

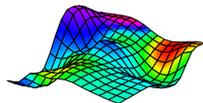
Report to
Australian Wool Innovation

Benefit Cost Analysis of AWI's Extension Networks Investment

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August 2012



BDA Group
Economics and Environment

BDA MELBOURNE
PO Box 6009
Hawthorn West, VIC 3122
Ph (03) 8684 9707

BDA CANBERRA
PO Box 4022
Manuka ACT 2603
Ph (02) 6282 1443

BACKGROUND

BDA Group was commissioned by AWI to complete a benefit cost analysis (BCA) of their research, development and extension investment in the establishment and operation of extension networks for Australian woolgrowers. This investment was made under AWI's 2010-13 Strategic Plan, On-Farm R&D Strategy Education and Extension, Program 1 AWI Extension Networks. The analysis was completed with the primary purpose of providing a robust assessment of the potential returns to Australian wool growers from that investment.

The analysis reported here also includes a Program Investment Logic which provides a brief summary of the value of the investment to Australian Wool Growers, investment targets and activities and identified funding gaps that will aid in directing future funding in this area (Attachment).

INVESTMENT

AWI has supported extension networks across Australia for many years. Each network has a central point of contact and administration and provides both financial support and information to wool growers and access to extension material to service industries. Each wool grower group has a number of participating wool growers who collectively determine relevant learning areas and undertake appropriate activities to increase their understanding of the use and benefits of different farm practices or technologies in those areas. A breakdown of woolgrowers participating in AWI funded extension networks is provided in the Table below. In 2011 4,375¹ wool growers (around 16% of all wool growers) were involved across Australia and received funding support of \$2.5m of which \$1.2m was provided by AWI. Wool growers also contribute to the activities undertaken (cash and time) and their total annual cost was estimated at \$0.9m.

TABLE 1: EXTENSION NETWORK PARTICIPATION AND FUNDING (2011/12)

Network	Wool Growers	Other Participants	AWI	Total Funds
Sheep Connect NSW	822	1,354	\$150k	\$300k
Sheep Connect SA	800		\$150k	\$330k
Sheep Connect Tas	350		\$150k	\$215k
Best Wool/ Best Lamb (VIC)	750	800	\$150k	\$895k
The Sheep's Back (WA)	700	65	\$150k	\$150k
Leading Sheep (QLD)	800		\$150k	\$300k
Bestprac (Pastoral Zone)	153	504	\$75k	\$130k
Total (a)	4,375	2,723	\$1,175k	\$2,520

Source: AWI SWC papers, Network milestone reports & Coutts J&R 2012 "Assess Long Term Benefits of AWIs Network Projects."

¹ Other participants involved in the networks include other farmers as well as service providers. These people do not participate directly in group activities, but have access to extension materials and events coordinated by through the network.

In 2011 AWI adopted an incentivised support arrangement with each network to encourage each network to increase their wool grower numbers². Additional funding of up to \$50k a year has been allocated, subject to networks achieving a target increase. Funding is also provided by other agencies, mainly state governments. Funding support is provided over a rolling three year period. Groups are also encouraged to seek other external funding for specific activities.

Each network is supported by a Project Advisory Panel (PAP) that consists of woolgrowers and industry, extension and commerce representatives. The role of the PAP is to set the strategic direction of the network, to oversee implementation of activities across groups and to encourage participation³. Extension areas include both AWI developed technologies (products, processes or information) as well as technologies developed elsewhere.

Activities undertaken by wool grower groups has been varied and has included parasite control, climate forecasting, financial management, breeding, nutrition management, benchmarking, drought feeding, marketing, use of mulesing alternatives, pasture management and wild dog control.

BENEFITS

The primary purpose of the extension networks is to provide information to wool growers on opportunities for practice change to increase the profitability of their businesses as well as the required training and skills necessary to implement practice change opportunities on their properties. In his 2012 review of AWI's network projects Dr Coutts noted that *"the major benefit cost to industry in funding effective extension programs is their role in increasing the rate and level of adoption of innovation"*.

However, the AWI Extension networks are not the sole avenue for technology adoption, and indeed many of the activities undertaken by wool growers relate to the use of well established technologies. The key point relevant to this evaluation is that the underlying rationale for AWI extension networks is that they are *a way to address and add value to the many learning and training opportunities on offer to wool growers - they provide a grower based information and knowledge service that connects sheep and wool producers with learning opportunities*⁴. While it can be demonstrated that wool growers participating in the AWI extension networks have made profitable changes to their businesses, the case

² While increasing participation numbers will increase overall benefits it should be recognised that it is likely that this increase will be from more marginal growers (in terms of benefits achieved) and that their participation might be dependent on increasing subsidisation from AWI.

³ The Sheep's Back Network 2008-2011, Final report (TMS07), June 2011.

⁴ A draft business case for establishment and implementation of AWI Sheep Connect: An extension network project in NSW, Prepared by RPC Solutions for AWI, December 2007.

is also true for wool growers who have not participated in these networks⁵. Current participation rates in the networks are around 16% of all woolgrowers and it is reasonable to assume that wool growers participate in these networks because it adds value to their business. Likewise, other wool growers might find more profitable avenues to access information and training and hence would not participate in the AWI extension networks. It is also recognised that the networks provide information to many non-wool growers and that these people would gain some value. Similarly, the networks might also provide a cost effective means of extending specific technologies developed or supported by AWI to a segment of the industry. In this way AWI would achieve some cost saving in the extension costs that they might have otherwise incurred⁶.

Participating wool growers incur a cost from participation in the network (time, travel and contributions to group) and the value they receive must be in excess of this cost or they would not participate. On the figures presented in Table 1 the average AWI cost per wool grower was \$270 in 2011. Therefore, the average value to wool growers would need to exceed their own cost (\$200) as well as the AWI cost, if not there would be a net industry loss.

The value of the benefits to the industry from the extension networks can be quantified in terms of the cost savings that are realised by participating growers and other participants⁷.

1 Wool Growers

Wool growers seek out information and training through various avenues including workshops, field days, media, business networks and consultants. Participation in the extension networks involves determining priority areas of learning and training. Activities targeted at these priorities include workshops, farm visits and seminars – around 6 areas per group each year. If these activities were funded on a commercial basis the cost is estimated at \$900 per wool grower.

- This is equivalent to arranging six workshops at \$3,000 each for 20 members in a group.
- This would be equivalent to 6 hours of face to face time with a consultant. (Coutts (2007⁸) reports that most farm consultants are engaged on an hourly rate by farmers at a cost of, on average \$150 per hour.)

⁵ Coutts J&R 2011, Evaluation of Sheep Connect Tasmania, Stage 3 Final report, November p32.

⁶ These benefits have not been quantified.

⁷ It was recognised that monitoring and evaluation (M&E) plans relating to AWI extension networks were variable across the different state based networks and a process for developing and implementing a M&E plan at the program level has been initiated. This process is summarised in attachment 2.

⁸ Coutts, J, Roberts, K. & Samson, A., 2007, Using Agricultural Consultants in your Farming Enterprise: A users guide for farm business managers: A report for the cooperative Venture for Capacity Building, RIRDC July.

2 Other participants

Other participants do not engage in group activities but have access to information made available through extension network websites, media material and other non-group specific events. Information accessed generally relates to wool growing and cost savings achieved by service providers would be passed back to wool growers through competitive pricing of their services. A typical subscription of this nature would cost around \$50 a year.

On the basis of the above costs savings it was estimated that the extension networks deliver a benefit to the Australian wool industry of some \$4m a year.

PAYOFF

In this section the estimated pay off on the AWI investment is reported. Measures are reported in Table 2. It was estimated that the AWI investment in extension networks over the period 2010/11 to 2012/13 (assuming no growth in participation rates) will generate a net return to Australian wool growers of just over \$8m in present value terms⁹. This represents a return of \$1.40 on every dollar invested by AWI.

TABLE 2: INVESTMENT PERFORMANCE MEASURES

Performance Measure	Baseline
Present value of Benefits (\$m)	\$8.0m
Present value of Costs(\$m)	\$5.9m
Net Present Value (\$m)	\$2.1m
Benefit Cost Ratio	1.4

CONCLUSION

It was estimated that the AWI investment in extension networks will deliver a positive return to Australian wool growers. The value of the AWI investment was deemed to be in reducing the cost to wool growers of accessing and assessing information which would enable profitable changes to be made in their wool growing operation. The breakeven benefit was estimated at, on average, \$660 per participating woolgrower. If the average woolgrower benefit is greater than \$660 a year for participating wool growers the AWI investment payoff would be positive.

⁹ Benefits were adjusted to reflect the level of capture of profit gains by Australian wool growers – estimated at 75%. A discount rate of 5% was used.

ATTACHMENT - AWI PROGRAM INVESTMENT LOGIC

On-Farm Strategy	Strategy 4 – Education & Extension			
Program	Program 1 (i) – AWI Extension Networks			
Value to AWI <i>Why is AWI investing in this area? In what way will value be captured by Australian woolgrowers (metric)?</i>	<p>AWI investment encourages the formation and continuation of wool grower groups i.e. the infrastructure to assist growers to cost effectively identify opportunities to increase the profitability of their businesses or address specific social or environmental issues confronting them as a group.</p> <p>The value of the AWI investment is</p> <ol style="list-style-type: none"> (1) the cost saving achieved by wool growers through participation in network groups as opposed to the cost they would incur in pursuing opportunities through other means. (2) Potential cost savings to AWI from leveraging grower groups to extend specific AWI projects. 			
Target market(s)	All Australian wool growers with emphasis on growers who are not currently participating in an established grower network group.			
Measure <i>What could be measured to demonstrate that the value has been achieved?</i>	<ol style="list-style-type: none"> (1) Aggregate cost saving to participating wool growers. (2) Total cost saving to AWI from reduced extension cost for specific AWI projects. The decision to use the extension network would depend on the specific technology and costs should be included as part of the AWI investment for the total extension investment. 			
Target(s) <i>For the measure selected what is the target change sought under the strategic plan?</i>	(1) Average \$700 cost saving per participating grower.			
Investment Activities <i>What activities have been undertaken with AWI funds to achieve the target?</i>	<p>\$150k available per network which includes \$100k for support of the co-ordination, administration, communication, evaluation and operation of the Project Advisory Panel. \$50k provided on the basis of commitment by the network to AWI delivery and extension activity.</p> <p>From 2011 an additional payment of \$50k a year was made available if the number of groups in a network increased.</p> <p>Investments include EA195, EA196, WP288, WP289, WP290, WP312, WP401, WP452, WP490.</p>			
Investments	2010-11	2011-12	2012-13	Total
AWI cash	\$975k	\$975k	\$975k	\$2,925k
AWI overheads if any	\$200k	\$200k	\$200k	\$600k
AWI total investment	\$1,175	\$1,175	\$1,175	\$3,525
Co-funding by growers	\$900k	\$900k	\$900k	\$2,700
Co-funding by others	\$1,345k	\$1,345k	\$1,345k	\$1,345
Gaps <i>What gaps currently exist in which AWI investment might be required in the future to ensure target is met?</i>	<p>Lack of information on cost savings to participating growers.</p> <p>Difficult to recruit new members (more associate members than members)</p> <p>Lack of a monitoring and evaluation plan</p>			

Note: Costs based on 2011-12 data and wool grower costs estimated at, on average, \$200 each per year.