

COMMUNITY FARM PRACTICE CHANGE TO MANAGE WIND EROSION IN THE AVON RIVER BASIN PROGRAM 2009-2011

KNOWLEDGE, SKILLS AND ENGAGEMENT REPORT 2010 SOIL CONSERVATION INCENTIVE PROGRAM (SCIP) ROUNDS 1 AND 2, 2010

- BASELINE LAND MANAGER SURVEY
- FARM PRACTICE SURVEY
- ASSISTING FARMER DECISION MAKING

DAN FERGUSON, PROGRAM MANAGER, SUSTAINABLE AGRICULTURE, WHEATBELT NRM MICHELLE KIDMAN, MONITORING AND EVALUATION COORINDATOR, WHEATBELT NRM

24 November 2010

Version 1.0

TABLE OF CONTENTS

1	Purpose of the Report						
2	Summary of Findings						
3	Ass	sisti	ing Farmer Decision Making4	t			
4	Re	sult	ts of the Baseline Land Manager Survey4	t			
4	4.1		Frequency of Wind Erosion4	ł			
4	4.2		Area (ha) Affected4	t			
4	4.3		Management Priorities5	5			
4	4.4		Management practices6	5			
	4.4	4.1	Current Practices6	5			
	4.4	1.2	New Practices7	7			
4	4.5		Barriers to Adoption	3			
4	4.6		Motivations9)			
4	4.7		Knowledge and skills)			
5	Vo	lun	tary Adoption of Practices11	L			
AP	PEND	SIX	1: Baseline land manager survey 201015	;			
AP	PEND	DIX	2: Farm Practices to Manage Wind Erosion18	3			
AP	PEND	SIX	3: SCIP Site Locations Rounds 1 and 219)			
AP	PEND	אוכ	4: Assisting Farmer Decision Making Training Session Evaluation Results	L			

1 PURPOSE OF THE REPORT

The purpose of this report is to record the outcomes of the social surveys conducted through Rounds 1 and 2 of the Soil Conservation Incentive Program (SCIP). The survey's included:

- Baseline Land Manager survey which captured information about levels of knowledge, skills and current practices of land managers participating in Rounds 1 and 2 of SCIP.
- Farm Practices Survey which capture information from land managers attending events organised by SCIP participants, to determine levels of voluntary adoption of recommended farm practices.
- Assisting Farmer Decision Making Event Evaluation captured expectations, experiences and level of knowledge gained from project delivery staff who attended in the Farm Practice Change Model training session prior to commencement of the program. This has been included in Appendix 3.

2 SUMMARY OF FINDINGS

Thirty-five of 45 funding recipients through the Soil Conservation Incentives Program (SCIP) returned surveys outlining their current knowledge and skills in relation to wind erosion management. The key findings of these surveys include:

- Two thirds of farmers surveyed suffered noticeable soil loss from paddocks at least once a year.
- 71% of farmers surveyed considered wind erosion as a high priority for management while soil fertility (54%), secondary salinity (46%) and soil acidity (43%) were also high priority soil quality issues.
- 55% of projects supported through the SCIP are to establish alley farm systems.
- Cost and time were main barriers to previously adopting the practice without the support of the SCIP.
- The availability of funding and potential for improvements to the farming systems were most regularly cited as reasons why the practice is being adopted now.
- 43% of respondents considered themselves to be well informed with some experience prior to undertaking the project.

A key component of the program is the passing on of knowledge and skills from the funding recipient to the surrounding community to maximize voluntary adoption of recommended practices. Surveys undertaken at three of these events revealed that:

- 100% of participants gained knowledge by participating in the event.
- 78% intend to learn more about the farm practice.
- 50% of the respondents intend to implement the practice over the next 1-3 years.
- 33% of respondents would adopt the practice over 51-150 ha of their farm.

3 ASSISTING FARMER DECISION MAKING

Four Local Governments were contracted to deliver sub-regional coordination and support land managers participation in the program using the principles of the *Farm Practice Change Model*.

In preparation for the commencement of the Soil Conservation Incentive Program (SCIP), the Coordinators were provided with training to increase their levels of knowledge and skills in assisting farmer decision making. A training day was delivered to 20 participants on 18 and 19 November 2009, and 11 Event Evaluation Forms were returned. The results of the report are available in Appendix 4.

4 RESULTS OF THE BASELINE LAND MANAGER SURVEY

In 2009-10, 45 members of the Avon River Basin farming community were contracted to participate in Rounds 1 and 2 of SCIP, with 35(N) completing Baseline Land Manager Surveys returned during the Action Planning stage. Most surveys were completed with the assistance of Sub-regional Coordinators (NRMO's) although some farmers completed and submitted the survey unassisted. Survey questions are included in <u>Appendix 1</u>. A map of the locations of the participating land managers is included in <u>Appendix 2</u>.

4.1 FREQUENCY OF WIND EROSION

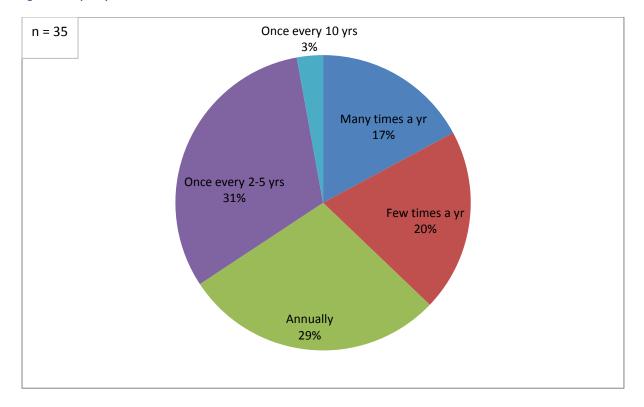


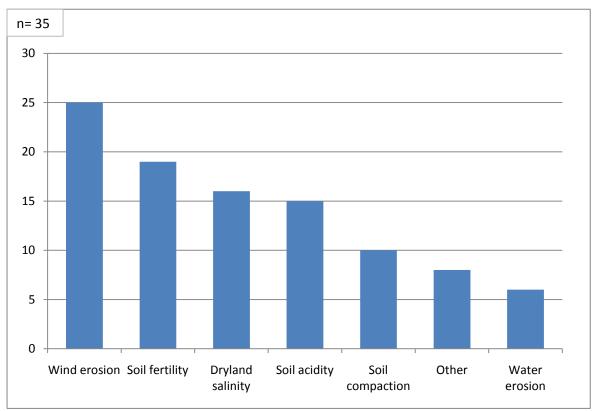
Figure 1: Frequency of Wind Erosion

4.2 AREA (HA) AFFECTED

In total, respondents declared that 15 545 hectares of land is currently affected by soil loss through wind erosion. It should be noted that there was a 14% no response return rate to this question.

4.3 MANAGEMENT PRIORITIES

Land managers were asked to rate priorities for managing specified soil quality issues as either low, medium or high. The chart below identifies soil quality issues that were designated a high priority for management by survey respondents. The soil quality issues that farmers most regularly ranked as high priority were wind erosion (71%), soil fertility (54%), secondary salinity (46%) and soil acidity (43%).





Other priorities of land managers include:

- weed control
- non-wetting sands
- wind blowing sediment from salt lakes

4.4 MANAGEMENT PRACTICES

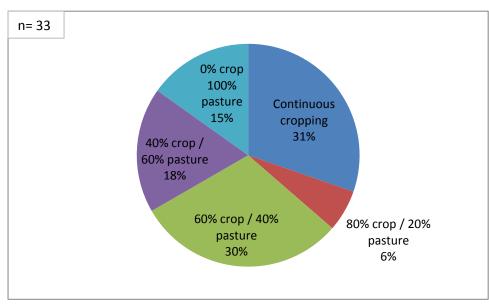
In total, 45 land managers are participating either individually or as groups in Rounds 1 and 2 of SCIP with onground works aimed at protecting a total area of 2 152 hectares from wind erosion. The projects undertaken fall into the following categories of current recommended practices to address wind erosion:

- Recommended cropping practices;
- Recommended grazing practices aimed at maintaining at least 40% groundcover;
- Integrating perennials, including trees into agricultural systems;
- Maintaining soil quality, soil amelioration and monitoring.

4.4.1 CURRENT PRACTICES

Respondents provided information on their project site history for the last five years. These were then categorized into the regularity of the cropping or grazing phase for the specified paddock. Continuous cropping was recorded as the farming practice for 31% of sites while a pasture phase occurred in at least one of the five years for 69% of sites.

Figure 3: Farm practice used at project site for the previous 5 years

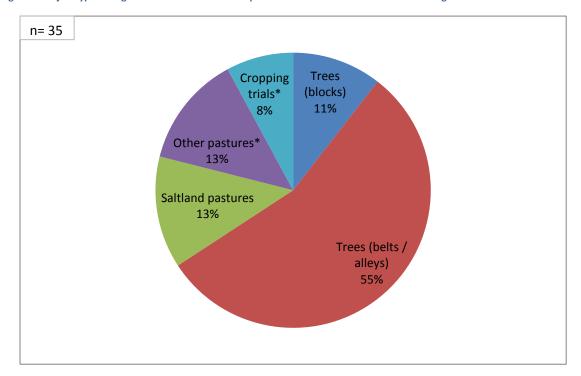


Information was gathered on specific cropping, grazing, perennials and soil treatments that farmers currently used at the site in order to assess change in practice as a result of participating in the Soil Conservation Incentive Program. Due to different interpretations of this question by surveyors many respondents provided information about practices that apply across their whole farm including those which don't relate to any anticipated change as a result of this program. While this information is of limited value in assessing change in farm practices as a result of this program it does provide a useful insight into farm practices including:

- All farmers surveyed practiced some form of no-till or minimum-till with stubble retention;
- Farmers with livestock predominately grazed stubbles and volunteer pastures with a variety of improved pastures including clovers, medics and serradella;
- Pastures stocking rates varied from 1.5 3 head / ha for unimproved systems up to 25 head / ha in shorter rotation, improved pastures systems;
- Lucerne, tagasaste and eucalypts were the most commonly identified perennials for managing wind erosion however numerous respondents had planted others on other less erodible soil types.

4.4.2 NEW PRACTICES

The program is working toward achieving increased adoption of recommended cropping practices, recommended grazing practices and the integration of perennials into farm systems that improve soil quality and minimize soil loss through wind erosion.





*cropping trials include claying, disc seeding, brown manuring, cover cropping & weed management in stubble *other grazing trials include establishment of rhagodia, seredellas and native perennial pastures

Respondents were also asked what they would like to implement in the future to help reduce wind erosion. While a large portion indicated that they would like to expand the project practice across a larger area of the farm, other responses included:

- reduce burning by capturing weed seed
- increased valley floor revegetation
- increased alley farming and belts
- reduce grazing pressure / improved grazing management and rotations
- increased conservation tillage to maximize cover
- more tagasaste
- increase soil organic carbon improve soil structure
- planting east-west to shade weeds rather than N-S to decrease shading of crop
- spray topping
- tramline alley farming with no-till

4.5 BARRIERS TO ADOPTION

The majority of respondents identified the cost of implementing changes as the primary factor preventing them from not previously adopting the farm practice to be implemented through the SCIP. A lack of time was also identified as a major impediment.

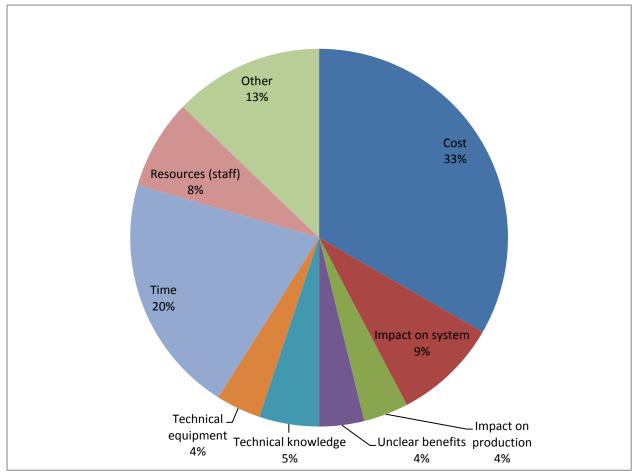


Figure 5: Percentage of responses for impediments to adopting new practices.

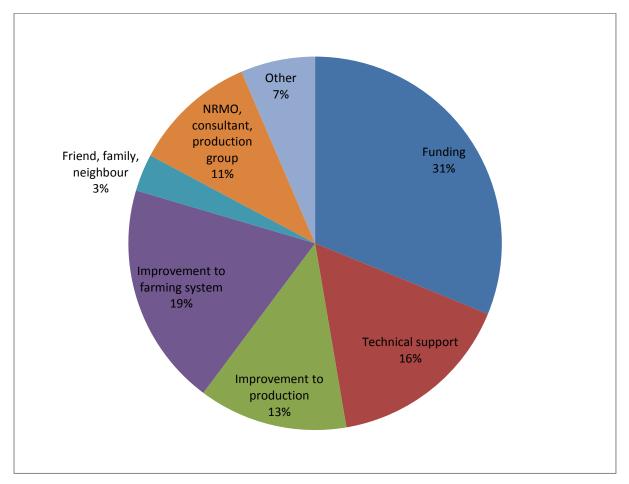
The third highest ranked reason was in the category of 'other', and respondents specified the following reasons:

- previous owner not interested
- pines & tag on previous farm 28 parrots ringbarking
- family, social
- wanted fodder shrubs before, now doing creeklines
- rotation of farming practices
- Sheep in the past had to fence sites
- Change over from research to working farm
- dry years
- Only recently acquired property

4.6 MOTIVATIONS

Over 30% of respondents indicated that the offer of funding was the primary motivator to become involved in trialing new practices through the SCIP program. Potential improvements to the farming system followed as the second major motivator, and the provision of technical support in implementing the new practices rated as the third top motivator. Only a small percentage of respondents identified that a neighbor, family member or friend was a contributing factor in motivating them to trial new practices.





Other reasons given for trailing new practices at this time included:

- General landcare reducing wind erosion
- Aesthetics
- Continuation of program started four years ago.
- Change of owner

4.7 KNOWLEDGE AND SKILLS

When asked how respondents would rate their current levels of knowledge and skills on the practices they were about to trial, over 40% held the belief that they were well informed and already had some experience in implementing new practices. In terms of the Farm Practice Change model, it could be concluded that these farmers have made the transition from the motivation phase to the adoption phase, and are likely to begin implementing new practices across a broader scale following assistance provided through SCIP. However, with funding and technical support as the major factor in motivating these farmers to participate in this project, it is unclear whether they would in fact voluntarily adopt these practices at a broader scale if funding and assistance were not offered to them in the future.

Almost 30% of respondents indicated that they currently had a limited amount of knowledge but are ready to learn more and to improve their skills in sustainable management practices. Participation in the SCIP program is designed to assist these land managers in making the transition from the 'exploration' phase to the 'adoption' phase.

Another 20% of respondents believed that they are well read on the subject they were about to trial, indicating good knowledge of the practices, and were ready to change their practices through participation of the project. These farmers too are making a firm transition to the adoption phase.

Figure 7 shows the response rate for all respondents' perceptions of their levels of knowledge and skills.

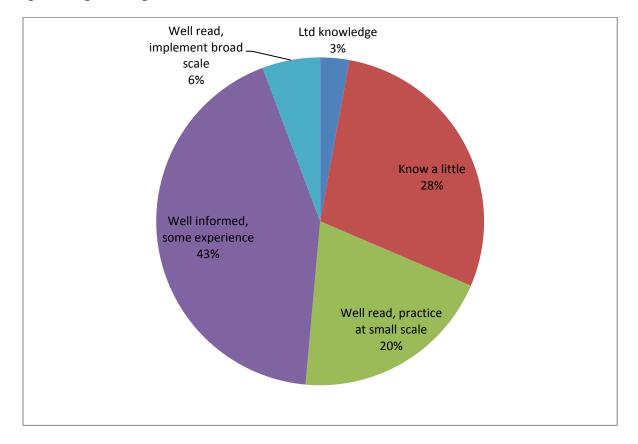
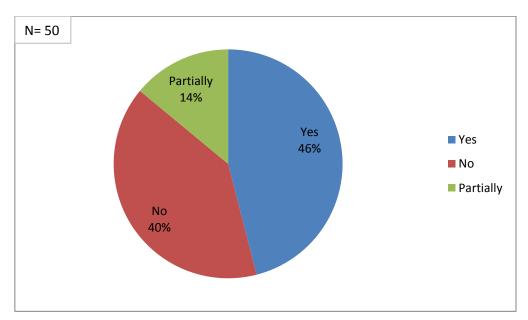


Figure 3: Rating of knowledge and skills

5 VOLUNTARY ADOPTION OF PRACTICES

Land Managers participating in the Soil Conservation Incentive Program (SCIP) are required to hold community engagement activities to inform the local and regional community about the methods, costs and benefits of adopting a new or alternative farm practice aimed at managing wind erosion. As part of the event attendees are surveyed to determine change in their knowledge and the potential for voluntary adoption of the practice being demonstrated. The survey consists of five short questions. To date six events have been conducted, however surveys were undertaken for only three of these. The bulk of events are due to be held in 2011.

Below are the combined results of three surveys completed in August 2010, one taken at the Haggerty's Field Day and one taken at the Syme's Claying Field Day and a Sandalwood Field Day at Bencubbin. 186 participants participated in the field days, and 50 (N) survey forms were returned.



1. Do you currently use the practice demonstrated at the workshop?

Respondent's comments about the reasons for their decision included:

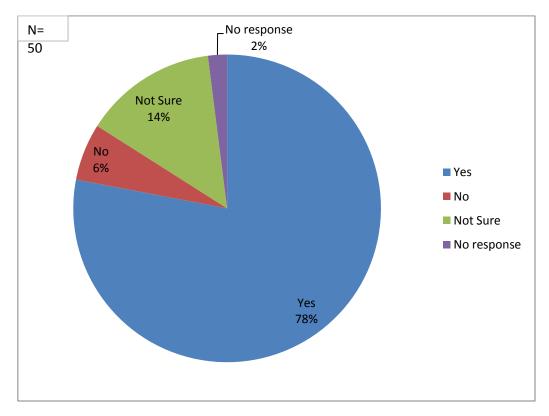
Yes	No	Partially
 Stop the sand blowing away also to supplement income have done for a few years Good investment and carbon and opportunity grazing Wind Erosion and salinity control dad's 20 year dream Oil mallee used in alley farming system. For salt migration and fodder production Gutless sand Non wetting To improve soil structure, yields and capital value Contractor advice 	 Still investigating viability Still learning the subject No available land Time and money constraints Not yet but looking at them We don't run stock. Most of our vulnerable soils have trees planted on them. No information known Expense Don't have a non wetting problem 	Still building up areas of hosts

2. Have you gained knowledge from today's field day?

100% of participants felt that they had gained knowledge by participating in the event. Comments on the reason for their decision included:

- In diversity of hosts, soil types
- Good value and info
- Very informative
- Geoff Woodall and Bob Huxley
- Yellow sands are good?
- Understanding that there is a difference between stable carbon and organic matter. The importance of perennials (C4) and the balance with annuals (C3).
- Value of a perennial system in broad scale cropping and increased use of mycorrhizal fungi.
- Nature of biological fertiliser.
- Extremely Informative
- Because the info is correct, relevant and important Itreinforced some points and learn lots of new stuff.
- Regarding perennial pastures.
- Very much
- Great. Christine gives me hope that we can farm profitably and sustainably.
- Very positive and diverse information. Fantastic seminar. We need to change the way we think!!
- Saw spading
- We have problem on our lease block
- Learnt a lot

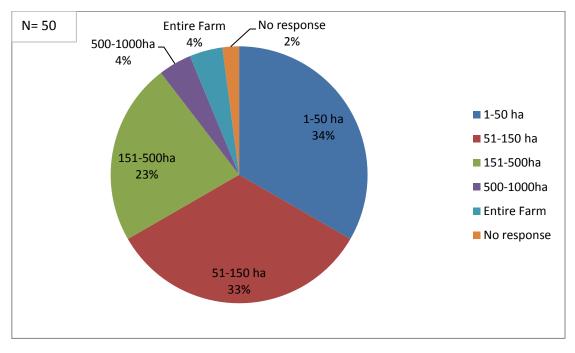
3. Do you intend to find out more about the practice?



Respondent's comments about the reasons for their decision included:

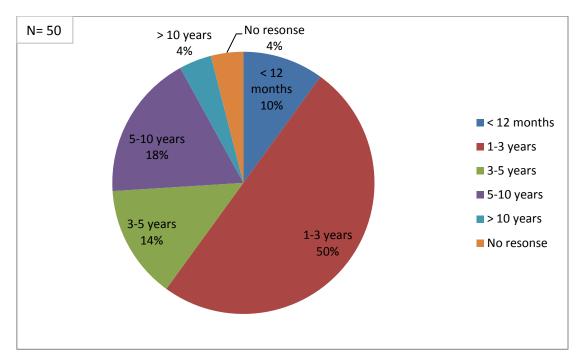
Yes	No	Not sure
 Can never learn too much Always Looks good for poor soil Through Landcare officer I will look at them in the next few months I would like to plant some rhagodia. I want lots more information on perennials and soil biology 	 Already have necessary information on oil mallees. 	 Not sure what the linkage is between trees and soil biology relevant to cereal crops. May look at perennial grasses rather than these options More interested in mouldboard as we have clay close to the surface underneath non wetting sand

4. If you were to implement this practice what area would it cover?



Respondent's comments about the reasons for their decision included:

1-50ha	51-150ha	151-500ha	500-1000ha	Entire Farm
 Build up slowly Small steps due to costs Not too sure of area coverage. Trial to start with 	 In strips on the contour It's the area that needs it 	 Probably more and also in established host areas Already established 20 ha. Want to increase. (Haggerty Field Day) 370 ha (Haggerty Field Day) 	Unproductive cropping country (Sandalwood Field Day)	 Would like to do 20,000ha (Sandalwood Field Day) Alleys (Haggerty Field Day)



5. Over what time frame would you implement this practice?

Respondent's comments about the reasons for their decision included:

< 12 months	1-3 years	3-5 years	5-10 years	>10
				years
 Interesting information to take home and discuss further. 	 It would depend on funding for the trees. We would like to run these plants on the contours of our land and crop in between. Limited time on lease 	Too costly to do it quicker	 Will continue until time expires me Ongoing It would depend on funding for the trees. 	-

APPENDIX 1: BASELINE LAND MANAGER SURVEY 2010

- **1.** How often do you experience significant wind erosion on your property? (noticeable soil loss from paddocks) *Tick one box only*
 - a. 🗖 Many times a year
 - **b. D** A few times a year
 - c.
 C Annually
 - **d. D** Once every 2-5 years
 - e. 🛛 Once every 10 years
- 2. What is the estimated area (in hectares) of your property that is affected by these significant wind erosion events?

3. Rate the following in terms of priority for management on your property: *Rate each option either high, medium or low*

- a. _____ Wind Erosion
- b. _____ Secondary salinity
- c. _____ Soil Acidity
- d. _____ Soil Compaction
- e. _____ Water Logging
- f. _____ Water Erosion
- g. _____ Soil Fertility
- **h.** _____ Other (*please specify*): _____

4. What management practice do you currently use on the project area?

a. Paddock History for last 5 years: (e.g. permanent crop, grazed etc)

Only complete areas related to your project trial

b. Cropping:

Describe current practices used for:

- i. Seeding: _____
- ii. Harvesting: _____
- iii. Between Harvest & Seeding: ____

c. Grazing:

i. Describe current pasture species & management at site: _____

	ii.	Stock type, density & frequency of grazing:
d.	Peren i.	nials: Describe the current perennial system at site:
	_	
e.	Soil M	anagement:
	i. 	Describe your current soil management techniques:
What	new nr	actices are you trialing in this project?
	new pr	
What	new pr	actices would you like to adopt across the whole farm to address wind erosion?
What	new pr	actices would you like to adopt across the whole farm to address wind erosion?
What	new pr	actices would you like to adopt across the whole farm to address wind erosion?
What	new pr	actices would you like to adopt across the whole farm to address wind erosion?
What	has pre	actices would you like to adopt across the whole farm to address wind erosion?
What	has pre	vented you from implementing these new practices in the past?
What Tick o	has pre	vented you from implementing these new practices in the past? ore boxes
What Tick o a.	has pre ne or m	vented you from implementing these new practices in the past? ore boxes Cost of implementing change
What Tick o a. b.	has pre ne or m	vented you from implementing these new practices in the past? ore boxes Cost of implementing change Impact on farming system
What Tick o a. b. c.	has pre ne or m	vented you from implementing these new practices in the past? ore boxes Cost of implementing change Impact on farming system Impact on production

- g. 🗖 Time
- **h. D** Resources (staff)
- i. D Other (*please specify*):

8. Why have you decided to implement this trial now? Tick one or more boxes

- a. 🗆 Funding offered
- b. Technical support offered
- с. Potential improvements to production
- d. Potential improvements to farming system
- e. Friend, Family member, Neighbour suggested it
- f. NRMO, Consultant, Production Group involvement
- Other (please specify): g.

9. How would you rate your knowledge and skills on the topic you are about to trial? Tick one box only

- a. 🗆 Limited knowledge, no experience implementing on ground
- b. Know a little but would like to find out more & learn how to implement new practices
- c. Well read and would like to try new practices at small scale in my farming system
- d. Well informed and some experience implementing new practices
- Well read and have sound experience, would like to implement broad scale e.

APPENDIX 2: FARM PRACTICES TO MANAGE WIND EROSION

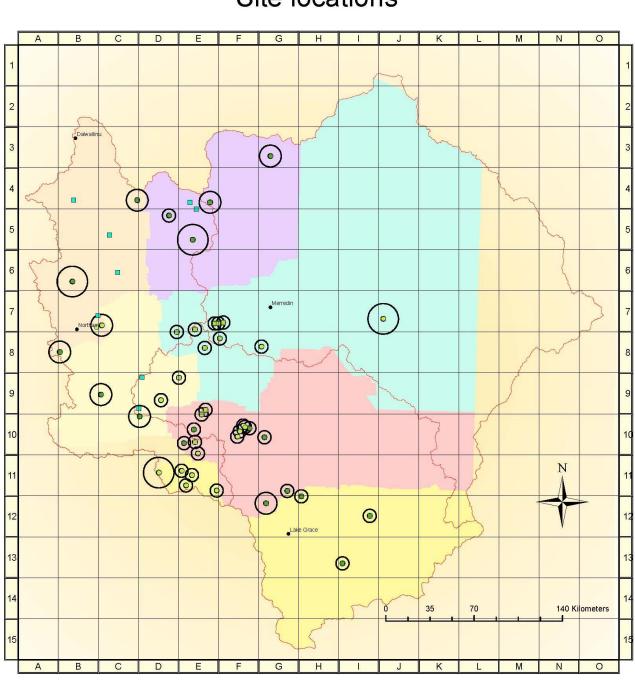
Farmer name) has received funding from Wheatbelt NRM to trial (farm practice) on his property. Wheatbelt NRM is funded by the Australian Government's *Caring for Our Country* program and is required to show that other farmers are interested in or willing to trial the (farm practices) demonstrated at today's (course/workshop/field day).

In our commitment to secure funds for the wheatbelt community in the future, and to provide better programs, we kindly ask you to take the time to answer the questions below.

Session / Activity:

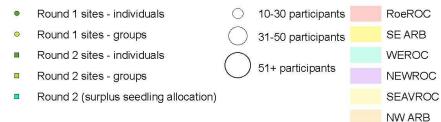
Date:

Eva	aluation Question:	Response: Please tick one box only	Please tell us 'why' or 'why not':
1.	Do you currently use (farm	🗖 Yes	
	practice covered at workshop)?	🗖 No	
		Partially	
2.	Have you gained knowledge from	🗖 Yes	
	today's workshop/activity/field walk?	🗖 No	
	waik:	Partially	
3.	Do you intend to find out more	🗖 Yes	
	about this management practice?	🗖 No	
		Not sure	
4.	If you were to implement this	🗖 1-50ha	
	practice what area would it cover?	🗖 51-150ha	
		🗖 151-500ha	
		D 500-1000ha	
		Entire farm	
5.	Over what time frame would you	Less than 12 months	
	implement this practice?	1-3 years	
		□ 3-5 years	
		5-10years	



Soil Conservation Incentive Program Site locations

Legend



Round 1 K Particle Flot Integrating satiland pastures into a mixed farming system at Yealering K P a G J7 Comparing Practices in the Yigam and Westonia for Lower Wind Erosion Risk Bodaline J7 Comparing Practices in the Yigam and Westonia for Lower Wind Erosion Risk Bodaline G7 Pasture Cropping with Tree Crop Belts Stoneley Stoneley G3 Comparing Practices to Address Farm Scale Wind Erosion Ja Addition Stoneley G3 Avondale Sandalwood Soli Conservation Project Ja But Stoneley Stoneley G3 Avondale Sandalwood Soli Conservation Project Ja Addition Ja Addition Conrigin C9 Avondale Sandalwood Soli Conservation Project D10.1, E11 Sattland pasture management for protection of solis prone to wind erosion Verdelio D11, E11 Sattland pasture management for protection of solis prone to wind erosion Verdelio D11, E11 Sattland pasture management for protection of solis prone to wind erosion Verdelio D29, G3 Demonstrating alternative crop residue management solutions to burning Corrigin D11, E11	MAP GRID	PROJECT TITLE	ORGANISATION NAME	TOWN	WNRM FUNDING
Integrating satiland pastures into a mixed farming system at Yealering Tackling Soil Erosion with Commercial Tree Crops in North-Eastern Wheatbelt Ecomparing Prantices in the Yilgam and Westbrink for Lower Wind Erosion Risk Resture Cropping with Tree Crop Belts Mixed Tree Species to Address Farm Scale Wind Erosion Pasture Cropping with Tree Crop Belts Mixed Tree Species to Address Farm Scale Wind Erosion Changing Farming Practice In Improving Wind Erosion Management Avondale Sandalwood Soil Conservation Project Maintaining Productivity by Improving Wind Erosion Management Avondale Sandalwood Soil Conservation Project Maintaining Productivity by Improving Wind Erosion Management Satiland pasture management for protection of soils prone to wind erosion Maintaining Productivity by Improving Wind Erosion Management Satiland pasture management for protection of soils prone to wind erosion Maintaining Productivity by Improving Wind Erosion Management Satiland pasture management for protection of soils prone to wind erosion Maintaining Productivity by Improving Wind Erosion Mungangaby Sandalwood Establishment and Maintenance Trail Kokardine Tank Project Mungangaby Sandalwood Establishment and Maintenance Trail Kokardine Erosion function	und 1			-	
Tackling Soil Erosion with Commercial Tree Crops in North-Eastern Wheatbelt Comparing Practices in the Yilgarn and Westonia for Lower Wind Erosion Risk Pasture Cropping with Tree Crop Belts Mixed Tree Species to Address Farm Scale Wind Erosion Instant demonstration of soils prone soil Retention Trainal and demonstration of soils prone to wind erosion Avoidale Sandalwood Soil Conservation Project Maintaining Productivity by Improving Wind Erosion Management Anonale Bandalwood Soil Conservation of soils prone to wind erosion Anonstration gatum anagement for protection of soils prone to wind erosion Baltiand pasture management for protection of soils prone to wind erosion Maintaining Productivity by Improving Wind Erosion Management Anonstrating alternative crop residue management solutions to burning Mungangabby Sandalwood Establishment and Maintenance Trail Mungangaby Sandalwood E		saltland pastures into a mixed farming system at Yealering	K,P & G Manton	Yealering	\$23,250
Comparing Practices in the Yilgarn and Westonia for Lower Wind Erosion Risk Pasture Cropping with Tree Crop Belts Mixed Tree Species to Address Farm Scale Wind Erosion Mixed Tree Species to Address Farm Scale Wind Erosion Mixed Tree Species to Address Farm Scale Wind Erosion Changing Farming Practice to Improve Soil Heatth and Soil Retention Trial and demonstration of clay incorporation methods on sandy non-wetting soils, Bolgart Avondale Sandalwood Soil Conservation Project Maintaining Productivity by Improving Wind Erosion Management Demonstrating alternative crop residue management solutions to burning Mungangabby Sandalwood Establishment and Maintenance Trail Mungangabby Sandalwood Establishment and Maintenance Trail Mungangabby Sandalwood Establishment and Maintenance Trail Overcoming and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA Traee Belts to Minimize Wind Erosion Impacts in the Central Wineatbelt of WA Mungangabby Sandalwood Establishment and Maintenance Trail Onterring and Reducing Wind Erosion Impacts Traee Belts to Minimize Wind Erosion Mungangabby Sandalwood Establishment and Maintenance Trail Mungangabby Sandalwood Establishment and Maintenance Trail Mungangabby Sandalwood Establishment and Maintenance Trail Domonstration of large scale adoption of		oil Erosion with Commercial Tree Crops in North-Eastern Wheatbelt	DA & SD Butler	Toodyay	\$28,838
Pasture Cropping with Tree Crop Belts Mixed Tree Species to Address Farm Scale Wind Erosion Mixed Tree Species to Address Farm Scale Wind Erosion Changing Farming Practice to Improve Soil Health and Soil Retention Trial and demonstration of clay incorporation methods on sandy non-wetting soils, Bolgart Avondale Sandalwood Soil Conservation Project Maintaining Productivity by Improving Wind Erosion Management Maintaining Production of Soils prone to wind erosion Management for protection of soils prone to wind erosion Mungangabby Sandalwood Establishment and Maintenance Trail Kokardine Tank Project Nunderosion prevention on Careema Farms. Overcoming barriers to integrating trees into farm systems in Kulin Vind erosion with oil mallees and saltbush <td></td> <td>Practices in the Yilgarn and Westonia for Lower Wind Erosion Risk</td> <td>Bodallin Catchment Group</td> <td>Bodallin</td> <td>\$21,204</td>		Practices in the Yilgarn and Westonia for Lower Wind Erosion Risk	Bodallin Catchment Group	Bodallin	\$21,204
Mixed Tree Species to Address Farm Scale Wind Erosion Integring Farming Practice to Improve Soil Health and Soil Retention Intral and demonstration of clay incorporation methods on sandy non-wetting soils, Bolgart Avondale Sandawood Soil Conservation Project Maintaining Productivity by Improving Wind Erosion Management Intral and demonstration of clay incorporation methods on sandy non-wetting soils, Bolgart Avondale Sandawood Soil Conservation Project Intral and pasture management for protection of soils proone to wind erosion Integring alternative crop residue management solutions to burning Intragengabby Sandalwood Establishment and Maintenance Trail Kokardine Tank Project Intragering and Reducing Wind Erosion Intragering and Reducing Wind Erosion Indigrapaby Sandalwood Establishment and Maintenance Trail Kokardine Tank Project Intragering wind erosion with oil mallees and saltbush Indigrapaby Sandalwood Establishment and Maintenance Trail Kokardine Tank Project Integring wind erosion with oil mallees and saltbush Internation of large scale adoption of oil mallees into a farm system in Kulin Internation Soil Conversation through Grazing Management in the Yeelanna Catchment Interving Soil Converestion through Grazing Management in the Yeelanna C		opping with Tree Crop Belts	Southern Brook Landcare Group Inc.	Northam	\$7,673
Imaging Farming Practice to Improve Soil Health and Soil Retention Trial and demonstration of clay incorporation methods on sandy non-wetting soils, Bolgart Avondale Sandalwood Soil Conservation Project Imaging Productivity by Improving Wind Erosion Management Saltland pasture management for protection of soils prone to wind erosion Imaging Productivity by Improving Wind Erosion Management Demonstrating alternative crop residue management solutions to burning Imambly Oil Mallee Soil Conservation Project Image Wind Erosion Image Wind Erosion Image Management and Maintenance Trail Kokardine Tank Project Image Image and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA Imagering wind erosion with oil mallees into farm systems in Kulin Improving Soil Conversation through Grazing Management in the Yeelanna Catchment I		Species to Address Farm Scale Wind Erosion	Stoneley	Corrigin	\$43,351
Trial and demonstration of clay incorporation methods on sandy non-wetting soils, Bolgart Avondale Sandalwood Soil Conservation Project Maintaining Productivity by Improving Wind Erosion Management Sattland pasture management for protection of soils prone to wind erosion Demonstrating alternative crop residue management solutions to burning Process of Conservation Project Tree Belts to Minimize Wind Erosion Mungangabby Sandalwood Establishment and Maintenance Trail Kokardine Tank Project Overcoming barriers to integrating trees into farm systems in Kulin Vind erosion with oil mallees and sattbush Vind erosion with oil mallees into a farm system in Kulin Vind erosion with oil mallees into a farm system in Kulin Improving Soil Conversation for oil mallees into a farm system in Kulin Targeting wind erosion with oil mallees into a farm system in Kulin Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Improving Soil Conversation through Grazing Management in the Yeelanna			JB & HF Arnold	Mukinbudin	\$41,550
Avondale Sandalwood Soil Conservation Project Maintaining Productivity by Improving Wind Erosion Management 1 Sattland pasture management for protection of soils prone to wind erosion 1 Sattland pasture management for protection of soils prone to wind erosion 2 Demonstrating alternative crop residue management solutions to burning 3 Demonstrating alternative crop residue management solutions to burning 4 Hambly Oil Mallee Soil Conservation Project 5 Tree Belts to Minimize Wind Erosion 6 Mungangabby Sandalwood Establishment and Maintenance Trail 7 Mungangabby Sandalwood Establishment and Maintenance Trail 7 Monitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA 7 Monitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA 7 Monitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA 7 Monitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA 7 Monitoring Soil Conversation of oil mallees and sattbush 8 Und erosion with oil mallees and sattbush 9 Improving Soil Conversation through Grazing Management in the Yeelanna Catchment 1 Trees of Change 1 Anchorage'		emonstration of clay incorporation methods on sandy non-wetting soils, Bolgart	Waddi Park Farming Co	Bolgart	\$31,240
Maintaining Productivity by Improving Wind Erosion Management Institution pacture management for protection of soils prone to wind erosion Institution pacture management for protection of soils prone to wind erosion Institution pacture management for protection of soils prone to wind erosion Institution pacture management for protection of soils prone to wind erosion Institution pacture management for protection Institution partices wind Erosion Institution partices to integrating trees into farm systems in Kulin Institution and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA Institution of large scale adoption of oil mallees into a farm systems in Kulin Wind erosion with oil mallees and saltbush Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Inproving Soil Conversation through Grazing Management in the Yeelanna Catchment Inproving Soil Conversation through Grazing Management in the Yeelanna Catchment Informage Inforerosion with oil mallees into a farm system		sandalwood Soil Conservation Project	The National Trust of Australia	Beverley	\$14,615
1 Satitland pasture management for protection of soils prone to wind erosion 2 Demonstrating alternative crop residue management solutions to burning 3 Hambly Oil Mallee Soil Conservation Project 4 Hambly Oil Mallee Soil Conservation Project 5 Tree Belts to Minimize Wind Erosion 6 Mungangaby Sandalwood Establishment and Maintenance Trail 7 Mungangaby Sandalwood Establishment and Maintenance Trail 7 Monitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA 7 Monitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA 7 Monitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA 7 Monitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA 7 Monitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA 7 Monitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA 8 Vind erosion prevention on Careema Farms. 9 Demonstration of large scale adoption of oil mallees into a farm system in Kulin 1 Improving Soil Conversation through Grazing Management in the Yeelanna Catchment 1 Trees of Change 1 Anchorage* 2 Anchora			Corrigin Farm Improvement Group	Corrigin	\$39,816
 Demonstrating alternative crop residue management solutions to burning Hambly Oil Mallee Soil Conservation Project Hambly Oil Mallee Soil Conservation Project Tree Belts to Minimize Wind Erosion Mungangaby Sandalwood Establishment and Maintenance Trail Kokardine Tank Project Overcoming barriers to integrating trees into farm systems in Kulin Overcoming barriers to integrating trees into farm systems in Kulin Monitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA Targeting wind erosion with oil mallees and saltbush Wind erosion prevention on Careema Farms. Demonstration of large scale adoption of oil mallees into a farm system in Kulin Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Trees of Change Anchorage⁴ She-oak, Saltbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation 		isture management for protection of soils prone to wind erosion	Facey Group Inc.	Wickepin	\$47,500
Hambly Oil Mallee Soil Conservation Project Tree Belts to Minimize Wind Erosion Mungangabby Sandalwood Establishment and Maintenance Trail Kokardine Tank Project Overcoming barriers to integrating trees into farm systems in Kulin Overcoming barriers to integrating trees into farm systems in Kulin Targeting wind erosion with oil mallees and saltbush Wind erosion prevention on Careema Farms. Demonstration of large scale adoption of oil mallees into a farm system in Kulin Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Trees of Change 'Anchorage' She-oak, Saltbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation		ting alternative crop residue management solutions to burning	WEROC	Quairading	\$25,000
Hambly Oil Mallee Soil Conservation Project Tree Belts to Minimize Wind Erosion Mungangabby Sandalwood Establishment and Maintenance Trail Kokardine Tank Project Covercoming barriers to integrating trees into farm systems in Kulin Ontoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA Targeting wind erosion with oil mallees and saltbush Wind erosion prevention on Careema Farms. Demonstration of large scale adoption of oil mallees into a farm system in Kulin Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Trees of Change 'Anchorage' She-oak, Saltbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation	o pui				\$324,037
 namby on market soli Conservation Project Tree Belts to Minimize Wind Erosion Mungangabby Sandalwood Establishment and Maintenance Trail Kokardine Tank Project Kokardine Tank Project Nonitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA Targeting wind erosion with oil mallees and saltbush Wind erosion prevention on Careema Farms. Demonstration of large scale adoption of oil mallees into a farm system in Kulin Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Trees of Change Anchorage She-oak, Saltbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation 	F	Molloo Soil Comonistica Designt		Drocken	000 220
 Iree Belts to Minimize Wind Erosion Mungangabby Sandalwood Establishment and Maintenance Trail Kokardine Tank Project Kokardine Tank Project Overcoming barriers to integrating trees into farm systems in Kulin Overcoming barriers to integrating trees into farm systems in Kulin Demonstration of large scale adoption of oil mallees into a farm system in Kulin Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Trees of Change Anchorage¹ She-oak, Sattbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation 			veraello	Brookton	\$38,00U
Mungangabby Sandalwood Establishment and Maintenance Trail Kokardine Tank Project Dercoming barriers to integrating trees into farm systems in Kulin F7 Monitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA Targeting wind erosion with oil mallees and saltbush Wind erosion prevention on Careema Farms. Demonstration of large scale adoption of oil mallees into a farm system in Kulin Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Trees of Change 'Anchorage' She-oak, Sattbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation		to Minimize Wind Erosion	Corrigin Farm Improvement Group	Corrigin	\$38,067
Kokardine Tank Project Overcoming barriers to integrating trees into farm systems in Kulin Demoning and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA Targeting wind erosion with oil mallees and saltbush Wind erosion prevention on Careema Farms. Demonstration of large scale adoption of oil mallees into a farm system in Kulin Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Trees of Change Anchorage [†] She-oak, Sattbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation		oby Sandalwood Establishment and Maintenance Trail	MP Hogan & Co.	Bencubbin	\$35,272
Overcoming barriers to integrating trees into farm systems in Kulin F7 Monitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA Targeting wind erosion with oil mallees and saltbush Wind erosion prevention on Careema Farms. Demonstration of large scale adoption of oil mallees into a farm system in Kulin Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Trees of Change Anchorage ¹ She-oak, Sattbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation		Tank Project	R J and J Lego	Cadoux	\$38,125
 F7 Monitoring and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA Targeting wind erosion with oil mallees and saltbush Wind erosion prevention on Careema Farms. Wind erosion prevention on Careema Farms. Demonstration of large scale adoption of oil mallees into a farm system in Kulin Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Trees of Change 'Anchorage' She-oak, Saltbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation 		g barriers to integrating trees into farm systems in Kulin	HG Savage & Co	Kulin	\$36,650
Targeting wind erosion with oil mallees and saltbush Wind erosion prevention on Careema Farms. Demonstration of large scale adoption of oil mallees into a farm system in Kulin Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Trees of Change 'Anchorage' She-oak, Saltbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation	F7	and Reducing Wind Erosion Impacts in the Central Wheatbelt of WA	Kellerberrin LCDC	Kellerberrin	\$38,227
Wind erosion prevention on Careema Farms. Demonstration of large scale adoption of oil mallees into a farm system in Kulin Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Trees of Change 'Anchorage' She-oak, Saltbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation		vind erosion with oil mallees and saltbush	HW Gayfer and Son	Corrigin	\$35,073
Demonstration of large scale adoption of oil mallees into a farm system in Kulin Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Trees of Change 'Anchorage' She-oak, Saltbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation		on prevention on Careema Farms.	Careema Farms	Kondinin	\$21,250
Improving Soil Conversation through Grazing Management in the Yeelanna Catchment Trees of Change 'Anchorage' 'Anchorage' She-oak, Saltbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation			C.J. & E.J. Robertson & Sons	Kulin	\$20,823
Trees of Change 'Anchorage' 'Anchorage' She-oak, Saltbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation		Soil Conversation through Grazing Management in the Yeelanna Catchment	Yeelanna Catchment Group	Wyalkatchem	\$20,046
'Anchorage' She-oak, Sattbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation			WR & CM Willcocks	Lake Grace	\$22,855
She-oak, Sattbush & Pasture Trial Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation			Kalbari	Newdegate	\$24,187
Revegetation of Coobabla Farm, Bakers Hill to reduce soil degradation		altbush & Pasture Trial	BS & ES Ness	Newdegate	\$15,950
		on of Coobabla Farm, Bakers Hill to reduce soil degradation	Woolah-wah Aboriginal Land Corp	Bakers Hill	\$11,800
	Ē				\$390,914

APPENDIX 4: ASSISTING FARMER DECISION MAKING TRAINING SESSION EVALUATION RESULTS

Event Evaluation Results Report



Session / Activity:	Assisting Farmer Decision Making	Program:	Supporting Farm Practice Change to Manage Wind Erosion in the ARB
Date:	18/19 November 2009	No. of Participants:	20
Facilitator:	Nigel and Cam	No. of Forms Returned:	11

Please circle 'Yes' or 'No' to the following statements		Response Responde		Comments	
		No	Partially		
1. The session / activity covered what expected it to cover.	73	27		I had no expectationsUnsure	
2. The session / activity's objectives were clearly stated.	73	18	9	 Needed more warning about timing of meeting Unsure what to expect 	
3. The session / activity's objectives were achieved.	82	9	9		
4. The session / activity content was interesting.	91		9		
5. The facilitator was effective.	91		9	 Nigel needs to stand at front of room Very well presented 	
6. The venue or location was suitable for this session / activity.	100				

W:\P7 Projects\PROJECTS 09_13\SUSTAINABLE AGRICULTURE\P7B079V1 Program folder Wind Erosion in the ARB 2009-13\MERI\Evaluation\Events\Event Eval Results Report_Farm Dec Making.doc Page 1 of 5

Please circle 'Yes' or 'No' to the following statements			Response 6 Responde		Comments
		Yes	No	Partially	
	e level of interactivity was appropriate for this session / tivity.	100			Lots of DiscussionAbsolutely
	e supporting resource materials supplied (or referred to) are levant and useful to me.	54.5	45.5		 Would like power points Hopefully it will be emailed out afterwards there were no supporting materials Didn't get any, looking forward to seeing the action plan No resource materials supplied Session file would have been handy
	e session / activity content was directly related to the skills d knowledge I needed.	91	9		
10. b	elieve that I can now work independently in this area.	45.5	9	45.5	 Lots of group work is required Still need to work with others Maybe With assistance from organisations

W:\P7 Projects\PROJECTS 09_13\SUSTAINABLE AGRICULTURE\P7B079V1 Program folder Wind Erosion in the ARB 2009-13\MERI\Evaluation\Events\Event Eval Results Report_Farm Dec Making.doc Page 2 of 5

Please circle 'Yes' or 'No' to the following statements		Response Responde		Comments	
		No	Partially		
				 Collaboration is vital rather then working independently 	
				Need pointers in future	
11. The duration of the session / activity was right for me.	91		9	 Session on day two was slow at times 	
				• Perfect	
12. The pace of the session / activity was right for me.	73	18	9	Prefer more central	
				Quicker pace . Brainstorm better	
13. The level of difficulty of the content was right for me.	91		9		

W:\P7 Projects\PROJECTS 09_13\SUSTAINABLE AGRICULTURE\P7B079V1 Program folder Wind Erosion in the ARB 2009-13\MERI\Evaluation\Events\Event Eval Results Report_Farm Dec Making.doc Page 3 of 5

What aspects of the session / activity did you gain the most benefit?	Is there anything else you would like the session / activity to have covered?	Have you any suggestions about how this session / activity could be improved?	Further Comments: (Please write your name and contact details here should you wish to be contacted about your feedback)
Discussion and group work Nice and quick - didn't drag on topics	Integration of three areas Next step in project	Case studies/stories from other areas Shared discussion and what worked / didn't work	
All	Would have been good to have had print outs of the slides during the session to be able to refer to	Whiteboard markers that work for the presenters to use.	
Understand the three stages of moving towards adoption of new farming practices	No	No	Fantastic session - practical, highly relevant, nicely interactive, fun
Going through the stages of the model and what each stage involved. And then going through it on day two.			Very good workshop. Lots to think about and process. Thanks Dan.
Learning about the 'farm practice change' concept / model that Dan often refers to.	No.	Well organised - thanks Dan.	
Theory, 'how to' approach	People's contact details How we should / can we work together.		

W:\P7 Projects\PROJECTS 09_13\SUSTAINABLE AGRICULTURE\P7B079V1 Program folder Wind Erosion in the ARB 2009-13\MERI\Evaluation\Events\Event Eval Results Report_Farm Dec Making.doc Page 4 of 5

What aspects of the session / activity did you gain the most benefit?	Is there anything else you would like the session / activity to have covered?	Have you any suggestions about how this session / activity could be improved?	Further Comments: (Please write your name and contact details here should you wish to be contacted about your feedback)
Meeting some of the partners.	Contact details of partners. Know how we are going to be working together.	Name tags need to have where people are from.	
Group sessions	Possible SCP format - gaps for next rounds.	Explore individuals mode of engaging the farmers - results and experience.	Future resources - links to web sites etc would be handy for enforcing concepts and self learning. Follow up process next year.
Working through the exercises with people who think (and interpret) separate to me.	No, I thought it covered what I needed well.	Not at all.	Sandy Turton, Corrigin 90632203
First phase - engaging farmer - motivation. From a forestry perspective, this phase had the most impact for me - informative.			Amanda Rukuwai 0427 380977 amanda.rukuwai@fpc.wa.gov.au
Networking and discussion	Better generalised questioning technique	Yes	Don

W:\P7 Projects\PROJECTS 09_13\SUSTAINABLE AGRICULTURE\P7B079V1 Program folder Wind Erosion in the ARB 2009-13\MERI\Evaluation\Events\Event Eval Results Report_Farm Dec Making.doc Page 5 of 5