
Wool – Leading the Way Environmentally

Prepared for Australian Wool
Innovation Ltd and Elders Ltd

By The Australian Land
Management Group

September 2008



Wool – Leading the Way Environmentally

Prepared for Australian Wool
Innovation Ltd and Elders Ltd

By The Australian Land
Management Group

September 2008

The Australian Land Management Group
'Avondale', Vinegar Hill Rd
LEGUME NSW 2476
Phone: + 61 (07) 46664112
Mobile: (not at Legume) 0402 099 884
Email: syncons@bigpond.com
www.alms.org.au

CONTENTS

Executive Summary	1
Introduction	3
Landholder evaluation of ALMS	4
Incorporating a wool NRM module into ALMS	9
Discussion	12
Appendix 1	15
Appendix 2	16
Appendix 3	18

Acknowledgments: The project would not have been possible without the leadership and support provided by Elders Ltd, Australian Wool Innovation Ltd and South Australia FarmBis. The on-going communication with Antonia Karamanidis (Elders) and Renelle Jeffery, Lu Hogan, Ben Lyons and Clare Walsh (AWI) is appreciated. The support from Bruce Munday, Chelsea Muster, Hansie Armour and Bryan Johnston was critical to establishing the groups of participating land holders. Highly professional training and auditing services were provided by Darren Marshall, Michael Grosser, Julia Telford, Bryan Johnston and Simon Ellis. The editing assistance of Anne Currey, Naturally Resourceful Pty Ltd, could only be fully appreciated by those who saw the earlier draft.

Front cover photo: Thanks to Rick Turner.

EXECUTIVE SUMMARY

This project has demonstrated the feasibility of wool growers implementing the Australian Land Management System (ALMS) as a credible, effective and cost efficient environmental certification system with on-farm and landscape-wide benefits.

The project lead to the ALM Group being awarded the South Australian FarmBis award for excellence in natural resource management training and it has strengthened the recognition of ALMS from wool marketers and from catchment management authorities across three States. Additionally, in what is believed to be an Australian first, a major Japanese apparel company, Onward Kashiyama, has agreed to support ALMS. This decision reflects Onward Kashiyama's policy to adopt the ISO14001 environmental management standard as is embedded in ALMS.

It is evident from these developments that ALMS has the potential to underpin the green credentials of wool, a foundation feature of the recently relaunched Woolmark brands.

These developments constitute a compelling case for industry wide and public program support to accelerate the implementation of ALMS. More broadly the project findings, and those of earlier related studies, highlight the need for a fundamental reassessment of the role of well designed whole-of-farm environmental management systems in rural Australia.

The project involved:

- The implementation of the Australian Land Management System (ALMS) by land holders in four regions in South Australia and New South Wales.
- A fundamental restructuring and upgrading of the default data in the customised software used to assist landholders implement ALMS and have it audited
- A refinement of the ALM training processes
- An audit of the ALM training processes by an ISO14001 accredited auditor
- The presentation of the ALM system to a major wool apparel company in Japan

The project findings include:

- A consistently strong endorsement by land holders of the ALMS concepts and design features, particularly in relation to ALMS being applicable across mixed enterprises/industries, ALMS being based on internationally recognised standards and ALMS being externally audited.

- A very positive response from landholders to the use of the internet based software tool, *myEMS* and to the ALM Group training processes, a judgement supported by the ALM Group being awarded the South Australian FarmBis award for excellence in natural resource management training.
- A recognition by land holders of the need to align and capture industry, public and consumer support for improving environmental outcomes and that this can only be achieved through the credible application of an internationally recognised certification system.
- A restructuring and upgrading of the default data in *myEMS* to form a single Australian data base searchable according to State, to ANZSIC agricultural industry categories and to twenty activity categories, including such as water, drought and flood management, animal pest and weed management, climate change and variability, special conservation, biodiversity support and ecosystem health and education and training.
- An ISO14001 accredited auditor confirmed that adoption of the ALM training and audit processes would result in an environmental management system consistent in the main with the requirements of ISO 14001: 2004.
- Support for the ALM Group environmental certification activities from a major Japanese apparel company, Onward Kashiya; there being a close match between ALMS and Onward's environmental policy goal of creating environmental management systems based on the ISO 14001 standard.

On the basis of these and earlier findings it is now possible to unequivocally dismiss assertions that it is impractical to adopt ISO14001 compliant environmental management systems for land management. Furthermore the findings do not support the view expressed in industry and government that differences between industries prevent industry specific requirements being met under the umbrella of a whole-of –farm, ISO14001-compliant system.

Agriculture and economies more broadly, are in the era of global risk management across a wide spectrum of real and emerging issues to do with finance, energy use, global warming and bio-security. These are critical issues for the export oriented Australian agricultural sector. But so too is the risk of environmental degradation and /or of an international perception of environmental mismanagement. We now have the wherewithal to lead on this issue - we just need the leadership.

INTRODUCTION

This is a report on the adoption of the Australian Landcare Management System (ALMS) by landholders producing wool. The project was supported by Elders, Australian Wool Innovation (AWI), Landcare Australia and the Australian Land Management Group (ALM Group). The report builds on an earlier survey of ALM Group members producing wool in South Australia¹.

ALMS

ALMS is a whole-of-farm, catchment linked externally audited continuous improvement environmental management system (EMS) that is compliant with the internationally accepted ISO14001 environment management standard. Additionally ALMS requires continuous improvement in support for biodiversity conservation and consideration of catchment priorities and strategies.

‘Our most acute need was to devise a system that would be attractive to landholders, that would take account of their capabilities and aspirations, that would enable creativity and sustained commitment and at the same time would meet the legitimate community requirement to have measurable improvement in environmental performance’².

Context

The application of environmental management systems (EMS) to land management in rural Australia has been grossly mismanaged on several counts³.

First the morphing of the quite reasonable proposition that improving environmental outcomes ought to be industry driven into a proposition that each industry ought to go it alone is indefensible.

Second the singling out of EMS as the only environmental instrument that requires food and fibre market based support has been naive and counterproductive.

Third the introduction of EMS prior to there being adequate designing and tool development phases and the continuing advocacy of facsimile approaches has complicated the introduction of soundly designed and supported systems.

¹ Gleeson T and Grosser M. (2006) Experiences of landholders adopting ALMS using myEMS: Report to Australian Wool Innovation

² Gleeson T. (2006) Guide to Australian Landcare Management System. ISBN 0-9580765-3-7

³ For a broader discussion see Gleeson T. and Carruthers G. (2006) What Could EMSs Offer Land Management in Rural Australia. Farm Policy Journal Vol.3 No 4. p1-13.

LANDHOLDER EVALUATION OF ALMS

Introduction

The purpose of this part of the project was to extend our previous experience implementing ALMS with landholders from various industries to implementing ALMS with landholders sharing a major involvement in a particular industry, the wool industry.

For many good reasons ALMS is designed as a whole-of-farm environmental management system. One of those reasons is that the majority of Australian farms producing about three quarters of farm production by value operate two or more industries. In fact in the year to June 2001 only three percent of the value of sheep meat and wool was produced on sheep only farms.

Industry dynamics, location and marketing however vary between industries as do the institutional support arrangements, including the nature and culture of industry organisations. Hence industry specific factors play a significant role in innovation. Furthermore this role is more pronounced when landholders with the same dominant industry come together.

Activities

Previous work in New South Wales and in the South Australian Eastern Hills and Murray Plains and interest from an AWI Best Prac Group at Yunta in South Australia led to holding ALMS information meetings at Armidale and Yass in NSW and at Yunta and near Birdwood in SA. These presentations and discussions in turn led to twenty-two landholders participating in one of four two day ALMS Clinics during the first half of 2008. A fifth Clinic was held later for seven woolgrowers in southern Queensland but these producers were not involved in the structured evaluation of ALMS.

During the Clinics landholders used an internet based software tool, *myEMS* to develop and have certified an ALMS EMS. The training and auditing were conducted by accredited ALMS Trainers/Auditors.

The findings in this chapter are based on responses to questionnaires completed by landholders immediately after the initial ALMS presentations and after the Clinics. Copies of the questionnaires are at Appendix 1.

Landholders

The participating landholders were drawn from the pastoral, wheat-sheep and high rainfall zones and produced medium and fine wools.

Averaged over the twenty-two landholders they each produced 125 bales of wool annually, wool represented about 60 % of farm income and on average they each operated 2 industries which were sheep (wool and meat), beef, cropping, forestry and/or tourism.

Questionnaire responses

Before the ALMS Clinics landholders were asked to indicate what factors were important in determining their participation, factors concerning wool marketing, natural resource management and production costs. After the Clinics landholders were asked to score the usefulness of ALMS in relation to the same factors. The detailed questionnaire responses are at Appendix 2.

There was a high level of uniformity in responses within and between landholder groups.

Factors to do with marketing, with improving environmental management and with improving confidence in environmental management were considered to be of very high importance and ALMS was considered to be highly useful in relation to these factors. On both the importance and usefulness criteria factors to do with meeting catchment targets, accessing funding, complying with legislation, decreasing production costs, integrating farm planning and assisting communication were scored highly but marginally lower than for the previously listed factors.

Landholders were also asked before and after the Clinics to score the importance of factors for the design of ALMS. On average landholders assigned high importance to design factors related to marketing, integration across farm activities, catchment links, internet approach and to external auditing. They scored the not-for-profit nature of the ALMS Group highly but of lesser importance than the other factors.

Out of a possible score of 100, landholders scored ease of use, usefulness and improving understanding of natural resource management landholders to be 63, 77 and 66 per cent respectively.

Out of a possible score of 100, landholders scored the likelihood of them remaining ALMS members if membership was free, less than \$300, less than \$500 or less than \$1,000 to be 88, 73, 53 and 35 respectively.

There was an estimated 80% chance of participating landholders recommending ALMS to other landholders.

Landholder comments

Before and/or after the Clinics twenty of the twenty-two landholders provided written comments beyond responding to the specifics in the questionnaires.

Positive responses from landholders included:

- Good progress on recognition and on keeping it simple
- A way to start moving ahead
- A non-confronting way of introducing EMS to landholders

- A really valuable course and plan for the future and presented very well
- Documenting practices and planning of goals and activities are important
- Appreciated the adaptability of the system, the continuous improvement aspect and that it completes a business planning process
- Is a forward thinking approach for certification of farm management and of products
- Looking for a system with international recognition to reward farmers for producing safe, clean products
- Attracted by the comprehensive nature of ALMS and by it being based on an established standard.
- A way to deal with legal requirements
- Enjoyed the Clinic run by top presenters, down-to-earth and honest
- Been looking for an opportunity to develop an EMS for earlier attempts without support were too daunting
- ALMS is a good concept and builds on existing planning processes
- Enthusiastic and committed presenters and keen and active participants
- Understood ALMS would place things in order ;lots of confusion about EMS

Concerns were expressed about:

- Lack of commercial advantage from adopting the system
- Lack of recognition of current practices/achievements rather than just having a focus on risks
- Complexity of the reporting requirements

In the future landholders want:

- Good communication to help maintain ALMS membership
- Follow-up to help maintain the system
- Costs less than \$300 per annum and on-line help to fine tune and maintain the EMS
- On-going tuition
- Regular updates and a newsletter on-line.
- Market recognition and contact and updates to keep producers involved.
- Subsidies to assist adoption of ALMS especially as it is in its early days
- ALMS Group to sell the certification to end users for the benefit of members and the ALMS Group.
- Looking for more default data, a monitoring module and an OH&S module

Supplementary evaluation conducted at the end of the ALMS Yass Clinic

How would you explain the ALMS process and program to a landholder who didn't attend the workshop?

- The process puts in front of me a number of questions which will assist me identifying what is needed, in the areas of organization, environment and legal requirements.

- Web based management system (certified & ISO 14001 compliant) to generate recognition of good environmental management and prioritise actions for ongoing improvement
- A method of meeting ISO14001 international standards on the farm
- A light shining on a way forward through future mazes
- We learn to use and develop an ALMS plan for our own business which is internet based. It gives us a framework for continual improvement and accountability with an internationally accredited certificate. We have lots of hands on one on one support from beginning to end
- By show and tell on the computer

What can you recommend to improve the clinic for future groups of landholders? For example, are the sections explained clearly enough? Are there enough examples given to explain the different sections by the facilitator?

- Some clearer explanation differentiating action plans and management procedures on day 1 would help but excellent follow up/ review on day 2.
- Agree that overview of system and process at start of day 1 would also help
- Good and thanks
- Examples were fine. The query will be how we manage to amend input errors so that they don't become the next version!
- A day to follow up in a few weeks would be awesome
- A 2 day course first, followed by a 1 day follow up 2-4 weeks later
- A better explanation of the whole process at the beginning, followed by a few examples of each section
- Presentation needs to adjust to the characteristics and dynamics of the group, as was done
- When signing people up to do the course, you could ask them about their computer skills. If they don't have great computer skills, then you can adjust the number of facilitators that are needed.
- Would be good to make sure that not just one member of the farm is invited to come to the course. If only the farmer/ manager comes, but he doesn't do the work on the computer, then it is good if the wife, or one of the kids can come as well. This means that there is sharing of knowledge in the family too.
- Would be good to send out the 2 page glossy brochure before we came so that we knew what to expect (this is done for most at the ALMS Introductory presentations)
- Need to have a better explanation at the beginning – a general outline/ overview of what's happening and need to know what the end product will look like, so that it is more tangible, has real meaning and we understand what is expected.
- If it is clearer at the beginning we are more likely to come back for the second day

- Support post clinic would be good, expectation that can ring/ email Darren & Julia and that there might be able to be a yearly get together after the audit or something to go through what everyone talked about at the audit.
- What is the AWI involvement long term?
- What is the cost for new people to do it? We have neighbours who might be interested in doing this, what do we tell them it costs?
- There was considerable interest in getting an ALMS certification recognised in the AWEX classing system.

Venue and training

- It is important that the computers and their internet connections are adequate and preferably that travel to the venue is minimised.
- Small number of committed participants worked well and the facilitator support was excellent. Participants scored the maximum score on the facilitator understanding the process and the program.

Conclusions

Participating landholders responded positively to the ALMS experience.

Landholders indicated high levels of satisfaction with the design of ALMS and with its potential usefulness.

Landholders judged ease of implementation to be moderate pointing to the need for further investment to fine tune both ALMS tools and processes. They sought a continuing flow of information and support from the ALM Group.

Landholders indicated they would be highly likely to recommend the system to other landholders.

Landholders were concerned however about their capacity to capture benefits from adopting ALMS and, presumably reflecting a perceived and/or real lack of tangible benefit they were concerned also about the costs of participation, especially if it exceeded \$300 per year.

INCORPORATING A WOOL NRM MODULE INTO ALMS

ALMS is a whole-of-farm, catchment-linked environmental management system based on the ISO14001 standard. The ISO14001 standard requires, amongst other things, participating environmental managers (landholders) to identify aspects of their activities that potentially have an environmental impact.

Experience with ALMS indicates that at least two thirds of activities are common across all or several agricultural industries, for example weed control and grazing systems respectively. In addition to these generic activities there are industry specific activities, for example prevention and control of fly strike in sheep. There also are some product specific requirements that have an environmental component, for example chemical withholding periods.

9

What we have done

We have completed a major revision of the structure and content of the default data in *myEMS*.

Prior to this project the primary structural categorisation of default (prompt) data was based on a judgement that over time individual regional NRM authorities would become administrators of *myEMS* and hence have their own unique data sets. However this has not happened for a range of reasons and the separation of default data according to regions or State has caused unnecessary fragmentation and difficulties in maintaining data sets.

Given the above we have constructed a national ALMS default data set. This national data set is accessed according to State and the industries operated by the environmental manager (land holder). Industries now are categorised according to the Australian and New Zealand Standard Industrial Classification (ANZSIC) (see Appendix 3). The sheep industry includes wool and sheep meat.

The content categorisation of the default data has been improved and expanded, there now being twenty activity categories as follows:

1. Infrastructure placement, construction and maintenance
2. Land preparation
3. Machinery use
4. Water, drought and flood management
5. Animal pest management
6. Weed management
7. Fire management
8. Ag. and vet. chemical storage and application
9. Fertiliser storage and application
10. Waste management
11. Cropping
12. Pasture management
13. Fodder management

14. Livestock and grazing management
15. Climate change and variability
16. Special conservation, biodiversity support and ecosystem health
17. Cultural heritage, aesthetics and landscape harmony.
18. Planning, recording, analysis,
19. Education and training
20. Wellbeing

Activities, aspects and impacts have been identified for each of these categories and these data have been included as default data in the *myEMS* software.

Because of the structural changes discussed above it now will be a relatively simple process to add to or delete default data.

The Australian Wool Innovation (AWI) NRM Module

The AWI module has six procedures viz: planning, mapping and monitoring, land usage and soil health, protecting and managing the farm's water resources, biodiversity and native vegetation, nutrient management and pests and weeds. Each module has a general description of the topic, a self assessment tool and useful references.

Incorporating this information into ALMS via the *myEMS* tool presents some difficulties. Although much of what is covered in the module is also covered in *myEMS* the AWI and the ALMS approaches are quite different. The AWI module takes a traditional NRM approach of focusing on the resource, for example water, whereas the ALMS approach focuses on the activities that impact on the resource. ALMS defines environmental management as the management of the impacts of the manager on the environment rather than as the management of the environment (resources) per se. The ALMS approach is aligned with that used to establish the ISO14001 standard.

Notwithstanding the differences in approach there is considerable complementarity between the default data in *myEMS* and best management practice information such as embedded in *Making More from Sheep*.

In brief *myEMS* is a powerful tool to help land holders identify the key managerial factors impacting on the environment and *Making More from Sheep* is a powerful tool to help sheep producers develop strategies to address these key factors.

Making more from sheep (<http://www.makingmorefromsheep.com.au/>)

Making More from Sheep is a joint Australian Wool Innovation (AWI) and Meat and Livestock Australia (MLA) initiative to present a package of information, tools and learning opportunities for Australian sheep producers.

Making more from sheep is an excellent resource for use by sheep producers in devising their ALMS Management Plans. ALMS Management Plans consist of Action Plans for one-off major activities, for instance riparian exclusion, and Operational Procedures for repeated tasks having environmental relevance, for instance mixing of chemicals.

The information in *Making more from sheep* is presented in eleven modules four of which relate directly to NRM viz 5 Protect your farm assets, 6 Healthy soils, 7 Grow more pasture and 8 Turn pasture into product. These modules in particular present information of direct relevance to sheep producers developing ALMS Action Plans. Other modules contain information of direct relevance to sheep producers developing ALMS Operational Procedures, for instance module 11 Healthy and contented sheep has reference to lice control (<http://www.liceboss.com.au/downloads/>) which would be a valuable source of information for a wool grower wishing to develop an ALMS Operational Procedure for lice control.

Given the web based nature of both *Making more from Sheep* and *myEMS* a hot link between *myEMS* and *Making more from Sheep* is the most effective linkage between the two. This will be included in *myEMS* on the next revision of the software.

Conclusion: There are considerable gains to be had from integrating the management process approach of ISO14001, as reflected in *myEMS*, and the management practice approach of *Making more from Sheep*. This will be best achieved by using these tools in parallel rather than by attempting to fully integrate them.

DISCUSSION

This project, and the broader program of which it is a part, has to do with the application of environmental management systems (EMS) to land management in rural Australia.

Essentially the project has confirmed and expanded previous findings and there is now little to be gained from continuing an exclusive micro-focus on what is working. There have been many hard earned lessons and many positive developments since the initial work on implementation late last century by Carruthers and others. What we now need to do is to address the primary constraints to using EMS to improve environmental outcomes, and associated economic and social outcomes.

12

What we know

We now have sufficient experience with the adoption of ALMS to know that land holders can develop and maintain an ALMS ISO14001 compliant EMS using the myEMS software tool, in conjunction with guidance from an ALMS accredited trainer. This is a unique and effective package of product design, tools and processes.

Additionally because of the fundamental robustness of the package we also know that it would be relatively simple to improve the user friendliness of the software and increase the ease of accessing relevant information.

There is a need for more land management data on the environmental impact of adopting EMS. These data can only be generated by a wider on-going application of well designed EMS. Nevertheless the available data related to land management indicate that EMS is highly likely to be an effective environmental instrument (see for instance Carruthers 2005; Gleeson and Grosser 2006).

Furthermore there are several factors built into the ALMS package that are specifically directed towards ensuring environmental outcomes viz. the need for landholders to comply with legislative requirements (as is inherent in any ISO 14001 compliant system), the need to take account of catchment priorities and strategies, the need to provide continuous support for biodiversity conservation and the requirement for external verification of continuous improvement. There is no other widely applicable environmental management instrument that provides such assurance for on-going adaptive improvement linking farm and landscape considerations.

Another factor often raised as limiting the usefulness of EMS is the alleged lack of market benefits, from food and fibre markets. There is some validity in this observation. However we need to go beyond the mantra and analyse the situation more deeply.

First it is ludicrous for this to be a knock-out factor for EMS when it is not even considered as a factor for virtually all other industry wide or public sector supported instruments for improving environmental outcomes.

Second as is evident from the work of Carruthers (2005), from the EnviroMeat experience (O'Sullivan pers.com), from the recent EMSA Forum proceedings (Newcastle 2008) and to a modest extent from this project there is in fact a growing recognition for certified EMS in the market places for food and fibre. In some situations capturing these benefits may require different 'relationship based' marketing strategies. In fact for wool growers wishing to go that way premiums for wool from EMS certified properties maybe as large as 3 percent. For one participant in this project this would represent a return of about forty to one on the cost (costed time and cash cost) of implementing ALMS over the first five years.

Third commonsense and some experience tells us that it will be a lot easier to get international food and fibre markets, and international communities more broadly, to accept and reward externally verified management approaches based on internationally recognised standards than it will be to get them to accept regionally based survey or practice based approaches, especially if they are not externally audited.

Fourth community and consumer trends point to the probability of markets increasingly rewarding products that come with a credible and relevant environmental tag; and in fact the presence of such tags might well be used to create markets for differentiated products.

Constraints to the wider application of ALMS (or similar systems)

There is of course a need and scope to improve the ALM Group package; the design, the tools and the processes. However the package is now sufficiently developed and tested for us to know that it is not the primary constraint to many landholders implementing ALMS. The primary constraints are institutional⁴.

At the broadest level, including but also way beyond EMS, we lack a deep, independent, informed and coherent analytical foundation for improving land based environmental outcomes. This policy void enables political expediency and related rent seeking by agro-political and farm servicing organisations. The result is repeated ad hoc program redesign. There is however no sign that this is going

⁴ Institutions include the traditions and the norms and practices of groups. Institutions include the organisations formed by governments, industries and communities and their policies and programs. Institutions include laws, regulations, and codes of practice and the operation of markets (Gleeson T., and Piper K., (2002) Institutional reform in rural Australia-defining and allocating property rights. In 'Property: Rights and Responsibilities-Current Australian Thinking'. Land & Water Australia, Canberra, ACT)

to change at least not in the short to medium term. Hence the rational response is to learn to live with it.

Focusing closer to EMS many of our institutional arrangements unnecessarily limit and fragment our efforts to develop and implement effective programs.

First we limit and fragment public and private investment in part because the need for public investment in EMS is discounted by the misguided mantra that EMS ought to be exclusively 'industry driven' and that 'there is no R&D or innovative element to EMS'.

Second we waste and fragment EMS investment irrespective of source by encouraging industry-by-industry approaches notwithstanding the very many reasons why this is not a sensible approach.

Third we render EMS investment ineffective by applying short-term investment approaches to instruments and issues that are long term. Consequently outside an immediate focus on, for instance, salinity or climate change, there is very little appreciation of the potential benefits from applying pro-active medium and long-term holistic public-private partnership approaches to managing environmental risks. This problem is accentuated by many NRM decision makers relying on hear-say experiences from poorly designed and poorly supported EMS approaches.

What needs to be done

There is a need for industry to put a higher priority on managing market risks arising from not having cost effective and internationally credible voluntary verification of environmental performance; and on the use of this verification to improve product differentiation. There is a related need to transparently and critically assess existing investments against a broad set of private and public sector effectiveness and efficiency criteria.

APPENDIX 1. Pre ALMS Clinic questionnaire

PRE ALMS CLINIC QUESTIONNAIRE

Section 1: Contact information

Name (please include all names if more than one person)

Date of completing questionnaire

Project group-please tick

<input type="checkbox"/>	Mt Torrens Mt Pleasant	<input type="checkbox"/>	Yunta
<input type="checkbox"/>	Yass	<input type="checkbox"/>	New England
<input type="checkbox"/>	QLD		

Section 2: How important are the following reasons for you to participate in ALMS:

1= Low; 6 = High

	1	2	3	4	5	6
To help you to differentiate your products and make you more competitive on international markets—through maintaining access and/or through pricing?						
To help you to differentiate your products and make you more competitive on domestic markets—through maintaining access and/or through pricing?						
To help you to be more confident in and/or satisfied with your environmental management?						
To help you to improve your natural resource management?						
To help you to meet your catchment targets?						
To help you to secure NRM related funding?						
To help you to continue having access to natural resources?						
To help you to comply with legislation or regulation?						
To help you to reduce costs of production?						
To help you to integrate your whole of farm planning?						
To help you to improve communication about your management within your family/business unit?						

Additional comments

APPENDIX 2. Post ALMS Clinic questionnaire

Section 1: Contact information						
Name (please include all names if more than one person)						
Date of completing questionnaire						
Did you develop an externally certified ALMS Plan? Project group-please tick	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No		
	<input type="checkbox"/>	Birdwood	<input type="checkbox"/>	Yunta		
	<input type="checkbox"/>	Yass	<input type="checkbox"/>	New England		
	<input type="checkbox"/>	Qld				
Section 2: Developing an ALMS Plan		1= Low; 6 = High				
	1	2	3	4	5	6
How difficult was it to develop an ALMS Plan?						
How useful was it to develop an ALMS Plan?						
Has developing an ALMS Plan given you a better understanding of natural resource management issues on your property?						
Additional comments						
Section 3: To what extent will having an ALMS Plan that is externally audited to be compliant with international standards		1= Low; 6 = High				
	1	2	3	4	5	6
Help you to differentiate your products and make you more competitive on international markets—through maintaining access and/or through pricing?						
Help you to differentiate your products and make you more competitive on domestic markets—through maintaining access and/or through pricing?						
Help you to be more confident in and/or satisfied with your environmental management?						
Help you to improve your natural resource management?						
Help you to meet your catchment targets?						
Help you to secure NRM related funding?						
Help you to continue having access to natural resources?						
Help you to comply with legislation or regulation?						
Help you to reduce costs of production?						
Help you to integrate your whole of farm planning?						
Help you to improve communication about your management within your family/business unit?						
Additional comments						

Section 3: How important is it to you for the ALMS Group to:	1= Low; 6 = High					
	1	2	3	4	5	6
Provide a base for international recognition of environmental and agricultural attributes?						
Provide a base for domestic recognition of environmental and agricultural attributes?						
Provide a planning platform which applies to all of your farm enterprises?						
Provide a system which is linked to Catchment Management Authority/NRM Board/Regional Body targets?						
Provide an integrating platform covering environment, animal welfare, and carbon balance?						
Provide a system which is available online?						
Provide a system which is externally audited?						
Be a landholder not-for-profit company?						
Additional comments						
Section 4: In the future	1= Low; 6 = High					
	1	2	3	4	5	6
What is the likelihood of you remaining an ALMS Group Member with an ALMS certified plan if membership and auditing is free ?						
What is the likelihood of you remaining an ALMS Group Member with an ALMS certified plan if the cost of annual membership and auditing is less than \$300 ?						
What is the likelihood of you remaining an ALMS Group Member with an ALMS certified plan if the cost of membership and auditing is less than \$500 ?						
What is the likelihood of you remaining an ALMS Group Member with an ALMS certified plan if the cost of membership and auditing is less than \$1,000 ?						
What is the likelihood of you recommending the system to another farmer if asked?						
What would help you to maintain your ALMS Membership/have a certified plan?						
Additional comments						

Thanks for helping

APPENDIX 3 Evaluation- all wool groups.

EVALUATION - ALL ALMS WOOL GROUPS 2008						
Name	YUN TA	BIRDW OOD	YA SS	NEW ENGL AND	AVERAG E OF FOUR GROUP AVERAG ES	
Code	YA	BW	YA	NE		
Number of landholders completing certified ALMS Management Plan	4	6	6	6	Total 22	
Average number of industries per landholder	1.8	1.6	2.3	2.2	2.0	On average land managers in this project operated 2 different industries and this is representative of the majority of Australian land managers. Industries operated were sheep (wool & meat as one industry), beef, cropping, forestry and tourism. About one third of income was derived from non-wool sources. There were no obvious trends according to these industry factors.
Average importance of wool as a percent of farm income	60	40	60	70	60	
Average number of bales per year per landholder	224	117	88	105	125	
Percent mulesing	100	66	83	83	80	About 80 % of participating woolgrowers mulsed. There was virtually no purchasing of sheep.
Percent requesting chemical residue testing	100	100	100	80	95	With one exception all wool growers requested chemical residue testing, the one exception already having had regular chemical residue testing
The scores below reflect reasons for participating (Pre-Clinic first figure) and usefulness (Post-Clinic-second figure) in scores of 1 to 6, with 6 being highest						
Important for/usefulness for international marketing	5.3	3.3	6.6	5.5	5.4	All listed factors were considered important; little differentiation in scored importance between factors before the Clinic.
Important for/usefulness for domestic marketing	5.3	4.3	5.5	5.4	5.4	
Improve confidence in environmental management	5.4	4.5	5.5	5.4	5.4	After the Clinic ALMS was considered effective for all listed factors other than for reducing production costs.
Improve NRM	5.5	4.5	5.5	5.4	5.5	
Meet catchment targets	4.4	2.4	5.5	4.4	4.4	International marketing the most important factor and that for which ALMS was considered the most effective.
Enable NRM Funding	5.5	2.3	4.5	4.4	4.4	
Maintain access to natural resources	5.4	3.3	5.4	5.5	4.4	ALMS was considered to be

Comply with legislation	5.5	3.4	4.4	5.4	4.4	less effective for integrating farm planning and for communication than it was for marketing and NRM related issues.
Decrease production costs	5.3	3.2	4.2	4.3	4.2	
Help integrate farm planning	5.5	3.4	5.4	4.3	4.4	
Assist communication	5.4	3.4	4.4	5.3	4.4	
The scores below reflect importance of factor to system design as judged pre-Clinic and post-Clinic in a score of 1 to 6 with 6 being highest						
International marketing	5.5	4.5	6.6	5.5	5.5	Again all factors listed were considered important with little differentiation between them with the marginal exception of lower importance being assigned to being linked to the CMA and to the not-for-profit status of the ALMS Group.
Domestic marketing-property linked	5.6	5.5	6.6	5.5	5.5	
Whole farm approach	5.6	5.5	6.5	5.5	5.5	
Linked to NRM Board/CMA	5.6	4.4	4.5	5.5	4.5	
Platform for environment, animal welfare	6.5	4.5	6.6	5.5	5.5	
Online	6.6	4.5	5.6	4.4	5.5	
Externally audited	5.5	5.4	6.6	5.5	5.5	
Not-for-profit organisation	5.4	4.4	5.5	4.4	4.4	
On a post Clinic assessment with 6 being the least difficult/most useful how						
Difficult	4.3	4.0	3.7	3.0	3.8 (63%)	ALMS was considered to be of medium difficulty and of high usefulness.
Useful	4.7	4.5	5.2	3.8	4.6 (77%)	
Understanding NRM	3.5	4.1	4.5	4.0	4.0 (66%)	
On a post Clinic assessment out of a maximum score of 6 the likelihood of remaining an ALMS Group member if annual costs are						
Free	5.3	4.8	5.7	5.2	5.3 (88%)	There is a very high chance of remaining a member if costs are less than \$300 per year (and services are provided).
Less than \$300	4.0	3.7	5.0	4.8	4.4 (73%)	
Less than \$500	2.8	2.8	3.5	3.5	3.2 (53%)	
Less than \$1000	2.0	2.0	2.0	2.3	2.1 (35%)	
Probability of recommending ALMS to another landholder out of a maximum score of 6						
Likely to recommend to another landholder	4.3	4.3	5.2	5.2	4.8 (80%)	There is a very high chance of participants recommending ALMS to another landholder.