Seminar / Webinar series and there were up to four per year.

Category B participation came from a mix of activities, and included BetterBeef regional conferences of which there were up to three per year.

Category C participation came almost exclusively from the BetterBeef producer group program. At the end of 2016 there were 19 groups, consisting of an average of 12 businesses per group. BetterBeef groups are distributed throughout the major beef production regions in Victoria and are serviced by both private consultants and Agriculture Victoria extension officers. Private service providers working with Agriculture Victoria staff underpin MBfP service development and delivery and have been key to the success of MBfP delivery in this state. This partnership and co-investment is providing long-term financial, production and social benefits to participating producers (Beattie and Howard 2014).

5.2.2 Evaluation Return Rate (ERR)

Despite concerted efforts to maximise the ERR at every event delivered, Victoria was unable to meet the desired minimum ERR (see Table 2). As outlined in paragraph 4.1.2, there are several reasons suggested as to why this is the case. Some additional discussion is provided here.

- i) *Service providers/event managers are not fully aware of their obligations in relation to M&E.*
If complete and effective communication in relation to M&E requirements took place prior to every event, confusion or misunderstanding about M&E requirements would be minimised. Unfortunately communication is not always complete and effective, leading to mistakes and omissions. However, even when M&E requirements are properly explained and documented to service providers, low ERRs remain in some places suggested more of a lack of commitment to the process than lack of knowledge.
- ii) *Event managers do not plan enough time into the event program for evaluation.*
So much effort is devoted to delivering a high quality event that meets the expectations of producers, and provides them with value for time and money, the event (either public or private service providers) concludes with little or no time for producers to complete the evaluation.
- iii) *There is a perception that asking producers/participants to complete an evaluation can be harmful to one's reputation.*
There are attitudes amongst both public and private service providers that producers are offended or annoyed if asked to complete evaluations (eg the use of the phrase 'tick and flick'). As a result some service providers try to avoid the process where possible, or do the minimum.
- iv) *The value proposition to service providers is not sufficient?*
Private service providers made up the majority of people delivering Category C MBfP activities in Victoria. Their annual service delivery agreement included a separate payment for the completion of annual M&E to a minimum standard. The ERR for Category C activities in Victoria was the lowest of all event categories, suggesting that service providers do not see value in completing this work.
- v) *Producers tire of completing the same information on evaluation forms at every event.*
The first section of the MBfP evaluation template asks producers to record their name, contact details and enterprise details. The event evaluation questions

follow after that. It is understandable that producers who attend multiple MBfP events, and have already submitted this information to the state coordinator on several occasions would tire of completing this every time and may avoid the evaluation as a result.

- vi) *Producers fail to appreciate why program funders require the information.* Justification for asking producers to complete the evaluation often centres on the funders (MLA, Agriculture Victoria) needing the information to improve the quality of the events being delivered and assessing their overall impact. This approach has mixed results.

5.2.3 Producer herd size segment

Victoria exceeded expectations for producer engagement based on herd size, see Fig. 2. Producers managing herds in excess of 100 head made up 80% of all event participants from January 2014 to November 2016.

Deployment of MLA resources via the MBfP program, and delivery efforts at the regional level are targeted at professional beef producers who are seeking to improve enterprise profit and productivity, contributing to overall sector growth and the achievement of strategic industry targets set in MISF 2020. Herd size is a good indicator of the reliance of the producer on farm income versus off-farm income, and their commitment to implementing the practices and technologies that drive business performance. While there are many levy payers who are not full-time farmers and do indeed have an entitlement to good information, it is the farmer who is most reliant on the farm enterprise who consistently attends workshops, seminars, and producer group meetings.

ABS data shows that 65% of beef producers in Victoria manage less than 100 head. There are approximately 15,200 beef establishments in Victoria, which leaves a target segment of about 5,500 producers managing more than 100 head. Not all producers are productivity oriented; some are not receptive to, or willing to seek out information, some are phasing down or leaving the industry, and others are constrained due to the size or scale of their farm. It has been estimated that the target segment in Victoria to be 3,500 producers who are productivity oriented, not constrained and receptive to information (Wilkinson *et al* 2011).

BetterBeef Network, in collaboration with MBfP has engaged approximately 1,720 unique beef enterprises in Victoria through a range of Category A, B, and/or C events; which represents about half of the target market. There is still much potential to engage with more producers, particularly younger producers, and producers managing large to very large operations who are time constrained and unable to attend daytime extension activities. Agriculture Victoria has already engaged a segment of these producers in a project that is being delivered in collaboration with MLA and a large processor based in Victoria targeting producers supplying a high value, quality assured, on-farm audited, grass-fed beef product direct to the processor.

5.3 Effective awareness and adoption events with potential for growth

- i) Phone Seminars
The BetterBeef/MBfP phone seminar series have been gradually growing in

popularity and interest. Average registrations exceed 170 per event. A webinar delivered early 2016 about the cattle market received 275 registrations.

The inclusion of a webinar option in 2015 allowed the recording of the seminar in a video and audio format that is available online. This is a good added-value to the service for participants who want to access the presentation at a later date.

Phone seminars/webinars continue to be good at providing high quality, timely and concise technical information by a presenter best able to deliver it without the geographical and time restrictions that prevent producers hearing from high quality presenters.

Phone seminars create awareness of industry and production issues to the mass-market and represent approximately 63% of Category A event participation in Victoria. Phone seminars are a good platform from which to signpost producers to other more intensive activities, such as workshops, accredited training, conferences and producer groups offering more supported learning options.

ii) New workshop programs

Accredited training programs offered by registered training organisations such as BeefCheque and Practical Beef Marketing, have become less popular with producers. This is mainly due to the lack of government subsidies to assist with course fees, the lack of perceived need by producers to enrol in accredited training for the award of a unit of competency, the content that some producers do not see as being innovative or latest information, and other ways of accessing the same information in less formal settings.

In 2016 the Victorian MBfP State Coordinator included the delivery of BullSelect, Reproactive and BusinessEDGE in the annual business plan. Two BullSelect workshops, three Reproactive workshops and one BusinessEDGE workshop were delivered during 2016 with good participation and evaluation outcomes.

BullSelect is a one day workshop developed and delivered by Southern Beef Technology Systems (SBTS) based in Armidale NSW. The program emphasises the practice and benefits of selecting and buying bulls for a commercial beef operation based on genetic merit, using BREEDPLAN EBVs, in addition to visual assessment.

Reproactive is a one day workshop developed by the animal health company Zoetis. This workshop is designed and delivered by vets. The program is divided into four parts; condition scoring, joining and calving periods, critical mating weights for replacement females, and bull assessment and health for reproduction. Three Reproactive workshops were delivered in Victoria; Bairnsdale, Mortlake and Mansfield. A benefit identified by these workshops is the inclusion of cattle vets from local veterinary clinics into the program which is something that has not been achieved to a great extent in the history of MBfP delivery in Victoria.

BusinessEDGE. BusinessEDGE has been delivered in Queensland for five years quite successfully. MLA invested into adapting the program to southern livestock systems and launched the program in Bairnsdale in May 2016. The workshop was fully booked out. Participants were very pleased with the workshop and obtained great benefits from it. It was one of the more highly rated activities delivered in Victoria through MBfP in terms of satisfaction and value. Agriculture Victoria is currently in discussions with a service provider recently accredited to deliver BusinessEDGE in Victoria about ongoing delivery of this program to other parts of the state, and how a supported learning program based on the principles in BusinessEDGE can be implemented following delivery of the workshop.

NLIS database and Electronic Animal Identification (EID) management practices. There remains much potential, and need in the industry for government and MLA to provide ongoing adoption programs to support producers understand and implement NLIS database and EID management practices into the day-to-day running of their herds. From 2017 EID in individual animals will be mandatory for sheep as well as cattle in Victoria which means all red meat producers now have an imperative to understand the technology. Many producers are still on a steep learning curve in relation to how to manage EID data for the purposes of NLIS, compliance with market specs, and the benefits of EID to productivity in a farm business.

iii) BetterBeef Practice Change Producer Groups

MBfP was delivered into 23 BetterBeef producer discussion groups based in the major beef production regions of Victoria. Group members meet mostly on-farm up to six times per year. Sessions are planned and delivered by a paid coordinator selected by the group and engaged by the MBfP state coordinator. Most coordinators are private consultants. The coordinator conducts annual planning with the group to guide applied learning based on the action learning cycle.

BetterBeef groups were evaluated at the Category C level where coordinators continually challenge group members to evaluate and implement changes intended or made in their enterprise as a result of participation in the group activities. As a result, 92% of group members documented a change (based on survey respondents), or 760 documented changes (actual and intended). Coordinators submit an activity debrief after each session to document the date, location, persons present, topic and MBfP module delivered at the session. BetterBeef groups were the primary Category C activity in Victoria. Participant contribution to BetterBeef groups ranges from \$170 to \$450 per business per year.

BetterBeef producer groups also delivers personal and social outcomes as revealed in 2016 focus group evaluation of a sample BetterBeef groups. Farmers value the social aspect of the group. The group provides farmers with a forum to discuss ideas and see how practices are working across different farms. Most of all though, BetterBeef groups assist farmers personally deal with challenging times in their lives, and even empower farmers to make decisions. Examples of quotes from farmers are

* “When we had a failed spring, you see it’s not me. It’s the season. Stop beating

- yourself up. You can get down. You find that you're not a bad farmer",
- * "This sort of group is good for depression, getting things off your mind",
 - * "It's great to be able to share problems and see others have the same problem."

5.4 Building skills, knowledge and confidence

Awareness of the need to implement a change or adopt a new practice or technology is not enough for a producer to make the change, but is the start of the learning pathway.

MBfP delivery includes more intensive, supported activities that give producers the opportunity to increase their knowledge, learn practical and problem-solving skills and build confidence in making changes and managing the business in a way that they may have not done before. This is the second stage of the learning pathway.

To quantify the outcomes of activities that build skills, knowledge and confidence, the MBfP M&E protocols required pre and post skills assessments to measure and document changes. A multiple choice quiz based on the MBfP being delivered was completed by participants and the beginning and completion of the activity. This was carried out at all Category B and C activities.

The overall change in skills and knowledge based on the pre and post assessment delivered at Category B and C events in Victoria was an increase of 22%.

In terms of confidence, there was an overall improvement in confidence as measured by pre and post surveys. The change was from an average of 5.5 out of 10 to 7.5 out of 10. Additional research on the effect on confidence was done in the Social Benefit Cost Analysis of BetterBeef in 2014. This research found 85% of farmers surveyed reported an increase in confidence as a result of attending a MBfP activity or series of activities.

The delivery of MBfP activities that build skills, knowledge and confidence resulted in 1,374 changes (actual and intended) that were documented by participants.

MBfP activities that build skills, knowledge and confidence generally require participants to pay a fee depending on the nature and duration of the activity.

5.5 Practice change

Supporting practice change and adoption has been at the forefront of MBfP delivery in Victoria.

A total of 1,881 practice changes, either intended or actual have been documented by 4,127 MBfP event participants in the period January 2014 to November 2016. See Table 5.

The proportion of MBfP event participants documenting intended or actual changes (and responding to evaluations) varied from 28% at Category A activities where the emphasis is more on creating awareness, to 92% in Category C activities where there is a focus on stimulating and supporting practice change and adoption and applied learning in a small group format. See Table 4.

A total of 548 actual practice changes have been aligned to the seven MBfP modules. See Fig. 3. Practice changes aligned with optimising the production and utilisation of the feedbase accounted for 58% of all documented changes made in beef enterprises. The Social Benefit Cost Analysis (SBCA) of BetterBeef Network (Beattie, Howard, 2014) found that the greatest financial benefits in adoption services delivered to producers were from change made in the area of feedbase optimisation and management. The analysis revealed that these changes were on average providing an average nett annual benefit of approximately \$5,100 per farm, an increase in average annual farm total factor productivity, and a benefit cost ratio to investors of seven dollars to every one dollar invested over a 25 year period. This confirms that MBfP delivery has been focussed on supporting producers making changes that have the greatest financial benefit to their operation, and is contributing to overall sector productivity growth.

Changes that aligned to the MBfP modules Setting Directions and Meeting Market Specifications were the next most commonly documented by participants after those aligned to pastures. The SBCA found that the changes that contributed the most financial benefits after feedbase management were changes associated with animal production followed by marketing and business management. Evaluation from programs such as Reproactive demonstrate that there is an appetite for the animal production information contained in that program, and there are clear financial benefits to producers who implement changes from these workshops. There is potential to deliver more of these workshops, and this should be included in future extension and adoption delivery plans.

Including intended changes with actual change in this discussion is meaningful. This is because the SBCA found that 75% of producers who documented a change as a result of attending a MBfP activity, went ahead and made the change or a related change. Therefore, of the 1,881 intended and actual changes documented, 1,629 potential actual changes would have been made in beef enterprises as a result of MBfP delivery in Victoria over the previous three years. If each of these changes were adopted by one producer, and this provides an average annual ongoing financial benefit to their operation of \$5,100 as revealed by the SBCA, potentially the benefits to these adopters is \$8.3 million.

5.6 MBfP communications and marketing

- i) Beef and Sheep Networks Newsflash.
In the period January 2014 to December 2016 MBfP was incorporated into 76 fortnightly email based newsletters with a current distribution that exceeds 2,900 livestock producers and service providers. The 'Newsflash' is also used to promote MBfP events and activities. Each Newsflash contains an original technical article written by an Agriculture Victoria extension officer. The article is intended to draw producers' attention to best management practices, latest R&D and production risks that are relevant at the time of publication.
- ii) BetterBeef Newsletter.
The BetterBeef Newsletter, published at least annually, incorporates MBfP principles, resources and tools. It contains technical articles, upcoming events, and features a profile of a BetterBeef group coordinator who has been engaged to deliver MBfP, at the Category C level, up to six times per year.
- iii) Requests made to MLA to assist with event marketing via the website and the Friday Feedback email have been positive resulting in a far greater distribution of

event information, and therefore event awareness that would be possible otherwise. The data in terms of distribution numbers coming from MLA staff who assist with the promotion provides valuable information for event managers.

6 Conclusions/recommendations

Adoption programs must balance the drive for engagement with producers and network building, against sound program logic that drives government and industry investment decisions and delivers outcomes for both government and industry.

MBfP coordination and delivery in Victoria has demonstrated that the balance is achievable. MBfP delivery in collaboration with Agriculture Victoria has built a network of over 3,050 producers, agribusiness professional, industry groups, researchers and educators and private consultants. Delivery has been focused on outcomes; awareness, skills and knowledge, and practice change and adoption with measureable outcomes for each and quantifiable benefits and the farm and industry level.

The future of extension and adoption in Victoria needs to involve continued awareness building activities and efforts, but more targeted and strategic learning pathways for producers willing to invest in their learning yet still be supported by government and industry for public as well as private good.

Pasture based modules in MBfP accounted for 58% of changes documented by participants between January 2014 and November 2016. There continues to be potential to drive further improvement in sector productivity by continued supported learning activities in optimising management of the feedbase. This should be coupled with further reinforcement of a 'measure to manage' culture that builds confidence in decision making while reducing risk and uncertainty. There are other imperatives in extension however such as improved management of NLIS data and exploring and exploiting the benefits of individual electronic animal identification, better financial literacy and business management, feeding and management systems that generate higher compliance with market specifications including MSA, and more integration of on-farm biosecurity management plans.

Farmers have a strong appetite for and never stop learning and they obtain value from the social interactions provided in the group learning model; especially in challenging times. But there is a strong expectation that the learning opportunities developed, co-funded and delivered by government and the private sector provides value (time and money), a relative advantage, measurable benefits and a pathway for change implementation. The lack of these features in some delivery activities may be the reason why younger farmers have not been well represented in some delivery activities. This is an aspect of program design that requires further attention in future programs.

Evaluation protocols in MBfP have yielded informative data however the implementation in Victoria has had very mixed results as shown in evaluation return rates. A revised method of measuring changes in skills, knowledge and confidence is recommended.

7 Key messages

- i. There are quantifiable financial and production benefits to producers and their businesses who evaluate, trial and adopt principles and procedures contained in MBfP; adapted to their farming system and their environment.
- ii. Producers who join groups of other producers (eg BetterBeef producer groups) for the purposes of applied, supported learning and adoption of new or improved farming practices and technologies will generally benefit from the experience.
- iii. Pasture based changes and improvements have been the most common changes made as a result of MBfP delivery, and provide the largest benefits, not only to producers, but to investors in adoption programs in terms of benefit/cost.
- iv. Animal production (eg breeder management), business management and managing the farm system (including individual animal data) to meet market requirements should also be forefront in the minds of producers and service providers.
- v. The state government in Victoria and the private sector are an effective team in delivering outcomes for government and the livestock industry.

8 Bibliography

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9 Appendix

9.1 MBfP producer groups – Category C

Group Name	Region	Status	Town	Coordinator	Employer	Participants	Cat
Buffalo Gippsland group	Gippsland	Discontinued	Buffalo	Malcolm Cock	Farm Dynamics	19	C
Far East Gippsland	Gippsland	Ongoing	Orbost	John Gallienne	John Gallienne & Co Pty Ltd	17	C
West Gippsland	Gippsland	Ongoing	Ellinbank	Fiona Baker	DEDJTR	17	C
Phillip Island	Gippsland	Ongoing	Phillip Island	John Gallienne	John Gallienne & Co Pty Ltd	15	C
High Country	North East	Ongoing	Merton	John Webb Ware	Mackinnon	23	C
Upper Murray Cow Girls	North East	Discontinued	Walwa	Kristy Howard	Inspiring Excellence	7	C
Arthurs Creek	North East	Ongoing	Whittlesea	Lisa Warn	Mackinnon project	16	C
Tallangatta	North East	Ongoing	Tallangatta	Chris Mirams	Chris Mirams & Assoc	11	C
Mudgegonga	North East	Ongoing	Mudgegonga	Chris Mirams	Chris Mirams & Assoc	19	C
Ballarat	South West	Ongoing	Ballarat	Dan Korff	Meridian Ag	14	C
Colac	South West	Ongoing	Colac	Nathan Scott	Achieve Ag Solutions	14	C
Woolsthorpe/South West	South West	Ongoing	Woolsthorpe	Andrew Spiers	Meridian Ag	12	C
Ace	Gippsland	Completed	Traralgon	Darren Hickey	DEDJTR	9	C
King Valley	North East	Discontinued	Moyhu	Leah Tyrell	Mackinnon	12	C
Western District	South-west	Ongoing	Hamilton	Maria Crawford	DEDJTR	15	C
Upper Murray	North East	Ongoing	Corryong	Chris Mirams	Chris Mirams & Assoc	12	
Walwa	North East	Discontinued	Walwa	Brian Cumming	Brian Cumming Agriculture	13	C
Hamilton	South West	Ongoing	Hamilton	Graham Lean	SBScibus	10	C
Ace Hamilton	South West	Completed	Hamilton	Lee Beattie	Beattie Consulting Services	8	C
Ensay	NE-Gippsland	Ongoing	Ensay	Dr Peter Honey	Self employed	10-15	C
Forge Creek	Gippsland	Discontinued	Bairnsdale	Darren Hickey	DEDJTR	10-15	C
Alexandra	Hume	Ongoing	Alexandra	Jon Graftdyk	DEDJTR	10-15	C
Mortlake	South West	Going	Mortlake	Graham Lean	Agrivet Business	10-15	C
Mitchell River	Gippsland	Going	Bairnsdale	Alison Gunn	Herd Solutions	10-15	C

9.2 Category A & B workshops, conferences, seminars

Activity Name	Region	Agri-climatic zone	Town	Coordinator/ Deliverer	Employer	Participants
Herd Health	Gippsland	Cool/Cold temperate	Warragul	Claire Harris/ Rod Manning	DEDJTR	12
Phone Seminar: The Cattle Market	State-wide	Cool/Cold temperate	State-wide	Cheriel Tidd/ Robert Hermann	DEDJTR/ Ag Concepts Unlimited	203
Phone Seminar: Crossbreeding systems	State-wide	Cool/Cold temperate	State-wide	Cheriel Tidd/ Brian Cumming	DEDJTR/ Brian Cumming Agriculture	121
Phone Seminar: Grass Tetany and other metabolic conditions	State-wide	Cool/Cold temperate	State-wide	Cheriel Tidd/ John Webb Ware	DEDJTR/ Mackinnon Project	158
Phone Seminar: Phosphorus budgeting made easy	State-wide	Cool/Cold temperate	State-wide	Cheriel Tidd /Sue Briggs	DEDJTR	78
Gippsland Beef Conference	Gippsland	Cool/Cold temperate	Lardner Park	Claire Geri	DEDJTR	53
Meeting Market Specs	Hume	Cool/Cold temperate	Tallangatta	Greg Ferrier	DEDJTR	11
Soil Health Field Day	Barwon South West	Cool/Cold temperate	Inverleigh	Neil James	DEDJTR	5
Better Supplementary Feeding	Gippsland	Cool/Cold temperate	Maffra	Darren Hickey/ Chris Mirams	DEPI/C.J. Mirams and Assoc	17
Landclass Grazing Management	Gippsland	Cool/Cold temperate	Bairnsdale	Darren Hickey/ Chris Mirams	DEPI/C.J. Mirams and Assoc	21
BeefCheque Year 1	Hume	Cool/Cold temperate	Benalla	Greg Ferrier	DEDJTR	8
BeefCheque Year 2	Hume	Cool/Cold temperate	Yarra Valley	Greg Ferrier	DEDJTR	14
Making Fertilizer Decisions	Hume	Cool/Cold temperate	Arthurs Creek	Greg Ferrier/ Jeff Hirth	DEDJTR	27
South West Beef Conference	Grampians	Cool/Cold temperate	Ballarat	Phil Franklin	DEDJTR	80

Activity Name	Region	Agri-climatic zone	Town	Coordinator/ Deliverer	Employer	Participants
East Gippsland Beef Conference	Gippsland	Cool/Cold temperate	Bairnsdale	Craig Bush	Self Employed	132
North East Beef Conference	Hume	Cool/Cold temperate	Dookie	Greg Ferrier	DEDJTR	78
Bull Assessment and Selection	Hume	Cool/Cold temperate	Benalla	Brian Cumming	Brian Cumming Agriculture	3
Nutrition for beef cattle	Gippsland	Cool/Cold temperate	Ensay	Fiona Baker	DEDJTR	11
Farm Business Essentials	Hume	Cool/Cold temperate	Rutherglen	Greg Ferrier	DEDJTR	22
Perennial Pasture Systems Annual Conference	Grampians	Cool/Cold temperate	Ararat	Rob Shea	PPS	90
Central Gippsland Beef Group Field Day	Gippsland	Cool/Cold temperate	Toongabbie	Claire Harris	DEDJTR	15
Matching stock to markets	Hume	Cool/Cold temperate	Warrenbayne	Greg Ferrier	DEDJTR	30
Fire recovery & animal health	Hume	Cool/Cold temperate	Creightons Crk	Kerri Robson	GeckoClan Landcare	20
Bull Assessment and Selection	Gippsland	Cool/Cold temperate	Bairnsdale	Brian Cumming	Brian Cumming Agriculture	12
Bull Assessment and Selection	Leongatha	Cool/Cold temperate	Benalla	Brian Cumming	Brian Cumming Agriculture	3
Phone Seminar: The Cattle Market	State-wide	Cool/Cold temperate	State-wide	Cheriel Tidd/ Robert Hermann	DEDJTR / Ag Concepts Unlimited	181
Unlocking the Lunchbox	Port Phillip	Cool/Cold temperate	Coldstream	Graham Winnell	Shorthorn Beef	15
Aboriginal landholders livestock handling session	Hume	Cool/Cold temperate	Hamilton	Alison Desmond	DEDJTR	8
Factors that influence meeting market specifications -over the hooks	Hume	Cool/Cold temperate	Mansfield	Alison Desmond	DEDJTR	7
NLIS database session	Hume	Cool/Cold temperate	Walwa	Greg Ferrier	DEDJTR	8
Gippsland Beef School Pasture MasterClass - Ellinbank	Gippsland	Cool/Cold temperate	Ellinbank	Fiona Baker	DEDJTR	31

Activity Name	Region	Agri-climatic zone	Town	Coordinator/ Deliverer	Employer	Participants
Gippsland Beef School Pasture MasterClass - Buffalo	Gippsland	Cool/Cold temperate	Buffalo	Fiona Baker	DEDJTR	6
Gippsland Beef School Pasture MasterClass - Cowwarr	Gippsland	Cool/Cold temperate	Cowwarr	Fiona Baker	DEDJTR	12
Better supplementary feeding workshop	High Country	Cool/Cold temperate	Omeo	Chris Mirams	Chris Mirams & Assoc.	13
Livestock handling session	Hume	Cool/Cold temperate		Alison Desmond	DEDJTR	7
Preparing for the EU market	Hume	Cool/Cold temperate	Benalla	Greg Ferrier	DEDJTR	3
Boolarra Mirboo North Beef Discussion group 13/7/2015	Gippsland	Cool/Cold temperate	Boolarra	John Bowman	DEDJTR	20
BetterBeef Phone Seminar - 'Self-replacing beef herd structures that maximise profit and minimise risk'	Statewide	Cool/Cold temperate	Statewide	John Webb Ware/Cheriel Tidd	Mackinnon Project/DEDJTR	232
Border beef conference - Wodonga	Hume	Cool/Cold temperate	Wodonga	Greg Ferrier	DEDJTR	122
MSA and NLIS Workshop - Benalla-A	Hume	Cool/Cold temperate	Benalla	Greg Ferrier	DEDJTR	14
NLIS database management, MSA and dark cutting-	Hume	Cool/Cold temperate	Benalla	Greg Ferrier	DEDJTR	13
NLIS database management, MSA and dark cutting	Hume	Cool/Cold temperate	Benalla	Greg Ferrier	DEDJTR	6
MSA and NLIS Workshop - Benalla-B	Hume	Cool/Cold temperate	Benalla	Greg Ferrier	DEDJTR	9
NLIS database management, MSA and dark cutting - WALWA	Hume	Cool/Cold temperate	Walwa	Greg Ferrier	DEDJTR	11
MSA and NLIS Workshop - Yarra Glen	Hume	Cool/Cold temperate	Yarra Glen	Greg Ferrier	DEDJTR	8

Activity Name	Region	Agri-climatic zone	Town	Coordinator/ Deliverer	Employer	Participants
NLIS database management, MSA and dark cutting - TARRAWARRA/YARRA GLEN	Hume	Cool/Cold temperate	Tarrawarra/Yarra Glen	Greg Ferrier	DEDJTR	8
Ballarat BetterBeef Group Open Day	Grampians	Cool/Cold temperate	Cardigan	Dan Korff	Meridian Ag	17
Managing your beef herd tough dry times	Hume	Cool/Cold temperate	Alexandra	Kerri Goschnick, Alison Desmond	DEDJTR	20
Intensive farming systems, markets/ing and season outlook	Hume	Cool/Cold temperate	Yarrawonga	Greg Ferrier	DEDJTR	9
NLIS - Tag replacement and database management	Hume	Cool/Cold temperate		Greg Ferrier	DEDJTR	3
BetterBeef Phone Seminar/Webinar - 'BEST PRACTICE - Beef cattle drenching strategies'	Statewide	Cool/Cold temperate	Statewide	Di Phillips, Alison Gunn, Cheriel Tidd	DEDJTR	232
Maximising Weaner Opportunities	Hume	Cool/Cold temperate	Alexandra	Maria Crawford	DEDJTR	20
Maximising Weaner Opportunities	Hume	Cool/Cold temperate	Euroa	Maria Crawford	DEDJTR	12
Meeting market specifications	Hume	Cool/Cold temperate	Wodonga	Greg Ferrier	DEDJTR	15
LDL Workshop - Wodonga	Hume	Cool/Cold temperate	Wodonga	Greg Ferrier	DEDJTR	12
LDL Workshop - Benalla	Hume	Cool/Cold temperate	Benalla	Greg Ferrier	DEDJTR	13
Improving your livestock enterprise with technology	Gippsland	Cool/Cold temperate	Sale	John Fargher	AgriWeb	25
Kongwak beef discussion group 10/12/2015	Gippsland	Cool/Cold temperate	Glenn Forbes	John Bowman	DEDJTR	20
Linking biodiversity and production		Cool/Cold temperate	Tablik	Greg Ferrier	DEDJTR	18
Phone Seminar: Managing your beef herd in drought	State-wide	Cool/Cold temperate	State-wide	Cheriel Tidd/ John Webb	DEDJTR/Mackinnon Project	169

Activity Name	Region	Agri-climatic zone	Town	Coordinator/ Deliverer	Employer	Participants
				Ware		
Reproactive	South West	Cool/Cold temperate	Mortlake	Bruce Officer, John Webb Ware, Andrew Hancock, Craig Wood.	Zoetis, Mackinnon Project, Terang Vet Clinic	31
Reproactive	North East	Cool/Cold temperate	Manfield	Glenn Page, Rod Manning, Anna Manning	Zoetis, Delatite Vet Clinic	45
Succession Planning, Business Management	Gippsland	Cool/Cold temperate	Leongatha	John Bowman, Colin Wright, Lyn Sykes, Karen Harper	DEDJTR	47
Alexandra Grazing Group	North East	Cool/Cold temperate	Alexandra	Jon Graftdyk, Ian Loche	DEDJTR	15
Alexandra Grazing Group	North East	Cool/Cold temperate	Alexandra	Jon Graftdyk, Trevor Caithness	DEDJTR	12
Gelantipy Master Class	Gippsland	Cool/Cold temperate	Gelantipy	John Bowman	DEDJTR	9
BusinessEDGE	Gippsland	Cool/Cold temperate	Bairnsdale	Darren Hickey, Phil Holmes, Ian Maclean	DEDJTR	19
Pastures in Autumn drought	Gippsland	Cool/Cold temperate	Boolarra	John Bowman	DEDJTR	7
Cattle prices will they last?	North East	Cool/Cold temperate	Murmungee	Sue Briggs, Julian Carrol, Chris Mirams	DEDJTR	28
Phone Seminar: Managing your beef herd through winter	State-wide	Cool/Cold temperate	State-wide	Graham Lean, Fiona Baker	AgriVet Business, DEDJTR	

Activity Name	Region	Agri-climatic zone	Town	Coordinator/ Deliverer	Employer	Participants
Western Region Angus Region	South West	Cool/Cold temperate	Casterton	Lucy Gubbins, Marg Gilmore	Private	37
East Gippsland Beef Conference	Gippsland	Cool/Cold temperate	Bairnsdale	Craig Bush	Private	183
Border Beef Conference	North East, Southern NSW	Cool/Cold temperate	Albury	Kylie Macreadie et al	DEDJTR	125
Zoetis Reproactive	Gippsland	Cool/Cold temperate	Bairnsdale	Alison Gunn	Herd Solutions	42
Bull Select (Blackstar)	North East	Cool/Cold temperate	Mudgegonga	Chris Mirams		15
Bull Select (Anvil Angus)	North East	Cool/Cold temperate	Acheron	Jon Graftdyk	DEDJTR	18
2016 PPS Annual Conference	South West	Cool/Cold temperate	Ararat	Rob Shea	PPS	67
Beef marketing and specifications	North East	Cool/Cold temperate	Yea	Karen Brisbane	Gouburn Broken CMA	11
Where to for the beef industry	North East	Cool/Cold temperate	Rosewhite	John Webb Ware	Mackinnon Project	55
Pastures for Profit	North East	Cool/Cold temperate	Warrenbayne	Kristy Howard	Inspiring Excellence	10
Central Murray Agribusiness	North West	Cool/Cold temperate	Echuca	Belinda James	Private	17