

final report

Project code: COM.080
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Date published: August 2008
ISBN: 9781741917352

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

Meat & Livestock Australia Awareness & Adoption KPI Evaluation 2008

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

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Executive Summary

The **Livestock Production Innovation's (LPI) Key Performance Indicators (KPI) Survey's** have been based on a methodology that concentrates on the assessment of LPI's performance indicators with a focus on the performance of program streams.

This involved quantifying the level of **awareness** that existed amongst livestock producers of MLA courses and programs, as well as the rate of **practice change** by producers using innovations and alternative management practices being promoted within MLA learning activities.

In 2008 the KPI's include the **following performance targets**:

1. At least **80%** of targeted producers* are **aware of at least one** MLA On-farm R&D communication / extension program (awareness), and that MLA members **rate their value** as at least 2 out of 3.
2. At least **10%** of targeted producers* (representing at least 15% of the production base) have engaged and **learned something of value** to their business from at least one MLA On-farm R&D communication / extension learning activity or related information.
3. At least **50%** of those producers (representing at least 7.5% of the production base) who have engaged with MLA On-farm R&D communication / extension learning activities or related information, **change practices** as a result of their engagement (adoption).

**defined by the % of total Northern Beef, Southern Beef and Lamb/Sheepmeat producers respectively with Estimated Value of Agricultural Output >\$5000 (source: ABS)*

The 2008 KPI survey has been undertaken amongst a sample of MLA's targeted producer segments of **Northern Beef Producers, Southern Beef Producers and Southern Sheep or Lamb Producers** to a 90% confidence interval for each segment based on an overall sample of **n=608**. This was split into three sample tiers to address the KPI's:

Tier 1 has been constructed to evaluate **program awareness** amongst the general or overall livestock producer population, it included **n=213** producers randomly selected from FARMbase®, a database of over 80,000 targeted livestock producers across Australia.

Tier 2 provides a measure of the **level of practice change** around the use of key management practices amongst MLA's extension program participants, the **2008** survey has obtained a sample of **n=295** producers. This includes only producers who participated in extension programs since the last survey undertaken in July 2007 (including 2,789 attendees of EDGE, More Beef from Pastures, PIRDS, COP, Prime Time, Making More from Sheep, Beef Forum and Beef-Up courses).

Tier 3 (a new sample initiative in 2008) provides a measure of past course participants to determine if over time the level of management practice change increases even further compared to those participants who only recently participated in an MLA program. The sample has been drawn from MLA course attendees who participated more than 12 months ago (i.e. prior to the tier 2 range) but no more than 4 years ago. This sample included **n=100** producers stratified by the targeted producer segments. The introduction of tier 3 means that the survey no longer needs to look at cumulative data to obtain a long-term perspective on the impact of MLA activity on targeted producers.

The contents of this report outlines the findings of the 2008 survey as well as previous KPI surveys undertaken from 2005-2007, these are represented in detail in the two data files:

- ❑ **MLA KPI 2008 main tables 020908**
- ❑ **MLA KPI 2008 combined 05-08 020908 (for cumulative adoption figures)**

Awareness - 2008 (Tier 1 $n=213$)

In **2008** the awareness of MLA extension programs continues to remain high at **85%** (84% in 2007 & 87% in 2006), this represents an increase of **12%** since the 2005 LPI Survey. This outcome is **5% higher** than the 2008 KPI target.

The figures below represent the **tier 1 aided & unaided awareness** of MLA extension programs as well as aggregated awareness.

- ❑ **29%** of respondents indicated an unprompted or **unaided awareness** of MLA Program(s), this represents a fall of 9% from 38% in 2007 and is similar to the 28% result from the 2006 survey.
- ❑ **80%** of respondents have a **prompted awareness** of one or more of the MLA Courses or Program(s) mentioned, this represents an increase of 2% from 78% in 2007, still slightly below 84% in 2006.

Total tier 1 Awareness, in total **85%** of targeted producers recall one or more of the MLA Courses or Program(s) mentioned.

- ❑ This is consistent with the previous **tier 1** survey in 2007 where 84% could recall an MLA program. Longer term there has been an increase of 12% from 73% awareness in 2005 and a slight fall of 2% from 87% in the 2006 survey. This result is **5% greater** than the objective KPI of 80% outlined in the summary.
- ❑ **15%** of respondents were **unaware** of any MLA Courses or Program(s), whilst this is significantly fewer than the levels in 2005 which were as high as 31% for Northern Beef, 27% for Southern Beef and 19% for Sheep it is consistent with 16% in 2007 and the 2006 level of 13%.

MLA Membership: In 2008, **85%** of **tier 1** survey participants have been identified as MLA members, this is an increase on the 2007 finding of 71%. Membership has been determined by receipt of the **Feedback** publication (the 2007 Survey's measure of MLA Membership status).

- ❑ **87%** of members were aware of one or more MLA extension program(s), this is consistent with previous findings of 93% in 2007 and 90% in the **2006 survey**, possibly the variations can be explained by the intensity of the LPI communication activity.

48% of the 85% of targeted producers who are **aware** of MLA courses **attended or participated** in an MLA course, this equates to **40%** of overall targeted producers and is an increase from 21% in the 2007 survey.

The **value of courses** to targeted producers is an evaluation introduced across each sample tier for 2008. This measure asked producers to place a value on the courses and programs they have experience with using a simple rating out of 3, where a **rating of 0 = No value** at all and a **rating of 3 = High value** or the top rating possible.

- ❑ In tier 1, **62%** of producers who are aware of or had experience with an MLA course rated them as being of **High or Good value**. The mean result for **tier 1** was **1.55**, slightly below KPI targets but not unexpected amongst this random selection of targeted producers.
- ❑ This comprised of **15%** of targeted producer who rated the courses they had experience with as **High value** and **47%** as **Good value** followed by 14% as Little Value and 23% as No Value at all.
- ❑ In tier 1, **53%** of all producers surveyed rated MLA courses as being of **High or Good value**.
- ❑ **68%** of **tier 1 MLA Members** who are aware of or had experience with an MLA course, rated the courses as **Good or High value**, resulting in a mean of **1.63**.

In gathering this awareness data, the survey's questionnaire¹ specifically mentions Meat & Livestock Australia, and the range of programs for beef, sheep, lamb and goat producers. The questionnaire asks 'Which MLA courses or program(s)' is the respondent aware of, then probing for any additional courses.

(refer MLA KPI 2008 main tables 020908)

¹ Refer to appendix for questionnaire details.

Management Change - 2008 Participants (Tier 2 $n=295$)

The participant lists provided by MLA for the 2008 KPI survey included details of **2,789** producers who had attended one or more of the MLA courses or programs since July 2007. The previous 2007 survey was based on 3,418 producers and the 2006 survey, 3,080 producers. *The previous 2005 EDGE/More Beef from Pastures survey sample was drawn from a database of 5,341 producer participants of those programs.*

The 2007 and 2006 tier 2 samples have specifically addressed the cumulative level of change in management practices. This approach was used to provide continuity to previous surveys where only cumulative data was able to be collected. The **2008** survey interval is the first survey where we now have 3 years of data representing the most recent 12 months of LPI activity, the findings have now been represented as 12 month data as well as cumulative data.

Based on the **2008 tier 2 cumulative sample of $n=930$** , of all those livestock producers surveyed who have attended an MLA extension program since the surveys began, **64%** have been motivated to adopt new (or change) management practices as a result of attending or participating in an MLA course or program. This finding shows little change in the cumulative management practice change resulting from course attendance, it is consistent with **64%** in 2007 and **67%** in the 2006 survey.

Whilst previous surveys indicated an upward trend, it would appear from the 2007 and 2008 surveys that adoption levels have stabilised.

- **69%** of cumulative **EDGE** workshop attendees have been motivated to change management practices as a result of attending, this is consistent with 71% in 2007 and 69% in the 2006 Survey.
- **50%** of **More Beef from Pastures** event attendees to date have changed management practices as a result of participating in the MBfP program. This is the same as 50% in 2007 represents an increase from previous results of 44% in 2006 and 13% from the 37% in the 2005 MBfP survey.
- **PIRD's** continues to influence change with **53%** of participants indicating management change, slightly down from 56% in 2007.
- **Cost of Production** workshops, **47%** have been motivated to change management practices as a result of attending, this is consistent with 46% in 2007 and up from 30% in 2006.
- **Beef Up Forums** recorded a management change rate **37%** in 2008, down significantly from 46% in 2007.

Looking at the **2008 tier 2** findings for the **most recent 12 months** of courses (i.e. the 12 months leading up to the 2008 survey):

- Of those **tier 2** producers surveyed who recently attended an MLA extension program, **61%** indicated they **had implemented a change in management practices** as a result of participating in an MLA course or program, up from 58% in 2007 and 50% in the 2006 survey.
 - **58%** of producers participating in an **EDGE** course or program in the 12 months leading up to the 2008 survey changed management practices, similar to 60% in 2007 and up from 47% in the 2006 survey.
 - **51%** of producers participating in the **More Beef from Pastures** program in the 12 months leading up to the 2007 survey have implemented change, similar to 53% in 2007 and up from 35% in the 2006 survey.
 - **52%** of **PIRD's** participants changed management practices, compared with 51% in 2007.
 - **48%** of **COP** participants changed, consistent with 48% in 2007.
 - **Each of the targeted producer segments** recorded management changes in the 2008 survey, **Northern Beef 57%** (down from 65%), **Southern Beef 62%** (up from 52%) and **Sheep / Lamb 64%** (down from 68%).

The **2008 tier 2** respondents were also asked to **rate the value** of the courses they attended during 2008.

- In tier 2, **98%** of overall targeted producers surveyed in **2008** indicated they rated the courses as **Good or High value**, this equates to a mean rating of **2.43**, or 2 ½ out of 3.
- This result exceeds the KPI target of 2 out of 3.

Of those 2008 MLA course participants who had changed management practices, **71%** reported that the changes had resulted in a **positive impact**. Of these, the main types of positive impacts were:-

- Viewing activities as a business (**27%**)
- Pasture utilisation (**26%**)
- Increased productivity (**17%**)
- Improved stock health (**11%**)
- Better feed management (**10%**)
- Profitability and Better herd management & Stocking rate (**9%**)

18% of respondents participating in MLA courses over the past 12 months indicated they had **increased the areas sown to perennial pasture by an average 47% (255 ha)**.

The 2008 survey also identified a range of **issues preventing management change**, these include:

- **44%** indicated they were '**already doing**' the management practices being represented in the course content, up from 27% in 2007 and represents the increasing uptake amongst targeted producers of the messages and practices being promoted within the MLA courses.
- As few as **7%** indicated the **drought conditions** were preventing them from implementing change, this is a dramatic decrease from 16% in 2007.
- **16%** felt the management practices being promoted **did not suit their existing enterprise** structure or operations, this is consistent with 18% in 2007.
- **15%** indicated they **did not have the financial resources** to effect change, this is a significant increase on 4% in 2007 and is likely the fallout from the recent drought conditions.
- **11%** indicated they had only **recently completed the course** and were **still thinking about change**, **8%** identified **high workload** and a **shortage of labour** as the main constraint to implementing change.

(refer MLA KPI 2008 main tables 020908, MLA KPI 2008 Combined 05-08 020908)

Management Change - 2004-2007 Participants (Tier 3 $n=100$)

The participant lists provided by MLA for the new 2008 tier 3 sample included 5,189 producers² who had attended MLA courses / programs prior to July 2007 and after June 2004.

- ❑ On average participants of MLA learning activities attended **2.2 courses**. **40%** of targeted producers had attended at least **1 course** over the past 3 years, a further **34%** attended **2 courses** and **12%** attended **3 courses**. 5% attended more than 5 courses during the 3-year survey interval.
- ❑ **70%** of **Long Term** course participants have made management changes as a result of course participation up to 4 years ago.
- ❑ **Targeted producer segments in tier 3** recorded similar management changes that are reflected in cumulative results, **Northern Beef 74%**, **Southern Beef 60%** and highest amongst **Sheep / Lamb** producers where **77%** indicated they had changed management practices as a result of attending an MLA course some years ago.

2008 tier 3 respondents were also asked to **rate the value** of the courses they attended over the previous 3 year interval. This measure asked producers to indicate if they placed a high or low value on the courses and programs being offered. The analysis model then applies a simple numeric rating out of 3 to the responses, where a **rating of 0 = no value** at all and a **rating of 3 = high value** or the top rating possible.

- ❑ **90%** of tier 3 producers surveyed in **2008** indicated they rated the courses as **Good or High Value**, this equates to a mean rating of **2.19**.
- ❑ This also exceeds the KPI target of over 2 out of 3.

Over time (up to 3 years), **70%** of all course participants adopted or changed management practices as a result of attending an MLA course or program, comprising:-

- ❑ **77% of Sheep / Lamb** producers
- ❑ **60% of Southern Beef** producers
- ❑ **74% of Northern Beef** producers

93% of all course participants over this period reported that the practices changed as a result of attending an MLA course or program had a **positive impact** (23% very positive impact, 70% some positive impact).

Tier 3 respondents reported the following changes to objectively measured performance indicators after attending MLA learning activities compared with before attending these activities:-

- a) **Mean Weaning % increased** by an average **4%** after course participation (from 78% to 82%):-
 - ❑ +8% for Sheep / Lamb producers
 - ❑ +3% for Southern Beef producers
 - ❑ +1% for Northern Beef producers
- b) **no change in mean Mortality rates** as a result of attending MLA courses
- c) **14% decreased cost of production**
- d) **31% increased time or resource spent on environmental management**
- e) **27% decreased livestock average age at sale time**, and

² Sum of course participant lists provided by MLA, not all these had contact details.

f) **41% increased stocking rate**

g) **31% increased the areas sown to perennial pasture, by an average 316 Ha per property, representing an increase of 96% in area sown to perennials.**

85% of tier 3 participants were able to nominate factors that enabled them to achieve positive performance increases. The main factors were:-

- ☐ Better quality pastures **19%**
- ☐ New Skills / Courses **14%**
- ☐ Better Management / More experience **14%**
- ☐ Rainfall / weather **13%**
- ☐ Improved feeding / Supplementary feeding **13%**
- ☐ Managing Stock rate better **12%**

Management Change - 2008 (Tier 2 V's Tier 3)

The impact of MLA courses on targeted producers over time can be evaluated by comparing recent participants management change behaviour with the behaviour of those participants from the previous 3 years courses.

- ☐ Tier 2 or participants from the most recent 12 months of MLA courses recorded a **64%** change in management practices, this compares directly with Tier 3 or participants from the 3 years prior to the most recent 12 months of MLA courses recorded a **70%** change in management practices, **6% more**. This indicates that over time only a small proportion of participants will change, **most management change occurs within the first 12 months** after course participation.
- ☐ Course participants place **similar value in the content of the courses** they have participated. Tier 2 or participants from the most recent 12 months of MLA courses recorded a mean value of 2.43, this compares with Tier 3 or participants from the 3 years prior to the most recent 12 months of MLA courses who recorded a mean value of 2.19. There is very little difference in the mean value however it appears that a **larger proportion of those most recently participating (8% more) place a higher value on the course content. Both sample sets meet the KPI target of 2 out of 3.**

Summary

The latest KPI survey in 2008 follows 2 previous surveys (2007 and 2006) based on the same sampling approach and question segmentation addressing the various segments of targeted producers that are of interest to LPI.

The communication strategies, course and program promotion activity of LPI aimed at reaching targeted producers continues to have a significant impact on maintaining the level of awareness of the MLA extension program(s). In 2008 the **awareness of MLA Courses** and programs amongst the random sample of targeted producer (tier 1) was **85%**, similar to previous levels of 84%, 87% and 73%. This result is comfortably above the KPI target of 80%.

Unaided or unprompted course awareness appears to be reasonably consistent around 30%, however once prompted, producers recognition of MLA program names increases considerably to be consistently measured at 80% or better amongst tier 1 targeted producers.

This level of overall awareness will be difficult to improve on unless there is a significant increase in communication activity and/or alternative communication channels are adopted. The incremental percentage point achieved this year is likely next year however significant change in awareness is likely to be more dependent on demographic and psychographic shifts within the targeted population rather than the initiatives of LPI.

Confusion continues to exist about course names, where similarities with courses such as EDGE Network and MBfP result in less accurate data collection. Respondents are increasingly confused with other similarly named programs such as, Beef Up Forums, Beef Plan groups and More Beef for Profit which is a non existent MLA program but one regularly mentioned nonetheless, suspected to refer to MLA Meat Profit Days which are not measured in this survey.

Course attendance or participation has increased with **40%** of a random sample (tier 1) of targeted producers indicating they had participated in an MLA course, this is an improvement on 21% in 2007.

Adoption and impact of management practice changes

For 2008 participants, **61%** indicated they had **implemented a change in management practices**, up from 58% and 50% in previous surveys representing a trend in the improvement of courses to convey the importance of management change to productivity.

98% of overall targeted producers surveyed in **2008** indicated they rated the courses as **Good or High value**, equating to a mean rating of **2.4 out of 3**.

The 2008 survey marks the first survey where we now have 3 years of annual data allowing for accurate year on year trends to be represented. For the cumulative sample of course participants (2008 participants combined with participant responses from previous years' surveys) **64% changed management practices**, (consistent with 64% and 67% in previous surveys). This increases to **70%** for the sample of participants who attended MLA learning activities from 2004-2007.

93% of all course participants over this period reported that the practices changed as a result of attending an MLA course or program had a **positive impact**, including **increases** in weaning rate, stocking rate, area sown to perennial pasture, and time or resource spent on environmental management, and **decreases** in cost of production and livestock average age at sale time

The effect of **drought** is still being felt by targeted producers with many citing the **financial hardships** they are now enduring as hampering their ability to effect change or indeed even attending courses.

MLA can, in part, take heart from the fact that a high proportion of course participants, **44%**, were already undertaking the practices being taught in current MLA programs. This has increased from 27% in 2007 and is a sound measure of the level of penetration amongst targeted producers that innovative management practices being promoted within the industry are obtaining.

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1 Background

Meat & Livestock Australia (MLA) is responsible for the communication and extension of its on-farm R&D results to improve the profitability and sustainability of the Australian red meat industry.

Previous evaluations of the performance of the LPI communication programs have been undertaken using a similar sample design and questionnaire. The **KPI 2008** Survey provides a revision of the top line findings using an efficient survey sample to assess progress of the level of **awareness** of MLA programs, **participation** in them as well as the rate of **adoption** of the innovations and management practices being promoted within established development programs.

MLA has contracted Axiom Research (Axiom) since 2005 to undertake market research to measure progress against these objectives. These objectives apply across each of the targeted producer segments which include, **Northern Beef**, **Southern Beef** and **Southern Sheep/Lamb** producers.

Axiom's research in the rural sector is underpinned by FARMbase® (a database of over 80,000 targeted livestock producers across Australia), Axiom's own well segmented database of Australia's primary industry participants.

Previous surveys undertaken for LPI by Axiom include, LPI 2005, MBfP 2005, KPI 2006, KPI 2007. Axiom has also conducted numerous other surveys for MLA including the national Lamb Surveys since 2000 and the Environment Stewardship Survey undertaken in conjunction with AWI during 2007.

In 2008 Axiom conducted a **telephone survey** with **n=608** targeted producers, using a **3 tiered** sample approach to satisfy overall industry **awareness** as well as the rate of participant **adoption** or change of management practices.

MLA specified that the statistical validity of the survey and its findings must satisfy a 90% confidence interval. Axiom stratified the sample to provide statistically significant data for each of the three targeted producer segments, for the overall sample of producers as well as those who have actually participated in courses and programs.

- **Tier 1** has been constructed to evaluate **program awareness** amongst the **general** or overall targeted **livestock producer population**, it included **n=213** producers randomly selected from FARMbase®, to represent the overall livestock industry's awareness of the MLA courses and programs.
- **Tier 2** provides a measure of the **level of adoption** of management practices amongst MLA's **extension program participants**, the **2008** survey has obtained a sample of **n=295** producers. This includes only producers who participated in extension programs since the last survey undertaken in July 2007 (including **2,789** attendees of EDGE, More Beef from Pastures, PIRDS, COP, Prime Time, Making More from Sheep, Beef Forum and Beef-Up courses from July 2007 to June 2008). This data has also been aggregated with previous years data to create a cumulative participants sample (**n=930**) to represent the wider impact of the LPI activity. With the inclusion of tier 3 this aggregated data analysis is no longer essential.
- **Tier 3** (a new sample initiative in 2008) provides a measure of **past course participants** to determine if **over time** there is a more significant increase in **management practice change** than amongst those participants who only recently participated in an MLA program. The sample has been drawn from MLA course attendees who participated more than 12 months ago (i.e. prior to the tier 2 range) but no more than 4 years ago. This sample included **n=100** producers stratified by the targeted producer segments. The introduction of tier 3 means that the survey no longer needs to look at cumulative data to obtain a long-term perspective on the impact of MLA activity on targeted producers.

2 Project Objectives

The KPI 2008, 2007 and 2006 Surveys have been undertaken with a brief to provide the current level of course awareness and level of management change or adoption of knowledge and practices using an efficient survey methodology.

The project specifically aimed to satisfy Livestock Production Innovation's Key Performance Indicators (KPI's).

For **2006 & 2007** Survey's MLA's annual On-Farm Adoption & Capacity KPI's were to:

1. Increase awareness of MLA's tools and information by **5%** of targeted producers.
2. Increase the rate of trial of, or participation in, MLA's tools and information by **5%** of targeted producers.
3. Encourage increased adoption of at least one key management practice by **5%** of targeted producers.

In **2008** these KPI's have evolved further to encompass:

1. At least 80% of targeted producers are aware of at least one MLA On-farm R&D communication/ extension program, and MLA members rate their value as at least 2 out of 3.
2. At least 10% of targeted producers (representing at least 15% of the production base) have engaged and learned something of value to their business from at least one MLA On-farm R&D communication/extension learning activity or related information.
3. At least 50% of those producers (representing at least 7.5% of the production base) who have engaged with MLA On-farm R&D communication/ extension learning activities or related information, **change practices** as a result of their engagement.

The underlying objective of the KPI Survey is to evaluate the impact of the extension programs on producer management change, and the effectiveness of the communication, delivery and extension processes employed by LPI to achieve this change.

3 Methodology and Sample

Axiom has followed the sampling protocols established for the LPI 2005 survey to construct a segmented sample of targeted livestock producers. The survey has been undertaken from two separate data sources. The methodology addressed the collection of the required information from these two sources:

1. Tier One Sample (***n=213***): Evaluate **Awareness** of MLA course/program(s) using a random sample of the **targeted** population of **producers** segmented by their region and enterprise into Northern beef, Southern beef and Southern Sheep/Lamb.
(*FARMbase random sample, target producers n=205*)
2. Tier Two Sample (***n=295***): Evaluate short term **management practice changes** amongst a sample of producers from 2,789 participants from one or more of the MLA courses/programs since July 2006, these contacts were drawn from MLA's own database of **known participants** from all MLA program or course groups undertaken from July 2006 to June 2007.
3. Tier Three Sample (***n=100***): Evaluate long term **Adoption** of management practices amongst a sample of producers from 5,189 participants from one or more of the MLA courses/programs prior to July 2006, these contacts were drawn from MLA's own database of **known participants** from all MLA program or course groups from June 2004 to July 2007.

Based on this approach the project had two critical elements, the first is the detailed sample construction that mirrored the 2006 and 2007 survey's and satisfied the validity issues required. Secondly is the design of the questionnaire and implementation of the survey using telephone interviewing.

The survey instrument was designed using a master questionnaire and code-frame response mechanism that directed specific questions at each of the target segments. The actual survey was managed using CATI (Computer Assisted Telephone Interviewing) methodology, telephone interviewing (field-work) was undertaken by Interviewing Australia (ekas) with their senior analysts also undertaking all data processing.

- ❑ Screeners were also employed to ensure respondents qualified for the survey in terms of enterprise mix and type. Where respondents had less than 100 hectares we terminated the interview (refer to the questionnaire contained in the appendix).
- ❑ Those respondents who are course participants only completed those sections of the survey applicable to them.

The detailed data tables generated were collated to represent the findings by producer segment, age, farm size, state, membership status and for course participants by courses/programs attended.

Segmentation of the sample and the resulting data has been a key driver in the design of the survey. Aspects of the industry that influenced the sample included:

- ❑ Producer segments – Northern Beef, Southern Beef and Southern Sheep
 - Included in the random sample quota were producer locations (High Rainfall, Wheat/Sheep, & Pastoral zones) representing the same production regions as the 2006, 2007 KPI survey and 2005 LPI Awareness & Adoption survey
- ❑ MLA membership
- ❑ Farm size (hectares)

No psychographic profiling was undertaken during 2008, it was decided at the commencement of this years survey that little value was being obtained from this element of the project.

3.1 Sample Overview

3.1.1 Sample Profile and Demographics

MLA defines the market into three distinct property categories that encompass the targeted primary industries of beef, sheep and goats.

Table 1: Definition of Targeted Industry/Producer Segments

Northern Beef producers	All beef cattle producers in Queensland, Northern Territory, and the Kimberley/Pilbara regions of Western Australia
Southern Beef producers	All beef cattle producers in New South Wales, Victoria, South Australia, southern Western Australia and Tasmania
Sheep & Lamb producers	All sheep producers in New South Wales, Victoria, South Australia, southern Western Australia and Tasmania that are producing sheep or lambs for the red meat industry.
Goat producers³	All goat producers in New South Wales, Victoria, South Australia, southern Western Australia and Tasmania that are producing goats for the red meat industry.

The previous tier 1 sample for the 2006 & 2007 KPI Survey was drawn from only these producer segments, this approach has been repeated for the **KPI 2008 Survey** to ensure the findings reflect the changes for each producer segment directly.

Axiom has constructed an overall sample of targeted producers from our own database of livestock producers known as FARMbase®, using as a base the available contacts detailed below.

Table 2: FARMbase® Sample Profile (Available Contact Counts August 2007)

State:	Grain Sheep & Beef	Sheep & Beef	Sheep	Beef	TOTAL:
TOTALS:	26,567	7,736	11,940	31,546	77,789

This producer profile from FARMbase is based on ABS industry definitions. In order to qualify for one of the three MLA industry segments respondents were screened on the basis of the significance of their key enterprise to their overall income. In the case of livestock operations the dominant enterprise is easily identified, however in mixed cereal farming situations respondents were segmented on the basis of respondents own ranking of their dominant livestock enterprise⁴.

³ A very small sample of goat producers was obtained, they appear in the Southern Sheep data and in the tables as a separate enterprise type.

⁴ Refer to the questionnaire Section 1: Q1.

Table 3: Sample Profile by Target Industry Segment

The table below represents details of the producer segments and *targeted* sample sizes to statistically evaluate variations within segments. The actual sample sizes obtained are also included in bold.

	Tier 1: FARMbase Contacts		Tier 2: MLA Course Contacts		Tier 3: MLA Course Contacts	
Producer Segment:	Awareness		Adoption/Management Change - Short Term		Adoption/Management Change - Long Term	
Northern Beef	<i>n=50</i>	<i>n=54</i>	<i>n=15</i>	<i>n=114</i>	<i>n=35</i>	<i>n=35</i>
Southern Beef	<i>n=70</i>	<i>n=71</i>	<i>n=130</i>	<i>n=90</i>	<i>n=35</i>	<i>n=35</i>
Sheep/Lamb	<i>n=70</i>	<i>n=86</i>	<i>n=120</i>	<i>n=91</i>	<i>n=30</i>	<i>n=30</i>
Goats	<i>n=15</i>	<i>n=2</i>	<i>n=15</i>			
	<i>n=205</i>	<i>n=213</i>	<i>n=280</i>	<i>n=295</i>	<i>n=100</i>	<i>n=100</i>

The Tier 1 (Awareness) sample target of *n=205* and Tier 2 (Management practice change short-term) sample target of *n=280* has been determined using a minimum sample requirement of *n=50* within each industry segment (this sample base has also been applied to each course segment within the overall quota construct), this is a minimum sample size that will satisfy a 90% confidence interval where response mean distribution (margin of error) is likely to be relatively small or narrow (within 10%). Tier 3 (Management practice change long-term) sample target of *n=100* has been constructed with fewer segmentations as means of benchmarking the Tier 2 results.

Note that in Tier 1 some producers were also running goats, these respondents have been counted once in the total but have been included under goats and their other livestock enterprise, however it appears that in 2008 at least *n=2* respondents are involved only in goat production.

Table 4: Available Course Participant Contacts (Source MLA)

MLA Course/Program classifications:	Course Participants List July 2005 – June 2006 (N=3,080)	2006 Weighted Sample as % of Course Participants	Course Participants List July 2006 – June 2007 (N=3,418)	2007 Weighted Sample as % of Course Participants	Course Participants List July 2007 – June 2008 (N=2,789)	2008 Weighted Sample as % of Course Participants
More Beef from Pastures	N=819	25%	N=2,231	65%	N=379	14%
Prime Time	N=665	8%	N=142	4%	-	-
PIRD's	N=109	1%	N=356	10%	N=643	23%
EDGEnetwork	N=1,447	66%	N=399	12%	N=379	14%
COP	N=40	-	N=131	4%	N=176	6%
Beef Up Forums	-	-	N=159	5%	N=445	16%
Making More from Sheep	-	-	-	-	N=705	25%

The percentage distribution shown here is based on weighted course participants, the actual sample of course participants has been structured to provide a representative sample by course that has then been weighted to represent the number of course participants. This means that where participant numbers are low a valid sample has been obtained from which the weighted findings have been calculated (i.e. whilst EDGEnetwork participants represent 14% of all MLA course participants overall, the sample obtained is *n=57*, this equates to 19% of the total 2008 tier 2 sample).

Note: It is again apparent that the aggregation of course participation lists for the purpose of undertaking the survey may not have included all participants from all courses (refer to recommendations for comments on this situation).

Only targeted livestock producers ($n=608$) participated in the **KPI 2008 Survey**, these respondents were segmented into **3 sample tiers** to accurately represent awareness and adoption within the elements of the target population with different experiences of MLA activity.

Table 5: Actual Sample Segmentation

		NSW/ ACT	VIC	QLD	SA/NT	WA	TAS	North Beef	South Beef	South Sheep	Goats
Tier 1 (Awareness)	$n=213$	46	30	51	40	36	10	54	71	86	2
Tier 2 (Adoption - Short Term)	$n=295$	62	59	104	50	16	4	114	90	91	
Tier 3 (Adoption - Long Term)	$n=100$	16	19	30	20	13	2	35	35	30	
Total Sample:	$n=608$	124	108	185	110	65	16	146	160	185	2

The Tier 2 sample has been increased to adequately represent the increasing number of program groups and sub groups of interest.

Where interviewing has been unable to obtain minimum sample requirements some segments have fewer respondents than our target sample of $n=50$ and minimum base of $n=30$. This has resulted from low course contact lists and/or lack of compliance amongst the specific region or course contact list. These producer segments with samples below $n=30$ should be viewed with caution.

Note: The KPI survey process involves collecting separate samples from participants from all courses. In order to ensure the variation in sample sizes is not misrepresenting the significance of any one course, the combined tables apply a weighting factor. This ensures each courses sample is weighted up to the known population of participants before the analysis are calculated. This means that any variation in sample size has less ability to bias the final results.

4 KPI 2008 Survey Results

4.1 MLA Course & Program Awareness (2008 Tier 1 Sample $n=213$)

This element of the KPI survey has been designed to determine targeted producers unaided and aided awareness of the MLA programs as a means of evaluating the effectiveness of the overall communication strategy by LPI. The **Tier 1** sample is a **random sample** representative of the wider population of targeted producers.

The KPI 2008 Survey evaluated course awareness from an independent random sample of $n=213$ livestock producers, where producers with all levels of exposure to MLA had an equal chance of participation.

- Overall, **85%** of all Tier 1 respondents are **aware** of one or more of the MLA Courses or Program(s) mentioned. This represents an increase of 1% from 84% in 2007, and confirms the trend of a rise in awareness by increasing 12% from 73% in 2005.
- **29%** of respondents indicated an unprompted or **unaided awareness** of MLA Program(s), this represents a fall of 9% from 38% in 2007 and is similar to the 28% in 2006.
- **80%** of respondents have a **prompted awareness** of one or more of the MLA Courses or Program(s) mentioned, this represents an increase of 2% from 78% in 2007, still slightly below 84% in 2006.
- **15%** of respondents were **unaware** of any MLA Courses or Program(s), this is consistent with the 16% in 2007 and represents a slight increase on the 2006 level of 13%.

The percentages represented below will not add to overall awareness, as nett⁵ prompted or aided responses will include producers recognising other programs not previously mentioned.

Note: The Total Awareness analysis counts each producer only once no matter how many programs they recall either aided or unaided.

Table 6: Unaided and Aided Course Awareness by Target Producer Segment

	2006 Tier 1 ($n=204$)			2007 Tier 1 ($n=206$)			2008 Tier 1 ($n=213$)		
	Unaided	Aided	Total	Unaided	Aided	Total	Unaided	Aided	Total
Northern Beef Producers (2006 $n=50$, 2007 $n=49$, 2008 $n=54$)	22%	74%	78%	33%	76%	84%	17%	69%	72%
Southern Beef Producers (2006 $n=73$, 2007 $n=79$, 2008 $n=71$)	29%	85%	86%	41%	80%	82%	35%	82%	86%
Sheep/Lamb Producers (2006 $n=78$, 2007 $n=76$, 2008 $n=86$)	28%	90%	92%	39%	78%	86%	30%	86%	92%
Total:	28%	84%	87%	38%	78%	84%	29%	80%	85%

The overall nett effect in the 2008 Survey, is that **85%** of livestock producers surveyed are aware of one or more MLA program(s), awareness appears to have risen slightly amongst the southern segments and fallen in the north. Overall, awareness amongst targeted producers is consistent across all producer segments, however Northern Beef producer awareness of programs does appear to be waning.

The use of the language 'MLA programs' in the questionnaire since 2007 appears to be more widely recognised or associated with MLA than in previous surveys, resulting in more consistent data. However, program names continue to cause confusion as the high aided or prompted results show.

⁵ Where courses recalled are from the same course group, eg EDGE, the nett result will remain the same however recall for those specific courses will increase.

Overall awareness by course/program is as follows (Note: expressed as a percentage of all targeted livestock producers, not just those segments for which each program is targeted).

Table 7: Unaided and Aided Course Awareness Overall

MLA Course/Program classifications:	Unaided Awareness			Aided Awareness			Total Awareness		
	2006	2007	2008	2006	2007	2008	2006	2007	2008
More Beef from Pastures	6%	14%	4%	46%	35%	33%	54%	46%	37%
Prime Time (or Making More from Merino's)	3%	2%	2%	36%	33%	21%	38%	34%	35%
PIRD's (or Producer Research Support)	2%	4%	1%	36%	29%	27%	38%	33%	28%
EDGEnetwork (any EDGE or EDGEnetwork course)	8%	13%	15%	60%	47%	64%	62%	50%	69%
COP (Cost of Production workshops)	1%	3%	1%	36%	36%	37%	37%	39%	38%
Non MLA Events (Courses conducted by organisations other than MLA with MLA support)	1%	5%	-	27%	14%	14%	28%	19%	15%
Beef Up Forums	-	3%	-	-	18%	10%	-	22%	13%
Grain and Graze	-	-	2%	-	-	34%	-	-	38%
Making More from Sheep	-	-	3%	-	-	34%	-	-	38%
Evergraze	-	-		-	-	18%	-	-	18%
Total:	28%	38%	29%	84%	78%	80%	87%	84%	85%

KPI 2006 Tier 1 Sample Base n=204, KPI 2007 Tier 1 Sample Base n=206, KPI 2008 Tier 1 Sample Base n=213.

Total awareness of each program by target industry segment is as follows (Note: expressed as a percentage of those producers for which each program is targeted).

Table 8: Course Awareness by Target Producer Segment and Overall

MLA Course/Program classifications:	Northern Beef			Southern Beef			Sheep/Lamb			Total (n=204)	Total (n=206)	Total (n=213)
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
More Beef from Pastures	44%	39%	2%	60%	65%	63%	54%	33%	35%	54%	46%	37%
Prime Time (or Making More from Merino's)	8%	8%	17%	26%	32%	18%	68%	55%	60%	38%	34%	35%
PIRD's (or Producer Research Support)	32%	33%	20%	32%	37%	32%	43%	29%	29%	38%	33%	28%
EDGENetwork (any EDGE or EDGENetwork course)	56%	53%	46%	58%	51%	72%	72%	49%	81%	62%	50%	69%
Cost of Production workshops	42%	29%	44%	29%	42%	38%	42%	43%	35%	37%	39%	38%
Non MLA Events (Courses conducted by organisations other than MLA with MLA support)	14%	16%	11%	32%	18%	21%	33%	21%	12%	28%	19%	15%
Beef Up Forums	-	37%	44%	-	25%	4%	-	9%	1%	-	22%	13%
Grain and Graze	-	-	37%	-	-	23%	-	-	45%	-	-	38%
Making More from Sheep	-	-	11%	-	-	25%	-	-	64%	-	-	38%
Evergraze	-	-	19%	-	-	18%	-	-	17%	-	-	18%
Total:	78%	84%	72%	86%	82%	86%	92%	86%	92%	87%	84%	85%

KPI 2006 Tier 1 Sample Base n=204, KPI 2007 Tier 1 Sample Base n=206, KPI 2008 Tier 1 Sample Base n=213.

MLA KPI 2008 main tables 020908 - tables 37- 40)

4.1.1 MLA Course Awareness within Target Producer Segment

Previous MLA surveys have tracked the changing level of awareness for its various courses and programs by target producer segments. However, variations in each of the surveys objectives, methodology and course focus has meant that not all courses conducted by MLA can be tracked longitudinally (denoted by *na* in the following tables).

Table 9: Northern Beef Producers

Awareness - Northern Beef Producers	2003/2004 survey	2005 survey (n=297)	2006 survey (n=50)	2007 survey (n=49)	2008 survey (n=54)
Total Awareness:	<i>na</i>	69%	78%	84%	72%
PIRDS	35%	31%	38%	33%	20%
BeefPlan	55%	46%	<i>na</i>	<i>na</i>	<i>na</i>
Nett EDGE:	<i>na</i>	49%	56%	53%	46%
EDGEnetwork	26%	21%	14%	29%	22%
Breeding EDGE	21%	19%	<i>na</i>	22%	-
Nutrition EDGE// Northern Nutrition	40%	31%	48%	27%	2%
Grazing Land Management	50%	26%	42%	35%	2%
Selling EDGE	14%	14%	<i>na</i>	<i>na</i>	<i>na</i>
Marketing EDGE	35%	26%	<i>na</i>	<i>na</i>	<i>na</i>
Sire Selection	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	28%
Cost of Production	<i>na</i>	<i>na</i>	<i>na</i>	29%	44%
Non MLA Events	<i>na</i>	<i>na</i>	14%	16%	11%
Beef Up Forum	<i>na</i>	<i>na</i>	<i>na</i>	37%	44%
Grain and Graze	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	37%
Making More from Sheep	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	11%
Evergraze	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	19%
None (No Awareness of Programs at all)	<i>na</i>	31%	22%	16%	28%

- ❑ In **2008**, **72%** of Northern Beef Producers are **aware** of MLA programs and courses, this represents a decrease from 84% in 2007 to a similar level of awareness of 78% in 2006, and 67% in 2005.
- ❑ This level of awareness appears to be largely due to Beef Up Forums recording 44% awareness, up from 37% in 2007, EDGE activities continue to have awareness however this has dropped significantly, Grain and Graze has also impacted on this segment with 37% awareness in its first year on the survey.

The EDGENetwork course awareness is the result of obtaining a nett EDGE awareness from a random sample of producers. In 2005 the questionnaire prompted respondents to identify levels of awareness for specific EDGE courses in the target regions, this process has been repeated in 2006, 2007 and 2008 to support the validity of the nett EDGE results comparison.

(refer MLA KPI 2008 main tables 020908- tables 37- 40)

Table 10: Southern Beef Producers

Awareness - Southern Beef Producers					
	2003/2004 survey	2005 survey	2006 survey	2007 survey	2008 survey
	Southern Sheep & Beef	Southern Beef (n=321)	Southern Beef (n=73)	Southern Beef (n=79)	Southern Beef (n=71)
Total Awareness:	na	73%	86%	82%	86%
PIRDS	33%	32%	32%	37%	32%
Prime Time or Making More from Merinos	na	27%	26%	32%	18%
More Beef from Pastures	na	61%	60%	65%	63%
Nett EDGE:	na	26%	58%	51%	72%
EDGEEnetwork	29%	25%	32%	25%	28%
Prograze	65%	na	40%	32%	61%
Sire Selection	na	na	na	na	24%
Bizcheck for Meat	31%	na	na	na	na
Enterprise Health Check	12%	na	na	na	na
Beef Cheque Yr2	na	na	18%	1%	na
Beef Cheque Yr3	na	na	na	3%	na
Lamb Cheque	na	na	8%	1%	1%
Cost of Production	na	na	29%	42%	38%
Non MLA Events	na	na	32%	18%	21%
Beef Up Forums	-	-	-	25%	4%
Grain and Graze	na	na	na	na	23%
Making More from Sheep	na	na	na	na	25%
Best Wool/Best Lamb	na	na	na	na	10%
Evergraze	na	na	na	na	18%
None (No Awareness of Programs at all)	na	27%	14%	18%	14%

- 86% of Southern Beef producers are **aware** of MLA programs in **2008**, this is up slightly on **82%** in 2007, and is consistent with on 2006 when 86% of Southern Beef producers were aware of MLA programs.

This result represents a long-term increase of 13% from 73% in 2005 for all programs promoted to this target producer segment. Prime Time appears to have dropped, however, Making More from Sheep recorded 25% awareness in this off-target segment.

(refer MLA KPI 2008 main tables 020908- tables 37- 40)

Table 11: Sheep/Lamb Producers

Awareness - Sheep/Lamb Producers	2003/2004 survey	2005 survey (n=279)	2006 survey (n=78)	2007 survey (n=76)	2008 survey (n=86)
Total Awareness:	na	80%	92%	86%	92%
PIRDS	na	41%	42%	29%	29%
Prime Time or Making More from Merinos	38%	65%	68%	55%	60%
Nett EDGE:	na	31%	72%	49%	81%
EDGEnetwork	na	30%	33%	30%	26%
Prograze	na	na	49%	26%	62%
Sire Selection	na	na	na	na	34%
Lamb Cheque	na	na	17%	4%	1%
Wean More Lambs	na	na	54%	26%	50%
Cost of Production	na	na	43%	43%	35%
Non MLA Events	na	na	33%	21%	12%
Grain and Graze	na	na	na	na	45%
Making More from Sheep	na	na	na	na	64%
Best Wool/Best Lamb	na	na	na	na	5%
Evergraze	na	na	na	na	17%
None (No Awareness of Programs at all)	na	19%	8%	16%	8%

- **92%** of Sheep/Lamb producers are aware of MLA programs in **2008**, up significantly from the 2007 KPI survey where **85%** were aware of MLA programs.

This is consistent with the 2006 result where 92% of Sheep/Lamb producers were aware of MLA programs and courses. The 2008 result represents a 12% increase on the 80% result in 2005.

(refer MLA KPI 2008 main tables 020908- tables 37- 40)

4.1.2 Overall Course Awareness by MLA Membership Status

The KPI surveys have not set out to gather a representative sample of members versus non-members. However, the survey has randomly recorded the membership status of the sample so we are able to reflect on the course awareness levels amongst members and non-members as separate population bases.

85% of targeted producers interviewed in the **2008 Tier 1 sample** ($n=213$) indicated they were MLA Members (received Feedback magazine). This is a significant increase on 2007 where **71%** of respondents indicated they were MLA Members. Both figures are likely to be more accurate than the 2006 result of 79%, at this time this was regarded as overstating the actual level of membership. A change in the question in 2007 to record receipt of Feedback magazine was deemed a more accurate measure of membership status.

- **87%** of members are aware of one or more MLA courses or program(s), this represents a slight fall from **93%** in 2007. The result is consistent with 90% in 2006 and represents a long-term increase since the 2005 survey.
- **73%** of members are aware of the **EDGENetwork** courses, up from 61% in 2007. **39%** of members are aware of **More Beef from Pastures**, down from 54% in 2006. Only 13% of members do not recall any MLA course or program.
- Awareness amongst non-members has also increased to **83%** from 63% in 2007, indicating a high level of awareness of one or more MLA courses. This outcome is trending up from 59% in 2006 and 49% in the 2005 survey.
- **25%** of non-members are aware of **MBfP** and **58%** are aware of **EDGENetwork**, these figures are almost unchanged from 2007.

Table 12: Course Awareness by Membership Status

	2005 Awareness ($n=907$)		2006 Awareness ($n=204$)		2007 Awareness ($n=201$)*		2008 Awareness ($n=204$)*	
	Member	Non Member	Member	Non Member	Member ($n=147$)	Non Member ($n=54$)	Member ($n=180$)	Non Member ($n=24$)
Aware of MLA Programs	80%	49%	90%	59%	93%	63%	87%	83%
None (No Awareness of Programs at all)	19%	49%	10%	41%	7%	37%	13%	17%

*In the 2007 Tier 1 sample, 2% or $n=5$ producers did not know if they were MLA members, In the 2008 sample, 4% or $n=9$ producers did not know if they were MLA members.

(refer MLA KPI 2008 main tables 020908 - table 40)

4.1.3 MLA Programs or Courses Attended - Tier 1 only

The KPI survey aims to determine what proportion of targeted producers overall had attended an MLA program or course and if not what reason did they give for choosing not to participate in MLA extension programs. (2008 Tier 1 sample $n=213$)

- **48%** of the 85% of targeted producers surveyed in **2008** who are **aware** of MLA courses indicated they had attended or participated in an MLA course or program, this equates to **40%** of overall targeted producers. This represents a significant increase from **21%** in the 2007 survey.
- **16%** of those 40% of overall targeted producers who had attended or participated in an MLA course or program, had done so within the last 12 months and **31%** of these producers had attended ever (more than 12 months ago), this represents the above total of **48%**.
- **52%** of the 85% of targeted producers surveyed in **2008** who are **aware** of MLA courses indicated they had **never** attended or participated in an MLA course or program, this does not include the 15% of producers who are unaware of MLA courses at all. Of these 52%, **15%** did **not know about the course** despite indicating they were aware of MLA courses and programs. This was much higher amongst non-members (36%) and indicates that overall awareness does not mean producers are receiving specific information about local activities.
- **51%** of **members** indicated they had attended an MLA course.

Table 13: Attended MLA Programs

	Total Sample:	NSW/ACT	VIC	QLD	SA/NT	WA	TAS	North Beef	South Beef	Sheep/Lamb	Goats
Yes (1 course in the last 12 months)	16%	14%	13%	16%	23%	9%	33%	18%	13%	18%	-
Yes (1 course ever)	31%	48%	33%	19%	29%	29%	22%	21%	39%	29%	100 %
No (Never attended)	52%	38%	54%	65%	49%	62%	44%	62%	48%	53%	-

2008 Tier 1 sample $n=181$ (85% Aware of courses)

The KPI survey seeks to understand why producers chose not to participate in MLA extension programs. Some producers provided more than one reason for not being able to attend.

- **41%** of those respondents interviewed who did not attend any MLA courses indicated that **'they had no time'**. This is consistent with 39% in 2007.
- **15%** of non-attendees indicated they **'did not know about'** the courses, this is less than 19% in 2007 and reflects the steady impact of the communication strategy.
- **14%** indicated the **'topics were of no interest'** to them, an increase from 11% in 2007.
- **20%** indicated the courses were **'too far away'**, this has increased from 15% in 2007.
- Only **3%** of non-attendees cited the **drought** as preventing them from attending any MLA course or program, this is half of the 6% recorded in the 2007 survey and possibly reflects a slight improvement in pasture growth since 2007.
- **2%** indicated courses were too expensive, **6%** said they were **too old** to worry about change and **1%** had been to a course before.

(refer MLA KPI 2008 main tables 020908 - Table 45-46)

4.1.4 Rating of MLA Programs or Courses

A new question was introduced in the 2008 KPI survey which aimed to determine the **value of MLA courses** to producers by asking them to rate the value of the course or program that they had experience with. This question has been answered by each of the sample tiers relative to their level of awareness or participation in any MLA course or program.

In order to represent the distribution of results a value has been assigned to the response range to generate a mean rating out of 3, respondents were given this value rating when the question was asked. In developing the rating model a 0 value has been included to allow respondents to answer with no value at all.

This measure asks producers to indicate if they placed a high or low value on the courses and programs being offered. The analysis model then applies a simple numeric rating out of 3 to the responses, where a **rating of 0 = No value** at all and a **rating of 3 = High value** or the top rating possible.

- In tier 1, **62%** of targeted producers surveyed who were aware of MLA courses (85%), indicated they rated the courses as **Good or High value**, this equates to a mean rating of **1.55**, just under 2 out of 3.
- This comprised of **15%** of targeted producer who rated the courses they had experience with as **High value** and **47%** as **Good value** followed by 14% as Little Value and 23% as No Value at all.
- In tier 1, **53%** of all producers surveyed rated MLA courses as being of **Good or High value**.
- **Tasmanian producers** recorded the **highest value** ratings with an aggregated **78%** of producers in Tasmania rating the MLA courses as **Good or High value**.
- **68%** of **MLA Members** who were aware of MLA courses, indicated they rated the courses as **Good or High value**, this resulted in a mean rating of **1.63** (just below the 2008 KPI of 2).

Table 14: Rating or Value of Courses Experience with

	Total Sample:	NSW/ ACT	VIC	QLD	SA/NT	WA	TAS	North Beef	South Beef	Sheep/ Lamb	Goats
High Value (3)	15%	17%	21%	8%	20%	12%	22%	10%	15%	19%	-
Good Value (2)	47%	60%	42%	46%	51%	29%	56%	46%	52%	42%	100 %
Little Value (1)	14%	10%	17%	11%	6%	32%	11%	10%	16%	15%	-
No Value at all (0)	23%	14%	21%	35%	23%	26%	11%	43%	16%	24%	-
Mean Value:	1.55	1.79	1.63	1.27	1.69	1.26	1.89	1.33	1.66	1.56	2.00

Tier 1 Sample 2008 n=181

(refer MLA KPI 2008 main tables 020908 - Table 44, MLA KPI 2008 course value means tables)

4.2 Change in Management Practices - Short Term (2008 Tier 2 Sample $n=295$)

4.2.1 Management Changes Overall

The KPI survey specifically asks producers if they have changed their management practices as a **direct** result of participating in the specific course or program(s) they indicated they had attended. This approach **links management change** directly with specific **course attendance**.

The KPI **2008** Survey has sampled $n=295$ course attendees from the **most recent 12 months** to determine if course participation directly influenced a change in management or adoption of new management practices.

- **61%** of course participants indicated they have **changed management practices** as a direct result of attending one or more of the MLA course or programs they had attended in the **last 12 months**.
- This represents a **3% increase** on 58% in 2007 and is 11% higher than the 2006 survey where 50% of course participants changed practices.

When included in the **cumulative sample analysis** the 2008 Tier 2 sample base becomes $n=930$ (aggregated sample of like participants from the 2005, 2006, 2007 and 2008 KPI surveys⁶).

- Once aggregated, of the sample of producers who have attended courses from 2005-2008, **64%** of course participants indicated they have changed management practices as a direct result of attending one or more of the MLA course or programs nominated.
- This is consistent with the 2007 analysis where 64% of aggregated course participants surveyed indicated they had changed management practices.
- This result is slightly down on the **2006** result of **67%**, this cumulative result is slow to recognise the effectiveness of the most recent MLA courses in influencing course participants to change management practices.
- By comparison, the 2005 LPI Awareness & Adoption survey indicated that of those who had attended an MLA program ($n=208$), **65%** initiated a change in management practice as a result of attending that course.

Table 15: Management Practice Change – Year on Year & Cumulative by Target Producer Segment

Producer Segments:	2005 Survey		2006 Survey		2007 Survey		2008 Survey	
	12 Month Change	Cumulative Change	12 Month Change	Cumulative Change	12 Month Change	Cumulative Change	12 Month Change	Cumulative Change
Northern Beef Producers	na	64%	49%	57%	65%	59%	57%	57%
Southern Beef Producers	na	64%	45%	65%	52%	61%	62%	62%
Sheep/Lamb Producers	na	66%	55%	74%	68%	72%	64%	70%
Total :	na	65%	50%	67%	58%	64%	61%	64%

2005 LPI Sample Base $n=113$, KPI 2006 Tier 2 sample base $n=236$ ($n=349$), KPI 2007 Tier 2 sample base $n=287$ ($n=636$), KPI 2008 Tier 2 sample base $n=295$ ($n=930$).

(refer MLA KPI 2008 Combined 05-08 020908 -Table 36)

Note - The 2005 results for management change was a general question and was not directly linked to the courses respondents had participated in, whereas subsequent surveys have specifically asked this question for each course attended.

⁶ Sample frames for each survey interval have been constructed from course attendance lists provided by MLA.

4.2.2 Management Changes Overall by Course (Cumulative)

The overall results reflect the impact of individual courses or programs on management change over the total sample rather than amongst specific course attendees⁷. The **2008** cumulative findings are consistent with previous aggregated results, the overall rate of management practice change is stable at **64%**⁸.

- ❑ **35% of all course participants** were influenced specifically by **EDGE Network** workshops, compared with 38% in 2007, down from 49% in 2006 (this equates to 69% in 2006, 71% in 2007 and 69% in 2008 of EDGE workshop attendees⁹).
 - The **EDGE Network** program has numerous courses and workshops attracting the largest number of producers (51% of cumulative course attendees at the time of the 2008 survey, up from 42% in 2007 and down from 66% in 2006), as such EDGE has the most impact on targeted producers in influencing management change.
- ❑ The **MBfP** program is influencing **18%** of all targeted producers, slightly less than **20%** in 2007, up on 13% in 2006 (In 2008 this result equated to 50% of all MBfP course attendees, the same as in 2007). The impact of MBfP is increasing amongst southern beef producers and declining in other segments.
 - **MBfP** accounts for **36%** of cumulative course attendees overall, up from 22% in 2007.

Table 16: Management Practice Change Overall - Cumulative & Course by Target Producer Segment

MLA Course/Program classifications:	Northern Beef			Southern Beef			Sheep/Lamb			Total:		
	2006 n=78	2007 n=174	2008 n=288	2006 n=126	2007 n=207	2008 n=297	2006 n=145	2007 n=254	2008 n=245	2006 n=349	2007 n=636	2008 n=930
More Beef from Pastures	7%	7%	5%	21%	29%	30%	5%	10%	8%	13%	20%	18%
Prime Time/Making More from Merinos	-	-	-	1%	-	1%	13%	14%	13%	5%	5%	5%
PIRD's/Producer Research Support	1%	3%	3%	-	1%	2%	2%	4%	7%	1%	2%	4%
EDGE/EDGEnetwork workshops	49%	46%	42%	45%	32%	32%	55%	43%	34%	49%	38%	35%
Cost of Production	-	-	-	-	-	1%	-	2%	3%	-	1%	1%
Non MLA Events	-	-	-	1%	1%	1%	2%	2%	1%	1%	1%	1%
Beef Up Forums	-	4%	8%	-	-	-	-	-	-	-	1%	2%
Making More from Sheep	-	-	-	-	-	-	-	-	6%	-	-	2%
Changed:	57%	59%	57%	65%	61%	62%	74%	72%	70%	67%	64%	64%
Did Not Change	43%	41%	43%	35%	39%	38%	26%	28%	30%	33%	36%	36%

Tier 2 Cumulative Sample 2006 n=349, 2007 n=636, 2008 n=930

Figures represented in above table 22 refer to results obtained from the aggregated sample, ie representing results from course participants from the past 4 survey intervals.

(refer MLA KPI 2008 Combined 05-08 020908 - Table 36)

⁷ Refer to 4.2.3 Management Change as a Result of Course Attendance.

⁸ Based on aggregated sample representing the trend in change rather than year on year fluctuations.

⁹ Refer table 21 on following page.

4.2.3 Management Changes as a Result of Course Attendance (Cumulative)

The performance of specific course or programs over time can be evaluated by looking at the cumulative findings for participants in individual courses and programs. The analysis model adopted in 2006 looks at a weighted sample that represents the known population of course participants and determines to date, what proportion of those participants have changed management practices as a **direct result of course attendance**. Whilst the overall result is **64%**, individual courses are performing differently over the longitudinal survey interval.

- **EDGENetwork** continues to have the most influence on change with **69%** of EDGE workshop attendees indicating that these programs motivated them to adopt new management practices and/or implement changes to existing practices. This is trending down from 71% at the time of the 2007 survey.
- **PIRD's** continues to influence change with **53%** of participants indicating management change, slightly down on 56% in 2007.
- **MBfP** has stabilised it's influence with **50%** of participants indicating management change, this is consistent with 50% in 2007 and up from 44% in 2006, **COP** continues to improve its effectiveness with an increase to **47%** from 46% in 2007 and 30% in 2006.

Table 17: Management Practice Change - Course by Cumulative Participants

MLA Course/Program classifications:	Cumulative Sample ¹⁰ (Annual Course Participants)			Weighted Sample ¹¹	% of Course Participants who Changed Management Practices ¹²		
	2006 n=349	2007 n=636	2008 n=930		2006	2007	2008
More Beef from Pastures	(n=85)	(n=140)	(n=197)	N=4,688	44%	50%	50%
Prime Time/Making More from Merinos	(n=70)	(n=81)	-	N=841	47%	49%	49%
PIRD's/Producer Research Support	(n=32)	(n=79)	(n=110)	N=1,108	72%	56%	53%
EDGE/EDGENetwork workshops	(n=205)	(n=265)	(n=322)	N=6,300	69%	71%	69%
Cost of Production	(n=11)	(n=35)	(n=68)	N=347	30%	46%	47%
Beef Up Forum	-	(n=35)	(n=82)	N=604	-	46%	37%
Making More from Sheep	-	-	(n=50)	N=705	-	-	42%

Tier 2 Cumulative Sample 2006 n=349, 2007 n=636 and 2008 n=930.

These figures represent only a minor shift in the overall level of management practice change from the 2005 survey, increasing from **65%** in 2005 to **67%** in 2006 then falling slightly to **64%** in 2007 and stabilising at **64%** in 2008.

(refer MLA KPI 2008 Combined 05-08 020908 - Table 37)

¹⁰ Sum of the Year on Year KPI survey samples from 2005.

¹¹ Cumulative sample weighted to total course participants provided by MLA for the 2005 to 2008 sample frames.

¹² These figures represent the change in management practice amongst attendees of the specific course attended. Some specified course participants also changed management practices as a direct result of attending other courses, refer to tables for details.

4.2.4 Management Change Year on Year by Course

By contrast, the **year on year** analysis provides an evaluation of the impact of each MLA course or program specifically within each KPI survey year. The numbers below represent the percentage of course participants who changed management practices as a result of attending the course.

- During 2008 **61%** of attendees were influenced to change management practices, highest proportionally amongst participants of Edge courses with 58% indicating change.

Table 18: Management Change - Year on Year by Course Participants

	2006 (n=236) ¹³	2007 (n=287)	2008 (n=295)
More Beef from Pastures*	35%	53%	51%
Prime Time/Making More from Merinos	44%	85%	-
PIRD's/Producer Research Support	72%	51%	52%
EDGE/EDGENetwork workshops*	47%	60%	58%
Cost of Production	36%	48%	48%
Beef Up Forum	-	46%	36%
Making More from Sheep	-	-	42%
Total:	50%	58%	61%

2006 Tier 2 sample n=236, 2007 Tier 2 sample n=287, 2008 Tier 2 sample n=295.

4.2.5 Management Change Year on Year by Producer Segment

Table 19: Management Change - Northern Beef Producers

MLA Course/Program classifications:	Northern Beef - Course Participants			Course Participants Who Changed Management Practices		
	2006 (n=53)	2007 (n=96)	2008 (n=96)	2006	2007	2008
More Beef from Pastures	n=3*	-	-	67%	-	-
PIRD's/Producer Research Support	n=8*	n=7*	-	75%	71%	-
EDGE/EDGE Network workshops	n=45	n=53	n=46	42%	69%	52%
Beef Up Forums	-	n=35	n=47	-	46%	36%
Beef Plan	-	-	n=20	-	-	75%

*low sample base

¹³ These figures represent the first 2006 KPI survey. Previous adoption surveys were the 2005 Edge & MBfP surveys.

- Overall, **57%** of Northern Beef producers have changed management practices as a result of course participation during the 2007 - 2008 survey interval.

Table 20: Management Change - Southern Beef Producers

MLA Course/Program classifications:	Southern Beef - Course Participants			Course Participants Who Changed Management Practices		
	2006 (n=74)	2007 (n=81)	2008 (n=90)	2006	2007	2008
More Beef from Pastures	n=61	n=51	n=57	33%	50%	51%
PIRD's/Producer Research Support	n=6*	n=14*	n=16	67%	29%	38%
EDGE/EDGE Network workshops	n=15	n=14*	n=6*	53%	34%	67%
Cost of Production	n=4*	n=5*	n=11	75%	100%	36%

**low sample base*

- 62%** of Southern Beef producers have changed management practices as a result of course participation during the 2007 - 2008 survey interval.

Table 21: Management Change - Sheep/Lamb Producers

MLA Course/Program classifications:	Sheep/Lamb - Course Participants			Course Participants Who Changed Management Practices		
	2006 (n=109)	2007 (n=109)	2008 (n=91)	2006	2007	2008
Prime Time	n=66	n=19*	-	42%	89%	-
PIRD's/Producer Research Support	n=18*	n=26	n=14*	72%	58%	64%
EDGE/EDGE Network workshops	n=38	n=27	n=5*	50%	69%	100%
Cost of Production	n=7*	n=24	n=22	14%	46%	55%
Making More from Sheep	-	-	n=50	-	-	42%

**low sample base*

- 64%** of Sheep / Lamb producers have changed management practices as a result of course participation during the 2007 - 2008 survey interval.

(refer MLA KPI 2008 main tables 020908 - tables 51-57)

4.2.6 Management Practices Changed after Attending MLA Courses or Programs

The 2005, 2006 and 2007 survey's repeatedly identified grazing management, pasture management, supplementary feeding & nutrition practices as the main areas in management where producers have made changes.

In 2008 these same trends continue over a wider range of potential change options.

- 27% of those 61% of course attendees who made changes, made grazing management changes by **Rotationally Grazing** (this equates to 16% of all course participants).

COP workshops appear to be having the greatest impact on management change, data reveals that this group have made, on average, 3.2 significant management changes as a result of course attendance. The next best performing program is PIRD's where, on average, 2.4 management changes have been made.

Table 22: Percentage of Course Attendees who Changed Management by Practices Changed

Management Practices:	PIRD's	MMFS	COP	Beef Up Forums	More Beef from Pastures	EDGE	Beef Plan	Total:
Rotationally Graze / Regularly move livestock	37%	12%	35%	17%	36%	24%	24%	27%
Land / Pasture Management Evaluation	19%	19%	30%	22%	30%	24%	24%	24%
Nutritional Supplements / Supplementary Feeding	26%	12%	20%	22%	6%	36%	12%	20%
Changed Breeding Practices / Calving, lambing or weaning times	19%	19%	30%	4%	9%	12%	12%	15%
Calculate the Cost of Production (COP)	11%	8%	45%	13%	6%	9%	12%	13%
Set Pasture Utilisation targets	11%	-	45%	13%	9%	15%	6%	13%
Manage feed to ensure ewes are at condition Score 3 for joining	7%	8%	20%	-	6%	15%	-	8%
Routinely weigh livestock to monitor growth / Weight gain	4%	12%	5%	4%	12%	6%	-	7%
Marketing / Better marketing / Knowledge of markets	11%	-	5%	17%	6%	3%	6%	7%
Change type of Stock / Age / Size	7%	-	5%	13%	-	12%	12%	7%
Change stocking rates	7%	12%	5%	13%	-	3%	-	6%

Tier 2 Sample base n=295 (wider range of responses collected in 2008).

Percentages represent the proportion of 2008 survey participants who have changed management practices (61%) as a result of attending these specific courses.

(refer to MLA KPI 2008 main tables 020908 - Table 58)

4.2.7 Why did the MLA course not influence management practice change?

In the 2007 & 2008 survey's, respondents who had not made any changes to management practices, **39% of course participants in 2008** (compared with 36% in 2007) were asked to indicate why they had not done so.

Many respondents provided more than one reason for not implementing change, the main responses have been coded and represented below:

- ❑ **44%** indicated they felt they were '**already doing**' the management practices being represented in the course content. This is a marked increase on 27% in 2007 and represents the successful uptake amongst targeted producers of the messages and practices being promoted in the MLA courses.
- ❑ In 2008 as few as **7%** indicated the **drought conditions** were preventing them from implementing change, this is a dramatic decrease from 16% in 2007.
- ❑ **16%** felt the management practices being promoted did **not suit** their existing enterprise structure or operations, this is consistent with 18% in 2007.
- ❑ **15%** indicated they did not have the **financial resources** to effect change, this is a significant increase on 4% in 2007.
- ❑ **11%** indicated they had only **recently completed the course** and were **still thinking about** change.
- ❑ **8%** identified **high workload** and a **shortage of labour** as the main constraint to implementing change.
- ❑ **2%** felt they were doing **OK** without the changes, **10%** were **still thinking about it** and **2%** needed to **talk with someone** further before implementing change.
- ❑ **3%** indicated they were **uncertain about benefits** of change.
- ❑ **3%** felt they did **not need** to change and were content to continue doing what they had always done.

(refer MLA KPI 2008 main tables 020908 - Table 60)

4.2.8 Impact of Management Changes - Short Term

The KPI 2008 Survey has also identified the **Impact** that management change has had on targeted producers. The Tier 2 sample of **n=295** course attendees from the most recent 12 months were asked to nominate the level of impact the adoption of change has had on their farm business.

- ❑ In just 12 months, **71%** of all course participants reported that the changed management practices they undertook as a result of attending an MLA course or program had a **positive impact**.
- ❑ Interestingly **26%** of course participants interviewed felt the management changes they had implemented had No Impact, this is 25% more than long term course participants where only 1% felt that management change had no impact.

Table 23: Impact of Management Practice Change by Target Industry Segment - Short Term

	Total Sample:	North Beef	South Beef	Sheep / Lamb
Very Positive Impact	19%	23%	21%	13%
Some Positive Impact	52%	46%	59%	54%
No Impact at all	26%	28%	18%	33%
Negative Impact	-	2%	-	-

*KPI 2008 Tier 2 Sample Base n=295, *low sample base*

The courses that appear to have the most positive impact include:

- ❑ **PIRD's** where **77%** of participants indicated the course had a positive or very positive impact.
- ❑ **Beef Plan** where **80%** of participants said the course had a positive impact.
- ❑ Only **Beef up Forums** provided **negative** feedback and this equalled 4% of course participants.

(refer MLA KPI 2008 main tables 020908 - Table 66)

4.2.9 MLA Course attendance outcomes

The survey also explored (using an open ended question) what the **positive and negative outcomes** were as a result of attending any of the courses.

Positives - of those 71% of course participants who saw positive outcomes:

- ❑ 27% of them indicated the main positive outcome was that **Viewing activities as a business**.
- ❑ 26% identified **Pasture utilisation** as the main positive outcome.
- ❑ 17% said **Increased productivity**.
- ❑ 11% indicated that **Improved stock health**, 10% **Better feed management**, 9% **Profitability** and **Better herd management & Stocking rate**.

Negatives - only 2 respondents indicated a negative outcome and neither nominated anything specific.

Table 24: Positive Outcome by Course Attendees

Areas of impact:	PIRD's	MMFS	COP	Beef Up Forums	MBP	EDGE	Beef Plan	Total:
	(n=24)	(n=28)	(n=26)	(n=28)	(n=45)	(n=44)	(n=16*)	(n=211)
Management Skills / Business (Increase)	25%	14%	54%	32%	29%	23%	6%	27%
Pasture Utilisation (Increase)	26%	29%	31%	11%	40%	27%	19%	26%
Productivity (Increase)	17%	18%	23%	14%	20%	9%	19%	17%
Improved Stock health	13%	18%	4%	11%	11%	16%	-	11%
Improved feed management	17%	7%	4%	7%	9%	18%	-	10%
Profitability (Increase)	4%	4%	19%	-	9%	11%	19%	9%

Tier 2 2008 Sample, n=211 (positive outcomes)

*low sample base

Those courses where specific tools and management practices can be easily identified, were nominated as **positive** outcomes, many more were nominated that did not achieve mentions of significance.

(refer MLA KPI 2008 main tables 020908 - Table 67)

4.2.10 Rating of MLA Programs or Courses

As discussed in the Tier 1 summary a new question has been introduced in the KPI survey which aims to determine the **value of MLA courses** to producers by asking them to rate the value of the course or program that they have participated in.

In order to represent the distribution of results a value has been assigned to the response range to generate a mean rating out of 3, respondents were given this value rating when the question was asked. In developing the rating model a 0 value has been included to allow respondents to answer with no value at all.

This measure asks producers to indicate if they placed a high or low value on the courses and programs being offered. The analysis model then applies a simple numeric rating out of 3 to the responses, where a **rating of 0 = no value** at all and a **rating of 3 = high value** or the top rating possible.

- In Tier 2 Overall, **98%** of overall targeted producers surveyed in **2008** indicated they rated the courses as **Good or High Value**, this equates to a mean rating of **2.43**, or simply put, nearly 2 ½ out of 3.
- Course participants from **Queensland** have the highest value rating of programs with **2.54**, this is reflected in the **Northern Beef** segment with a value rating of **2.54**.
- This comprised of 46% of targeted producer who rated the courses they had experience with as High Value and 52% as Good Value followed by 2% as Little Value, almost no Tier 2 respondents rated courses as having No Value at all.

Table 25: Rating or Value of Courses Participated in last 12 months - Short Term

	Total Sample:	NSW/ACT	VIC	QLD	SA/NT	WA	TAS	North Beef	South Beef	South Sheep
High Value (3)	46%	35%	51%	55%	40%	31%	25%	54%	48%	33%
Good Value (2)	52%	63%	42%	44%	60%	56%	75%	45%	50%	62%
Little Value (1)	2%	2%	5%	1%	-	13%	-	1%	1%	5%
No Value at all (0)	-	-	2%	-	-	-	-	-	1%	-
Mean Value:	2.43	2.34	2.42	2.54	2.40	2.19	2.25	2.54	2.44	2.27

2008 Tier 2 sample n=295

(refer MLA KPI 2008 main tables 020908 - Table 57)

4.2.11 Course Description - MBfP & MMfS

Tier 2 respondents who had participated in either the **MBfP** or **MMfS** programs were asked to describe or nominate the type or form of the program.

- ❑ **64%** of MBfP participants and **51%** of MMfS participants indicated the course they participated in consisted of a **number** of components.
- ❑ **33%** of MMfS participants indicated the course they participated in was based on the **Manual**.

Table 26: Influence of MBfP and MMfS Course Components

Course Delivery Mechanism:	2008	
	MBfP (n=66)	MMfS (n=51)
Manual	5%	33%
Workshop	8%	4%
Field Day	9%	2%
Seminar	11%	4%
Training Course	3%	6%
Mixture of workshops, Seminars, manual, training etc.	64%	51%

Tier 2 MBfP Sample, 2008 n=66, MMfS Sample, 2008 n=66

(refer MLA KPI 2008 main tables 020908 - Table 61 & 62)

4.2.12 Perennial Pasture - Short Term

In 2008 respondents were asked to indicate if they had increased the area sown to perennial pasture as a result of attending an MLA course or program.

- ❑ **18%** of respondents participating in MLA courses over the past 12 months indicated they had increased the areas sown to perennial pasture by an average 47% (255 ha).
- ❑ This was skewed by the small sample of Northern Beef producers which significantly increased the area sown to perennials by an average 1,163 ha. The Southern Producers are a different story with **28% of Southern Beef** and 24% of Sheep / Lamb producers indicating they had increased the area of perennial pasture by 124 ha and 116 ha respectively.

Table 27: Perennial Pasture Change by Target Industry Segment

	Total Sample: (n=295)	North Beef (n=114)	South Beef (n=90)	Sheep / Lamb (n=91)
Yes	18% (n=54)	6% (n=7*)	28% (n=25)	24% (n=22)
Mean Area Before	534 Ha	2,183 Ha	377 Ha	186 Ha
Mean Area After	789 Ha	3,346 Ha	501 Ha	302 Ha
Mean Change	255 Ha	1163 Ha	124 Ha	116 Ha
Change as a % of Area Before participation	47%	53%	32%	62%

KPI 2008 Tier 2 Sample Base n=54

*low sample base

(refer MLA KPI 2008 main tables 020908 - Table 63, MLA KPI 2008 weaning mortality pasture tables 040908)

4.2.13 Objective Measurement - Short Term

In 2008, tier 2 respondents were asked to indicate if they **objectively measure** key performance attributes each year.

- 78% of respondents participating in MLA courses over the past 12 months indicated they objectively measure their **Stocking Rates**.
- Only 6% of all Tier 2 respondents did not do any objective measurement, many respondents did at least 3 of the measurements being promoted by MLA.

Table 28: Objective Measurement by Target Industry Segment

	Total Sample: (n=295)	North Beef (n=114)	South Beef (n=90)	Sheep / Lamb (n=91)
Stocking Rates	78%	77%	79%	79%
Weaning %	74%	73%	74%	76%
Mortality Rates %	62%	58%	76%	55%
Cost of Production	56%	57%	58%	54%
Livestock's average age at sale time	53%	56%	57%	44%
Time or Resource spent on Environmental Management	24%	28%	24%	19%

KPI 2008 Tier 2 Sample Base n=295
*low sample base

Whilst proportionally few participants measured the time and resource they spent on Environmental management, **24%** actually did.

- Interestingly objective measurement seems more prevalent amongst the larger 5,000 Ha+ producers.

For future KPI survey's MLA might consider additional objective measurements (eg lambing %) and plotting changes over time to objectively measure how management change is impacting on performance.

(refer MLA KPI 2008 main tables 020908 - Table 69)

4.2.14 Rely on for Advice - Short Term

Tier 2 respondents were asked to identify **what** or **who** they generally relied on when seeking or **needing advice** about how to use or apply new technologies or management practices.

- ❑ **40%** of respondents participating in MLA courses over the past 12 months indicated they rely on **other graziers** (among other sources) for advice, this is highest in Northern Beef where 48% mentioned other graziers.
- ❑ **Department of Agriculture** (38%) and **MLA** (24%) were the next most mentioned sources of advice.
- ❑ Interestingly southern producers appear to **rely more on external consultants** than those in the north.

Table 29: Source of Advice by Target Industry Segment

	Total Sample: (n=295)	North Beef (n=114)	South Beef (n=90)	Sheep / Lamb (n=91)
Other Graziers	40%	48%	29%	40%
Department of Agriculture (DPI)	38%	46%	31%	45%
Meat & Livestock Australia (MLA)	24%	22%	27%	25%
Newspapers	21%	18%	21%	23%
Private Farm Consultant	12%	6%	17%	15%
Industry Organisation newsletters	12%	10%	13%	14%
Feedback Magazine	12%	15%	13%	7%
Internet / Websites	12%	11%	13%	11%
Private Consulting Agronomist	10%	4%	14%	14%
Producer Meetings	9%	5%	9%	15%
Training Courses	9%	5%	9%	13%
Rural Reseller Agronomist	9%	4%	11%	13%

KPI 2008 Tier 2 Sample Base n=295

Many more sources of advice were mentioned, some of these include:

- ❑ Vets 9%, Rural Merchandise Outlet 8%, Family Members 6%, Field Days 6%, Stock Agent 6%, Private Consulting Nutritionist 5%

(refer MLA KPI 2008 main tables 020908 - Table 70)

4.3 More Beef from Pastures - (2008 Tier 2 Sample $n=66$)

4.3.1 More Beef from Pastures Course Influence

In the KPI 2007 & 2008 surveys a separate section addressed the impact of the More Beef from Pasture courses. **This section and data refers only to the 2008 MBfP sample.**

- **51% of More Beef from Pastures** course participants during 2007 - 2008 made changes to management practices as a result of participation, consistent with 53% in 2007.

More Beef from Pastures course participants were asked whether they received a manual or CD and which modules they have read as well as what procedures and tools have they adopted as a result.

- Of those More Beef from Pastures participants interviewed in 2008 ($n=66$), **85%** indicated they received a More Beef from Pastures manual, up from 79% in 2007.
- Of those 85% of More Beef from Pastures course participants who received a manual, **61%** read 1 or more modules, down from 83% in 2007:
 - **20%** did **not read** any modules, up from 17%.
 - **36%** read >5 modules, **7%** read 4 modules, **11%** 3 modules, **5%** 2 modules and **2%** read only 1 module. **20%** could **not recall** how many modules they had read, up from 12% in 2007.

Table 30: MBfP Manual - Modules Read

More Beef from Pastures Manual Modules:	% of MBfP attendees who have read manual modules	
	2007 (79%, $n=42$)	2008 (83%, $n=56$)
Setting Directions	37%	38%
Tactical Stock Control	49%	56%
Pasture Growth	64%	78%
Pasture Utilisation	58%	62%
Genetics	40%	58%
Weaner Throughput	27%	58%
Herd Health & Welfare	39%	60%
Meeting Market Specifications	30%	62%
Other (incl. Don't Know)	32%	18%

Tier 2 MBfP Sample 2007 $n=65$, 2008 $n=66$

- Of the 61% of manual readers, **78%** read **Pasture Growth**, **Market Specifications** and **Pasture utilisation** were the 2nd most read modules in the manual with **62%** of readers nominating each module, **60%** of readers nominated **Herd Health & Welfare**.
- **58%** also read the Genetics and Weaner throughput modules, **56%** read Tactical Stock Control and **38%** read Setting Directions, however **11%** could not remember what modules they had read. **9%** indicated they had **read it all** (the whole manual).
- Of the 20% who did not read a module, **36%** did **not have time** and **36%** said they **intended to read it**, **9%** felt they did **not understand** them or they were too complicated.

(refer MLA KPI 2008 main tables 020908 - Table 72-78)

4.3.2 MBfP Procedures & Tools

As a result of participating in the 2008 MBfP courses and reading the manual, readers were asked which **procedures** they had implemented:

- **20%** of manual readers indicated they '**determine the risk and vaccinate to prevent specific diseases**' (*Herd Health & Welfare*).
- **18%** indicated they '**wean as early as possible**' (*Weaner Throughput*).
- **15%** of readers indicated they '**determine stocking rate, plan paddock sequences**' (*Pasture Utilisation*).
- **15%** indicated they '**map farm grazing land and pasture zones**' (*Pasture Growth*).
- **15%** indicated they '**select the most profitable breed**' (*Genetics*).

Also as a result of participating in the MBfP courses and reading the manual, readers were asked which **tools & practices** they had used:

- **20%** of manual readers indicated they had used '**pasture rulers, sticks and meters**'.
- **13%** used '**calving ease EBV's**'.
- **10%** indicated they had used '**vaccination strategies**'.
- **8%** has used tools as '**graphs indicating liveweight and fat score**'.

19% of MBfP participants who had not implemented a procedure or tool indicated they **intended** to do so.

(refer MLA KPI 2008 main tables 020908 - Table 79 - 80)

4.3.3 MBfP Element Most Influential

When specifically asked which element of the MBfP extension program had the **most influence** on attendees, **70%** indicated the **workshops** were most influential. This is a significant shift from 2007 where 36% indicated the manual was most influential.

- **27%** of course attendees indicated they felt the **Manual (CR Rom)** was the most influential element of the MBfP program.
- **21 %** nominated the **pasture ruler**
- **17%** nominated the **MBfP Expo**
- **17%** nominated the **Feed Demand Calculator**
- **17%** nominated the **Manual & Workshop**
- **15%** nominated the **Producer Advocate Presentation**
- **15%** nominated the **Stocking Rate Calculator**
- **14%** nominated the **Rainfall to pasture growth outlook tool**
- **12%** nominated the **COP Workshops**
- **11%** made **no changes** at all as a result of participating in the MBfP program

Table 31: Influence of MBfP Course Components

More Beef from Pastures Components:	Most Influence on More Beef from Pastures Course Attendees			Frequency of Use during 2007 - 2008		
	2006	2007	2008	Monthly	Annually	Weekly
Workshop	64%	34%	70%	20%	67%	4%
Manual (CD Rom)	20%	36%	27%	44%	44%	6%
Pasture ruler	-	-	21%	57%	14%	14%
MBfP Expo	-	-	17%	9%	82%	-
Feed Demand Calculator	-	-	17%	9%	55%	9%
Manual & Workshop	-	-	17%	18%	73%	-
Producer Advocate Presentation	-	-	15%	-	80%	-
Stocking Rate Calculator	-	-	15%	30%	50%	-
Rainfall to Pasture Growth Outlook Tool	-	-	14%	33%	44%	-
Cost of Production (COP) Workshops	-	-	12%	-	100%	-
No Changes	-	-	11%	-	-	-
Other	37%	21%	8%	-	-	-

Tier 2 MBfP Sample 2007 n=65, 2008 n=66

(refer MLA KPI 2008 main tables 020908 - Table 91 & 101)

4.3.4 Farm attributes most interested in changing

MBfP participants were asked to rank on farm issues that were most interested in changing as a result of participation and implementation in MBfP. (Overall ranking has been calculated based on calculating the mean ranking of each of the management issues that were ranked from 1st to 9th by targeted producers - an additional set of data tables was used to calculate these. This means that 1 is the highest possible mean, where producers ranked an issue they wanted to change further down the order the mean would then increase).

Table 32: MBfP Participants want to change

Farm management issues:	% of MBfP attendees 2008				Overall Ranking	
	1 st Rank	2 nd Rank	3 rd Rank	4 th Rank	2007*	2008
Profit	29%	26%	7%	10%	2nd	2 nd (2.88)
Productivity	29%	13%	18%	10%	1st	1 st (2.85)
Grazing and Pasture management	20%	15%	11%	20%	-	3 rd (3.53)
Meeting market specifications	6%	-	10%	10%	-	6 th (5.62)
Lower Cost of Production	5%	-	13%	14%	4th	4 th (3.98)
Genetics	2%	7%	11%	5%	-	7 th (5.92)
Better Natural Resource management	2%	3%	7%	7%	2nd	8 th (6.32)
Business Management	2%	2%	5%	7%	-	9 th (6.69)
Improving business management and setting business direction	-	7%	15%	8%	-	5 th (5.29)

Tier 2 MBfP Sample 2008 n=66

*2007 question asked to rank impact of some of these attributes

- ❑ MBfP participants ranked **Profit** and **Productivity** as 1st and 2nd most important issue to be improved, with 29% indicating these were the most important issue to change.
- ❑ **Grazing and Pasture management, Meeting market specifications** and **Lower Cost of Production** were also ranked (3rd and 4th) as issues producers are interested in improving.

(refer MLA KPI 2008 main tables 020908 - Table 82 - 90)

4.4 Change in Management Practices - Long Term (2008 Tier 3 Sample $n=100$)

The 2008 KPI survey introduced a new sample segment aimed at evaluating the longer-term impact on management change of participation in an MLA course or program.

This sample includes only targeted producers who have participated in courses or programs more than 12 months ago but not longer than 4 years ago. This means they have participated in MLA courses in the 3 years immediately prior to the current Tier 2 sample of course participants.

The objective is based on an understanding that it takes time for producers to introduce significant changes to their livestock management.

- **40%** of targeted producers had attended at least **1 course** over the past 3 years, a further **34%** attended **2 courses** and **12%** attended **3 courses**. 5% attended more than 5 courses during the 3-year survey interval.
- **70%** of **Long Term** course participants have made management changes as a result of course participation up to 4 years ago.
- Overall long-term course attendance equates to **2.2 courses per targeted producer**, this is highest amongst southern beef producers (2.43).

Table 33: Number of courses attended over 3 years

	Total Sample: ($n=100$)	North Beef ($n=35$)	South Beef ($n=35$)	Sheep / Lamb ($n=30$)
1 Course	40%	31%	37%	53%
2 Courses	34%	49%	31%	20%
3 Courses	12%	11%	11%	13%
4 Courses	6%	3%	9%	7%
5 Courses	3%	6%	3%	-
>5 Courses	5%	-	9%	7%
Mean Number of Courses attended	2.2	2.0	2.4	2.1

KPI 2008 Tier 3 Sample Base $n=100$

(refer MLA KPI 2008 main tables 020908 - Table 102)

4.4.1 Management Changes Overall (Long Term Adoption)

Adoption of practices as a result of the recommendations of the various MLA programs is referred to in the KPI brief as a **change in management practice**.

The KPI 2008 Survey has sampled **n=100** course attendees from the previous 3 years course lists to determine if course participation directly influenced a change in management practices.

- ❑ Over time (up to 3 years), **70%** of all course participants adopted or changed management practices as a result of attending an MLA course or program.
- ❑ This is highest amongst **Sheep / Lamb** producers where **77%** indicated they had changed management practices as a result of attending an MLA course.

Table 34: Management Practice Change by Target Industry Segment

Producer Segments:	2008 Survey	
	Changed	Did Not Change
Northern Beef Producers	74%	26%
Southern Beef Producers	60%	40%
Sheep / Lamb Producers	77%	23%
Total :	70%	30%

KPI 2008 Tier 3 Sample Base n=100

4.4.2 Impact of Management Changes - Long Term

The KPI 2008 Survey sampled **n=100** course attendees from the previous 3 years course lists to also determine what impact (if any) respondents reported from the changes in management practice after participation in MLA learning activities .

- ❑ Over time (up to 3 years), **93%** of all course participants reported that the changed management practices they undertook as a result of attending an MLA course or program had a **positive impact**.
- ❑ Interestingly **1%** of course participants interviewed felt the management changes they had implemented had No Impact, only **3%** of participants felt they had a negative impact.

Table 35: Impact of Management Practice Change by Target Industry Segment

	Total Sample:	North Beef*	South Beef*	Sheep / Lamb*
Very Positive Impact	23%	23%	19%	26%
Some Positive Impact	70%	73%	71%	65%
No Impact at all	1%	-	5%	-
Negative Impact	3%	-	-	9%

KPI 2008 Tier 3 Sample Base n=70, *low sample base

(refer MLA KPI 2008 main tables 020908 - Table 104 & 105)

4.4.3 Rating of MLA Programs or Courses - Long Term

As discussed in the Tier 1 summary a new question has been introduced in the KPI survey which aims to determine the **value of MLA courses**, this is most critical to the tier 3 sample who have had at least 1 to 3 years to understand the value of the course(s) they participated in.

In order to represent the distribution of results a value has been assigned to the response range to generate a mean rating out of 3, respondents were given this value rating when the question was asked. In developing the rating model a 0 value has been included to allow respondents to answer with no value at all.

This measure asks producers to indicate if they placed a high or low value on the courses and programs being offered. The analysis model then applies a simple numeric rating out of 3 to the responses, where a **rating of 0 = no value at all** and a **rating of 3 = high value** or the top rating possible.

- In Tier 3 Overall, **90%** of tier 3 producers surveyed in **2008** indicated they rated the courses as **Good or High Value**, this equates to a mean rating of **2.19**, or simply put, over 2 out of 3.
- Course participants from Queensland have the highest value rating of programs with 2.30, this is reflected in the **Northern Beef** segment with a value rating of **2.54**.
- This comprised of 31% of targeted producers who rated the courses they had experience with as High Value and 59% as Good Value followed by 8% as Little Value, only 2% of Tier 3 respondents rated courses as having No Value at all.

Table 36: Rating or Value of Courses Participated in over 3 years - Long Term

	Total Sample:	North Beef	South Beef	Sheep / Lamb
High Value (3)	31%	54%	48%	33%
Good Value (2)	59%	45%	50%	62%
Little Value (1)	8%	1%	1%	5%
No Value at all (0)	2%	-	1%	-
Mean Value:	2.19	2.54	2.44	2.27

KPI 2008 Tier 3 sample n=100

(refer MLA KPI 2008 main tables 020908 - Table 103)

4.4.4 Objective Measurement - Long Term

In 2008, the new tier 3 respondents were asked to indicate if they **objectively measure** key performance attributes each year. Results parallel those identified amongst the tier 2 sample

- ❑ 78% of respondents participating in MLA courses over the longer term indicated they objectively measure their **Weaning %** each year.
- ❑ Only 6% of all Tier 3 respondents did not do any objective measurement, many of these longer-term course participants did at least 3 of the measurements being promoted by MLA.

Table 37: Objective Measurement by Target Industry Segment

	Total Sample: (n=100)	North Beef (n=35)	South Beef (n=35)	Sheep / Lamb (n=30)
Stocking Rates	77%	89%	66%	77%
Weaning %	78%	80%	71%	83%
Mortality Rates %	63%	66%	63%	60%
Cost of Production	58%	69%	49%	57%
Livestock's average age at sale time	52%	63%	46%	47%
Time or Resource spent on Environmental Management	26%	26%	26%	27%

KPI 2008 Tier 3 Sample Base n=100

*low sample base

(refer MLA KPI 2008 main tables 020908 - Table 106)

4.4.5 Weaning % - Long Term

In 2008 tier 3 respondents were asked to indicate what their **Weaning %** was before participating in any MLA activities.

- ❑ The mean Weaning % **before** course participation was **78%**, the overall Weaning % increased by 4% **after** course participation to **82%**.
- ❑ 26% of respondents indicated they had a Weaning % of 91-100% **before** course participation.
- ❑ This rose to 37% of respondents with a Weaning % of 91-100% **after** course participation.
- ❑ 24% of the remainder of respondents indicated they had a Weaning % of 81-90% **before** course participation, this increased to 30% **after** course participation.
- ❑ A further 21% of the remainder of respondents indicated they had a Weaning % of 71-80% **before** course participation, this decreased to 11% **after** course participation.
- ❑ And a further 15% of the remainder of respondents indicated they had a Weaning % of 61-70% **before** course participation, this decreased to 8% **after** course participation.

This shift or increase in weaning percentage identifies a significant improvement amongst producers with weaning percentages below 80% before participating in an MLA course.

Table 38: Weaning % Change by Target Industry Segment

	Total Sample: (n=100)	North Beef (n=35)	South Beef (n=35)	Sheep / Lamb (n=30)
Mean % Before	78%	69%	87%	78%
Mean % After	82%	71%	90%	86%
Mean % Change	4%	1%	3%	8%

KPI 2008 Tier 3 sample base n=100

(refer MLA KPI 2008 weaning mortality pasture tables 040908 - table 4 - 6)

4.4.6 Mortality % - Long Term

In 2008 tier 3 respondents were asked to indicate what their **Mortality %** was before participating in any MLA activities.

- 82% of respondents indicated they had a Mortality % of <10% **before** course participation.
- This Mortality % of <10% remained the same amongst 82% of respondents **after** course participation, however the only notable change has been a 2% **increase** in 1-10% mortality, and a 2% decrease in the 0% bracket.

Table 39: Mortality % Change by Target Industry Segment

	Total Sample: (n=100)	North Beef (n=35)	South Beef (n=35)	Sheep / Lamb (n=30)
Mean % Before	7.5%	6.0%	5.8%	10.9%
Mean % After	7.6%	5.9%	5.8%	11.5%
Mean % Change	+0.1%	-0.2%	-	+0.6%

KPI 2008 Tier 3 sample base n=100

(refer MLA KPI 2008 weaning mortality pasture tables 040908 - table 7 - 9)

4.4.7 Objective Measurement Changes - Long Term

In 2008 tier 3 respondents were asked to indicate how much their main objective measurement tools had changed since before participating in any MLA activities.

- **52%** of respondents indicated their **Cost of Production** had **remained the same**.
- **34%** of respondents indicated their **COP** had **increased** on average by **26%**.
- **14%** of respondents indicated their **COP** had **decreased** on average by **10%**.

Table 40: Mortality % Change by Target Industry Segment

	Increased	Remained the same	Decreased
Cost of Production	34% (Avg. 26%)	52% -	14% (Avg. 10%)
Time or resource spent on environmental management	31% (Avg. 21%)	67% -	2% (Avg. 4%)
Livestock average age at sale time	11% (Avg. 23%)	62% -	27% (Avg. 22%)
Stocking rate	41% (Avg. 15%)	47% -	12% (Avg. 27%)

KPI 2008 Tier 3 sample base n=100

(refer MLA KPI 2008 weaning mortality pasture tables 040908 - table 10 - 17)

4.4.8 Perennial Pasture - Long Term

In 2008 tier 3 respondents were asked to indicate if they had increased the area sown to perennial pasture as a result of attending an MLA course or program over the 3 year survey interval.

- **31%** of respondents participating in MLA courses over the past 4 years indicated they had increased the areas sown to perennial pasture.

Table 41: Perennial Pasture Change by Target Industry Segment

	Total Sample: (n=100)	North Beef (n=35)	South Beef (n=35)	Sheep / Lamb (n=30)
Yes	31% (n=31)	31% (n=11*)	40% (n=14*)	20% (n=6*)
Mean Area Before	326 Ha	237 Ha	420 Ha	268 Ha
Mean Area After	642 Ha	960 Ha	525 Ha	333 Ha
Mean Change	316 Ha	722 Ha	104 Ha	65 Ha
Change as a % of Area Before participation	96%	305%	24%	24%

KPI 2008 Tier 3 Sample Base n=31

*low sample base

(refer MLA KPI 2008 main tables 020908 - table 123 & MLA KPI 2008 weaning mortality pasture tables 040908 - table 18 - 20)

More longer-term participants made a change to the areas sown, some have made significant increases (relative to existing perennial pasture) to the areas sown on their properties.

The mean increase was **316 Ha** on each property, representing an increase of **96%** on top of the hectares already sown to perennial pasture amongst the **31%** of course participants who have increased the area sown to perennial pasture.

4.4.9 Factors associated with performance changes - Long Term

In 2008 tier 3 respondents were asked to indicate what **factors** had **enabled** them to achieve **positive performance increases**.

- ❑ **85%** of tier 3 participants were able to nominate factors that enabled them to achieve **positive performance increases**, **15%** could not specifically identify any positive performance factors.
- ❑ **19%** indicated **Better quality pastures** had enabled them to achieve performance increases.
- ❑ **7%** indicated there were **No specific factors** enabling positive performance.

Table 42: Factors Enabling Positive Performance by Target Industry Segment

	Total Sample: (n=100)	North Beef (n=35)	South Beef (n=35)	Sheep / Lamb (n=30)
Better Quality pastures	19%	20%	23%	13%
New Skills / Courses	14%	20%	14%	7%
Better Management / More experience	14%	17%	11%	13%
Rainfall / weather	13%	20%	9%	10%
Improved feeding / Supplementary feeding	13%	17%	9%	13%
Managing Stock rate better	12%	14%	14%	7%

KPI 2008 Tier 3 sample base n=100

(refer MLA KPI 2008 main tables 020908 - table 126)

Tier 3 respondents were also asked to indicate what **factors** had **prevented** them from achieving **positive performance increases**.

- ❑ **29%** of respondents indicated that **drought** had prevented any positive achievements, when coupled with other weather and rainfall responses this equates to a massive **81%** of course participants who felt they had been **impeded by the dry conditions**.
- ❑ **10%** indicated there were **No factors** preventing positive performance.

Table 43: Factors Preventing Positive Performance by Target Industry Segment

	Total Sample: (n=100)	North Beef (n=35)	South Beef (n=35)	Sheep / Lamb (n=30)
Drought	29%	37%	26%	23%
Lack of rainfall	28%	9%	37%	40%
Adverse seasonal conditions	13%	17%	11%	10%
Increased cost of fertiliser	12%	3%	17%	17%
Lack of finance	11%	3%	11%	20%
Weather	11%	6%	20%	7%
Fuel / Cost increases	11%	11%	17%	3%

KPI 2008 Tier 3 sample base n=100 (refer MLA KPI 2008 main tables 020908 - table 126)

Conclusions and Recommendations

4.5 Conclusions

The objective of the KPI Survey is to evaluate the performance of the LPI communication and extension programs by measuring the level of awareness achieved amongst the general producer population, and the adoption by program participants of the management practices and knowledge being advocated within these programs.

Overall **Awareness** of MLA courses has risen by **12%** to **85%** since the 2005 LPI Survey, this increase in overall course awareness is apparent in each of the producer segments.

- ❑ Overall, **85%** of targeted livestock producers recall one or more of the MLA Courses or Program(s) mentioned represents a **similar** result compared with previous survey findings of **84%** and **87%**. This figure should be regarded as being **consistent with previous surveys** with no apparent trend to an increase in awareness.
- ❑ **15%** of respondents were unaware of any MLA Courses or Program(s), this is consistent with 16% from last years survey and reinforces the challenge of achieving higher levels of awareness of MLA programs amongst this target population.
- ❑ **85%** of targeted livestock producers indicated they were MLA Members (received Feedback magazine), this figure is up from 71% in 2007 and is likely to be more accurate than the 2006 result of 79% which was regarded as overstating the actual level of membership, representing producers perception of their membership status.
- ❑ **87%** of MLA members are aware of one or more MLA courses or program(s), this is a minor shift from 93% in 2007, and 90% in 2006.

Improving on this relatively high level of awareness will be difficult as barriers to awareness are largely due to the intake of information amongst archetypal producers who are closed to change and innovation. As these producers relinquish control through succession or failure the awareness of MLA courses and more likely the strategies they promote will increase.

Implementation of management practice changes as a result of participating in an MLA course or program have fallen slightly from 67% in 2006 to 64% in 2007 and **64%** again in **2008**.

- ❑ Participation in **EDGE Network** workshops has motivated **69%** of participants to change management practices, this is consistent with previous findings of 71% and 69% recorded in previous surveys.
- ❑ **50%** of **More Beef from Pastures** program participants have now implemented management change, this is the same as 2007 and represents an increase from **44%** in the 2006 KPI survey.
- ❑ Other courses evaluated have instigated management change, **PIRD's** has motivated **53%** of participants to change management practices, and **COP 47%**.
- ❑ **43%** of **Grazing management** program participants made changes to practices, up from 31% in 2006, **19%** have made changes to **Supplementary feeding & Nutrition** practices, up from 14%, and **29%** to **Pasture management** up from 18%.

The process of changing management practice in 2007 was heavily influenced by the drought with 16% of course participants indicating the **drought** prevented them from implementing the changes they would like, this has fallen to 7% in 2008. However the financial fallout from the succession of poor seasons is still limiting management change.

The rising number of respondents already implementing the changes being advocated, 44% in 2008 compared with 27% in 2007 whilst retarding the efficacy of MLA courses is representing the **increasing adoption** of innovation.

4.6 Recommendations

2008 producer awareness levels of MLA courses and programs indicate that recent communication strategies continue to maintain the awareness of MLA's major courses & programs, LPI should continue to focus on clearly branding the key course streams and their content.

- ❑ Of wider importance is the management practice content being promoted within each program, clearly respondents have indicated they are adopting these practices without directly connecting them with MLA course content. This is obviously an industry achievement but will not help improve MLA performance.
- ❑ It is also clear from the 2008 tier 3 sample that over time producers do implement change, albeit only slightly more than the current crop of course participants.

The cumulative evaluation continues to provide a sound evaluation of the adoption trends from a larger sample base over time. Coupled with year on year data and the new tier 3 long term perspective LPI now has a sound data set that looks at the KPI's from a number of useful perspectives.

Axiom caution LPI as to which data sets they choose to use as the benchmark measure they refer to when addressing strategic planning. We would recommend that performance is only as good as recent history and the year on year data will provide a robust method of evaluating each year in the field with positive initiatives identifiable through better adoption data.

To achieve a continuing increase in management change amongst course attendees Axiom believe MLA must continue to focus on:

- ❑ Stimulating attendance by promoting productivity and profit as the benefits of participation.
- ❑ Limit course brands to those that are clearly recognisable as MLA initiatives so that management change is directly attributed to MLA.
- ❑ In order to improve on the level of adoption of management change LPI needs to ensure that alternative sources of advice are also invited to participate in MLA programs. This will ensure that the key messages have a central point or origin and are not watered down or confused by other advisory initiatives not associated with MLA.
- ❑ **40%** of long-term course participants attended only 1 course, however **60%** attended 2 or more courses providing MLA with an opportunity to reinforce key productivity and performance messages as well as building on the relationship with targeted producers.
- ❑ It is evident from the survey that an increasing proportion of livestock producers are becoming MLA Members, with **85%** of the wider producer population (tier 1) indicating they are members compared with **71%** last survey. **Promotion of courses / programs to members** will continue to attract support for courses, it is no surprise that they tend to have higher rate of awareness and subsequent course participation.

5 Appendices

The following appendices are attached in **Axiom_MLA_KPI_2008_Survey_Report&DataTablesV1.zip**

5.1 Appendix 1 Main data file(s) details

Word files containing SurveyCraft tables of the survey dataset. Various analysis perspectives have been required and due to the volume and complexity of the data several different data processing initiatives have been undertaken.

These have been included in the attached files:

- ☐ **MLA KPI 2008 main tables 020908**
- ☐ **MLA KPI 2008 combined tables 05-08 020908**

Other tables include:

- ☐ **MLA KPI 2008 course value means table 020908**
- ☐ **MLA KPI 2008 weaning mortality pasture tables 040908**
- ☐ **MLA KPI Q4.8 ranking table 160908**
- ☐ **MLA KPI Table 51 Nett Edge 110908**

Note: Data tables include filtered and cross tabulated information, if additional cross tabs or filters are required please contact Axiom Research.

Note: Tier 3 respondents were asked sections 1, 5 and 6 in the 2008 questionnaire.

In the combined set of tables we have included Tier 3 ($n=100$) in section 1 (tables 1 to 15) and section 6 (tables 47 to 50).

For section 5, these questions were not asked previously and so there was nothing that we could combine them with. Therefore we did not run these questions as part of the combined set as they would just include Tier 3 from 2008 which would be the same as the main set of tables.

In the main set of tables, Tier 3 is shown in section 1 (tables 25 to 35), section 5 (tables 102 to 127) and section 6 (tables 132 to 133).

5.2 Appendix 2 – 2008 Questionnaire

The 2006 & 2007 KPI surveys are based on the original 2005 LPI questionnaire, designed in consultation with MLA. The **2008** survey incorporates the same profiling and segmentation protocols to ensure continuity of data and population representation. Minor changes include a broader course profile and the Tier 3 sample segment of long term course participants.

MLA TARGET PRODUCER 2008 KPI AWARENESS & ADOPTION SURVEY (V2.8)

INTRODUCTION

Good evening, my name is _____ from Axiom Research in Sydney.

I am calling on behalf of **Meat and Livestock Australia** to ask you some questions regarding your awareness of programs that MLA conduct to assist producers in their operations. Your input will help ensure that the right programs are being developed to meet both yours and the industry's needs.

IF FIRST NAME LISTED ASK:

INTRO Q#1. Am I speaking with (insert contact name)? **IF YES GO TO INTRO #2, IF NO ASK** May I speak with (insert contact name)? **IF YES reintroduce to main contact and follow from INTRO#1, if NO GO TO INTRO #2**

IF NO FIRST NAME LISTED ASK:

INTRO Q#2. Are you able to answer questions about livestock production on the property?
if NO ARRANGE CALL BACK.

REINTRODUCE AS NECESSARY

All responses are held in the strictest of confidence and are used for statistical purposes only.

INTRO Q#3. Are you able to help us by participating in our survey this evening?

YES	01	CONTINUE 'Thanks for your help, your time is appreciated'.
NO	02	ASK IF ANOTHER TIME IS MORE SUITABLE. ARRANGE CALL BACK OTHERWISE THANK & CLOSE

SC.Q1. FIRSTLY CAN I PLEASE ASK SOME PROFILING QUESTIONS, WHAT IS THE TOTAL AREA OF YOUR PROPERTY, INCLUDING ALL LEASED LAND AND ANY UNUSED LAND?

(Interviewer note: check whether the answer is acres or hectares)

250 Acres = 100 Hectares / 1 Hectare = 2.5 Acres / 100 Acres = 40 Hectares

ACRES		IF LESS THAN 250 ACRES, THANK AND CLOSE
	OR	
HECTARES		IF LESS THAN 100 HECTARES, THANK AND CLOSE

DP Note: SC.Q1. TO BE CODED IN HECTARE RANGES.

SC.Q2. DO YOU RECEIVE A COPY OF 'FEEDBACK' MAGAZINE FROM MEAT AND LIVESTOCK AUSTRALIA?

RECORD RESPONSE BELOW

Yes (Member)	1
No (Non Member)	2
Don't know	99

SC.Q3. Interviewer note: check contact database source to determine question stream

Origin of Contact:	TIER		
--------------------	------	--	--

FARMbase (Random sample of pop.)	1	ASK Section 1, 2, & 6	n=205 ?
EDGE/MBfP/PIRDS/PRIME TIME/COST OF PRODUCTION (COP)/BEEF UP/MAKING MORE from Sheep (MLA Course Participant Sample)	2	ASK Section 1, 3, 4 & 6	n=280 ?
EDGE/MBfP/PIRDS/PRIME TIME (MLA 3 Years ago Participant Sample)	3	ASK Section 1, 5 & 6	n=100

(DP Note: Course attendees will be segmented by course to provide a base for evaluation by course of management practice change – quotas of n=50 apply to each course. This quota does not include other course mentions not specified above).

INDUSTRY SEGMENTATION

SECTION 1: ASK ALL (TIER 1, TIER 2 & TIER 3)

Q1.1 IN THE LAST FINANCIAL YEAR (2007 – 2008), ROUGHLY WHAT PERCENTAGE OF YOUR TOTAL GROSS FARM INCOME, THAT IS, ONLY INCOME FROM YOUR FARM, CAME FROM THE FOLLOWING ACTIVITIES?

READ OUT & RECORD

Beef cattle	%	IF 10% OR MORE, CLASSIFY AS "BEEF".
Wool	%	IF ADD TO 10% OR MORE, CLASSIFY AS "SHEEP".
Lambs	%	
Mutton	%	
Farmed goats	%	IF ANY INCOME, CLASSIFY AS "GOAT". These can also be included in another category.
Feral goats	%	
Dairy	%	IF THESE ADD TO 95% OR MORE OF INCOME, THANK AND CLOSE
Winter cereal crops (Wheat, Barley, Oats, Triticale)	%	
Other crops (SPECIFY)	%	
TOTAL	100%	

(Interviewer & DP note: This filter will determine how the respondent is classified, i.e. as a beef producer or as a sheep producer. The 10% minimum refers to respondents largest farm enterprise, i.e. where no other livestock enterprise contributes greater than 10% to gross farm income then that enterprise is how the respondent is classified for the purpose of this survey. Respondents do not qualify for the survey if Dairy, winter cereal or other crops add to more than 95% of farm income).

SC.Q4. Interviewer to insert postcode / regional location of the property from contact list?

(DP to link with master region code frame to manage location quota)

POSTCODE	Nth Beef	Sth Beef	Sth Sheep	State:

(DP note: check postcode with regional definitions and rainfall zones for quota management. livestock type will also need to be included in quota).

IF Q1.1=BEEF Ask Q1.2 and Q1.3, IF Q1.1=SHEEP Go to Q1.4, IF Q1.1 = GOATS Go to Q1.6

Q1.2 WHAT WAS THE MOST NUMBER OF BEEF CATTLE, INCLUDING MARKED CALVES, THAT YOU CARRIED ON YOUR PROPERTY DURING 2007-2008?

Q1.3 AND, HOW MANY OF THOSE WERE BREEDING COWS?
(includes all cows and heifers)

WRITE IN NUMBER OF BEEF CATTLE AND CIRCLE RESPONSE

	Q1.2 Beef Cattle	Q1.3 Breeding Cows
< 15	01	01
15 – 49	02	02
50 – 99	03	03
100 – 299	04	04
300 – 499	05	05
500 – 999	06	06
1,000 – 1,999	07	07
2,000 – 4,999	08	08
5,000 – 9,999	09	09
10,000 – 14,999	10	10

Q1.4 DURING 2007-2008, CAN YOU TELL ME WHAT WAS THE MOST NUMBER OF SHEEP, INCLUDING MARKED LAMBS, YOU CARRIED ON THE PROPERTY?

Q1.5 AND FROM THAT TOTAL, HOW MANY LAMBS FOR SLAUGHTER (FOR MEAT PURPOSES) WERE ON THE PROPERTY?

ENTER NUMBER IN APPROPRIATE CELL AND CIRCLE RESPONSE

	Q1.4	Q1.5
WRITE IN NOS & CIRCLE CODE	TOTAL SHEEP Nos	LAMBS for SLAUGHTER Nos
NO SHEEP(< 30)	00	00
30 – 499	01	01
500 – 999	02	02
1,000 – 1,499	03	03
1,500 – 1,999	04	04
2,000 – 2,999	05	05
3,000 – 4,999	06	06
5,000 – 9,999	07	07
10,000 – 20,000	08	08
> 20,000	09	09

Q1.6 HOW MANY GOATS WERE ON THE PROPERTY DURING 2007-2008?

ENTER NUMBER IN APPROPRIATE CELL AND CIRCLE RESPONSE

WRITE IN NOS & CIRCLE CODE	TOTAL Goat Nos
< 30	00
30 – 499	01
500 – 999	02
1,000 – 1,999	03

2,000 – 4,999		04
5,000 – 9,999		05
10,000 – 20,000		06
> 20,000		07

AWARENESS OF MLA PROGRAMS

SECTION 2: ASK TIER 1 SAMPLE ONLY (RANDOM SAMPLE OF TARGETED PRODUCERS n=205)

Q2.1 MEAT & LIVESTOCK AUSTRALIA (MLA) DEVELOPS AND IN SOME CASES RUNS A RANGE OF PROGRAMS FOR BEEF, SHEEP, LAMB AND GOAT PRODUCERS. COULD YOU PLEASE TELL ME WHICH MLA PROGRAMS YOU ARE AWARE OF?

(INTERVIEWER: CHECK ACTUAL COURSE NAME TO CONFIRM COURSE CODE FROM ATTACHED LIST OF MLA COURSES AND PROGRAMS – DO NOT RECORD ACTUAL COURSE OR PROGRAM ONLY CORRESPONDING COURSE CODE.

**RECORD FIRST MENTIONED UNDER Q2.1
AND ALL OTHER MENTIONS UNDER Q2.2 DO NOT READ OUT OR PROMPT AT THIS STAGE.**

Q2.2 ... ANY OTHERS?

(If not in MLA course and programs list Please Specify)

Q2.3 I AM GOING TO READ OUT SOME OTHER COURSES & PROGRAMS TO YOU, WHICH MLA FUNDS. HAVE YOU HEARD OF...

(INTERVIEWER: READ OUT FULL COURSE CODE DESCRIPTION (IN BRACKETS), FROM TABLE BELOW. READ OUT ONLY THOSE MLA COURSE CODES NOT ALREADY RECALLED IN Q2.1 and Q2.2)?

OR

PROMPT FOR ALL SAMPLE: (read out) To be reviewed by MLA.

WHAT ABOUT 'PRIME TIME' or 'MAKING MORE FROM SHEEP FORUM', Bounce Back from Drought, Know and Grow with Lamb forums (Qld/WA only) or lamb finishing forums; 'MORE BEEF from PASTURES'; 'PIRD'S or PRODUCER DEMONSTRATION TRIAL'S', 'PRODUCER RESEARCH SUPPORT'; 'EDGE' or 'EDGE Network' and 'COST OF PRODUCTION WORKSHOPS', BEEF UP FORUMS

AND

Also read out these specific EDGE or EDGE Network courses (code 02) if respondent is from state identified:

PROMPT, IF NSW Southern WA or TAS: (read out)

WHAT ABOUT 'WEAN MORE LAMBS' & 'PROGRAZE' MAKING MORE FROM MERINOS, MONEY MAKING MUMS OR TERMINAL SIRE SELECTION.

PROMPT, IF VIC or SA: (read out)

WHAT ABOUT 'WEAN MORE LAMBS', 'PROGRAZE', 'BEEF CHEQUE' & 'LAMB CHEQUE'.

PROMPT, IF QLD, NT, or Northern WA: (read out)

WHAT ABOUT 'GRAZING LAND MANAGEMENT or GLM' and 'NUTRITION EDGE' or 'BREEDING EDGE'.

Awareness:	Unaided		Aided
MLA Course Code	Q2.1 First Mention	Q2.2 Other Mentions	Q2.3 Prompted
PIRDS (PIRDS or Producer Research Support (ALL producers) and PDS or Producer Demonstration Sites North only)	01	01	01
EDGE Network (any EDGE or EDGE Network course) (ALL producers)	02	02	02
PRIME TIME (Prime Time, Making More from Merino's BounceBack from Drought and Lamb Finishing Forums, Know and Grow Forums (Qld/WA only) (Sheep and Lamb producers only)	03	03	03
More Beef from Pastures (More Beef from Pastures Manuals and Forums, Tools for the time challenged expos)- Southern Beef producers only	04	04	04

Cost of Production Workshops (excluding Northern Beef)	05	05	05
Beef -Up forums (Northern beef only)	06	06	06
MAKING MORE from SHEEP (Separate sheep program – joint MLA/AWI funded).	07	07	07
Grain and Graze	08	08	08
Evergraze	09	09	09
Bestwool/Bestlamb (Victoria only)	10	10	10
Bestprac (pastoral zone only)	11	11	11
Non MLA Events (Courses conducted by organisations other than MLA where MLA contributed either course content or sponsorship)	12	12	12
OTHERS (Please Specify)	99	99	99

(DP Note: Identify for tables those respondents with first, second and nett unaided mentions then prompted, then nett total aided & unaided awareness. Key piece of information required is to represent % of Tier 1 sample who are aware of at least 1 MLA program).

ASK Q2.4 to Q2.6 ONLY IF Q2.3, Q2.2 or Q2.3 is not null, If Q2.3, Q2.2 or Q2.3 is null Go To Section 5

Q2.4 HOW DO YOU RATE THE **VALUE** OF THE MLA COURSE(S), THAT YOU HAVE HAD EXPERIENCE WITH? ON A **SCALE OF 0 to 3** WHERE 0 EQUALS NO VALUE AT ALL AND 3 EQUALS HIGH VALUE.

DO NOT READ OUT

High Value	03
Good Value	02
Little Value	01
No Value at all	00

Q2.5 HAVE YOU ATTENDED ANY OF THESE MLA ACTIVITIES IN THE LAST 12 MONTHS, OR EVER?

DO NOT READ OUT

Yes (participated in at least 1 course or program in last 12 months)	01
Yes (attended at least 1 program ever)	02
No (Never attended)	03

(DP Note: Show Nett Yes results for Q2.5 in tables)

IF Q2.5=03 Ask Q2.6, IF Q2.5=03 Go To Section 5

Q2.6 IF YOU DID NOT ATTEND ANY OF THESE MLA ACTIVITIES, WHAT WERE YOUR REASONS FOR NOT PARTICIPATING?

DO NOT READ OUT

Do not like group activities	01
Did not know about them	02
No time	03
Too expensive	04
Drought	05
Topics of no interest	06
Other (Please Specify)	07
Don't know	99

(DP Note: TIER 2 Respondents Continue to Q3.1. TIER 1 Respondents Skip to Section 5, Q5.1 and TIER 3 Respondents skip to Q6.1)

ADOPTION

SECTION 3: TIER 2 - PARTICIPANTS OF PIRDS/EDGE/MBfP/PRIME TIME/COST OF PRODUCTION (COP)/BEEF UP, MAKING MORE from SHEEP PROGRAMS AND CHANGE OF MGT PRACTICES: ASK ALL MLA COURSE CONTACTS ONLY (MLA SAMPLE n=280)

Q3.1 MEAT & LIVESTOCK AUSTRALIA (MLA) DEVELOPS AND IN SOME CASES RUNS A NETWORK OF PROGRAMS AND COURSES FOR BEEF, SHEEP AND LAMB PRODUCERS. CAN YOU CONFIRM YOU HAVE PARTICIPATED IN... (PRE POPULATE Q3.1 WITH COURSE CODE FROM CONTACT LIST)?

Q3.2 CAN YOU RECALL ANY OTHER MLA COURSES THAT YOU HAVE ATTENDED OR PARTICIPATED IN? (REFER TO COURSE CODE FRAME THEN RECORD ALL OTHER COURSES MENTIONED UNDER Q3.2. ANY OTHERS NOT INCLUDED PLEASE SPECIFY.

Q3.3 HAVE YOU CHANGED ANY OF YOUR MANAGEMENT PRACTICES OR ADOPTED ANY NEW MANAGEMENT PRACTICES AS A DIRECT RESULT OF PARTICIPATING IN THE (INSERT COURSE CODE FROM Q3.1 & THEN Q3. 2) COURSE YOU MENTIONED?

ASK ONLY FOR THOSE PROGRAMS MENTIONED (ask in succession for each program)

MLA Course Codesee code frame	COURSE CODE	Q3.1 Attended	Q3.2 Other Attended	Q3.3 Changed Yes No	
PIRDS (PIRDS or Producer Research Support and PDS or Producer Demonstration Sites North only)	01	01	01	01	02
EDGE Network (any EDGE or EDGE Network course)	02	02	02	01	02
PRIME TIME (, BounceBack from Drought and Lamb Finishing Forums, Know and Grow Forums (Qld/WA only)	03	03	03	01	02
MORE BEEF from PASTURES (More Beef from Pastures Manuals and Forums, Tools for the time challenged expos)	04	04	04	01	02
Cost of Production Workshops	05	05	05	01	02
Beef -Up forums	06	06	06	01	02
MAKING MORE from SHEEP (Separate sheep program – joint MLA/AWI funded).	07	07	07	01	02
Grain and Graze	08	08	08	01	02
Evergraze	09	09	09	01	02
Bestwool/Bestlamb (Victoria only)	10	10	09	01	02
Bestprac (pastoral zone only)	11	11	11	01	02
Non MLA Events (Courses conducted by organisations other than MLA where MLA contributed either course content or sponsorship)	12	12	12	01	02

OTHERS (Please specify		99	99	01	02
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(DP Note: for Q3.3 Identify for tables those respondents who made changes by course mentioned, ie create a nett change field).

ASK Q3.4 ONLY IF Q3.1, Q3.2 is not null, If Q3.1, Q3.2 is null Go to Q3.5

Q3.4 HOW DO YOU RATE THE VALUE OF THE MLA COURSE(S), THAT YOU HAVE HAD EXPERIENCE WITH? ON A SCALE OF 0 to 3, WHERE 0 EQUALS NO VALUE AND 3 EQUALS HIGH VALUE.

DO NOT READ OUT

High Value	03
Good Value	02
Little Value	01
No Value at all	00

ASK Q3.5 ONLY FOR THOSE RESPONDENTS WHO ANSWERED No (02) to Q3.3

Q3.5 WHY HAVE YOU NOT CHANGED PRACTICES AS A RESULT OF YOUR PARTICIPATION IN THIS ACTIVITY?

Still thinking about it	01
Need to talk to someone for further information/advice (if so who - neighbour, consultant, DPI, Stock agent, family other producers, other)	02
Does not suit existing operations	03
Lack of finance to make changes	04
Workload or labour issues	05
Uncertainty regarding outcomes or benefits	06
Lifestyle choice	07
Other	99

DP: NEW QUESTION (This could be inserted after Q3.2?) – ONLY APPLICABLE TO MMFS/MBFP

Q3.6 HOW WOULD YOU DESCRIBE THE MORE BEEF FROM PASTURES PROGRAM (IF MENTIONED THEY ATTENDED ONE OF THESE COURSES) OR MAKING MORE FROM SHEEP PROGRAM (IF THEY MENTIONED THEY ATTENDED ONE OF THE PROGRAM ACTIVITIES) PROGRAMS? , ie. IS IT A (read out)

	Insert Q3.1 Course Name	Insert Q3.2 Course Name
Manual	01	01
Workshop	02	02
Field Day	03	03
Seminar	04	04
Training Course	05	05
Producer Meeting	06	06
Mixture of workshops, seminars, manual, training etc	07	07
Other	99	99

Interviewer Note Q3.6 to be asked of MMFS and MBFP participants only

DP: Filter Q3.6 by course segment.

ASK ONLY FOR THOSE RESPONDENTS WHO ANSWERED YES (01) to Q3.3

Q3.7 WHICH PARTICULAR MANAGEMENT PRACTICES HAVE YOU CHANGED AS A RESULT OF ATTENDING THE (INSERT PROGRAM NAME FROM Q3.1 & THEN Q3.2) COURSE?

Management Practice Changes.....prompt only to clarify answer.	Insert Q3.1 Course Name	Insert Q3.2 Course Name
CALCULATE COST OF PRODUCTION (COP) \$/head, \$/kg or \$/hectare	01	01
PAY FOR THE SERVICES OF A SPECIALIST ADVISOR (OTHER THAN ACCOUNTANT) AT LEAST ONCE PER YEAR	02	02
USE EBV'S OR INDEX VALUES IN SIRE SELECTION OR PURCHASE	03	03
ROUTINELY WEIGH LIVESTOCK TO MONITOR GROWTH/WEIGHT GAIN	04	04
FAT SCORE OR CONDITION SCORE STOCK	05	05
USE A FORMAL MEASUREMENT TECHNIQUE TO ASSESS PASTURE AVAILABLE TO EWES AT LAMBING	06	06
HAVE SET PASTURE UTILISATION TARGETS WHEN ADJUSTING STOCKING RATES	07	07
ROUTINELY ASSESS PASTURE DRY MATTER DIGESTIBILITY	08	08
CALCULATE A FORAGE OR PASTURE BUDGET AT LEAST ANNUALLY	09	09
MANAGE THE FEED AVAILABLE TO EWES TO ENSURE THEY ARE AT A MINIMUM CONDITION SCORE 3 AT JOINING	10	10
PREGNANCY TEST COWS ROUTINELY	11	11
FIRST CALF HEIFERS MANAGED SEPARATELY TO THE MAIN BREEDER HERD	12	12
CONDUCT A DRENCH RESISTANCE TEST IN THE LAST 5 YEARS (only ask sheep producers)	13	13
MONITOR WORM EGG COUNTS TO PROVIDE A BASIS WHEN TO DRENCH SHEEP	14	15
VACCINATE TO PREVENT THREE DAY SICKNESS (NORTH ONLY)	15	15
VACCINATE TO PREVENT CLOSTRIDIAL DISEASES (NORTH ONLY)	16	16
ROTATIONALLY GRAZE, REGULARLY MOVE STOCK	17	17
HAVE A WRITTEN/FORMAL FARM MANAGEMENT PLAN INCLUDING A WEED MANAGEMENT PLAN	18	18
INCREASED THE % OF LAND SOWN TO PERENNIAL PASTURES	19	19
ASSESS LAND CONDITION USING THE ABCD FRAMEWORK (NORTH ONLY)	20	20
WET SEASON SPELL PADDOCKS ON A ROTATIONAL BASIS (NORTH ONLY)	21	21
BURN REGULARLY TO CONTROL WOODY WEEDS AND NATIVES (NORTH ONLY)	22	22

Ask All Tier 2 respondents:

Q3.8 HAVE YOU INCREASED THE AREA ON YOUR FARM SOWN TO PERENNIAL PASTURES?

Yes	1
No	2

Ask Q3.8.1 and Q3.8.2 if Q3.8 = 01, IF Q3.8 = 02 go to Q3.9.

Q3.8.1 WHAT WAS THE AREA SOWN TO PERENNIAL PASTURE ON YOUR FARM...BEFORE YOUR PARTICIPATION IN MLA ACTIVITIES?

Q3.8.2 AND, WHAT IS THE AREA NOW SOWN TO PERENNIAL PASTURE ON YOUR FARM..... AS A RESULT OF (AFTER) YOUR PARTICIPATION IN MLA ACTIVITIES?

	Q5.8.1 BEFORE	Q5.8.2 AFTER	DP To calculate change value %
Area sown to perennial pasture	HA	HA	(= +/- value)

Q3.9 AS A RESULT OF IMPLEMENTING (ADOPTING) SOME OF THE RECOMMENDATIONS (MANAGEMENT PRACTICES) THAT MLA HAS BEEN PROMOTING IN THE PROGRAM YOU RECENTLY ATTENDED, HAVE THEY HAD A POSITIVE OR NEGATIVE IMPACT ON YOUR FARM BUSINESS? DO NOT READ OUT

A Very Negative Impact	01
Some Negative Impact	02
No Impact at all (Status Quo)	03
Some Positive Impact	04
A Very Positive Impact	05
Don't know	99

IF Q3.9=04 or 05 Ask Q3.10, IF Q3.9=01 to 02 Go to Q3.11, IF Q3.9=03 or 99 Go to Q3.12

Q3.10 WHAT WERE THE POSITIVE OUTCOMES FOR YOUR BUSINESS THAT RESULTED FROM ATTENDING THE COURSE OR USING THE INFORMATION?

--

Q3.11 WHAT WERE THE NEGATIVE OUTCOMES FOR YOUR BUSINESS THAT RESULTED FROM ATTENDING THE COURSE OR USING THE INFORMATION?

--

DP Note: Q3.9 Q3.10 Code frame (do not read out)

Positive (+ve) or Increase		Negative (-ve) or Decrease	
Profitability (increase)	01	Profitability (decrease)	11
Environment impact (positive)	02	Environment impact (negative)	12
Cost of Production (increase)	03	Cost of Production (decrease)	13
Pasture utilisation (increase)	04	Pasture utilisation (increase/decrease)	14
Lifestyle (improvement)	05	Lifestyle (decline)	15
Labour saving (efficiency)	06	Labour saving (inefficiency)	16
Productivity (increase, gain)	07	Productivity (decrease, decline)	17
Meeting market specs (efficiency)	08	Meeting market specs (inefficiency)	18
Increased weaning rates (increase)	09	Increased weaning rates (decrease)	19
Decreased mortality rates (increase)	10	Decreased mortality rates (decrease)	20
Other (Please Specify)	99	Other (Please Specify)	99

Q3.12 DO YOU OBJECTIVELY MEASURE YOUR... (INSERT read out below)...EACH SEASON?
(Prompt: CALCULATED USING ACTUAL LIVESTOCK COUNTS etc)

	Yes	No
Weaning %	01	02
Mortality % (rates)	01	02
Cost of Production	01	02
Time or Resource spent on Environmental management	01	02
Livestock's average Age at sale time (younger or older)	01	02
Stocking rates	01	02

Q3.13 WHO OR WHAT DO YOU GENERALLY RELY ON WHEN YOU NEED ADVICE ABOUT HOW TO USE OR APPLY MOST NEW TECHNOLOGIES OR MANAGEMENT PRACTICES?

(eg. MLA PUBLICATIONS SUCH AS FEEDBACK, PROGRAZIER, FRONTIER MAGAZINE, TIPS AND TOOLS, RURAL NEWSPAPERS, FARM MAGAZINES, ABC RADIO, DPI, STOCK & STATION AGENT, RURAL MERCHANT, STATE FARMER ORGANIZATION, MLA, AWI, FAMILY MEMBER, PRODUCER NETWORK OR GROUP, OTHER INDIVIDUAL PRODUCERS, WORKSHOPS OR SEMINARS, INTERNET, OTHER)?

DO NOT READ OUT

Meat and Livestock Australia (MLA)	1
Department of Agriculture or Primary Industries	2
Private Consulting Agronomist	3
Private Consulting Nutritionist	4
Private Farm Consultant	5
Field Days	6
Producer Meetings	7
Training Courses	8
Rural Merchandise Outlets	9
Rural Reseller Nutritionist	10
Rural Reseller Agronomist	11
Consultant attached to a Rural Reseller	12
Vets	13
Bank / Finance Provider	14
Accountant	15
Family Members	16
Other Graziers	17
ABC radio	18
ABC TV	19
Commercial radio	20
Commercial TV	21
Newspapers	22
Feedback magazine	23
Industry organization newsletters	24
Information mailed directly to you	25
The Internet / websites	26
Other	99

SECTION 4: APPLICATION OF THE 'MORE BEEF from PASTURES' MANUAL : ASK 'MORE BEEF FROM PASTURES' CONTACTS ONLY n=50

IF MBfP Course participant (Q3.1 or Q3.2 = 04) ASK Q4.1 to Q4.9

Q4.1 THE FOLLOWING QUESTIONS REFER TO THE MORE BEEF FROM PASTURES MANUAL, HAVE YOU RECEIVED THE MORE BEEF FROM PASTURES MANUAL or CD?

Probe to confirm that they do actually have one? Yes = Continue / No= Go To Q4.8

Q4.2 HOW MANY MODULES OF THE MORE BEEF FROM PASTURES COURSE MANUAL HAVE YOU READ? DO NOT READ OUT

None	01
1	02
2	03
3	04
4	05
>5	06
Don't know	99

Q4.3 WHICH MODULES IN THE 'MORE BEEF FROM PASTURES' PROGRAM MANUAL YOU HAVE READ? RECORD FIRST MENTIONED UNDER Q4.31

AND ALL OTHER MENTIONS UNDER Q4.32. DO NOT READ OUT. PROBE: ... ANY OTHERS?

Q4.4 HAVE YOU ALSO READ (READ OUT ONLY THOSE NOT ALREADY RECALLED)?

DP Note: Where a respondent has indicated they read 'MORE BEEF from PASTURES' modules in Q4.3 or Q4.4, pre populate for Q4.4.

IF Q4.3 & Q4.4 is null ask Q4.4.1

Q4.4.1 WHY HAVE YOU NOT READ ANY OF THE 'MORE BEEF FROM PASTURES' PROGRAM MANUAL?

Still intend to read it	01
Don't understand it/too complicated	02
Does not apply to me	03
Do not agree with course content	04
No time/too busy	05
Not Interested	06
Don't Know	07
Other (Please Specify)	99

ASK ONLY FOR THOSE MODULES READ (ask in succession for each module)

Q4.5 HAVE YOU CARRIED OUT ANY OF THE PROCEDURES FROM THE MODULES YOU'VE READ INSERT MODULE NAME(S) AND ANSWER FOR EACH MODULE READ?

(if yes ask Q4.5.1)

Q4.5.1 CAN YOU RECALL WHICH PROCEDURES?

(multi - insert answer using attached code frame - probe)

Q4.6 HAVE YOU USED ANY OF THE TOOLS OR PRACTICES IN THE MANUAL?

INSERT MODULE NAME(S) AND ANSWER FOR EACH MODULE READ?

(if yes ask Q4.6.1)

Q4.6.1 WHICH TOOLS OR PRACTICES DID YOU USE?

(multi - insert answer using attached code frame - probe) Do not prompt or read out.

MLA Note: Q4.6.1 asks respondents to identify which tools or practices they have used from the MBfP manual, check code frame at end of survey to ensure ALL possible responses are included.

'MORE BEEF from PASTURES' Manual Modules	Q4.31 First Mention Unprompted	Q4.32 Other Mentions Unprompted	Q4.4 Prompted	Q4.5 Carried out procedure		Q4.6 Used any tools	
				Yes	No	Yes	No
Setting Directions (Enterprise business planning)	01	01	01	01	02	01	02
Tactical Stock Control (managing stocking rate)	02	02	02	01	02	01	02
Pasture Growth (mapping land class, soil fertility, pasture selection)	03	03	03	01	02	01	02
Pasture Utilisation (developing the grazing plan)	04	04	04	01	02	01	02
Genetics (breeding objective)	05	05	05	01	02	01	02
Weaner Throughput (joining management, reproduction, weaning)	06	06	06	01	02	01	02
Herd Health and Welfare (risk identification, preventative management)	07	07	07	01	02	01	02
Meeting Market Specifications (knowing markets specifications, managing to meet them)	08	08	08	01	02	01	02
Other (<i>SPECIFY</i>) Other would be if they have only read the introduction only. (<i>DP to code Other</i>).	09	09		01	02	01	02

IF Q4.6.1 responses are all null ask Q4.7, IF Q4.6.1 is not null Go To Q4.8

Q4.7 WHY HAVE YOU NOT USED ANY OF THE 'MORE BEEF FROM PASTURES' PROGRAM TOOLS, PROCEDURES AND PRACTICES?

Still intend to use them	01
Don't understand them/too complicated	02
Do not apply to me	03
Do not agree with them	04
No time/too busy	05
Not Interested	06
Don't Know	07
Other (Please Specify)	99

Q4.8 WHICH OF THESE ARE YOU MOST INTERESTED IN CHANGING OR IMPROVING THROUGH YOUR ENGAGEMENT IN MBFP?

(read out 1-9 and rank mentions in order of mention)

Productivity	01
Profit	02
IMPROVING BUSINESS MANAGEMENT AND SETTING BUSINESS DIRECTION	03
Grazing and Pasture Management	04
Genetics	05
Lower cost of production	06
Better Natural Resource Management	07
Business Management	08
Meeting market specifications	09
Too early to tell/Don't Know Yet	99

Q4.9 AS A RESULT OF ATTENDING OR PARTICIPATING IN THE MBFP PROGRAM, WHICH ELEMENT OF THE MBFP PROGRAM MOST INFLUENCED YOU TO CHANGE MANAGEMENT PRACTICES?

Read out: THE CD MANUAL or the WORKSHOP?

Prompt with: ANY OTHERS? (read out remaining options)

MANUAL (CD Manual)	01
WORKSHOP	02
MANUAL & WORKSHOP (Combination)	03
FEED DEMAND CALCULATOR	04
MORE BEEF FROM PASTURES EXPOS	05
COST OF PRODUCTION (COP) WORKSHOPS	06
RAINFALL TO PASTURE GROWTH OUTLOOK TOOL	07
PASTURE RULER	08
STOCKING RATE CALCULATOR	09
PRODUCER ADVOCATE PRESENTATION	10
OTHER (Specify)	99

DP: Loop Question

Q4.10 HOW OFTEN DO YOU USE (INSERT 4.9)?

(read out)

Weekly	01
Monthly	02
Annually	03
Don't Know	04

INTERVIEWER REFERENCE MATERIAL – Where specific course names are mentioned please ensure they are recorded under their MLA Course Code, i.e. 02 EDGE Network or 01 PIRDS.

THE LIST BELOW ARE ALL MLA COURSES and PROGRAMS
INTERVIEWER CHECK LIST Q3.1 – Q3.2

PIRD's = 01	PIRD's (Producer Initiated Research & Development) or demonstration trials.
	PRS or Producer Research Support
EDGE Network = 02	PDS or Producer Demonstration Sites
	Conflict resolution and negotiation
	Leadership
	Working in Groups® (WIGs)
	Farm Business Meetings
	Time Control
	BizCheck® for Meat
	Developing the strategy
	Generating Profit and Wealth
	Working Records
	Enterprise Health Check
	Effective Pricing
	Making Business Decisions
	Grazing Land Management or GLM (Nth Producers only)
	Healthy Soils, Healthy Profits (Towards Sustainable Grazing Workshops)
	Profit from Saline Lands (Towards Sustainable Grazing Workshops)
	Managing Living Systems (Towards Sustainable Grazing Workshops)
	Weed Removers, Pasture Improvers (Towards Sustainable Grazing Workshops)
	Grazing Land Management (Nth Producers only)
	PROGRAZE® Update
	Lamb Cheque®
	Better Grazing Decisions®
	PROGRAZE®
	Beef Cheque®
	The Breeding EDGE (Nth Producers only)
	Terminal Sire Selection or Effective Breeding (lambs)
	Wean More Lambs
	The Nutrition EDGE (Nth Producers only)
	Effective Breeding (beef)
	Money Making Mums (sheep)
	NLIS in Your Business
	The Marketing EDGE (Nth Producers only)
	Lean Meat Yield (prime lambs)
	Markets and Customer Needs
Marketing Performance	

	Negotiating the Sale
	Understanding Marketing
	Meat Standards Australia (MSA)
	MSA Beefing Up Business/Performance
	The Selling Edge (<i>Nth Producers only</i>)
	Making the Most of Mutton
	Market Intelligence
	Marketing Strategy and Plan
	Selling Options
	BeefNet Product Knowledge
PRIME TIME = 03	Prime Time or Making More from Merino's, BounceBack from Drought
MBfP = 04	More Beef From Pastures (CD Manual or Forum)
	Cost of production (COP)
	Feed demand calculator
	Rainfall to pasture growth outlook tool
	Tools for time challenged expos
	Stocking rate calculator
COP = 05	Cost of Production Workshops
Beef Up Forums = 06	
Making More from Sheep = 07	(Separate sheep program – joint MLA/AWI funded).
GRAIN AND GRAZE = 08	
EVERGRAZE = 09	
Bestwool/Bestlamb =10 (Victoria only)	
Bestprac =11 (pastoral zone only)	
Non MLA Events = 12 (Courses conducted by organisations other than MLA where MLA contributed either course content or sponsorship, eg. North West Goat Breeders association Field Day)	Sheep updates - WA
	Merino Forums - SA
	Sheepvention seminars - Vic
	Bestwool / Bestlamb groups - Vic
MLA Publications = 13	Any other MLA publications not elsewhere included
Going Into Goats = 14	The Goat manual and associated introductory field days and workshops
Beef Plan = 15	Not part of Edge courses
OTHERS = 99	

IMPACT OVER TIME

SECTION 5: TIER 3 - PARTICIPANTS OF ANY MLA COURSE OR PROGRAMS FROM OVER 3 YEARS AGO, INCLUDING PIRDS/EDGE/MBfP/PRIME TIME : ASK ALL MLA COURSE CONTACTS ONLY (MLA SAMPLE n=100)

DP: NEW QUESTION SECTION FOR TIER 3 Sample (n=100)

Q5.1 MEAT & LIVESTOCK AUSTRALIA (MLA) ORGANISES AND RUNS A NETWORK OF PROGRAMS AND COURSES FOR BEEF, SHEEP AND LAMB PRODUCERS. CAN YOU CONFIRM HOW MANY DIFFERENT MLA WORKSHOPS OR COURSES YOU HAVE PARTICIPATED IN PRIOR TO 2005 (OVER 3 YEARS AGO)?

DO NOT READ OUT (refer to Q3.3 Program List as a prompt)

1	1	<i>Continue</i>
2	2	<i>Continue</i>
3	3	<i>Continue</i>
4	4	<i>Continue</i>
5	5	<i>Continue</i>
>5	6	<i>Continue</i>
None	7	<i>Terminate</i>

Q5.2 HOW DO YOU RATE THE VALUE OF THE MLA COURSE(S), THAT YOU HAVE HAD EXPERIENCE WITH? ON A SCALE OF 0 to 3, WHERE 0 EQUALS NO VALUE AT ALL AND 3 EQUALS HIGH VALUE.

DO NOT READ OUT

High Value	03
Good Value	02
Little Value	01
No Value at all	00

Q5.3 HAVE YOU CHANGED ANY OF YOUR MANAGEMENT PRACTICES OR ADOPTED ANY NEW MANAGEMENT PRACTICES AS A DIRECT RESULT OF YOUR EARLIER PARTICIPATION IN AN MLA COURSE OR PROGRAM?

Yes	1
No	2

Q5.4 AS A RESULT OF IMPLEMENTING (ADOPTING) SOME OF THE RECOMMENDATIONS (MANAGEMENT PRACTICES) THAT MLA HAS BEEN PROMOTING, HAVE THEY HAD A POSITIVE OR NEGATIVE IMPACT ON YOUR FARM BUSINESS?

DO NOT READ OUT

A Very Negative Impact	01
Some Negative Impact	02
No Impact at all (Status Quo)	03
Some Positive Impact	04
A Very Positive Impact	05
Don't know	99

Q5.5 DO YOU OBJECTIVELY MEASURE YOUR... (INSERT read out below)...EACH SEASON?
(Prompt: **CALCULATED USING ACTUAL LIVESTOCK COUNTS etc**)

	Yes	No
Weaning %	01	02
Mortality % (rates)	01	02
Cost of Production	01	02
Time or Resource spent on Environmental management	01	02
Livestock's average Age at sale time (younger or older)	01	02
Stocking rates	01	02

Q5.6.1 I AM GOING TO READ OUT SOME KEY FARM PERFORMANCE INDICATORS.
WHAT WAS YOUR... (INSERT read out below) ...BEFORE YOUR PARTICIPATION IN MLA ACTIVITIES?

Q5.6.2 AND, WHAT WAS YOUR... (INSERT read out below) ... AS A RESULT OF (AFTER) YOUR PARTICIPATION IN MLA ACTIVITIES?

	Q5.6.1 BEFORE	Q5.6.2 AFTER	DP To calculate change value
Weaning %	%	%	(= +/- value)
Mortality %	%	%	(= +/- value)

Q5.7.1 AS A RESULT OF (AFTER) YOUR PARTICIPATION IN MLA ACTIVITIES, HAS YOUR ... (INSERT read out below) INCREASED, DECREASED OR REMAINED THE SAME?

Ask Q5.7.2 if Q5.7.1 = 01 or 03.

Q5.7.2 IN PERCENTAGE TERMS HOW MUCH HAS YOUR... (INSERT read out below) (INSERT Q5.71 Response - INCREASED/DECREASED)?

	INCREASED	REMAINED THE SAME	DECREASED	Q5.7.2
Cost of Production	01	02	03	%
Time or resource spent on environmental management	01	02	03	%
Livestock's average Age at sale time	01	02	03	%
Stocking rate	01	02	03	%

Q5.8 HAVE YOU INCREASED THE AREA ON YOUR FARM SOWN TO PERENNIAL PASTURES?

Yes	1
No	2

Ask Q5.8.1 and Q5.8.2 if Q5.8 = 01, IF Q5.8 = 02 go to Q5.9.

Q5.8.1 WHAT WAS THE AREA SOWN TO PERENNIAL PASTURE ON YOUR FARM... BEFORE YOUR PARTICIPATION IN MLA ACTIVITIES?

Q5.8.2 AND, WHAT IS THE AREA NOW SOWN TO PERENNIAL PASTURE ON YOUR FARM..... AS A RESULT OF (AFTER) YOUR PARTICIPATION IN MLA ACTIVITIES?

Area sown to perennial pasture =	Q5.8.1 BEFORE	Q5.8.2 AFTER	DP To calculate change value % (= +/- value)
	HA	HA	

Q5.9 WHAT WERE THE FACTORS THAT ENABLED YOU TO ACHIEVE POSITIVE PERFORMANCE INCREASES?
PROMPT IF MLA COURSES OR ACTIVITIES WERE NOT MENTIONED

Q5.10 WHAT WERE THE FACTORS THAT PREVENTED YOU FROM ACHIEVING POSITIVE PERFORMANCE INCREASES?

DEMOGRAPHICS**SECTION 6: TIER 1, 2 & 3 - ASK ALL**

And finally, just a couple of questions to make sure we have interviewed a representative sample of producers.

Q6.1 COULD YOU TELL ME INTO WHICH OF THE FOLLOWING AGE GROUPS YOU FALL?

READ OUT

Less than 20 years	1
21 – 30 years	2
31 – 40 years	3
41 – 50 years	4
51 – 60 years	5
Over 60 years	6
REFUSED (DO NOT READ OUT)	0

Q6.2 MLA WOULD LIKE TO SELECT A NUMBER OF BUSINESSES TO MONITOR AND DIRECTLY MEASURE IMPACT OF MLA PROGRAMS.

WOULD YOU BE INTERESTED IN PARTICIPATING IN FURTHER DISCUSSIONS WITH MLA TO BE INVOLVED IN THIS PROCESS?

DO NOT READ OUT

Yes	1
No	2

Q6.3 RECORD GENDER OF RESPONDENT

DO NOT READ OUT

Male	1
Female	2

CLOSE:

THANK YOU FOR YOUR HELP. GOODBYE

CODEFARME FOR SECTION 4

'MORE BEEF from PASTURES' Pasture Manual Modules - PROCEDURES

5.2.1	Module 1 - Setting directions	Q4.5.1
	Determine the enterprise strategy and herd structure most likely to maximise profit.	101
	Develop a transition plan from the current enterprise to the preferred position, to achieve beef enterprise targets.	102
	Measure and analyse current performance and compare with expected physical and financial targets and periodically review the strategic direction.	103
5.2.2	<i>Cost of Production Calculator</i>	104
5.2.3	Module 2 - Tactical stock control	
	Predict pasture availability for a range of weather patterns and compare with stock requirements.	201
	Take early corrective action when an excess or shortage of pasture is predicted.	202
5.2.4	<i>Rainfall to Pasture Growth Outlook Tool</i>	203
5.2.5	Module 3 - Pasture growth	
	Map farm grazing land into pasture zones based on land class and capability.	301
	Characterise the seasonal pattern and variability of rainfall and establish water use efficiency.	302
	Build and maintain soil nutrients to improve soil fertility and health in all pasture zones.	303
	Manipulate pasture species composition in each pasture zone to give best pasture growth and quality.	304
5.2.6	<i>Feed Demand Calculator</i>	305
5.2.7	Module 4 - Pasture utilisation	
	Determine stocking rate , plan paddock sequences and use tactical grazing to maximise conversion of pasture into beef.	401
	Select a paddock and determine grazing duration to achieve best utilisation and animal performance targets.	402
	Start grazing before pasture energy content and growth starts to decline .	403
	Stop grazing before pasture regrowth potential is affected .	404
	Determine rest period required to give best regrowth between grazing events.	405
5.2.8	<i>Rainfall to Pasture Growth Outlook Tool</i>	406
5.2.9	Module 5 - Genetics	
5.2.10	<i>Set the breeding objective for the herd by ensuring that the right emphasis is on different animal traits that improve enterprise profit.</i>	501
5.2.11	<i>Select the most profitable breed and/or crossbreeding system to achieve genetic progress.</i>	502
5.2.12	<i>Buy the right bulls (or semen) to maximise progress toward enterprise profit.</i>	503
5.2.13	<i>Allocate bulls to mating groups to reduce risk of inbreeding and dystocia in heifers.</i>	504
5.2.14	Module 6 - Weaner throughput	
	Maximise number of live calves per breeding female and minimise infertility in cows and bulls.	601
	Control the mating period to reduce calving spread and to maintain selected annual calving date(s).	602
	Wean as early as possible , without compromising calf growth rate.	603
	Use a female culling and replacement policy to minimise pasture use by breeders and maintain the best herd structure.	604
5.2.15	Module 7 - Herd health and welfare	
	Choose the appropriate management practice , corrective treatment or a combination to prevent common diseases or disorders	701
	Determine the risk and vaccinate to prevent specific diseases	702
	Watch for sporadic diseases and disorders	703
	Prevent the introduction of infectious diseases	704
5.2.16	Module 8 - Meeting market specifications	
	Manage the nutrition, health and welfare of sale animals to meet target market specifications on time.	801

Manage cattle two to three weeks before sale and during mustering and transport to achieve best carcase dressing percentage and avoid downgraded meat and carcasses.	802
Regularly evaluate market opportunities as feed supply, financial situation or market prices change, and select markets to maximise enterprise profit.	803

'MORE BEEF from PASTURES' Pasture Manual Modules – TOOLS or PRACTICES

5.2.17 Toolkit	Q4.6.1
Tool 1.1 Specifications for a typical enterprise simulation model	01
Tool 1.2 Template of partial budget calculations for comparing change scenarios	02
Tool 1.3 Enterprise audit sample form	03
Tool 2.1 Guidelines for establishing minimum and maximum limits for whole enterprise pasture availability into the future (or days of feed available)	04
Tool 3.1 Guide to mapping pasture zones and developing the capacity for differential land management	05
Tool 3.2 Methodology for assessing soil texture	06
Tool 3.3 Visual indicators for identifying waterlogged and salt affected soils	07
Tool 3.4 List of state departments of agriculture websites for further information	08
Tool 3.5 Establishing the normal pattern and variability of rainfall	09
Tool 3.6 A guide to measuring water use efficiency (WUE) and setting targets for all pasture zones	10
Tool 3.7 Methodology for field-based pasture measurements	11
Tool 3.8 Table of critical limits for soil nutrients and other ratios important to pasture productivity	12
Tool 3.9 Guidelines for pasture nutrient applications	13
Tool 3.10 NATA-accredited soil testing laboratories	14
Tool 3.11 Guidelines to composition measurements	15
Tool 3.12 Sources of information on common pasture species and weeds	16
Tool 4.1 Pasture rulers, sticks and meters	17
Tool 4.2 Methods for setting pasture targets for slow rotations and set stocking	18
Tool 4.3 Daily pasture growth estimates for localities and regions across southern Australia	19
Tool 4.4 Information sources on pasture utilisation	20
Tool 4.5 Grazing management options to convert pastures into beef production	21
Tool 4.6 Plant-based grazing management methods	22
Tool 5.1 BreedObject™ software	23
Tool 5.2 Sources of information for breed and crossbreed averages for important traits	24
Tool 5.3 Guidelines when considering using different breed types	25
Tool 5.4 Generic market-based breeding objectives and selection indexes	26
Tool 5.5 Bull earning capacity calculator will help you predict the estimated earning capacity of each bull based on the dollar index value and estimated number of cows to be mated	27
Tool 5.6 Calving ease EBVs for bulls available from breed society websites	28
Tool 6.1 A guide to minimum liveweights of weaner heifers	29
Tool 6.2 Condition scoring beef cattle	30
Tool 6.3 The Australian Association of Cattle Veterinarians' publication, 'Evaluating and Reporting Bull Fertility'	31
Tool 6.4 Calving histogram calculator	32
Tool 6.5 Weaning age and projected liveweights	33
Tool 6.6 A template for calculating the number of replacement heifers required	34
Tool 7.1 Conditions that exist for the development of common cattle diseases	35
Tool 7.2 Distribution maps showing trace element and mineral deficiencies for southern Australia	36
Tool 7.3 Diagnostic tool for common diseases	37
Tool 7.4 Decision support calculator to determine cost-effectiveness of common preventative treatments	38

Tool 7.5 Management strategies to prevent disease	39
Tool 7.6 Diagnostic tool to detect presence of diseases	40
Tool 7.7 Conditions and vaccines for prevention of common cattle diseases	41
Tool 7.8 Vaccination strategies	42
Tool 7.9 Zoonotic diseases of cattle	43
Tool 7.10 National Vendor Declaration (NVD) Waybill for cattle	44
Tool 7.11 Disease information sources	45
Tool 7.12 References to identification of toxic plants and noxious weeds	46
Tool 7.13 Disease risk assessment protocols	47
Tool 7.14 Diagnostic tools to assess disease status	48
Tool 7.15 Strategies to lessen the impact if disease is introduced	49
Tool 8.1 Beef cattle market specifications	50
Tool 8.2 Graphs indicating liveweight and fat score ranges over which specifications for most prime beef markets are likely to be achieved	51
Tool 8.3 Meat Standards Australia (MSA) tips & tools	52
Tool 8.4 Range of selling options	53
Tool 8.5 Obtaining price and other market information	54

