Evaluation Plan for Lifetime Wool Project

1. Introduction

1.1 Project Objective

To develop, demonstrate and communicate practical grazing management guidelines that will enable woolgrowers throughout Australia to increase lifetime production of wool per hectare from ewes and their progeny by 20%, without compromising wool quality or the environment, by 30th June 2007. This will be achieved at a total cost not exceeding $7.41 M.

1.2 Targeted next users

a) Peers and other researchers

b) Consultants & extensionists:
   - Existing wool groups (Bestwool, Bestprac, Prograze, Grasslands, WA farming interest groups)
   - Govt. Agency extension staff
   - Service providers - brokers, agents, fertilizer & merchandise suppliers
   - Consultants working with producers
   - Training organisations (TAFE, RIST, universities)

c) Wool producers:
   i) Innovative wool producers:
      - Intimately involved in LTW - about 5% of total number of producers
      - See themselves as ground-breakers/leaders
      - Able to deal with complex systems
   ii) Early Adopter wool producers:
      - 20% of total number of producers
      - Perceived to be good managers
      - Some will come to field days and groups
   iii) Early majority wool producers
      - Those producers who have over 5,000 Merino sheep

1.3 Goals related to the targeted number of producers:

- There are roughly 35,000 producers in Australia
- 8,750 are the targeted audience of LTW (top 25% - aspirant/innovative/large scale)
- Of these 8,750, we need evidence that supports that a 20% of this segment (1,750) are ‘willing’ to change practice by Sept. 2008.

If the Lifetime Wool Production is successful then 1,750 of the pool of targeted producers will be:

- Implementing a feed budget
- Strategically feeding ewes to reach targets
- Manipulating ewe nutrition for progeny production
- Practicing increased monitoring of their pastures
- Practicing increased monitoring of the condition of their ewes.

Note: This proposal builds on existing projects in Victoria and Western Australia. The total project cost of $7.41 M includes $1.08 M already invested by project partners in the period up until 1st January 2002.
2. Program logic for Lifetime Wool Production

Appendix 1 illustrates the project logic for Lifetime Wool Production that outlines the theory of action for its work.

2.2 The assumptions in the logic:
1) That the innovators will participate at the field sites.
2) That the activities proposed are sufficient to achieve the adoption targets.
3) That the three target producer groups (identified above) will be at different stages of the adoption process at the end of the project in 2007.

3. Key Evaluation Questions
1) To what extent did targeted producers gain new knowledge, attitudes, skills, aspirations (KASA) or practices towards the management of ewe nutrition?
   - What were their KASA at the outset of the project?
   - What were producers practicing before and after the project with relation to ewe nutrition?
   - What were their KASA at the end of the project?
   - Who were the adoptees?
   - Which information sources influenced them to adopt?
   - How did they use the research findings?
   - Why did some adopt, and why did others choose not to adopt?

2) To what extent did service providers gain new knowledge, attitudes skills, aspirations and practices towards the management of ewe nutrition?
   - What were their KASA at the outset of the project?
   - What were their KASA at the end of the project?
   - How did they incorporate the research findings into their practice?
   - Why did some adopt, and why did others choose not to adopt?

3) What was the quality of the Science?

4) What were the unexpected outcomes?

5) What lessons were learned?
   - How effective were the partnerships?
   - How effective were the dissemination activities?
   - How effective were the communication activities?
   - Where milestones met in full and on time? - if not why not?
### 4. Methods to address key evaluation questions

#### Key or sub-evaluation question addressed

<table>
<thead>
<tr>
<th>Key or sub-evaluation question addressed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To what extent did targeted producers gain new KASA and practices towards the management of ewe nutrition? a) What were their KASA at the outset of the project? b) What were their KASA at the end of the project? c) What were their KASA P at the outset of the project? d) What were their KASA P at the end of the project? e) What were their KASA P at the end of the project? f) Which information sources influenced them to adopt?</td>
<td>Entry survey: Short entry self-administered questionnaire (2004)</td>
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<tr>
<td>2. To what extent did service providers gain new KASA and practices towards the management of ewe nutrition? g) What were their KASA at the outset of the project? h) What were their KASA at the end of the project? i) To what extent were they aware of the research findings? j) How did they incorporate the research findings? k) Why did some adopt, and why did others choose not to adopt?</td>
<td>Pre/post Survey of attitudes and practices of consultants and extensionists 2004, 2007</td>
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<tr>
<td>3. What was the quality of the Science?</td>
<td>Peer review of published papers</td>
</tr>
<tr>
<td>4. What were the unexpected outcomes?</td>
<td>Staff journals -Will capture staff observations</td>
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<tr>
<td>5. How effective were the communication activities? How many producers are aware of LTW?</td>
<td>8. Annual Awareness survey of all wool producers nationally – 4 questions only</td>
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#### 4.1. Entry survey 2004

A 3-page, self-administered questionnaire was completed by all those who participate significantly in the project activities in 2004. This questionnaire included:

- Appropriate attributes i.e. farm size, time in industry etc.
- KASA with relation to ewe nutrition now.
- Current practice in relation to ewe nutrition.
- Identification of which segment they belong to.

#### 4.1b Entry and exit surveys for demonstration phase (2005/2007)

For the demonstration phase a similar questionnaire will be used, with the addition of the global assessment scales (the steps are outlined below):

I. All participating producers fill out the brief self-administered questionnaire.
II. The score themselves on the global assessment scale according to:
   - Their management approach before LTW
   - Their management approach now
   - Their desired management approach into the future
III. At the end of the demonstration phase the process will be repeated as part of exit interviews.
4.2 Seasonal calendars

In 2004, seasonal calendars were used to understand the different management approaches taken to managing ewe nutrition amongst participating producers. The underlying philosophy of the seasonal calendar activity was to let producers build a picture of their annual farming calendar in a visual and participatory manner, according to their own perspectives.

The seasonal calendar activity was piloted among producers who were invited from Bestwool / Grasslands and other groups, at the LTW on-farm site at Seymour. During the exercise, participants formed groups and then constructed seasonal calendars showing the main activities associated with management of ewes for each month from joining to joining.

In each case, facilitators participated in the seasonal calendar exercises by listening, taking and prompting producers to discuss and record activities of particular interest to LTW. Information from the calendars and from participants’ conversations was recorded by facilitators on to summary sheets. At the end of the activity, calendars were presented to the audience, which sometimes generated some additional discussion. The purpose of the calendars was to:

- Increase LTW's knowledge about their producer audiences.
- Help LTW characterise wool enterprises in different regions.
- Help ‘break the ice’ and stimulate discussion among producers.
- Yield useful quantitative data.
- Assist LTW to adapt research presentations to the audience.
- Stimulate a holistic perspective of producers’ ewe and pasture management systems.

This method will be superseded by the global assessment scales that were developed out of the knowledge gained from seasonal calendars.

4.2b Global assessment scales

Three global assessment scales will be developed to summarise the seasonal calendar information in terms of producers approach to i) monitoring ewes, ii) monitoring pastures iii) feeding to targets (LTW evaluation staff have named these scales ‘Management Platforms’.)

The scales can be used to show changes in management, from one platform to another. It is envisaged that the platforms can also be used as a tool for fast and simple recording of farmers actual, past or anticipated practices.

4.3 Case studies with 16 key informants

These informants have paddock-scale or plot scale experimental sites on their properties. It was noted during recent contact (2004), that these producers had already been profoundly influenced by having the research sites on their farms – some said they have already begun to change their practice. Their responses are valuable as they provide an early indication of how other producers might respond to the messages of the Lifetime Wool project.

This method consists of a series of in-depth, face-to-face interviews to be held between September 2004 and March 2005. These will be followed-up with telephone calls every four months throughout the life of the project, through different seasonal conditions. This data will be written into 16 case-studies.

Steps of implementation

1. Collection and review of existing data about the farms - it is expected that there is considerable data that already exists about research trial sites
2. Development of an interview guide and process
3. Pilot the interview guide and conduct 5 interviews in Victoria
4. Analyse the interviews using N-vivo, qualitative software
5. Interview the remaining producers who have paddock-scale sites (July to September) in Vic NSW, SA and WA

The idea is to capture data about what these producers have adopted on their properties and why. In order to answer the why component, sufficient contextual data will be needed (such as farm size, attitudes towards animal welfare, primary drivers) to understand the producers’ behaviour in regards to adoption and non-adoption of the Lifetime Wool research findings.

4.4 Tailored producer survey in 2005 and 2007

In 2005 a telephone survey will be conducted with a broad, representative sample of wool producers nationally. This survey will be repeated again at the end of the project. The exact numbers need to be calculated, but an extra 20% should be interviewed in 2005 to allow for producers who have dropped out of farming, or who are not contactable in 2007.

The first preference is a telephone survey, but if it is not possible to do a telephone survey with these types of questions, we would do a postal survey. It was agreed that telephone surveys are preferable as they are quicker and have a higher response rate.

In the case of this ‘tailored’ survey, we suggest that there is some screening of informants at the start. We only need to interview those classified as ‘innovators or aspirants’ — or those who have over 5000 sheep. To gain the right segment to interview, we could firstly ask a series of filter questions. Once the filter has been applied a number of questions will be asked to determine where they are on the global assessment scales with relation to:

   a) Pasture monitoring
   b) Monitoring ewe nutrition
   c) What producers consider when decide when and what to feed

Ideally they will also be asked where they want to be with regard to each statement in terms of:

   • Where they are now with practices
   • And which level they are working towards

50% of the sample be drawn from the Lifetime Wool data base, and another 50% be drawn randomly from the National Wool Desk data base. Some stratification may be needed to ensure that there is a representative sample from each State (perhaps representative against the $ value of wool from each State?) and the 2 groups would need to be matched as much as possible.

4.5 Survey of attitudes and practices of consultants and extensionists 2004, 2007

Two key methods were used to survey the targeted informants:

1 26 Private consultants were interviewed using a semi-structured interview process that was conducted over the telephone (see Appendix I for guide questions).
2 25 Government extension staff completed a structured email survey, which they were asked to complete electronically.

In both cases the questionnaires were piloted with a small number of informants prior to being administered. The questionnaires consisted largely of open-ended questions. The responses were analysed using descriptive statistics and thematic coding.

4.6 Peer review of published papers

Evidence concerning the quality of science underpinning the LTW project will be assessed by way
of peer review. The perspectives of consultants and peers are captured via the survey of service providers. In addition to this, publications will be peer reviewed by discipline experts.

4.7. Staff journals to record routine data and observations
In 2005 a system of quarterly staff journals will be implemented. All staff involved in field work will fill out a standard format every 3 months. This journal would include reporting activities, observations, and staff would append any feedback sheets or questionnaires to it. The idea is that Gus Rose will collate these reports every quarter, to give a quarterly report for the whole project. These reports will be compiled into an annual summary report.

4.8. Annual awareness survey
The existing Wool Desk survey can be used to determine how many people are aware of LTW. Additional questions will be asked to determine what segment of producers are aware/not aware. These questions will be included in the Wool-Desk survey annually to track the progress in communications.

5. Management and Utilisation Strategy

5.1 Who will conduct the evaluation & how will credibility be ensured?
Routine data collection will be conducted by the monitoring and evaluation officer – Gus Rose. The overall evaluation plan will be overseen by Dr Andrew Thompson, the manager of Lifetime Wool. Some parts of the evaluation field work will be conducted by an external evaluator in order strengthen the credibility of the evaluation. An external consultant with expertise in evaluation will also act as ‘coach’ and mentor to Gus Rose. This will also contribute to the rigour of the monitoring and evaluation work.

5.2 What additional resources are needed? I.e. training, information system, external help
The monitoring and evaluation officer, Gus Rose, will need training in evaluation, and is currently enrolled to attend the DPI evaluation training. It is anticipated that Gus Rose may also need ongoing guidance in order to complete the evaluation task, and this will be provided by the external consultant.

5.3 What meta-evaluation will be conducted?
An evaluation working party will be established in 2005 to ensure that the evaluation plan remains relevant and is meeting information needs. This group will meet every 6 months, and will update the evaluation plan as needed.

5.4 Who needs to receive the findings of the evaluation?
The project team are a key audience of the evaluation. For this reason the plan includes a team-wide, annual reflection. This should ensure that any emerging lessons are incorporated into the project work. On a smaller scale, debriefing after any events, is designed to encourage staff to reflect on what could have been done differently, and what worked well, and to incorporate these lessons into subsequent events.

Other major audiences for Lifetime Wool are AWI and DPI. It is considered essential that the evaluation plan be signed off by these parties. LTW will also make a policy of keeping the funders up to date with regard to any emerging evaluation findings. Prior to the final report, the consultant, or a staff member will consult with the funders to check what type of report is required.

5.5 How will the results be presented/reported?
The format of the final report has yet to be determined, but will be developed in conjunction with the major funders.
5.7 How will the recommendations be developed?
A workshop to develop recommendations will be convened once the final report is in draft form. The idea of this workshop is to present the findings of the project evaluation final report, and to jointly develop recommendations for future projects with the funders and managers of LTW.

5.8 What processes are in place to ensure that the evaluation is timely and of manageable scope?
The field work for the final evaluation should be programmed to finish 6 months before the end of the project.

5.9 What processes are in place to ensure that the evaluation findings get used?
An annual reflection after compiling a results ladder, will ensure that the team incorporate findings into their work. They will also feed this information to the evaluation audience via milestone reports and on-going relationships.
## Appendix 1: Program Logic

### Changes in:
- **Social, Economic & Environmental conditions (SEEC)**
- **Knowledge, Attitudes, Skills & Aspirations (KASA)**

### Practice change

#### Changes adopted by next users:
- Disseminating to clients
- Assisting clients with their understanding

#### KASA changes:
- **K** Understand response curves relating ewe nutrition to ewe & progeny performance
- **A** Recognition of potential to change industry and their own area of speciality
- **Asp** Future collaboration

#### Reactions:
- Ownership
- See it as an opportunity for clients
- Enthusiasm

#### Innovative Producers:
- Intimately involved
- about 5% of total number of producers
- See themselves as ground-breakers/leaders
- Able to deal with complex systems

#### Reactions:
- It is a new idea!
- Excitement
- Has potential to increase profit
- I want to know more
- There are things in it for me

### Peers

#### Consultants & Extensionists:
- Existing wool groups (Bestwool, Bestprac, Prograze, grasslands, WA farming interest groups)
- Govt. Agency extension staff
- Service providers - brokers, agents.

#### Reactions:
- Find research highly credible
- Feel stimulated
- Give constructive criticism

### Consultants & Extensionists

#### KASA changes:
- Understanding of research outcomes and systems context
- Learn new skills as required

#### Reactions:
- Ownership
- See it as an opportunity for their clients
- Enthusiasm

### Innovative producers

#### KASA changes:
- Estimate FOO
- Optimum LW & condition targets
- How to implement feed budgeting
- Not too risky
- Potentially profitable
- Shift of focus from DSE to energy required
- Managing ewes is important
- Estimate FOO & condition score or access skills.
- Feed to maintain C/S
- Feed budgeting

#### Reactions:
- It is a new idea!
- Excitement
- Has potential to increase profit
- I want to know more
- There are things in it for me

### Aspirant producers

#### KASA changes:
- Awareness of technical management practices
- Gives them greater control over risk
- More accepting of research outcomes
- Proactive adoption
- Implement the new technology and management practices
- Improved profitability
- To be seen as an innovators and manager

#### Reactions:
- Positive, relevant
- Challenging but achievable
- Reduced fear of change
- Wanting more
- Querying at tactical level

### Other Producers

#### Reactions:
- By the year 2008 users will be aware of project outcomes and will have a positive reaction towards them.

#### Final users:
- 40% of growers

### Changes in:
- **KASA = Knowledge, attitudes, skills and aspirations**

#### Social:
- Improvement animal welfare and animal health

#### Economic:
- Increased relative profitability, (both long & short term) of wool production through:
  - Improved utilisation of pasture 30%-45%
  - Improved performance of progeny

#### Environmental:
- Less environmentally vulnerable pastures & paddocks
- Less bare ground to start and finish season -

#### Changes in:
- Knowledge, Attitudes, Skills & Aspirations (KASA)

#### KASA changes:
- **K** Understand response curves relating ewe nutrition to ewe & progeny performance
- **A** Recognition of potential to change industry and their own area of speciality
- **Asp** Future collaboration

#### Reactions:
- Ownership
- See it as an opportunity for their clients
- Enthusiasm

#### Innovative Producers:
- Intimately involved
- about 5% of total number of producers
- See themselves as ground-breakers/leaders
- Able to deal with complex systems

#### Reactions:
- It is a new idea!
- Excitement
- Has potential to increase profit
- I want to know more
- There are things in it for me

#### Aspirant producers:
- 20% of total number of producers
- perceived to be good managers

#### Final users:
- 40% of growers
### Appendix 1: Program Logic

<table>
<thead>
<tr>
<th>Dissemination</th>
<th>New Knowledge</th>
<th>Research activities</th>
<th>Resources</th>
</tr>
</thead>
</table>
| ● International sheep conference  
● Proactive networking  
● Papers AJAR etc |  |  |  |
| ● Direct contact during project  
● Early involvement/ ownership  
● Involvement in local sites  
● Field days  
● Package of information which can be easily tailored for clients  
● Direct training at final outcomes | ● Ewe nutrition effects on ewe and progeny lifetime performance  
● Quantifiable information on the benefits of different ewe management strategies (trade-offs)  
● Localised pasture growth rates  
● Unintended new knowledge such as: survival, fertility, worms, wool production, wool quality’ | ● Plot scale sites (WA, VIC)  
● Paddock scale sites (5 states)  
● Off-site activities (feed intake, grass feed, validation, modification, modelling) Student training | ● $6 million  
● Partners (AWL, State Dept., CSIRO)  
● Producers – pilot & paddock scale collaborators & groups  
● Sponsors (semen, fertiliser)  
● Industry advisers |
| Dissemination:  
● Consultants working with producers  
● Training organisations (TAFE, RIST, universities) |  |  |  |
| Dissemination:  
● Cold calling known innovators  
● Clear messages  
● Hands-on demonstration sites and field days  
● Access to researchers |  |  |  |
| Dissemination:  
● Field days, Farm walks  
● ‘one pager’ – non technical  
● Case study  
● Newsletter – media advertorial  
● Electronic – web based  
● Through secondary agricultural service providers |  |  |  |
| Dissemination:  
● “Beyond the bale”  
● rural newspapers  
● TV  
● Through secondary agricultural service providers |  |  |  |

**KASA** = Knowledge, attitudes, skills and aspirations
Questionnaire for 2008 National Sheep Producer Survey
Final Version (April 2008)

PREAMBLE

Good [...] my name is [...] from Taverner Research in Sydney. I am calling on behalf of the Department of Primary Industries in your state. In 2005 you were surveyed to find out how you managed your ewes and you agreed to be interviewed again in 2008. Would you mind participating in another 10 minute survey on the same topic? All responses are confidential and will be stored as anonymous data.

***PART I: YOUR WOOL ENTERPRISE***

1. This part of the survey is about your wool enterprise. Do you currently have 500 or more sheep on your property?
   1. Yes CONTINUE
   2. No THANK AND TERMINATE: “Thanks for your time however for this survey we need to speak to producers with 500 or more sheep on their property”

2. How many of each of the following classes of sheep do you currently have on your property? Please include weaners and hogget ewes, rams and wethers in the ewe, ram, and wether numbers.

<table>
<thead>
<tr>
<th>Class</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)  Merino ewes</td>
<td></td>
</tr>
<tr>
<td>b)  Merino cross ewes</td>
<td></td>
</tr>
<tr>
<td>c)  Meat breed ewes [all other than Merinos]</td>
<td></td>
</tr>
<tr>
<td>d)  Rams [all breeds]</td>
<td></td>
</tr>
<tr>
<td>e)  Lambs [all breeds]</td>
<td></td>
</tr>
<tr>
<td>f)  Wethers [all breeds]</td>
<td></td>
</tr>
</tbody>
</table>

DP INSTRUCTIONS: SUM OF Q2 MUST BE 500 OR MORE

3. How many of your merino ewes were mated to Merino rams in 2007?  
   INTERVIEWER NOTE: DO NOT INCLUDE MERINO CROSS EWES  
   NO ranges, whole numbers only  
   Number: ________________

4. What month do you join your Merino ewes to Merino rams?  
   INTERVIEWER NOTE: DO NOT INCLUDE MERINO CROSS EWES  
   Month: ________________

5. What was your Merino lamb marking per cent in 2007?  
   INTERVIEWER NOTE: LIMITS 25 TO 150% - NO ranges, whole numbers only  
   1. Per cent: ________________  
   2. No Merino lambs in 2007
6 What area of pasture do you use for grazing sheep (excluding stubbles, salt land and fodder crops)? INTERVIEWER NOTE: NO ranges, whole numbers only
Acres: _______________ OR
Hectares: _______________

7a In which state or territory is your property located? SINGLE RESPONSE
1 NSW
2 Queensland
3 Victoria
4 South Australia
5 Western Australia
6 Tasmania
7 ACT

7b What is the closest town to your property? [Locator file to be provided]

8 Which of the following sheep or wool research or producer groups do you belong to? READ OUT ACCEPT MULTIPLES
1 Local farmer group
2 Performance Breeders
3 Bestwool
4 Stud Breeders Association
5 Lifetime Ewe Management
6 Q Lamb
7 Grain and Graze
8 None of the above

8b Please state any other sheep or wool research or producer groups you belong to
1 Groups belong to (specify) ______________________________
2 None

9 Do you pay for advice on managing your sheep (for example from private consultants or agronomists)?
1 Yes
2 No
10a  Do you benchmark your sheep enterprise against other farmers’?
     1  Yes  CONTINUE
     2  No  SKIP TO Q11

10b  What program are you involved in that allows you to benchmark your enterprise against others? PROBE FULLY: What else?

***PART II: PASTURE MANAGEMENT PRACTICES***

ASK ALL
11a  This part of the survey is related to pasture management practices. Do you assess the AMOUNT of green pasture in your paddocks?
     1  Yes  CONTINUE
     2  No  SKIP TO Q12a

11b  Which of the following best describes how you assess the AMOUNT of green pasture in your paddock? Do you  READ OUT  SINGLE RESPONSE
     1  make a visual assessment using broad terms such as ‘not enough’, ‘good’, ‘plenty’?
     2  make visual assessments using photo references as a guide?
     3  use a pasture stick?
     4  use a pasture quadrat?
     5  cut and dry pasture samples?
     6  use another method (specify)

ASK ALL
12a  Do you assess pasture GROWTH RATES?
     1  Yes  CONTINUE
     2  No  SKIP TO Q13a

12b  Which of the following best describes how you assess pasture GROWTH RATES? Do you:  READ OUT  SINGLE RESPONSE
     1.  assess visually?
     2.  use a pasture cage?
     3.  use the Pastures from Space web site?
     4.  use another method (specify)?
ASK ALL

Do you assess pasture QUALITY?

13a  
1. Yes  CONTINUE
2. No  SKIP TO Q14a

13b  Which of the following best describes how you assess pasture QUALITY? Do you:

READ OUT SINGLE RESPONSE

1. Use visual assessments?
2. Cut pasture samples and have them analysed?
3. Use another method? (specify)

ASK ALL

Do you feed budget the pasture?

14a  INTERVIEWER NOTE: Many producers would do feed budgets for supplements (hay, grain etc for the dry season) but this is about managing the green pasture.

1. Yes  CONTINUE
2. No  SKIP TO Q15

14b  Which of the following best describes how you feed budget? Do you: READ OUT SINGLE RESPONSE

1. Do a quick simple ‘back of the envelope’ calculation to work out what your stock need?
2. Use feed budget tables to calculate feed requirements?
3. Use a computer program with pasture analysis information to do a formal feed budget?
4. Use another method? (specify)

ASK ALL

In a non-drought year, would you normally supplementary feed your ewes?

1. Yes
2. No

***PART III: EWE FLOCK MANAGEMENT***

If producers do not have ewes (Q2 Codes a + b+ c = 0) SKIP TO Q20. All others ask:

16  This part of the survey explores ewe flock management. Do you run ewes in groups of the same age or colour tag?

1. Yes
2. No
17a. Do you usually weigh your ewes?

1. Yes  CONTINUE
2. No  SKIP TO Q18

17b. Do you use the information for: READ OUT  ACCEPT MULTIPLES

1. Marketing purposes?
2. Drafting out lighter or heavier ewes so you can manage them separately?
3. Managing the ewe flock to predetermined targets for joining?
4. Managing the ewe flock to predetermined targets for lambing?
5. Other purposes? (specify)

17c. When do you weigh your ewes? When the ewes are mustered  READ OUT  ACCEPT MULTIPLES

1. to remove rams at the end of mating?
2. in mid pregnancy to be scanned for the diagnosis of conception and/or litter size?
3. to give them a pre-lambing worm drench and/or pre-lambing vaccination?
4. after the end of lambing to mark their lambs?
5. to draft off their lambs for weaning?
6. Other (specify)

18a. Do you monitor the condition of your ewes throughout the year?

1. Yes  CONTINUE
2. No  SKIP TO Q19

18b. How do you monitor the condition of your ewes, do you: READ OUT  ACCEPT MULTIPLES

1. Use visual assessment in the paddock; e.g. eyeballing ewes?
2. Use your hands to assess condition score of a number of ewes within the mob?
3. Use your hands to assess fat score?

18c. When you monitor ewe condition do you use the information for: READ OUT  ACCEPT MULTIPLES

a) Marketing purposes?
b) Drafting out lighter or heavier ewes so you can manage them separately?
c) Managing the ewe flock to predetermined targets for joining?
d) Managing the ewe flock to predetermined targets for lambing?
e) Other purposes? (specify)
18d When do you monitor the condition of your ewes? When the ewes are mustered READ OUT ACCEPT MULTIPLES
1 to remove rams at the end of mating?
2 in mid pregnancy to be scanned for the diagnosis of conception and/or litter size
3 to give them a pre-lambing worm drench and/or pre-lambing vaccination?
4 after the end of lambing to mark their lambs?
5 to draft off their lambs for weaning?
6 Other (specify)

19a Do you scan ewes for pregnancy?
1 Yes CONTINUE
2 No SKIP TO Q20

19b Do you identify twin bearing ewes?
1 Yes ASK 19C1
2 No ASK 19C2

19c1 At scanning in 2007 what was the overall result in terms of READ OUT
Dry ewes ________%
Single bearing ewes ________%
Twin bearing ewes ________%

DP INSTRUCTIONS: MUST ADD UP TO 100%
NOW SKIP TO Q19D

19c2 At scanning in 2007 what was the overall result in terms of READ OUT
Dry ewes ________%
Pregnant ewes ________%

DP INSTRUCTIONS: MUST ADD UP TO 100%
NOW SKIP TO Q20

19d Do you manage single and twin bearing ewes separately?
1 Yes
2 No
PART IV: WILLINGNESS TO TRY DIFFERENT APPROACHES TO EWE AND PASTURE MANAGEMENT PRACTICES.

The next part of the survey explores your willingness to try different approaches to ewe and pasture management practices.

Using a scale of 1 to 5, where 5 means you are VERY WILLING and 1 means you are NOT AT ALL WILLING, please rate your willingness to try the following approaches to ewe or pasture management. Alternatively, please state if you are already doing it.

READ OUT EACH STATEMENT ROTATE STATEMENTS

a. How willing are you to try formal pasture assessment methods to determine feed on offer, pasture growth rate and pasture quality?

b. How willing are you to try formal systems of condition scoring, fat scoring or weighing of ewes to monitor their condition?

c. How willing are you to separate ewes into lighter and heavier mobs and manage the mobs according to their different nutritional needs?

d. How willing are you to try formal feed budgeting to assist with getting ewes to a target body weight or condition score?

e. How willing are you to try pregnancy scanning to separate twin bearing ewes to manage them as a separate mob?

1 Not at all willing 6 (Already doing it)
2
3
4
5 Very willing

PART V: PRACTICE CHANGES OVER THE LAST 5 YEARS.

The next couple of questions relate to any practice changes over the last 5 years.

Have you made any changes to the way you manage your pastures or ewes over the last five years?

1 Yes CONTINUE
2 No SKIP TO Q23

Did you make any changes to how you manage your pastures or ewes because of information you have received from the Lifetime Wool Project?

1 Yes
2 No
***PART V: MANAGING EWE CONDITION***

23 This part of the survey relates to managing ewe condition.

I am going to read out a set of statements related to effects of managing ewe condition. Using a scale of 1 to 5 where 5 means you STRONGLY AGREE and 1 means you STRONGLY DISAGREE please tell me how much you agree or disagree with each statement. If you don’t have an opinion one way or the other please rate as a ‘3’.

READ OUT EACH STATEMENT       ROTATE STATEMENTS

a. Lamb birth weights will increase if the body condition of a ewe increases during late pregnancy.
b. Improving the body condition of a ewe during pregnancy and early lactation can decrease the wool fibre diameter of her offspring.
c. Farm profit is responsive to the condition of the ewe throughout the year.
d. Lamb birth weight is a key factor affecting lamb survival.
e. You need to condition score ewes or weigh them to accurately assess their body condition.
f. Lamb survival is strongly influenced by how much you feed your ewes through pregnancy.
g. Ewes that are fed more will have an increase in ewe clean fleece weight and ewe fibre diameter compared to ewes that are fed less.
h. Improving the condition of a ewe during pregnancy and early lactation can increase fleece weights in progeny.
i. The effect that the condition of a ewe during pregnancy and lactation has on the clean fleece weight and fibre diameter of their progeny can increase affect farm profits.
j. Poor ewe condition at lambing has more affect on twin lamb survival than single lamb survival.
k. The effects that the body condition of a ewe has on the fleece weight and fibre diameter of her progeny are permanent over the progeny’s lifetime.
l. Ewes with higher condition score at lambing will have less mortality than ewes with lower condition score.
m. Ewes higher in condition score at joining conceive more lambs.

1  Strongly disagree  4
2  5  Strongly Agree
3  No opinion

24a That finishes the interview. Many thanks for participating. Would you like to receive a copy of the results?

1  Yes  CONTINUE
2  No  GO TO END
24b  Can I please collect some details so that the results can be posted or emailed to you?

**INTERVIEWER NOTE:** ASK IF POST OR EMAIL PREFERRED AND COLLECT APPROPRIATE INFORMATION – PLEASE SPELL BACK ALL ADDRESSES / EMAIL ADDRESSES

1  Name:

2  Phone number:

3  Postal address:
   Or

4  Email address

END
Thank you for your time.
PREAMBLE
Hello. I am calling for the department of Agriculture in you state who is collecting information about ewe management in wool producing enterprises. Would you please assist us by participating in a ten minute survey? Just so you know, all responses are confidential and will be stored as anonymous data.

PART I: THIS PART OF THE SURVEY IS ABOUT YOUR WOOL ENTERPRISE

1. How many sheep did you shear in 2004? (If less than 500 exit interview)
2. How many of those sheep were adult Merino ewes?
3. What number of lambs would you expect to wean / 100 Merino ewes joined in an average year?
3A. What number of lambs did you wean / 100 Merino ewes joined this year?
4. What area of pasture do you use for grazing sheep in winter? (specify hectares or acres)

For question 3 and 4 can we put a lower limit of 25% and an upper limit of 125%
What area of pasture do you use for grazing sheep in winter? (specify hectares or acres)

5. What region is your property located? (select from locality list - supplied by DAWA)
6. Do you belong to any sheep or wool producer groups? Yes/No (tick boxes, add names of other groups mentioned)

<table>
<thead>
<tr>
<th>Bestwool</th>
<th>Woolpro</th>
<th>Performance Breeders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prograze</td>
<td>Pastures from Space</td>
<td>Q lamb</td>
</tr>
<tr>
<td>Sheep's Back</td>
<td>Stud Breeders association</td>
<td>Other (please state)</td>
</tr>
</tbody>
</table>

7. Do you get farming information and advice from private consultants? Yes/No
8. Which of the following three statements best describes your approach to trying out new ideas on your farm?
   a. I'm usually one of the first farmers in my district to try new ideas.
   b. I tend to wait and see new ideas proven by other producers before I try them.
   c. I tend not to try new ideas.

9. Would you say that you are viewed as a leading producer in your district? Yes/No/Unsure
10. Do you act as a consultant or adviser for other wool producers? Yes/No

PART II: THIS PART OF THE SURVEY IS RELATED TO PASTURE MANAGEMENT PRACTICES.

Please answer Yes or No to the following questions

11. Do you assess the amount of green pasture in your paddocks? Yes/No

If you do assess the amount of green pasture in your paddock, do you:
   a) rely mainly on visual assessments (e.g. eyeballing paddocks)?
   b) use a pasture stick?
c) use a pasture quadrant?  
d) cut and dry pasture samples?  
e) use another method?

12. Do you assess pasture growth rates? Yes/No

If you do assess pasture growth rates, do you:
   a) rely on visual assessments?  
   b) measure pasture growth rates using a pasture cage?  
   c) estimate pasture growth rates using pastures from space?  
   d) use another method?

13. Do you assess pasture quality to help feed budgeting? Yes/No

If you do assess pasture quality for feed budgeting, do you:
   a. Use visual assessments?  
   b. Cut pasture samples and have them analysed?  
   c. Use a computer program with pasture analysis information for formal feed budgeting?

PART III: THIS PART OF THE SURVEY OF EXPLORES EWE FLOCK MANAGEMENT

Please answer Yes or No to the following questions

14. Do you run ewes in mobs according to age status? Yes/No

15. Do you usually weigh your ewes? Yes/No

If you do weigh your ewes, do you use the information for:
   a. Marketing purposes?  
   b. Drafting out lighter or heavier ewes so you can manage them separately?  
   c. Managing the ewe flock to predetermined targets for joining?  
   d. Managing the ewe flock to predetermined targets for lambing?  
   e. Other purposes?

16. Do you monitor the condition of your ewes throughout the year? Yes/No

If you do monitor the condition of your ewes, do you:
   a. Use visual assessment (e.g. eyeballing ewes?)  
   b. Use your hands to assess condition score?  
   c. Use your hands to assess fat score?

When you monitor ewe condition do you use the information for:
   d. Marketing purposes?  
   e. Drafting out lighter or heavier ewes so you can manage them separately?  
   f. Managing the ewe flock to predetermined targets for joining?  
   g. Managing the ewe flock to predetermined targets for lambing?
h. Other purposes?

17. Do you scan ewes for pregnancy?
   If you do use scanning, do you:
   a. Do you identify twin bearing ewes?
   b. Do you manage single and twin bearing ewes separately?

18. Do you supplementary feed your ewes?
   If you do supplementary feed your ewes, do you:
   a. Feed ewes in order to get them up to a set condition score or weight target?
   b. Calculate feed requirements using a formal (e.g. computer) feed budget

PART IV: THE NEXT PART OF THE SURVEY EXPLORES YOUR WILLINGNESS TO TRY DIFFERENT APPROACHES TO EWE AND PASTURE MANAGEMENT PRACTICES.

19. Please rate your willingness to try the following approaches to ewe or pasture management on a scale of 1 to 5, with 1 indicating you are not at all willing and 5 indicating you are very willing.

   Please indicate that the statement is not relevant if you are already using the approach.

   a. How willing are you to try formal pasture assessment systems to calculate feed on offer, pasture growth rate and pasture quality.
   b. How willing are you to try formal systems of condition scoring, fat scoring or weighing of ewes to monitor their condition.
   c. How willing are you to separate ewes into lighter and heavier mobs and manage the mobs according to their different nutritional needs?
   d. How willing are you to try a formal pasture budgeting program to assist with getting ewes to a target body weight or condition score.
   e. How willing are you try pregnancy scanning to separate twin bearing ewes to manage them as a separate mob.

PART V: THIS PART OF THE SURVEY RELATES TO MANAGING EWE CONDITION

20. I am going to read out a set of statements related to effects of managing ewe condition. Please rate your agreement with each of the statements from 1 to 5, with 1 indicating you strongly disagree and 5 meaning you strongly agree.

   a. Lamb birth weights will increase if the body condition of a ewe increases during late pregnancy.
   b. Improving the body condition of a ewe during pregnancy and early lactation can decrease progeny fibre diameter.
   c. Farm profit is responsive to how much you allow a ewe to eat during pregnancy and lactation.
   d. Lamb birth weight is the key to lamb survival.
   e. You need to put your hands on ewes or weigh them to accurately assess their body condition.
f. Farm profit is responsive to how many lambs survive to hogget shearing.

g. Lamb survival is strongly influenced by how much you feed your ewes through pregnancy.

h. Ewes that are fed more will have an increase in ewe clean fleece weight and ewe fibre diameter compared to ewes that are fed less.

i. Improving the condition of a ewe during pregnancy and early lactation can increase fleece weights in progeny.

j. The effect that the condition of a ewe during pregnancy and lactation has on the clean fleece weight and fibre diameter of their progeny can increase farm profits.

k. It is profitable to scan for twin bearing ewes and run them as a separate mob.

l. Getting twin lambs to survive is best way to increase your weaning percentage.

m. The effects that the body condition of a ewe has on the fleece weight and fibre diameter of her progeny are permanent over the progeny’s lifetime.

PART VI: THE FINAL PART OF THE SURVEY IS ABOUT YOUR AWARENESS OF THE LIFETIME WOOL PROJECT

21. Have you heard of the lifetime wool project funded by Australian Wool Innovation? Yes/No (if No close out of the interview)

If you have heard of the Lifetime Wool project where did you first hear about it?

<table>
<thead>
<tr>
<th>Neighbours</th>
<th>Workshop or seminar</th>
<th>Contacted by Lifetime Wool project staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultant</td>
<td>Rural Press</td>
<td>Beyond the Bale</td>
</tr>
<tr>
<td>Other (please state)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

That finishes the interview, many thanks for participating and if you are interested in the results they will be posted on the AWI website

Would the project be able to call you for a similar survey in 2008 so we can track changes you make between now and then. If yes;

Name:

Phone number:

Thank you for your time.