



CARING FOR OUR COUNTRY

# Caring for Our Country EverGraze Supporting Sites Final Impact Report

## August 2012

**EverGraze® is a Future Farm Industries CRC research and delivery partnership:**

This report was compiled by the EverGraze project leadership (Future Farm Industries CRC and Department of Primary Industries Victoria) in partnership with QualDATA evaluation services who provided an independent review of the project.



The Supporting Site project delivery team was led by Kate Sargeant, DPI Vic as EverGraze Project Leader and coordinated by Anita Morant, DPI Vic as Victorian EverGraze Extension Coordinator. DPI Vic EverGraze Regional Coordinators included Anita Morant (southwest Vic), Alison Desmond (northeast Vic) and Darren Hickey (formerly Prue Bergmeier, Gippsland).

The project leadership would like to thank the following site hosts and coordinators for their time and effort in participating in the Caring for Our Country EverGraze Supporting Site project

Host	Group	Coordinator
John Keogh, Holbrook NSW	Holbrook Landcare Group	Jeff Hirth, private consultant and Tim Ekberg, Farming Answers
Brad Yelds, Bombala NSW	Monaro Farming Systems Group	Nancy Spoljaric, Mike Stevens and Associates
Richard Taylor, Nimmitabel NSW	Monaro Farming Systems Group	Nancy Spoljaric, Mike Stevens and Associates
Judy and Chris Griffiths, Murmungee, Vic	Murmungee Landcare Group	Jeff Hirth, private consultant and Tim Ekberg, Farming Answers
Stuart and Janet Morant, Tallangatta Valley, Vic	Tallangatta Valley Landcare Group	Jeff Hirth, private consultant
Gary McLarty, Seymour, Vic	Seymour Wool Group	Lisa Warn, University of Melbourne, McKinnon Project
Michael O'Sullivan, Pastoria, Vic	Pastoria	Lisa Warn, Mackinnon, University of Melbourne
Terry Hubbard, Strath Creek, Vic	Strath Creek Landcare	Claire Wade (DPI Vic)
Barry Noye, Creightons Creek, Vic	Creightons Creek BESTWOOL-BESTLAMB Group	Jim Shovelton, Mike Stevens and Associates
Rod Veering, Moonees Gap, Vic	Perennial Pasture Systems	Rob Shea, Perennial Pasture Systems
Tom and Jenny Small, Tottington, Vic	Perennial Pasture Systems	Rob Shea, Perennial Pasture Systems
Craig and Woody Oliver, Dunkeld, Vic		Anita Morant, Department of Primary Industries, Victoria
John Forsyth, Cavendish	Cavendish BESTWOOL-BESTLAMB Group	Andrew Speirs. Mike Stevens and Associates
Rick and Nancy Foster,	Casterton BESTWOOL-BESTLAMB Group	Andrew Speirs. Mike Stevens and Associates

Casterton, Vic

Peter and Regina Dooly, Warncoorte	Warncoorte BESTWOOL-BESTLAMB Group	Raquel Waller and Linda Murray, DPI Vic
Terry and Mary Cliff, Freshwater Creek	Surf Coast Inland Plains Landcare Group	Murray Johns, Landcare
John Fish, Mt Wallace	Ballarat Better Beef Group	Neil James and Sam Clayfield, DPI Vic
Mark McKew, Warrak	Perennial Pasture Systems	Julie Andrew, DPI Vic
Nick and Sarah Moyle, Gazette	Hamilton BetterBeef Group	Maria Crawford, DPI Vic
Lawrence Richmond, Clunes, Vic	Central Highlands Agribusiness Forum	David Clarke, Landcare Coordinator
Vanessa Ingram-Daniel, Marlo	Marlo Beefcheque Group	Darren Hickey, Prue Bergmeier, DPI Vic
Kevin Dean, Tambo Crossing	Swifts Creek Ensay Landcare Group	Darren Hickey, Prue Bergmeier, DPI Vic
Yarram (unofficial sites)	Yarram Yarram Landcare Group	Samantha Monks, Yarram Yarram Landcare Group
Rick Robertson, Bengworden	Bairnsdale BESTWOOL-BESTLAMB group	Darren Hickey, Prue Bergmeier, DPI Vic
Austin and Joy Johnson, Back Valley, Fleurieu Peninsula SA	Fleurieu Beef Group	Tim Prance, private consultant (formerly Rural Solutions)
Colin and Trevor Bolto, MacGillivray, SA	Ag Kangaroo Island Landcare Group and Kangaroo Island Sheep Production Group	Tim Prance, private consultant (formerly Rural Solutions)

Thanks to our Supporting Site groups and coordinators... (note there are a few logos missing)



# EverGraze Supporting Sites Final Impact Report Executive Summary

## *Purpose*

This report provides an analysis of the Caring for Our Country EverGraze Supporting Sites project and its contribution to the legacy outputs and impact delivered by the wider Future Farm Industries CRC EverGraze project.

## *Background*

For Phase 2 of the EverGraze Supporting Site program (June 2009-June 2012) Caring for Our Country provided funds through Central Highlands Agribusiness Forum (CHAF) to maintain a selection of the strongest existing sites in NSW and Vic of which there were eight, and two sites in South Australia which were established in 2007. Sixteen new sites were also established - 13 in Victoria and 3 in NSW.

Coordination of the Supporting Site coordinators network, linkage to EverGraze research and training products, and design and coordination of the monitoring, reporting and evaluation was led by the EverGraze national project through the Department of Primary Industries Victoria and in partnership with Central Highlands Agribusiness Forum.

Caring for Our Country EverGraze Supporting Sites were mostly located in the high rainfall zone of Victoria (Gippsland, southwest and northeast), with two sites in South Australia and three sites in southern NSW. EverGraze Proof (research) Sites were located in Victoria, NSW and WA.

## *Practices implemented*

Key innovations implemented on Supporting Sites included subdivisional fencing and implementation of grazing strategies; use and management of summer active perennials; use and management of temperate perennial grasses; and use of perennials for providing shelter for lamb survival. A number of sites also made significant changes to soil and livestock management, and most sites which had use of pasture species as a focus also implemented a grazing strategy.

## *Activities*

Supporting Sites were managed by a host farm and at least one coordinator. These coordinators included private consultants, Landcare coordinators and local DPI staff. Activities were held both at a group level and with the wider community. The range of group activities included paddock walks, formal and informal training, discussion sessions with research or other professionals and bus trips to see research and on-farm implementation in other regions across the project. Each site was also required to run an annual field day.

## *Legacy*

As part of EverGraze VI (FFI CRC), details of Caring for Our Country Supporting Sites, their groups and outcomes/lessons from demonstrations will be published in regional packages on a new EverGraze website by the end of 2012. Case studies (including economics) will also be included. At least eight of the current CfoC Supporting Sites have secured funding to maintain their current activities and have expressed interest in maintaining involvement in EverGraze. All groups (26) will continue activities through other programs.

## *Engagement 2011-12*

In the 2011/2012 year, Supporting Site activity recorded a total of 1298 participants in related activities. This includes an estimated 900 unique participants involved in activities over the year. Of these, approximately 670 were producers - 29% had wool enterprises, 31% had Lamb, 27% had beef and 13% had cropping enterprises covering over approximately 520,000ha of grazing and farming land with total 31,000 head of cattle and 716,000 head of sheep (lamb and wool).

There were an estimated 224 unique Livestock Industry Advisors engaged in Supporting Site activities for the 2011/2012 period. Advisors provide part of the legacy and help to expand the impact of Supporting Sites beyond those producers who directly engaged in activities.

Reviewing the previous three year period, there were 4393 total recorded participants in Supporting Site activities of which 2761 (63%) were producers. If we apply the same assumption of a 30% overlap, this would mean a total of 1932 unique producers engaged in activities over the time frame, managing just over 1.5m ha land.

### **Learning Improvements (Capacity Gains) 2011-12**

Producers attending Supporting Sites activities rated the events highly (average of 4/5) in terms of their value in developing their knowledge and skills and helping make on-farm decisions.

The most commonly mentioned gain in capacity across all projects was the confidence that Supporting Sites have instilled in producers relating to the use and establishment of deep-rooted perennial pastures, especially phalaris and lucerne. It was also reported that more people were soil testing and were aware for the need for soil testing. Producers attending activities reported moderate to strong gains on activity feedback sheets in the 5 key knowledge areas - feed-base; livestock systems; fertiliser use and soil management; tactical management; and grazing strategies.

### **Practice Change 2011-12**

Coordinators reported a number of changes achieved on farm as a result of - or prompted by - the program including: *changes to livestock systems and management* (lambing and calving times; rotational grazing; enterprise mix); changes in *grazing management and farm layout* (subdivisions; shelter; native pasture management; weed control; cover on hill country); and changes in *the use and establishment of perennials*.

Twenty-three per cent (90) of the 385 unique producer participants who completed feedback sheets reported changes they had *already made* over an average of 286ha (total 22,594ha) and most were able to specify the impact of that change as a result of being involved in EverGraze. Note that changes to livestock management were not included in the area impacted. Using this figure, it could be very conservatively estimated that of the 670 participants recorded in the participation database as participating in Supporting Site activities for 2011-12, 154 have already made changes. Using the same logic, of the 1932 participants engaged in Supporting Site activities from 2009-2012, 444 have made changes.

Of the producers who *made changes*, 39% made changes to the feedbase (average 219ha, total 7,665ha), 37% to grazing management (average 307ha, total 10,131ha), 12% to soil management (average 363ha, total 3,993ha) and 12% to livestock management (mostly towards increasing lamb survival). If these figures are scaled up to the total number of participants estimated to have made changes (444), the total area impacted by changes to the feedbase (selection and/or establishment of perennials and undertaking assessment and planning) would be 29,194ha; grazing management (including implementation of rotational grazing, landclass fencing and management of native pastures) would be 53,203; and improved soil management (including fertiliser/lime, soil condition, soil testing) would be 19,356ha. The sum of these figures is 101,754ha. Of the 12% of producers who indicated they had made changes to livestock management, 80% (9) made changes towards increasing lamb survival impacting 32,598 head of sheep. If these figures are scaled up to the total number of producers making changes, 44 producers made changes to increase lamb survival impacting 160,947 sheep (using average flock size 3,622 head indicated in feedback sheets).

Eighty per cent (309) producer participants indicated they *intended to make* changes and most were able to specify the intended impact of the change. Using the same logic from above, of the 670 participants engaged in 2011-12, 536 intend to make changes. For the period 2009-2012, of the 1,932 participants engaged, 1,545 intended to make changes over a total of 406,492ha. Conservatively, if 70% follow through on these changes, the result will be about 1000 producers making changes. Of the producers who *intended to make changes*, 30% intended to change

the feedbase (average 101ha, total 9292ha), 39% intended to change grazing management (average 124ha, total 14,384ha), 8% intended to change soil management (average 304ha, total 3,404ha) and 3% intend to make changes to monitoring (average 378ha, total 3404ha). A further 21% intend to make changes to livestock management, most for increasing lamb survival impacting 32,598 head of sheep. If these figures are scaled up to the total participants in Supporting Site activities (2009-2012), and it was assumed that 70% follow through with their intended changes, of the 1,932 participants engaged, 324 will make changes to the feedbase impacting 37,724ha, 422 will make changes to grazing management or monitoring impacting 52,322ha, 87 will make changes to soil management impacting 14,281ha and 227 will make changes to livestock management for increasing lamb survival impacting 822,930 head of sheep. In total, the area impacted will be 111,654ha in addition to the 101,754ha (total 213,408ha) already impacted by changes made. In total, 983,877 head of sheep will be impacted by intended changes and changes already made to management for increased lamb survival. If 78% of these sheep are assumed to be ewes (SW Farm Monitor 40 year average), 767,424 ewes would be impacted.

These figures are extremely conservative as they only relate to producers participating directly in EverGraze activities who completed feedback sheets and took the time to indicate the changes made. The figures do not account for producers indirectly impacted through EverGraze wider communications, publications and interaction with next users.

### **Impact**

Case studies and Supporting Site milestone reports provided some strong evidence of the environmental and productivity impact of the recommended practice changes. The documented environmental benefits included increases in ground cover; reduced weeds; pasture persistence; and reduced soil loss. The documented associated productivity benefits included reduced input costs; increased pasture growth; increased stocking rates, lamb survival; and improved soil fertility.

Landclass fencing and implementation of grazing strategies resulted in stocking rate increases on native pastures of 1-2 DSE/ha (2 sites). Cost of fencing was \$200-300/ha. Significant environmental improvements included maintaining ground cover >80% (all sites) and increases in Autumn ground cover by up to 40 per cent (resulting from a combination of season and management influence); significantly increased native grass density (by up to 88%) and increased density and persistence of phalaris; reduced broadleaf weeds including Patterson's curse on hill country and reduced annual grass density on native and improved pastures.

From 19 paddocks established over 12 farms, the average perennial pasture establishment cost was \$450/ha (range \$263-\$757/ha). Several sites also had additional paddock infrastructure costs. Average increase in stocking rates as a result of perennial pasture establishment (and associated grazing management) was 9.4 DSE/ha range (-1.4 – 21 DSE/ha, n = 11 paddocks). Note that several paddocks would not have reached peak stocking rate and stocking rates were only based on between one and four years of data. Average gross margins of the control paddocks were \$203/ha compared to \$459/ha for sown perennial pastures. Average increase in gross margin was \$255/ha (range -\$118-\$544/ha, n = 13 paddocks). Average net present value was \$948/ha (range \$22-\$1719/ha, n= 9 paddocks). Average internal rate of return was 32%, range 18.2%-45%, n = 9 paddocks). Average payback period was 6 years (range 3-10 years, n = 10 paddocks). There were three examples of paddocks which were improved with fertiliser, weed control and grazing management which returned similar or better return on investment to the newly established paddocks. The long term (40 year) average gross margin for southwest Victoria was \$291/ha for wool, \$373/ha for prime lambs and \$215/ha for cattle.

There were three examples where sown pastures were run as a system (with several paddocks of a range of species) and significantly influenced the gross margin per DSE by allowing stock to be carried for longer and finished at a higher price (lucerne at Mt. Wallace and Mooneys Gap), or where the pasture allowed a finishing enterprise to be run instead of cows and calves (Euroa). Successful establishment of perennials on difficult soils such as high acidity or black cracking clays achieved increases in production as well as improved ground cover, reduced weeds and increased frequency of desirable species.

Use of summer active perennials such as lucerne resulted in increased survival of weaner sheep over summer; reduced supplementary feeding costs; ability to change enterprise (from cattle to sheep), ability to finish lambs and hit the target market resulting in \$1/kg lamb price increase; and stocking rate increases of 10-15 DSE/ha. Use of hedge-rows (shrub and grass) demonstrated environmental benefits but have not yet demonstrated lamb survival increases such as those achieved at Hamilton Proof Site (30 per cent increase). Proof Sites recorded up to 50 per cent reduction in ground water recharge from use of lucerne and other summer active perennials.

A rough analysis of the potential impact can therefore be made based on these assumptions and the stocking rate data from Supporting Sites. This analysis is provided in Table 5. In summary, extra product from resulting from participants making changes (to the feedbase and grazing management only) is estimated to be 14.1M – 20.2M kg beef (LWT), 3.5M-5.0M kg lamb (LWT), 572,718-820,085 kg wool (greasy) from prime lamb enterprises and 556,354-796,654 kg wool (greasy) from wool enterprises. Extra meat from wool enterprises was difficult to estimate. These figures do not account for any gain in production per head or from changes to soil and livestock management. A summary of the scaled changes made and calculated impact is provided in Table 1.

**Table 1. Number of participants changing practices or intending to change practice and resulting per year productivity and gross \$ impact scaled up to represent 1942 participants in Supporting Site activities from 2009-2012**

	Feedbase	Grazing management	Soil management	Sheep management for lamb survival	Total
<b>No. intending to change (80% of total participants)</b>	464	649	124	325	1,561
<b>70% assumed to follow through with changes</b>	325	454	87	227	1,093
<b>No. already changed (23% of total participants)</b>	133	173	53	44	404
<b>Total no. ha impacted</b>	61,977	117,794	33,638		213,408
<b>Ewes impacted</b>				767,424	767,424
<b>**Extra lambs weaned</b>				46,045	46,045
<b>**Kg extra lamb (kg LWT)</b>	160 kg/ha 2.5M	34-85 kg/ha 1.0M -2.5M			3.5M – 5.0M
<b>**Kg extra wool (kg greasy) from prime lamb enterprise</b>	26 kg/ha 407,806	6-14 kg/ha 164,911-412,78			572,718-820,085
<b>**Kg extra wool (kg greasy) from wool enterprise</b>	32kg/ha 407,806	7-17 kg/ha 160,200-400,499			556,354-796,654
<b>**Kg extra beef (kg LWT)</b>	301 kg/ha 10.1M	64-160 kg/ha 4.1M -10.2M			14.1M – 20.2M
<b>Total</b>					

\*Increase in productivity from soil management and sheep management is not accounted for in the kg product calculations, and changes to per head production are also not accounted for here.

\*\* Assumptions are based on Southwest Farm Monitor and Lifetime Wool data. See the Impact section of the Supporting Site final report for details.

\*\*\* Is a rough estimate as it assumes all lambs are sold at \$59 (SWFM 40-year average prime lamb price) rather than carried forward as replacements.



### *Overall learnings and observations*

The EverGraze team provided a range of learnings about the Supporting Site approach based on their experiences. Lessons related to groups and activities, site hosts, selection and management of the coordinators network, site design, monitoring, links to research, evaluation, funding and governance. The team reported that a significant amount of learning had taken place by project leaders, coordinators and administrators, and that there is a significant amount of infrastructure now in place. A number of training and operational 'golden rules' have been and can still be developed. They will in turn support the continuing Supporting Sites, future 'Supporting Sites like-projects' and future larger practical demonstration focused projects. Effectively this creates a 'future large scale demonstration project framework' that can be used to rapidly create and roll-out systematically a similar initiative.

## Contents

EverGraze Supporting Sites Final Impact Report Executive Summary .....	5
Purpose .....	5
Background.....	5
Practices implemented .....	5
Activities.....	5
Legacy .....	5
Engagement 2011-12.....	5
Learning Improvements (Capacity Gains) 2011-12.....	6
Practice Change 2011-12.....	6
Impact.....	7
Overall learnings and observations .....	8
Purpose.....	12
Background .....	12
EverGraze the project.....	12
Proof Site Research.....	12
EverGraze principles and practices addressing priority Caring for Our Country issues.....	13
Development, Extension and Communication.....	13
EverGraze Supporting Sites and the Caring for Our Country Supporting Site project.....	14
Supporting Site phases.....	14
Geographical spread of EverGraze Caring for Our Country Supporting Sites and EverGraze Proof Sites .....	14
Host farmers associated with Supporting Sites.....	15
Supporting Site groups and activities.....	15
Supporting Site coordinator activities.....	16
Supporting Site legacy .....	16
Regional packages, case studies and the Supporting Sites webpage.....	16
DPI coordinated demonstration sites network and continuing sites.....	17
Continuing involvement from groups and network coordinators .....	17
Key Performance Indicators.....	18
Engagement 2011-12 .....	18
Producers .....	18
Livestock Industry Advisors .....	21
Learning Improvements (Capacity Gains) 2011-12 .....	21
Host Producers response and learning from Supporting Sites.....	21
Producer Groups .....	22

Coordinator capacity gain as a result of Supporting Sites .....	22
Participants Learning from Supporting Site Workshops and Field days 2011-12 .....	23
Practice change.....	26
Impact.....	30
Summary of benefits from landclass fencing and implementing grazing strategies.....	30
Summary of benefits from use and management of perennials .....	31
Summary of benefits from use and management of summer active perennials .....	32
Estimating impact of stocking rate improvements by grazing management and feedbase changes made by participants.....	32
Summary of benefits from using perennials for shelter and improving management of ewes for increasing lamb survival.....	33
EverGraze Project Team Learning .....	35
Groups and activities .....	35
Hosts .....	35
Coordinators .....	36
Evaluation.....	36
Site design .....	36
Monitoring.....	37
Links to EverGraze research and extension .....	37
Case Studies - Supporting Sites all have something to tell .....	38
Funding .....	38
Governance .....	38
Key observations on the Supporting Sites project – in terms of running large scale demonstration projects (provided by QualDATA) .....	40
Context.....	40
Overall learnings and observations .....	40
The Model .....	41
Development of ‘golden rules’ / key learnings into a formal ‘legacy’ .....	42

# EverGraze Supporting Sites

## Final Impact Report

---

### Purpose

To provide Caring for Our Country and Future Farm Industries CRC with a summary of the impact of the EverGraze Supporting Sites project 2009-2012, and to provide recommendations for future government and industry funded projects using demonstration as a mechanism for achieving land-holder change.

### Background

EverGraze is a Future Farm Industries CRC research and delivery partnership. Key CRC partners in the project include Department of Primary Industries Victoria, Department of Primary Industries NSW, Department of Agriculture and Food WA, Meat and Livestock Australia and Australian Wool Innovation. The project delivery has also been supported by CMAs and NRM bodies throughout the high rainfall zone. From 2009-2012, the EverGraze Supporting Site project was funded by Caring for Our Country and administered through Central Highlands Agribusiness Forum.

This report provides an impact analysis of the Caring for Our Country EverGraze Supporting Sites project and its significant contribution to the legacy outputs and impact delivered by the wider EverGraze project.

### EverGraze the project

Established in 2005, EverGraze was designed to develop, test and implement new farming systems based on perennials in a range of environments across the high rainfall zone of southern Australia. The target was to increase profits of sheep and cattle enterprises and at the same time reduce ground water recharge, reduce soil loss by water and wind, improve soil health (including acidity and salinity) and improve biodiversity.

### Proof Site Research

Six research teams in Victoria, New South Wales and Western Australia tested new farming systems on Proof Sites. Measurement of soil, water, pasture and livestock inputs and outputs enabled modelling of the impact on farm productivity, profit and catchment environmental outcomes. Three sites focussed on sown exotic perennial species and three sites worked with existing native perennial pastures. EverGraze Regional (advisory) Groups (ERGs) consisting of Proof Site scientists, agency extension staff, Catchment Management Authority (CMA) representatives, private consultants and lead farmers played an important role in driving the direction of research at each site and making the outcomes relevant to local farmers.

### *EverGraze Principles and Practices*

EverGraze Proof Sites have demonstrated that substantial increases in profitability can be achieved while improving environmental management by putting the EverGraze Principles into action;

1. The right perennial plant put in the right place in the landscape for the right purpose with the right management, improves profitability and overcomes environmental concerns simultaneously;
2. Investing in perennials needs to be combined with highly productive livestock and optimum tactical management to achieve the profitability, environmental, risk management and lifestyle objectives;
3. The right combination of perennials across the farm and tactical management creates flexibility and reduces seasonal risks while creating buying and selling opportunities.

By combining the principles with evidence from EverGraze whole farm system experiments, farm and catchment modelling, demonstration sites and case studies, regional recommendations were made in five key areas;

1. *Feedbase*; selecting the right plant for the right place for the right purpose and with the right management
2. *Soil management*; fertility, structure and health
3. *Grazing systems and tactical management*; grazing to ensure persistence of desirable species, optimum utilisation and tactical responses to meet production targets and maximise profits in good or poor seasons
4. *Livestock systems*; selection of good genetics and an appropriate genotype, stocking rates, timing of reproduction and livestock management to efficiently turn pasture into product;
5. *Monitoring*; to ensure decisions are modified to take account of current and future needs.

### ***EverGraze principles and practices addressing priority Caring for Our Country issues***

Market research conducted by EverGraze demonstrated that addressing profit, risk and lifestyle objectives were the key drivers of practice change. The challenge was therefore to design farming systems that achieve these outcomes while at the same time improving natural resource management. Proof Sites and modelling enabled the project to capture the potential impact of combining technologies in a farming system to form an overall profit/NRM/risk outcome.

Environmental benefits from systems based on deep rooted perennials include reduced recharge higher utilisation of nitrogen (preventing soil acidity) and higher ground cover (reducing soil loss by water and wind and retaining organic matter). A key result was the ability to reduce recharge by more than 50 per cent without effecting catchment water supply. A summary of these impacts are described in Appendix 1.

### ***Development, Extension and Communication***

Since 2007, the EverGraze project has produced over 200 knowledge products including 84 science/conference publications, 22 information notes, 50 case studies, two decision support tools and 13 brochures which are available on the website [www.evergraze.com.au](http://www.evergraze.com.au). Four newsletters were produced per year and released to >4800 subscribers (2183 Vic, 1590 NSW, 327 WA, 312 SA, 94 Tas, 23 ACT, 28 Qld, 270 email only). The EverGraze website gets over 300 visits per month. In 2011-12 alone, over 90 media articles were published describing outcomes of research, demonstration and other project activities.

More than 14000 producers and next users have been engaged through field days, training and other producer group activities. Feedback sheets and pre/post surveys demonstrated development of knowledge, skills and intent to change in areas relating to feedbase, livestock, soils and grazing management.

Results from a telephone survey of 350 EverGraze producer participants, 100 non-participants and 150 next users undertaken in April 2010 indicated that approximately 3100 made changes to the feedbase and management practices as a result of engagement in EverGraze activities. Changes to the feedbase and grazing management were estimated to cover 180,000 ha. Since this time, impact reports from 2010-11 and 2011-12 estimated over 600 producers made changes each year. A large proportion of these was in Victoria and associated with the Supporting Sites project.

In the current phase, regional information packages are being developed to combine the recommendations from EverGraze whole-farm system experiments, modelling, demonstration and case studies which tell the full story around profit, risk, natural resource management and lifestyle impacts of change options in a local context. Regional packages will be made available on the EverGraze website [www.evergraze.com.au](http://www.evergraze.com.au) in late

2012. The packages will provide a means of maintaining the legacy of investment in EverGraze and the Caring for Our Country Supporting Sites project, and will be combined with formal and informal training of producers and advisers to increase capacity for change.

### **EverGraze Supporting Sites and the Caring for Our Country Supporting Site project**

Supporting Sites have played an integral role in the EverGraze capability and adoption strategy. The Supporting Site network was established in 2007, with sites associated with each Proof Site allowing groups of producers to try new grazing practices and perennial systems. Supporting Sites were run on a larger scale, such as half a paddock or on a section of a farm, monitoring factors such as number of grazing days, percentage ground cover, persistence of perennials and proportion of desirable species in response to a range of pasture improvement, grazing management, soil fertility/condition and livestock management practices. Each Supporting Site was associated with a producer group which was provided with a coordinator (agency extension staff, Landcare officer or private consultant).

#### ***Supporting Site phases***

The Supporting Site program was conducted in two phases. In Phase 1 (June 2007-June 2010), Supporting Sites, funded by Australian Wool Innovation (AWI) and CMAs, were established on over 50 farms across Victoria, South Australia, Western Australia, New South Wales and Tasmania. Activities were coordinated at the Supporting Sites as part of the EverGraze project. In Phase 2 (June 2009-June 2012), Caring for Our Country provided additional funds through Central Highlands Agribusiness Forum (CHAF) to maintain a selection of the strongest existing Victorian sites (8) and two sites in South Australia. Sixteen new sites were also established - 13 in Victoria and 3 in NSW. A list of Caring for Our Country Supporting Sites is provided in Appendix 2.

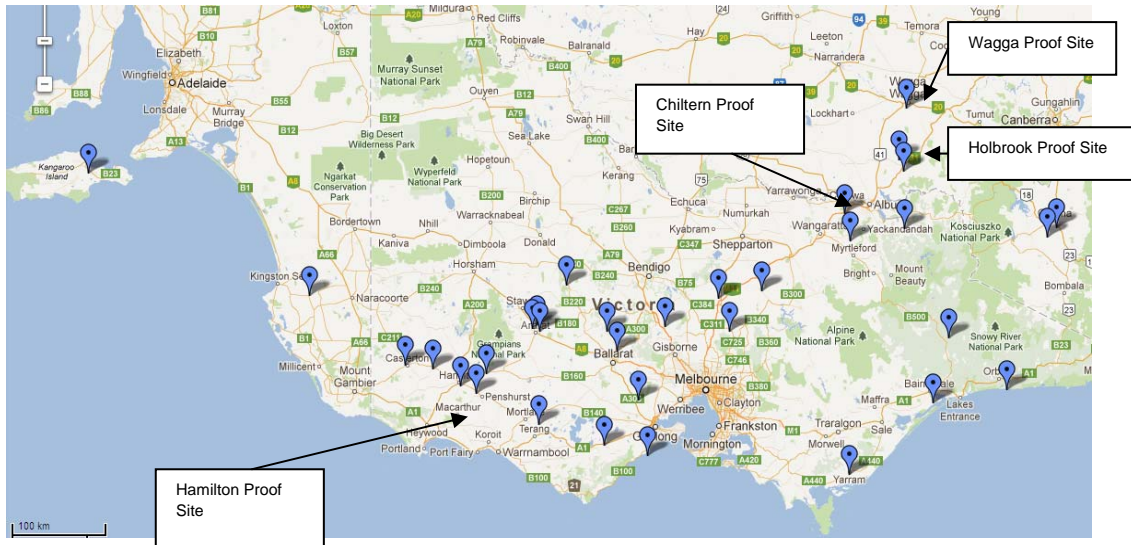
In Phase 2, additional funds for training provided for a higher quality of monitoring and reporting, and a more significant focus on activities that would achieve practice change. Coordination of the Supporting Site coordinators network, linkage to EverGraze research and training products, and design and coordination of the monitoring, reporting and evaluation was led by the EverGraze national project through the Department of Primary Industries Victoria and in partnership with Central Highlands Agribusiness Forum.

#### ***Geographical spread of EverGraze Caring for Our Country Supporting Sites and EverGraze Proof Sites***

Supporting Sites were mostly located in the high rainfall zone of Victoria (Gippsland, southwest and northeast), with two sites in South Australia and three sites in southern NSW. EverGraze Proof Sites were located in Victoria, NSW and WA. Central and northern NSW and WA Proof Sites are not represented here. In addition to the Caring for Our Country funded sites, a number of collaborating projects such as the MLA Producer Demonstration Sites (Euroa and Ballarat) and Yarram Landcare Healthy Soils project participated as part of the network.

## Caring for Our Country EverGraze Supporting Sites and EverGraze Proof Sites

(note WA and northern and central NSW Proof Sites not represented here)



### **Host farmers associated with Supporting Sites**

Host farmers were identified for each of the Supporting Sites where they expressed an interest in being involved and their farm was suited to the questions being asked by the associated producer group.

### **Supporting Site groups and activities**

Activities were held both at a group level and with the wider community. The range of group activities included paddock walks, formal and informal training, discussion sessions with research or other professionals and bus trips to see research and on-farm implementation in other regions across the project. Each site was also required to run an annual field day. Activities and training completed by each group are provided in Appendix 2.

Many of the Supporting Site groups were associated with network groups as part of other projects. These included BESTWOOL-BESTLAMB and BetterBeef groups (6 meetings per year), Perennial Pasture Systems Group, Landcare and the Pastures for Climate Change project.

The Supporting Site project played an important role in providing expertise and funding to increase strength of independent producer groups such as Perennial Pasture Systems. Perennial Pasture Systems had two Supporting Sites in Mooneys Gap and Tottington. In their final report, the group expressed their appreciation for the project in *“conducting and promoting field days and farm walks, access guest speakers for the PPS conference, assisting with funding for the annual PPS study tour and providing equipment to train farmers in pasture trial assessments. The funding has also assisted in producing the quarterly newsletter which has a total of 96 newsletters posted to members & 98 emailed to industry people (DPI, CSIRO, CMA etc), which is a total of 194 copies distributed.”*

Several groups also participated in formal training as part of the project. Training programs included;

- EverGraze Whole Farm Grazing Strategies (Eight sessions)
  - Four groups completed (2010 x 2, 2012 x 2),
  - Five groups initiated (not yet evaluated)
- Pastures for Place and Purpose (Six sessions)
  - Two groups completed (2010)
- Beefcheque (Eight sessions per year for 3 years)

- One group completed 2010
- Prograze (Seven sessions)
  - Two groups are mid-way through completion
- Lifetime Ewe Management (Six sessions per year for two years)
  - Two groups completed first year

A number of shorter informal workshops were recently developed by EverGraze and piloted through the Supporting Site project in May-August 2012 including;

- Filling the Winter Feed Gap (One day)
  - Two groups completed;
- Feed Budgeting and Tactical Management (Two days)
  - Two groups completed;
- Nuts and Bolts of Grazing Strategies (Two days)
  - One group mid way through;
- Farm Mapping (Two days)
  - Three groups completed
- Improving the Survival of Lambs (including sowing perennials for shelter and using perennials for improved nutrition, one day)
  - Three large workshops delivered to 130 producers

A summary of what is delivered in the above EverGraze short workshops is provided in Appendix 3.

### ***Supporting Site coordinator activities***

Each Supporting Site had at least one coordinator. A total of 9 private consultants, 5 Landcare officers and 12 DPI Vic staff (total 26) were engaged as coordinators during the project. In most cases, coordinators either nominated themselves and their existing groups to be part of the program, or new coordinators were appointed by the groups themselves. There was a high diversity in the knowledge, skill and experience amongst the coordinators. Some coordinators had very strong livestock management and agronomy backgrounds while others had environmental management expertise. Providing opportunities for the coordinators to operate as a network, learn from each other and learn from the EverGraze scientists was a key objective of the program. Supporting Site coordinators conferences and bimonthly regional phone hook-ups were conducted by the EverGraze National Project Leader and DPI Vic Regional Coordinators. The site coordinators were also encouraged to attend Proof Site and Supporting Site activities within and outside their regions and several coordinators participated in EverGraze Regional (advisory) Groups.

Coordinators of related demonstration site projects (including Euroa, Holbrook and Ballarat MLA Producer Demonstration Sites and Yarram Landcare Group Demonstration Site) also participated in coordinators network activities, and were provided with extension support by the EverGraze team.

### **Supporting Site legacy**

The following strategies are in place to transition assets from the Caring for Our Country EverGraze Supporting Sites program as part of the Future Farm Industries CRC transition strategy for EverGraze:

#### ***Regional packages, case studies and the Supporting Sites webpage***

Details of Caring for Our Country Supporting Sites, their groups and outcomes/lessons from demonstrations will be accessible from regional packages on a new EverGraze website by the end of 2012. Caring for Our Country and CHAF will be well recognised on these pages. The Victorian EverGraze project team is in the process of publishing 12 case studies from the best of the sites (including full economics for 6 sites). There are currently 10 Supporting Site case studies published on the EverGraze website. A further 5 case studies provide stories of group members



who have implemented changes. Case studies will be referred to within regional packages, linking the science to on-farm implementation. The stories will also be incorporated into course notes and training activities. Case studies are provided in Appendix 8.

### ***DPI coordinated demonstration sites network and continuing sites***

DPI Vic is currently developing a framework to support a coordinated network of demonstration sites in Victoria. The sites may be funded from a range of organisations. The function of the network will be to connect the coordinators and their groups to science, experts and training, as well as providing opportunities across sites for collaboration. The regional packages will play an important role in making information from sites available to targeted livestock industry market segments. The Caring for Our Country EverGraze Supporting Site coordinators network and their groups will stay alive through initiatives such as this, and future work will benefit from the skills they have developed during the project. Lessons from the Supporting Sites project will be incorporated into the design of future work. The initiative also creates opportunities to capitalise on momentum and relationships developed between DPI Vic, CHAF, CfoC and other organisations involved in the project.

### ***Continuing involvement from groups and network coordinators***

At least eight of the current CfoC Supporting Sites have secured funding to maintain their current activities and have expressed interest in maintaining involvement in EverGraze. All groups (26) will continue activities through other programs. Fourteen of the current coordinators have expressed interest in being trained to deliver EverGraze training programs and will remain part of the network through delivery of these activities. Many of the groups will complete training as part of the EverGraze delivery phase over the next two years.

## Key Performance Indicators

Key indicators for demonstrating impact of the Supporting Sites can be grouped under:

- Engagement (activities and participants and their demographics)
- Learning Improvement (Capacity change)
- Land Use Change (Practice Change)
- Impact (Environmental, Social and Economic Benefits)

In this analysis, the results are summarised in relation to the region in which the Supporting Sites were located as well as by industry.

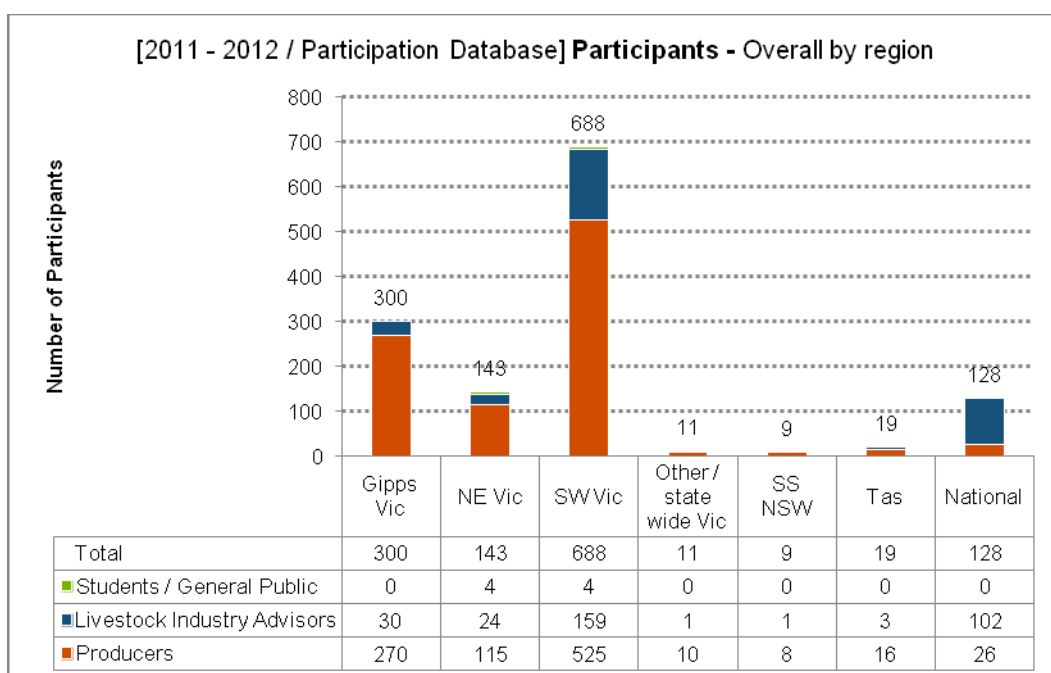
### Engagement 2011-12

As noted earlier, engagement in Supporting Sites occurred through the following main avenues: Site hosts (cooperating landholders), Site Coordinators and Producers involved in groups associated with the sites and/or attend field days or workshops and other events at the sites. Other Livestock Industry advisors (apart from coordinators) also engage in these activities. Other producers access information through the website or other information channels.

#### Producers

##### Participation in 2011/2012

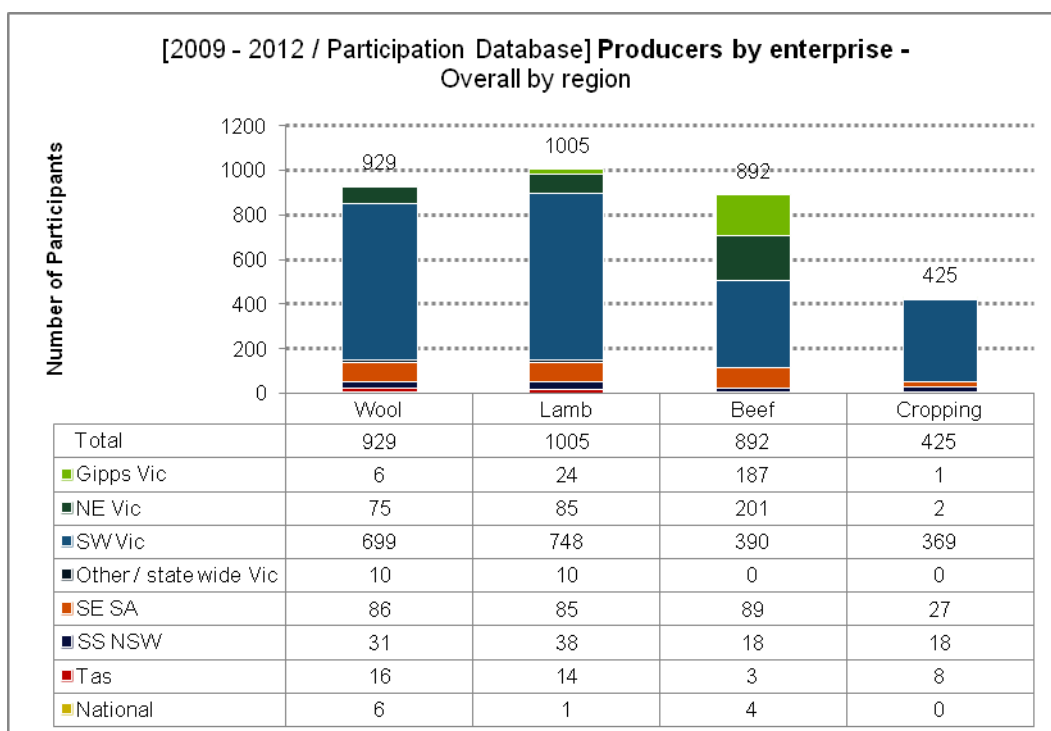
In the 2011/2012 year, Supporting Site activity recorded a total of 1298 participants in related activities. If we assume, conservatively, that there was a 30% overlap, then we can estimate that approximately 900 unique participants were involved in activities over the year. Of these, approximately 670 were producers. The following graph shows the breakdown by region.



**Figure 1: 2011-12 Participants of Supporting Site activities overall by region**

The breakdown of these producers showed that 29% had wool enterprises, 31% had Lamb, 27% had beef and 13% had cropping enterprises. The break-up of enterprises by region for 2011-2012 is shown in the following graph:

[Based on the average figures in feedback sheets (see Table 2 in the practice change section) provided by producers who indicated they made changes, the average farm size was 778ha. Working on the calculated 670 unique producers for 2011-12, this would mean that just over 520,000ha could potentially be impacted on by learning gains in land managers]



**Figure 2: 2011-12 Producers participating in Supporting Site activities by enterprise overall by region**

The average head of beef and lamb, area of crop (ha) and total average farm area managed (ha) by these participants (averages calculated from feedback sheets from those who provided the data) in the Victorian regions is shown in Table 1:

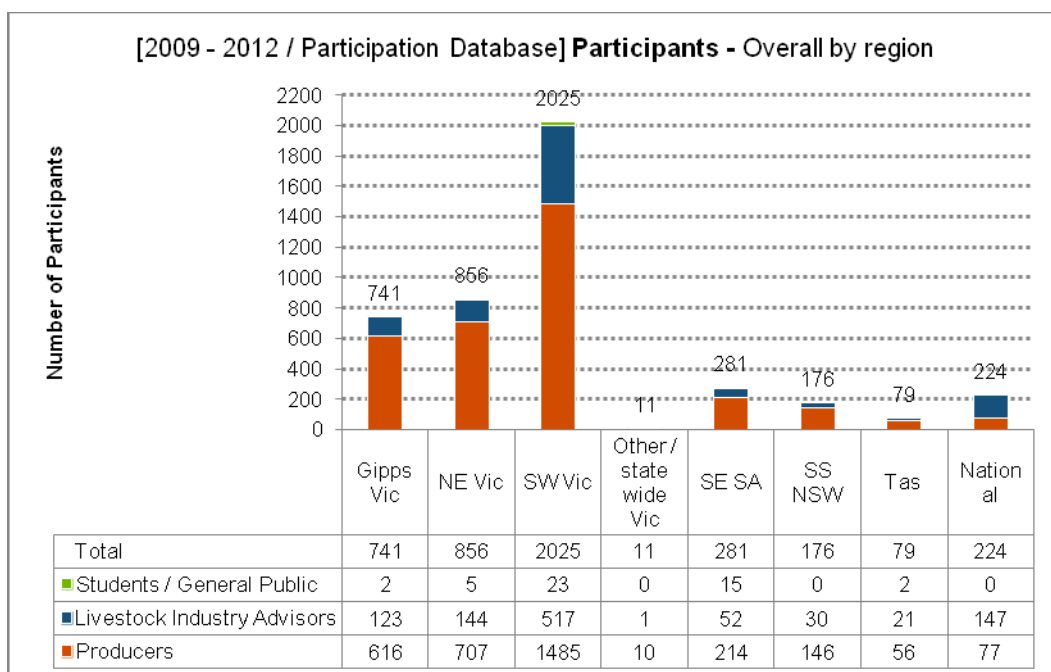
**Table 1: 2011-12 Producers participating in Supporting Site activities by enterprise overall by region**

Region	Main Enterprise				Average Stock Numbers		Average Farm Area
	Beef	Wool	Lamb	Cropping	Cattle	Sheep	Ha
Gipps	19	5	7	0	291	1380	354
NE Vic	139	28	21	5	287	954	366
NW Vic	0	13	15	9		4127	2685
SW Vic	40	72	69	30	457	3812	1151

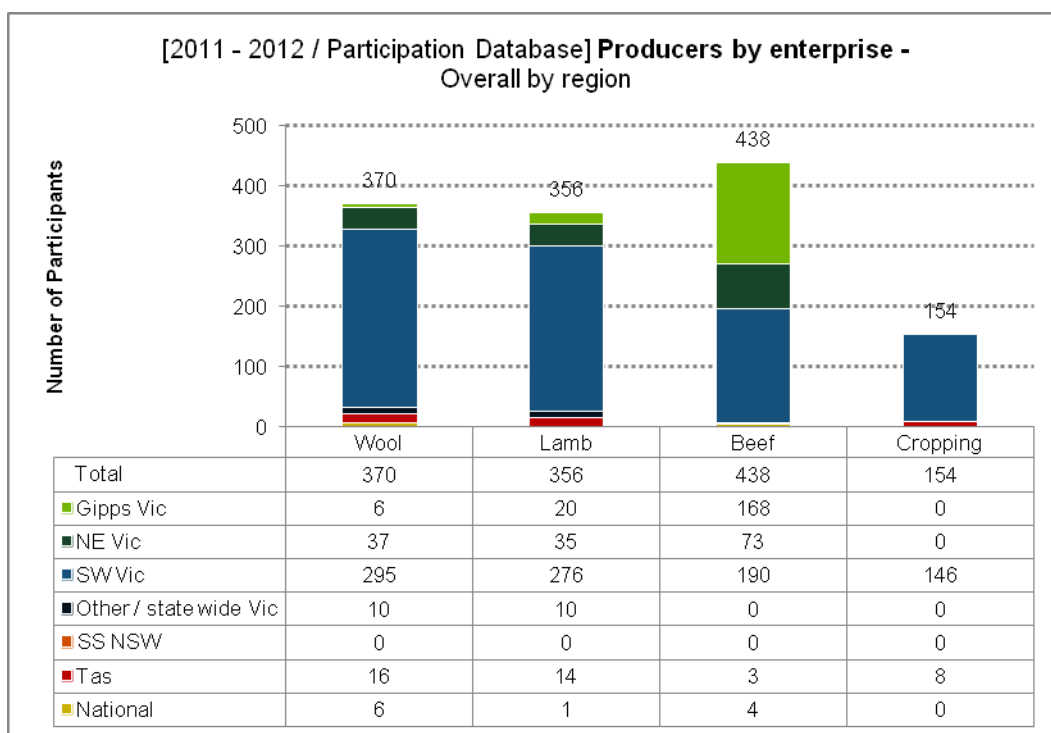
Using the weighted averages across the estimated number of participating farms indicates that during 2011-12 Supporting Site activities engaged enterprises covering a total of approximately 31,000 head of cattle; 716,000 head of sheep (lamb and wool) and 520,000ha of land (note these figures only include those participants who completed feedback sheets). A later analysis of total 2011-12 EverGraze participants indicated that of the 364 producer participants who indicated enterprise on feedback sheets, 157 (43%) produce beef only, 46 (13%) produce wool and lamb, 39 (11%) produce beef and lamb, 37 (10%) produced lamb only, 30 (8%) produce wool only and 18 (5%) produce beef and wool (Figure 3). Overall, 207 (57%) of producers ran sheep and 69% ran beef. Assuming that all those participants who ran multiple enterprises ran then in equal proportions, approximately 54% of stock were beef, 25% were lamb and 20% were wool. These figures were important for calculations made in the impact section of this report.

### Participation in 2009-12

Reviewing the three year period, there were 4393 total recorded participants in Supporting Site activities of which 2761 (63%) were producers. If we use the same assumption of a 30% overlap, this would mean a total of 1932 unique producers engaged in activities over the time frame, managing just over 1.5m ha land.



**Figure 3: 2009-2012 Participants of Supporting Site activities overall by region**



**Figure 4: 2009-2012 Producers participating in Supporting Site activities by enterprise overall by region**

### Livestock Industry Advisors

There were 320 recorded Livestock Industry Advisors attending Supporting Site activities. Using the same overlap assumption, this would mean an estimated 224 unique Livestock Industry Advisors engaged in the 2011/2012 period.

### Learning Improvements (Capacity Gains) 2011-12

Supporting Sites were designed to increase awareness, knowledge and skills of those engaged to improve their farming practices, increasing the long term sustainability of their enterprise.

#### Host Producers response and learning from Supporting Sites

Where reported in Milestone reports, host producers/farmers were generally impressed and positive about the results they had achieved on their properties as a result of EverGraze assistance. Examples of this positive response that were provided included:

- Host farmer happy with the fescue and phalaris performance and *has sown more of both varieties (Casterton)*.
- Host farmer acknowledged limited pasture knowledge prior to PPS involvement (*Mooneys Gap*).
- Host producer felt fescues had been productive compared to previous pasture (ryegrass), but that it is not persisting. Planning to trial phalaris next (*Mt Wallace*).
- Has provided host producers contact with, and exposure to native grass researchers and experienced native grass practitioners to validate and place their experiences managing native pastures into a more robust and factual context (*Mumungee*).
- Host believes real value will be realised in coming years when the persistence of lucerne in the phalaris/lucerne treatment can be measured against time and yearly pasture cuts will identify long term persistence qualities (*Monaro*).

- Several Supporting Sites reported host farmers being satisfied with results and replicating or considering how they might apply similar practices on other areas of their property.
- In some instance producers were not satisfied with the results being achieved on their properties. In one instance the site coordinator notes the lack of results was due to the host producer not applying sufficient *potassium to the paddock based on soil tests (Casterton)*.

### **Producer Groups**

Overall producer groups were also impressed and receptive to the results being observed on the Supporting Sites. It was reported that those who have attended the varied field days and inspections have in some instances been inspired to adopt similar changes on their own properties (*Mooneys Gap*). Some Supporting Sites had their test paddocks visible from public access points where both group and non-group members were able to monitor site success, with comments made regarding improvements in appearance and productivity (*Creightons Creek*).

Results, either positive or negative are being used by producers to direct future management strategies and planting options. Examples provided included:

- Lesson learnt about the ryegrass not persisting on the ridge line has resulted in Host producer planning to sow other areas like this to either Australian phalaris or tall fescue (*Casterton*).
- Group have an increased confidence in the use of phalaris-based pastures in the region (*Surf Coast*).
- Producers felt sowing short-term varieties (Tetila Italian ryegrass) had little benefit compared with self-regenerating Wimmera ryegrass; producers planned more soil tests; renewed enthusiasm for sowing perennials (*Seymour*).
- Shown that introducing desirable perennial species into the mix is possible; Given participants confidence that sites like that take a lot longer to come good than more desirable country (*Warncoort*).
- Members of the group have used learnings to formulate their own strategies with sowing lucerne stands (*Gazette*).
- Comparison of photographs taken at the site towards the end of the drought and present day has increased producer group confidence of benefits of keeping stock off the north and west facing slopes of hills during summer and the benefits of rotational grazing (*Strath Creek*).
- Several producers decided chicory is not a good option for their enterprises (*Pastoria*).

The most commonly mentioned practice across all sites was the ***confidence that Supporting Sites have instilled in producers relating to the use of perennials, especially use and establishment of phalaris and lucerne.***

In the review of Supporting Sites by PCB Consulting in May 2012, Coordinators reported a number of examples of learning and capacity gains in farmers included: changing from a run-down system to a productive system with a confident manager ready to speak about the changes made; change in confidence of landholders and health and wellbeing of the landholder - not just change in farm system; and more people soil testing and aware for the need for soil testing - particularly a deep soil test for Lucerne.

### **Coordinator capacity gain as a result of Supporting Sites**

The review of Supporting Sites by PCB Consulting in May 2012 (Appendix 14) captured learning and impact on Coordinators.

Examples were provided of the learning and knowledge developed in the areas of *ground cover management; weed control; grazing and pasture management; the use of perennials; and making better use of extension tools such as demonstration sites and host farmers*. Examples of skills developed by Supporting Site coordinators included *pasture identification and assessment; using rotational grazing packages and use of hedge rows*.

EverGraze research and Supporting Sites influenced the practice and thinking of coordinators including *taking more of a whole systems approach now; affirms the collaborative approach to working within organisations,*

*between organisations and with farmers; more confidence and data to back up key findings/messages; and more interest in research and trialling new varieties*

*It was noted that In terms of key skills, learning and knowledge developed through involvement in the program, most of the information generated from the sites was not new information but more confirmation of what coordinators already knew and/or confirmation of previous research findings but the sites did enable engagement with a new group of people.*

Key EverGraze "products" that were reported as most useful to Supporting Site coordinators *included tools such as:*

- *Quick Checks guide - manual for monitoring*
- *Feed Demand Calculator (an MLA product utilized in EverGraze delivery)*
- *Pasture Improvement Calculator - estimating the cost of re-sowing*
- *Feed Budget Rotational Planner - package to estimate number of days of grazing (but frustrated these keep changing)*
- *EverGraze website inc case studies, photo galleries for lucerne and chicory, fact sheets etc*

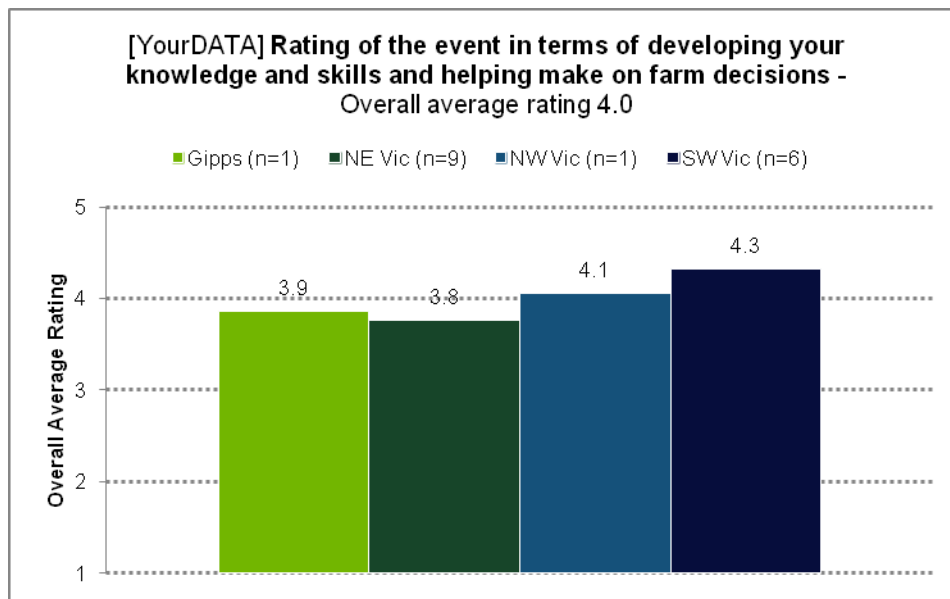
Five site coordinators completed the feedback section reporting on the value of EverGraze in adding to their capacity. Improvements in capacity they recorded included: knowledge of farm catchment issues; skills in facilitating producers through farming decision making processes; knowledge of different options available relating to species use, grazing and soil management strategies; knowledge of the impact of pasture and animal practices and management decisions on whole-of-farm productivity; knowledge and skills in pasture and animal management and monitoring; use of EverGraze tools and products; and increased network or producers and service providers.

Overall coordinators indicated that the capacity they had developed as a result of EverGraze has, and will, have a significantly high impact on their work, average ratings 4 and 5/5 (where 1 is low and 5 is high).

### ***Participants Learning from Supporting Site Workshops and Field days 2011-12***

Most activities or events run by – or in association with – Supporting Sites included feedback sheets for participants. These were designed to capture the gains in learning and capacity (Knowledge, Attitude, Skills and Aspirations) needed to bring about the targeted practice changes. These were recorded and analysed to understand the gains that were made. In total, 482 feedback sheets were collected in 2011-12 including 385 from unique producer individuals.

Producers in the regions in Victoria were asked to rate the value of the events in terms of building their capacity in these areas. The following graph demonstrates that there was a high average rating (4/5) for this indicator in the 2011/12 period.



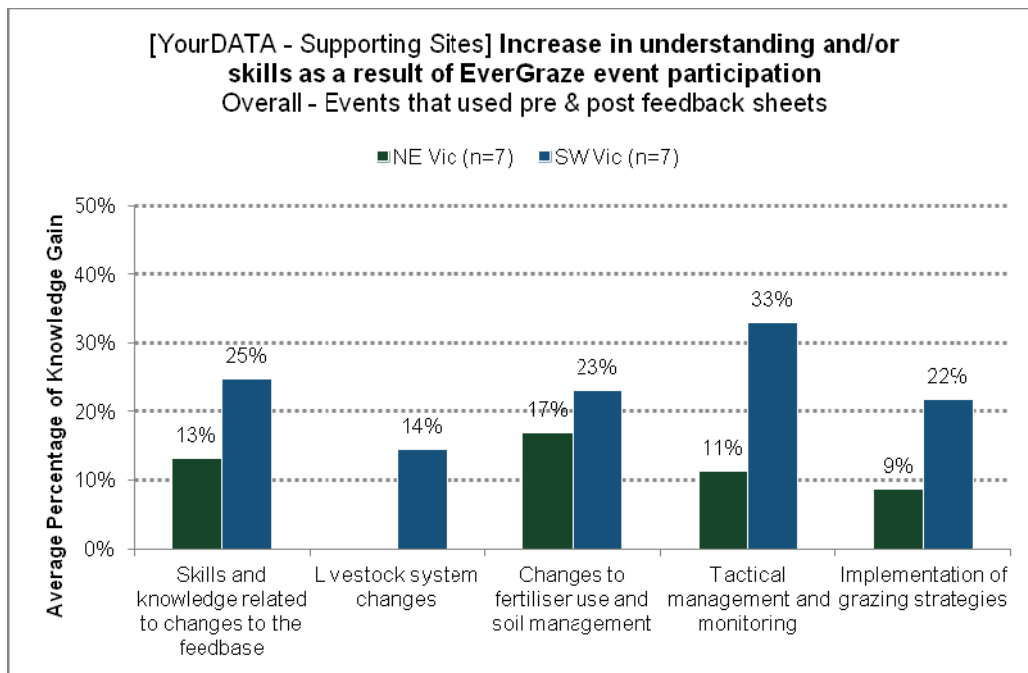
**Figure 5: [YourDATA] Rating of the event in terms of developing your knowledge and skills and helping make on farm decisions (2011-12 feedback sheets)**

Activities in Supporting Sites in NE (7) and SW (7) Victoria undertook a “pre” and “post” evaluation around these key capacity indicators. The results were grouped under the key practice areas of:

- feedbase;
- livestock systems;
- fertiliser and soil management;
- tactical management and monitoring; and
- grazing strategies.

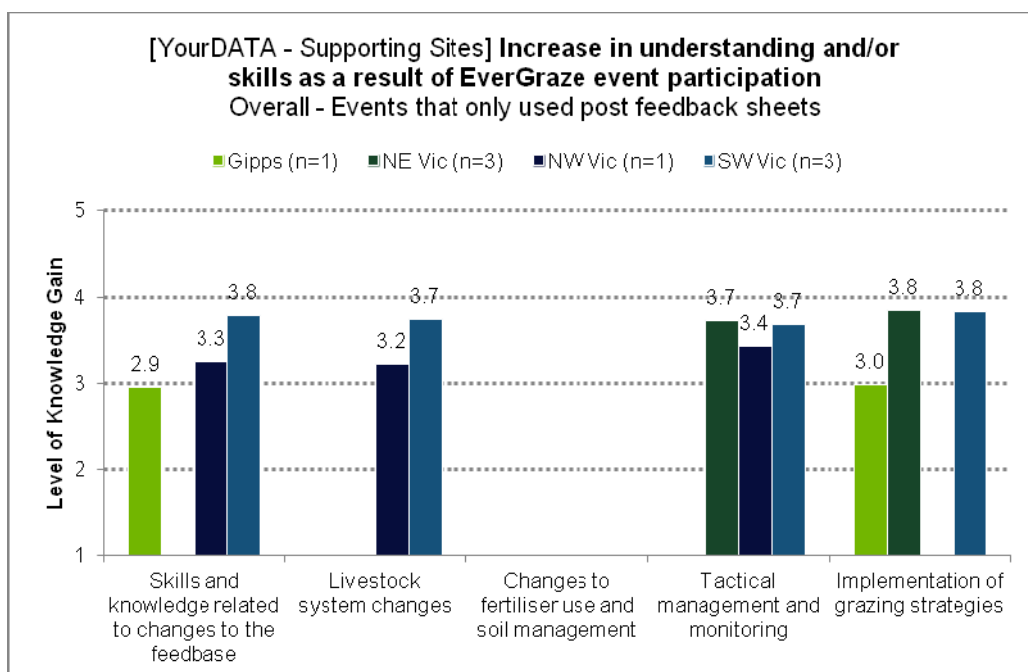
The following graph indicated gains of 4% to 22% (note that this is conservative as people filling out a pre assessment of their knowledge and skills often “don’t know what they don’t know”). The largest gains were in the area of tactical management and monitoring. The other perspective is that any gain in knowledge/skills in a relatively short period is significant.





**Figure 6: [YourDATA] Increase in understanding and/or skills as a result of EverGraze event participation- Overall - Events that used pre & post feedback sheets (2011-12 feedback sheets)**

Eight other events across Victoria used a “post” rating only for participants to indicate their gain in understanding (self assessed after learning what they didn’t know). As shown in the graph below, producers rated these gains moderately between 2.9 and 3.8/5 – across each of the areas targeted by the activities:



**Figure 7: [YourDATA] Increase in understanding and/or skills as a result of EverGraze event participation - overall - events that only used post feedback sheets (2011-12 feedback sheets)**

## Practice change

Supporting sites targeted specific key practice changes related to improved pasture management and long-term sustainability. Practice changes resulting from Supporting Site activities were documented through Coordinator reports (Appendix 8), Narratives (structured observation of change that had occurred, Appendix 7 and 14) and producers reporting changes on feedback sheets of subsequent activities (Appendix 6). It should be noted that the feedback sheets only captured those practice changes of people who have been to previous activities and who made the effort to report them in this way.

Coordinators reported in their final reports a number of changes achieved on farm as a result of - or prompted by - the program as part of the review of Supporting Sites by PCB Consulting in May 2012 (Appendix 13). These included **changes to livestock systems and management** (lambing and calving times; rotational grazing; enterprise mix); Changes in **grazing management and farm layout** (subdivisions; shelter; native pasture management; weed control; cover on hill country); and changes in **the use and establishment of perennials**.

Feedback sheets and pre/post surveys were used to seek data to demonstrate the extent of development of increased knowledge, skills and intent to change in areas relating to feedbase, grazing management, livestock and soils amongst the producers and next users who have been engaged through field days, training and other producer group activities. Producers were also asked to indicate the approximate area (in hectares) effected by the change and what they had or hoped to achieve by making the change. A range of productivity and environmental benefits were recorded.

Data was obtained on practices implemented [see **Appendix 11** for full details of the Changes made] and practices intending to be implemented [see **Appendix 12** for details of Intended changes]. A summary of the findings is presented in Tables 2 and 3. **Note** that not all feedback sheets asked for numbers of hectare for farms or for farm area impacted by change – and not all producers filled in these details when asked. Averages were calculated based on those who made the specified changes and who *did* provide the hectares. These averages were then applied to all of those who indicated that they had made a change in this practice.

Twenty-three per cent (90) of the 385 unique producer participants who completed feedback sheets reported changes they had *already made* over an average of 286ha (total 22,594ha) and most were able to specify the impact of that change as a result of being involved in EverGraze. Note that changes to livestock management were not included in the area impacted. Using this figure, it could be very conservatively estimated that of the 670 participants recorded in the participation database as participating in Supporting Site activities for 2011-12, 154 have already made changes. Using the same logic, of the 1932 participants engaged in Supporting Site activities from 2009-2012, 444 have made changes.

Of the producers who *made changes*, 39% made changes to the feedbase (average 219ha, total 7,665ha), 37% to grazing management (average 307ha, total 10,131ha), 12% to soil management (average 363ha, total 3,993ha) and 12% to livestock management (mostly towards increasing lamb survival). If these figures are scaled up to the total number of participants estimated to have made changes (444), the total area impacted by changes to the feedbase (selection and/or establishment of perennials and undertaking assessment and planning) would be 29,194ha; grazing management (including implementation of rotational grazing, landclass fencing and management of native pastures) would be 53,203; and improved soil management (including fertiliser/lime, soil condition, soil testing) would be 19,356ha. The sum of these figures is 101,754ha. Of the 12% of producers who indicated they had made changes to livestock management, 80% (9) made changes towards increasing lamb survival impacting 32,598 head of sheep. If these figures are scaled up to the total number of producers making changes, 44 producers made changes to increase lamb survival impacting 160,947 sheep (using average flock size 3,622 head indicated in feedback sheets).

Eighty per cent (309) producer participants indicated they *intended to make* changes and most were able to specify the intended impact of the change. Using the same logic from above, of the 670 participants engaged in 2011-12,

536 intend to make changes. For the period 2009-2012, of the 1,932 participants engaged, 1,545 intended to make changes over a total of 406,492ha. Conservatively, if 70% follow through on these changes, the result will be about 1000 producers making changes. Of the producers who *intended to make changes*, 30% intended to change the feedbase (average 101ha, total 9292ha), 39% intended to change grazing management (average 124ha, total 14,384ha), 8% intended to change soil management (average 304ha, total 3,404ha) and 3% intend to make changes to monitoring (average 378ha, total 3404ha). A further 21% intend to make changes to livestock management, most for increasing lamb survival impacting 32,598 head of sheep. If these figures are scaled up to the total participants in Supporting Site activities (2009-2012), and it was assumed that 70% follow through with their intended changes, of the 1,932 participants engaged, 324 will make changes to the feedbase impacting 37,724ha, 422 will make changes to grazing management or monitoring impacting 52,322ha, 87 will make changes to soil management impacting 14,281ha and 227 will make changes to livestock management for increasing lamb survival impacting 822,930 head of sheep. In total, the area impacted will be 111,654ha in addition to the 101,754ha (total 213,408ha) already impacted by changes made. In total, 983,877 head of sheep will be impacted by intended changes and changes already made to management for increased lamb survival. If 78% of these sheep are assumed to be ewes (SW Farm Monitor 40 year average), 767,424 ewes would be impacted.

These figures are extremely conservative as they only relate to producers participating directly in EverGraze activities who completed feedback sheets and took the time to indicate the changes made. The figures do not account for producers indirectly impacted through EverGraze wider communications, publications and interaction with next users.

**Table 2: Practices implemented (from 2011-12 event feedback sheet data, n = 385 unique producers)**

<b>Change category – with examples of the types of practices actually implemented</b>	<b>Number and percent of producers implementing practice</b>	<b>Average &amp; total number of ha impacted (direct)</b>	<b>Total participants making the change and total area scaled up for 1932 participants attending Supp Site events</b>	<b>Reported productivity impact</b>	<b>Reported environmental impact</b>
<b>Feedbase</b> – including selection and/or establishment of perennials [combinations of specific legumes and grasses]; undertake pasture assessment and planning	<b>35</b>  <b>39%</b> of participants who made changes	<b>219</b>  <b>(total 7665)</b>	<b>133 participants</b>  <b>29,194 ha</b>	Improved sustainability / pasture persistence; improved animal health and weaner survival; filling the winter feed gap; increased stocking rates; increased income / profit; Increased production / productivity / animal performance; reduced weeds; encourage desired grass species	Improved soil health
<b>Grazing management</b> – including Implement / improve rotational grazing; improved land use; improved management of native pastures and pastures generally; landclass fencing;	<b>33</b>  <b>37%</b> of participants who made changes	<b>307</b>  <b>(total 10,131)</b>	<b>173 participants</b>  <b>53,203 ha</b>	Improved sustainability / pasture persistence; improved animal health and weaner survival; filling the winter feed gap; increased stocking rates; increased income / profit; increased production / productivity / animal performance; reduced weeds; encourage desired grass species; increased / better feed; improve grazing management; improved system management	Improved soil health; Improved soil retention; low environmental input; improved hill country; increase / manage native species
<b>Livestock management</b> – including change stocking rate; lamb survival management in general and specifically scanning / condition scoring of ewes and shade/shelter	<b>11</b> (9 changes for increased lamb survival)  <b>12%</b> of participants who made changes	Average flock size <b>3622hd</b> therefore total sheep impacted from improved lamb survival management is <b>32,598 head</b>	<b>53 participants (44 changed for lamb survival)</b>  <b>160947 sheep (for lamb survival)</b>	Improved sustainability / pasture persistence; less supplementary feeding; improved lamb percentages; increased lamb survival; increased / better feed	General environmental improvements
<b>Soil management</b> – including fertiliser management including adding lime; general improvements to soil condition; soil testing	<b>11</b>  <b>12%</b> of participants who made changes	<b>363</b>  <b>(total 3,993)</b>	<b>53 participants</b>  <b>19,356 ha</b>	Improved efficiency / reduced costs	Improved soil health
<b>Total actual change 2011-12 Feedback Sheets</b> (not including livestock management changes)	<b>90</b>  <b>23%</b> of participants who filled out feedback sheets	<b>286</b>  <b>*(total 22,594)</b>	<b>444</b>  <b>101,754 ha</b>		

\*Total ha change does not include changes to livestock management

**Table 3: Practices intending to be implemented (2011-12 event feedback sheet data, n = 385 unique producers)**

<i>Change category– with examples of the types of practices intending to be implemented</i>	<i>Number of producers implementing practice</i>	<i>Average &amp; total number of ha impacted (direct)</i>	<i>Total participants making the change and total area scaled up for 1932 participants attending Supp Site events and 70% following through with intended change</i>	<i>Intended productivity impact (indicated by the participant)</i>	<i>Intended environmental impact</i>
<b>Feedbase</b> – including improved sowing methods; rest pastures; selection and/or establishment of perennials with combinations of specific legumes and grasses; undertake pasture assessment and planning	<b>92</b>  30% of participants who intend to change	<b>101</b>  (total 9,292)	<b>324 participants</b>  <b>37,724 ha</b>	Increased stock numbers; improved pastures (survival, growth); Increased production / productivity; improved efficiency / reduced costs; increased stocking rates; fill the winter feed gap; Improved animal health; increased income / profit; / pasture persistence; finish lambs earlier;	Pasture persistence; reduced weeds improved sustainability
<b>Grazing management</b> – including implement/improve rotational grazing; improved land use; improved management of native pastures and pastures general including specific species; land class fencing; sow more pastures/paddocks to increase feed supply/stocking rates; weed/pest management	<b>116</b>  39% of participants who intend to change	<b>124</b>  (total 14,384)	<b>422 participants</b>  <b>52,322 ha</b>	Improved pasture management ; improved plant / pasture health / quality; improved sustainability / pasture persistence; increased production / productivity; increased stocking rates; increased / better feed; improved stock management; improved efficiency / reduced costs; finish lambs earlier; improved animal health; increased income / profit; encourage desired grass species; improved nutrition	Improved sustainability / pasture persistence reduced weeds;
<b>Livestock management</b> – including change stocking rate; improved livestock genetics; lamb survival in general including management, decrease mob size / smaller paddocks; improved nutrition, scanning / condition, scoring ewes and shade / shelter	<b>66</b> (NB 63 related to lamb survival management)  21% of participants who intend to change	Average flock size <b>3622hd</b> therefore total sheep impacted from improved lamb survival management is <b>228,186</b> head	<b>227 participants</b>  <b>822,930 sheep</b>	Increased / better feed; less supplementary feeding; achieve optimal birth weights; improved lamb percentages; increased lamb survival; improved ewe health / score	
<b>Monitoring</b> – including feed budgeting and monitor pastures or ground cover	<b>9</b>  3% of participants who intend to change	<b>378</b>  (total 3,404)	<b>87 participants</b>  <b>12,269 ha</b>	Increased lamb survival; increased ability to monitor seasons; increased production / productivity; lowered labour input	
<b>Soil management</b> – including fertiliser management – adding lime; general improvements to soil condition; soil testing	<b>26</b>  8% of participants who intend to change	<b>165</b>  (total 4,290)	<b>87 participants</b>  <b>14,281 ha</b>	Increased production / productivity; increased stocking rates; increased / better feed; improved efficiency / reduced costs; improved sustainability / pasture persistence; increased income / profit	Pasture persistence
<b>Total proposed change 2011-12 Feedback Sheets</b>	<b>309</b>  80% of total participants	<b>150</b>  *(total 36,450)	<b>1093 participants</b>  <b>111,654 ha</b>		

<i>Change category– with examples of the types of practices intending to be implemented</i>	<i>Number of producers implementing practice</i>	<i>Average &amp; total number of ha impacted (direct)</i>	<i>Total participants making the change and total area scaled up for 1932 participants attending Supp Site events and 70% following through with intended change</i>	<i>Intended productivity impact (indicated by the participant)</i>	<i>Intended environmental impact</i>
	who filled out sheets				

\*Total ha change does not include changes to livestock management

## Impact

Case studies and final reports from Supporting Sites (full summary in Appendix 8 and 9) reported a range of observed and measured impacts from the trials and associated changes made. These can be aligned to the changes reported by participants of extension activities to estimate the potential impact.

Key innovations implemented included subdivisional fencing and implementation of grazing strategies; use and management of summer active perennials; use and management of temperate perennial grasses; and use of perennials for providing shelter for lamb survival. A number of sites also made significant changes to soil and livestock management, and most sites which had use of pasture species as a focus also implemented a grazing strategy. The range of activities, the costs and the environmental and production benefits are reported here alongside some of the key supporting results from EverGraze Proof Sites. Economic benefits are reported where provided but it must be noted that these demonstrations were not replicated trials. The key measure of production in most cases was DSE grazing days per hectare. Full economic case studies are currently under development for six of the sites.

### *Summary of benefits from landclass fencing and implementing grazing strategies*

Eight Supporting Sites focussed on implementation of grazing strategies (six with native pastures).

Costs of fencing for implementing a grazing strategy ranged from \$200-\$300/ha and up to \$470/ha for fencing and water infrastructure at Monaro. Resulting stocking rate increases on native pastures were reported at 1-2 DSE/ha. Two sites reported that fertiliser and grazing management recovered old-sown perennials and increased productivity almost to the equivalent of newly sown perennials. These stocking rate increases are consistent with experimental data from Orange Proof Site which demonstrated stocking rate increases of 1 DSE/ha for a simple 4-paddock rotation and 2 DSE/ha for a 20-paddock rotation on native pastures. However, the Broadford Grazing Experiment demonstrated that on improved pastures (phalaris), stocking rate increases of 10 per cent (5 DSE/ha) were achievable in a 4-paddock rotation and 20 per cent (7 DSE/ha) in a 20-paddock rotation.

Significant environmental improvements included increases in autumn ground cover by 40 per cent on two sites; significantly increased native grass density and increased density and persistence of phalaris; and reduced broadleaf weeds including Patterson's curse on hill country and reduced annual grass density on native and improved pastures. These outcomes are consistent with findings from Broadford where set stocked paddocks became dominated by capeweed and clover with phalaris making up less than 10 per cent of composition while in rotationally grazed paddocks maintained >70 per cent phalaris. At Creightons Creek, cost of rejuvenating an old phalaris pasture with weed control, fertiliser and grazing was \$250/ha resulting in estimated 4-5 DSE/ha increase stocking rate, \$420/ha net present value, 29.4% internal rate of return and 7 years payback period. At Surf Coast, the stocking rate increase on a rejuvenated pasture was higher than those achieved on the new pastures. Two case studies also reported that simplifying their enterprises with less mobs to inspect resulted in reduced labour.

### Summary of benefits from use and management of perennials

EverGraze Proof Sites at Wagga, Hamilton, Albany and Holbrook have shown that by putting the Right Plant in the Right Place for the Right Purpose with the Right Management can increase profit by up to 50 per cent and improve environmental benefits simultaneously.

A preliminary economic analysis was conducted to provide an indication of costs and economic benefits of sown pastures on Supporting Sites (Table 4). A more comprehensive analysis will be conducted for several sites and made available in the coming months. In most cases, the EverGraze Pasture Improvement Calculator has been used to provide estimates of net present value, internal rate of return and payback period. Additional maintenance fertiliser rates were factored in based on additional stocking rate. Expected pasture life for phalaris, cocksfoot, fescues and ryegrasses was 20 years. 10 years was used for lucerne. Agistment costs of 40c/DSE/week were factored in for grazing time lost during establishment. Gross margin was assumed to be \$28/DSE for sheep unless otherwise specified by the coordinators (all cattle gross margins were specified). The long term (40 year) average gross margin for southwest Victoria was \$25/DSE and \$291/ha for wool, \$28/DSE and \$373/ha for prime lambs and \$17/DSE and \$215/ha for cattle. The long term average stocking rate for southwest Victoria is 13.4 DSE/ha.

Capital cost of livestock was set at \$60/DSE. Opportunity cost of invested capital was 12%, expected annual inflation rate at 2.5%, marginal tax rate at 20% and interest on borrowed funds at 8%, interest on investment funds at 5.5%.

**Table 4: Preliminary economic analysis for sown perennial pastures on EverGraze Supporting Sites (see Appendix 9 for full detail)**

	Number of paddocks in analysis	Range	Average	Median
Establishment cost	19 (12 farms)	\$263-757/ha	\$450	\$456
Stocking rate of control	11		8.25 DSE/ha	
Stocking rate of new pasture	11		17.6 DSE/ha	
Stocking rate increase	11	-1.4-21 DSE/ha	9.4 DSE/ha	10 DSE/ha
Gross margin of control	13		\$203/ha	
Gross margin new pasture	13		\$459/ha	
Average gross margin increase	13	-\$118-\$544/ha	\$255/ha	\$184/ha
Net present value	9	\$22-\$1719/ha	\$948/ha	\$1138/ha
Return on investment	9	18.2%-45%	32%	36.5%
Payback period	10	3-10 years	6 years	5 years

There were three examples of paddocks which were improved with fertiliser, weed control and grazing management which returned similar or better return on investment to the newly established paddocks. There

were three examples where sown pastures were run as a system (with several paddocks of a range of species) and significantly influenced the gross margin per DSE by allowing stock to be carried for longer and finished at a higher price (lucerne at Mt. Wallace and Mooneys Gap), or where the pasture allowed a finishing enterprise to be run instead of cows and calves (Euroa). Successful establishment of perennials on difficult soils such as high acidity or black cracking clays achieved increases in production as well as improved ground cover, reduced weeds and increased frequency of desirable species.

### ***Summary of benefits from use and management of summer active perennials***

Six Supporting Sites established summer active perennial pastures as a component of their grazing systems. Establishment costs for summer actives were \$460-480 at Monaro (lucerne/phalaris mix), \$288/ha at Euroa (chicory), \$558/ha at Mt Wallace (lucerne), \$370/ha at Gazette (lucerne/phalaris), \$504 at Mooneys Gap (lucerne) and \$263/ha at Pastoria (chicory).

EverGraze Proof Sites at Wagga, Hamilton and Albany have demonstrated that use of summer active perennials (lucerne in Wagga and Hamilton and kikuyu and lucerne in Albany) can increase flexibility and options as well as reduce groundwater recharge by more than 50 per cent. The Wagga Proof Site and subsequent case studies also demonstrated that flushing ewes with lucerne was able to increase twin ovulation rates by up to 30 per cent.

Reported benefits from Supporting Sites and case studies included increased survival of weaner sheep over summer; reduced supplementary feeding costs; ability to change enterprise (from cattle to sheep), ability to finish lambs and hit the target market resulting in \$1/kg lamb price increase; ability to finish steers with an extra 72 kg/hd resulting in \$12/DSE increase gross margin; stocking rate increases 10 DSE/ha on lucerne/phalaris system (Mooneys Gap), 15 DSE/ha on chicory/phalaris system (Euroa) and 6 DSE/ha (Mt. Wallace) compared to unimproved controls. Use of kikuyu in Keilera resulted in higher quality feed, reduced supplementary feeding costs for weaners over summer, higher summer/autumn ground cover and reduced worm egg counts, but winter stocking rates were lower (7.5 DSE/ha vs 23 DSE/ha) than an unimproved annual pasture.

### ***Estimating impact of stocking rate improvements by grazing management and feedbase changes made by participants***

The total area impacted by EverGraze Supporting Site participants making changes to grazing management and feedbase practices was 117,794ha and 61,977ha respectively (sum of changes made and changes to be made).

According to the feedback sheets, approximately 54% of stock were beef, 25% lamb and 20% wool (assuming all those participants who ran multiple enterprises ran them in equal proportions). A rough analysis of the potential impact can therefore be made based on these assumptions and the stocking rate data from Supporting Sites. This analysis is provided in Table 5. In summary, extra product resulting from participants making changes (to the feedbase and grazing management only) is estimated to be 14.1M – 20.2M kg beef (LWT), 3.5M-5.0M kg lamb (LWT), 572,718-820,085 kg wool (greasy) from prime lamb enterprises and 556,354-796,654 kg wool (greasy) from wool enterprises. Extra meat from wool enterprises was difficult to estimate. These figures do not account for any gain in production per head or from changes to soil and livestock management.



**Table 5: Impact of stocking rate improvements by grazing management and feedbase changes made by Supporting Site participants**

	<b>Beef</b>	<b>Lamb</b>	<b>Wool</b>
<b>Proportion of participant enterprises</b>	54%	25%	20%
<b>Area impacted by grazing management changes</b>	63,609ha	29,448ha	23,559ha
<b>Area impacted by changes to feedbase</b>	33,467ha	29,448ha	12,395ha
<b>Stocking rate increase from grazing management changes</b>	2-5 DSE/ha	2-5 DSE/ha	2-5 DSE/ha
<b>Stocking rate increase from feedbase changes (average)</b>	9.4 DSE/ha	9.4 DSE/ha	9.4 DSE/ha
<b>Total DSE increase from changes to grazing management</b>	127,217-318,043 DSE	58,897-147,242 DSE	47,118-117,793 DSE
<b>Total DSE increase from changes to feedbase</b>	314,593 DSE	145,645 DSE	116,516 DSE
<b>Southwest Farm Monitor product parameters</b>	69 kg/DSE beef (LWT) (Southwest Farm Monitor top 25% 2008-09)	2.8 kg/DSE greasy wool cut (40-year average)  17 kg lamb/DSE (LWT) (top 25% 2008-09)	3.4 kg/DSE greasy wool cut (40-year average)  Additional sheep sale could not be extracted from Farm Monitor figures at this stage
<b>Total product increase from changes to grazing management</b>	4.1M -10.2M kg beef (LWT)	164,911-412,78 kg greasy wool  1.0M -2.5M kg lamb (LWT)	160,200-400,499 kg greasy wool
<b>Total product increase from changes to feedbase</b>	10.1M kg beef (LWT)	407,806 kg greasy wool  2.5M kg lamb (LWT)	396,155 kg greasy wool
<b>Total product increase from grazing management and feedbase changes</b>	14.1M – 20.2M kg beef (LWT)	572,718-820,085 kg greasy wool  3.5M – 5.0M kg lamb (LWT)	556,354-796,654 kg greasy wool

***Summary of benefits from using perennials for shelter and improving management of ewes for increasing lamb survival***

The Hamilton Proof Site demonstrated that lamb survival could be increased by 30 per cent by using grass hedge rows for sheltering lambs. A similar experiment was conducted at Wagga where a 10 per cent increase in survival of twins was achieved in some years using shrubs for shelter. Grass hedge-rows established on-farm at Casterton demonstrated how hedges could be sown along the contours of the paddock giving potential to reduce soil

loss/erosion. No lamb survival increase has yet been achieved on-farm in this example due to the size of the hedges. Saltbush hedgerows at Bengworden increased ground cover, reduced wind erosion and lowered the water table on saline land. The hedges reduced the number of severe wind chill events but no increase in survival has yet been shown.

Practice change records from feedback sheets indicated that approximately 767,424 ewes would be impacted by changed management practices for increased lamb survival. Changed practices included lambing mob sizes, condition scoring and appropriately feeding ewes, scanning and separating twins and singles, and providing shelter. Nationally, the average scanning percentage is 120% and weaning percentage is 77%. Thirty per cent of lambs are born as twins. Lifetime Wool figures indicate that twin lamb survival can be increased from 60% to 70% by increasing ewe condition score from 2.5 to 3.0 at lambing. Further increases can be achieved with other practices such as shelter described above. Assuming that scanning percentage was 120%, 30% of lambs were born as twins, and twin lamb survival increased from 60% to 70% as a result of improved management, the resulting extra lambs weaned would be 46,045 from participants making changes to livestock management. Extra product from these lambs is difficult to estimate.

## EverGraze Project Team Learning

The following 'lessons' are compiled by Kate Sargeant, EverGraze Project Leader, Anita Morant, Victorian EverGraze Extension Coordinator and Jane Court, currently developing economic case studies for the project. Input from Supporting Site coordinators (PCB Consulting Report, Appendix 13) has been included. A significant amount of learning has taken place by project leaders, coordinators and administrators, and there is a significant amount of infrastructure now in place. The opportunity is now to capitalise on what has been developed to implement very strong demonstration site projects for the future.

### *Groups and activities*

#### *Lesson: Regular group meetings are needed*

Groups which met regularly as part of a producer group (usually part of another program where they were paying to be part of the group) stayed more engaged and interested than groups more 'loosely' formed which relied on ad-hoc field days and activities.

#### *Lesson: Structured training associated with the site will maximise the impact*

There were a number of groups that engaged in structured training before setting up their sites and then continued to engage through the producer group throughout the program. These were the most successful groups in terms of engagement and achievement of practice change. The best example was the Holbrook group which came together around a common goal – to implement grazing strategies to improve their pastures. To achieve this they participated in the EverGraze Whole Farm Grazing Strategies training before setting up a site to demonstrate implementation of what they had learnt. The group continues to remain focussed and enthused to ask questions of the site and other farms within the group. Key features of their program were a well structured planning session and the 6-session course which enabled each member to develop a plan for implementation. The site was set up around a set of research questions established by the group. Activities continued for the following two years.

#### *Lesson: It is useful to have training products ready to go*

Training "products" provide structure and focus to delivery and often achieve higher change outcomes than ad-hoc activities. A number of short modules suited to producer groups were developed towards the end of the project. These types of products would be useful to have on offer at the start of a project such as this.

#### *Lesson: Goal-setting, researchable questions and issues which are relevant to the site need to be identified by the group. A structured session and good facilitators are required to achieve this.*

Groups were asked to set a focus for the year both for their learning and the questions they were asking from their demonstrations (the two should be related). Where this occurred, the site was valuable and the group stayed engaged. Where it didn't occur, activities tended to be less connected to the site itself. In many cases, the coordinators lacked the necessary skills to run a successful goal-setting session. Facilitated goal-setting sessions (ideally associated with training) should be conducted well in advance of setting up sites. Several of the EverGraze sites were set up in a rush and did not adequately address the key issues faced by the group. In the current phase of EverGraze, the project team has designed and is delivering a structured priority session for producers, and training for advisers to deliver this workshop.

#### *Lesson: There are opportunities for collaboration within regions for activities*

Several coordinators commented that they suffered over-saturation of activities within their regions. There is opportunity to collaborate within regions for coordination of activities if multiple demonstrations are run in the one region.

### *Hosts*

*Lesson: Sites worked best where* the host had a farm and associated issues representative of others in the district; was well known (a champion) in the district (attracted more people to the site); or was less experienced but very enthusiastic (so that others could see that the practice could be implemented on a 'normal' farm); was intimately involved and interested in the site and the questions being asked; was an active member of the group; integrated the management of the demonstration into their whole-of-farm management; had other interesting activities

happening on the site; collected production data – especially grazing days and livestock weight gains (this provided significant interest to the group and other visitors); was able to present well in public.

*Lesson: Need to be careful not to ask too much of the farmer*

Requirements of the farmer need to be agreed up-front. Some farmers did get tired of collecting data after a while, particularly if they couldn't see how the results were going to help them make better management decisions. Where there was more than one site on a single property, or the data wasn't regularly updated and communicated to the host, this issue was exacerbated.

### **Coordinators**

*Lesson: Coordinators need to have good technical skills and be passionate to drive interest*

Coordinators who were passionate about the site and the project were the most successful in retaining interest in their sites and activities. This was most often the case if the coordinator, the group and the host producer were all involved in developing the research question, methodology and site setup. Where coordinators 'inherited' sites, the interest from all parties was generally not as high.

It was very important for coordinators to have access to good agronomy and livestock management technical expertise. This was not the case for some sites where coordination was provided by staff more focused on environmental issues. The diversity in capability across the coordinators was sometimes evident in reports in terms of the level of production and environmental data analysis conducted.

*Lesson: Assigning more than one site and group to a single coordinator creates efficiencies and increased impact*

Coordinators with more than one site (eg. Casterton/Cavendish, Holbrook/Murmungee, Tottington/Moonees Gap) were able to spend more time on the project and were also able to communicate the outcomes of the sites across multiple groups (and expose groups to multiple sites). These coordinators have been the most engaged in network activities and have also taken a greater interest in the research. Including coordinators in EverGraze Regional advisory Groups (ERGs), has also resulted in coordinators spending more time on the project and therefore taking a greater interest and exposing their groups to the research.

*Lesson: Coordinators activities need to be focussed on skill development for group facilitation, measurement and monitoring and technical skill and knowledge development*

The complexity of the project meant that at times coordinator activities were dominated by discussion of 'process' for conducting activities and reporting. Feedback from coordinators indicated that the best activities were those where they could take away information on the science for delivery and examples of activities that were relevant and could be run with producer groups.

### **Evaluation**

*Lesson: Pre and post surveys are difficult to use for short activities*

Several coordinators as well as QualDATA commented that the pre-post approach was not representative of skill development over a short time (such as a single day workshop). If an objective measurement is to be used, it would need to be analysed as an average of the total population over time. For the purposes of the workshops, the post-only sheet or the skills audit approach used by the MLA majority market programs is often most appropriate.

*Lesson: Combining component research, farming systems research, demonstration and extension in a single project allows for effective measurement of impact*

As this report has been able to demonstrate, there is significant scope to measure impact and potential impact of projects with a high level of data from research and demonstration.

### **Site design**

*Lesson: The design of demonstration sites is dependent on their intended purpose.*

Larger scale demonstrations with combinations of practices (eg. pasture species combined with grazing management) across the whole farm are effective in building skills, knowledge and confidence of producers

involved in groups. Collection of production data and demonstration of day-to-day management in the whole-of-farm context allows effective evaluation of the pros, cons and economic impact of practices on real farms. Larger scale demonstrations allow the group to explore a range of questions, stay engaged over several years, and apply skills and knowledge developed through training. Smaller (or single paddock) demonstrations are useful for creating awareness and adapting new technologies (eg. new species or specific livestock management practices) for local environments (providing confidence to adopt) and collecting data for validation of models. Smaller scale demonstrations are not as effective for engaging groups for long periods of time or demonstrating application of skills and knowledge developed through training.

#### *Lesson: Sites need to be set up on the basis of good science*

In some cases (particularly in the earlier phase of the project), sites were set up without input from the wider project to assist with design and establishment. Some of these sites ultimately stopped functioning due to lack of interest by the producer group. Groups need to be given opportunity to come up with what they want to test themselves, but input from scientists and advisors with good technical expertise is critical to set up a well designed and successful site.

#### *Lesson: Sites need to be set up with plenty of time to spare*

Several sites were set up in a rush. Adequate time (at least 6-months lead time) needs to be provided to engage the group and relevant scientists in development of appropriate research questions and site design to ensure meaningful measurement and activities can take place on the site.

#### *Lesson: Sites need to go for more than three years*

Most sites didn't get set up until the second year due to the need to establish perennial pastures. They were only just starting to reach their peak productivity by the end of the project. To develop learnings about production and persistence of perennials, the demonstrations need to go for at least five years.

### **Monitoring**

#### *Lesson: Sites with more production data and ability to conduct economic analysis were more engaging*

Examples of production data which contributed to economic analysis on sites included DSE grazing days, input costs (eg. fertiliser), and in some cases, liveweight gains. Where this data was available, it was possible to use the EverGraze Pasture Improvement Calculator with groups to assess the costs and benefits of changes, and to conduct more detailed case studies for wider impact (currently underway for 11 sites). This created significant interest. In many cases, collecting this data relied on the host producer keeping good records which wasn't always possible.

#### *Data sheets must be simple*

Several coordinators commented that the data sheets were too detailed. The monitoring protocol needs to be reviewed to ensure an appropriate methodology to provide enough data without creating a burden for the coordinator.

### **Links to EverGraze research and extension**

#### *Lesson: Supporting Sites have provided an effective two-way channel of information between researchers, public and private service providers and farmers.*

The direct interaction between EverGraze scientists, extension staff, Supporting Site groups and their coordinators played an important role in validating research outcomes, information and tools. The case studies (from site hosts and other group members) have been particularly useful to provide examples of how practices developed and/or promoted by EverGraze can be implemented on real farms. The direct participation of scientists, service providers and producer groups in making on-farm decisions for Proof and Supporting Sites has improved understanding about on-farm issues and practicalities of adopting new practices.

### **Case Studies - Supporting Sites all have something to tell**

*Lesson: On farm demonstration sites often have more messages or values than the bottom line outcome.*

There are obvious limitations to using Supporting Sites for demonstrating impact – not replicated, often no control and run over a short period so the impact of the season variability can't be taken in to account. However, there can often be lot more learnt from the sites both at a local group level as well as to the wider audience, which is why they lend themselves well to case studies. At the local level, there is all the associated knowledge and information sharing that comes with having a local site. Paddock walks with experts and sharing of similar (or dissimilar) experiences with others in the local area. At a wider level, there can be some great knowledge or 'gems' learnt from looking at what others have done, what worked and what didn't. We can also use the information that was collected from some of the sites to demonstrate costs and sums on making improvements and those impacts on cash flow. Even if the results aren't perfect for the above reasons or even relevant to other producers, the 'how to' and 'why' can be. Economic case studies developed for EverGraze look at full contract costs and impact on cash flow, what affects this and the payback period. Often producers are critical that payback periods estimated are too conservative so in some of the economic studies being done we investigate the impact of enterprise profitability; the impact of good or bad season in early years; the impact and potential cost of failed establishment; and back of the envelope versus the economists' view! A science behind the story is included to align the practices implemented to the impact achieved through research sites and to explain the how and why the practices implemented can achieve the stated objectives.

### **Funding**

*Supporting Sites need to be adequately funded for group coordination, extension activities, monitoring and reporting*

The Supporting Sites project had significantly more impact when the Caring for Our Country funding began. \$5000 was adequate for (minimal) monitoring and reporting from coordinators. The additional \$7000 over three years was useful for conducting meaningful extension activities with access to private service providers. The funding was not enough to coordinate a group to meet regularly and this did not occur where groups were not already funded through another program. A further (approx) \$5000 - \$7000 per year would be required to coordinate a regularly meeting group or conduct training. Most of the sites in this project were small-scale demonstrations of single practices and did not involve integration into a whole-farm system. The Euroa Producer Demonstration Site provides an example of where the larger scale model was implemented with multiple innovations being tested across the site. This site required approximately \$10,000 per year for monitoring plus approximately 0.1 FTE in kind from DPI to conduct data analysis, reporting and monthly updates for the producers. A further 0.1 FTE was required to coordinate the producer group. The host farmers also spent considerable time weighing cattle and recording grazing days.

*Lesson: Coordinators need to be paid to come to meetings*

Consultants will not attend meetings unless they are paid. This needs to be factored into budgets. For this project, coordinators were paid from the EverGraze Project budget to attend meetings and conferences.

### **Governance**

The partnership between Central Highlands Agribusiness Forum (CHAF) and the EverGraze project leadership (DPI Victoria) worked best when the roles were clearly defined. CHAF was responsible for the overall administration of the project including managing the relationship with CfoC, budget, reporting to CfoC and setting the parameters of the project to ensure delivery against CfoC KPIs. EverGraze project leadership were responsible for facilitating delivery through the coordinators network, including coordination of meetings, conferences, regional phone hook-ups, access to communications services and the website and provision of extension material, information and staff (including Proof Site scientists and regional coordinators) for delivery. It is important for the national project to

play a key role in managing the coordinators network to maximise the opportunity for capability building and access to information and services provided by the project.

## Key observations on the Supporting Sites project – in terms of running large scale demonstration projects (provided by QualDATA)

### Context

The Caring for Our Country funds allowed the EverGraze project to make an assessment of how to capitalise on the learnings and outcomes of Phase 1 of the Supporting Sites project and implement those in a second phase. The focus for this Phase 2 of the Supporting Sites project was on developing key concepts in order to maximise the contribution to the legacy outputs and impact delivered by the wider EverGraze project.

Key indicators for demonstrating impact of the Supporting Sites are regional recommendations and 5 key knowledge areas of feedbase, soil management, grazing systems and tactical management, livestock systems and monitoring.

### Overall learnings and observations

It is apparent that, as a result of the robust data gathered and interpreted during the Supporting Sites project, significant knowledge has been gained and insights acquired. These insights can be used to further the work of those Supporting Sites that continue on, the Proof Sites overall, the management of the EverGraze project at large, the work of the FFICRC until its conclusion and the daily operations of EverGraze participants and partners – if they choose to access the insights.

Considerable engagement, of particularly Victorian producers and Livestock Industry Advisors, is apparent with high levels of satisfaction reported in intended and unintended consequences / outcomes of the project work. A number of collaborating projects such as the MLA Producer Demonstration Sites (Euroa and Ballarat) and Yarram Landcare Healthy Soils project; and independent producer groups such as Perennial Pasture Systems, gained expertise and funding from the Supporting Sites project. This leveraged and supported an increase in the strength and robustness of their operations and personnel through training and professional development – and in areas that they otherwise may not have been able to access support.

The development and delivery of such Caring for Our Country funded technical and professional development type courses and work clearly provided great value to and amongst end user producers, next user advisers and influencer site coordinators and site hosts. This allowed for the development of training and management ‘golden rules’ which are articulated in the Impact Report section ‘EverGraze Project Team Learning’ and ‘lessons learned’. Importantly these ‘golden rules’ remain as part of the project legacy, while providing immediate feedback into the EverGraze and related projects to support their Continuous Improvement. Equally they can be related back to ‘real examples’ and case studies to demonstrate the nuances of how they work in that / those practical setting[s].

### Observations

*The Supporting Sites project has benefited localised organisations and personnel, who if not for this project, would have had significantly reduced access to professional development and technical training. This represents an important spill-over effect that most likely was unforeseen in the beginning.*

*This spill-over relates to end user producers, next user advisers and influencer site coordinators and site hosts – which is a significant value add to local communities, organisations and individuals.*

It is noteworthy that a high proportion of the Phase 2 Supporting Sites and groups have secured funding post-Caring For Our Country – to continue operations. This can be regarded as testament to the effectiveness of the program. It can be expected that, as long as there are sufficient resources, the current level of impacts, as defined in this report, can continue and be built on into the future.



### *Observations*

*The continuation of the Supporting Sites projects – sites and groups – post-Caring For Our Country funding is a testament to the effectiveness of the program. It can reasonably be expected that the current level of impacts will continue and be built on into the future.*

### **The Model**

While there appear at first glance to be inconsistencies across the Supporting Site program [numbers, localities and attendances at event and activities], it is apparent that activities have to be customised to recognise the circumstances of each site. These include geographical factors, production factors, personnel such as host farmers and access to advisers and coordinators and overall resource availability, as well as seasonal conditions.

Overall the model is composed of several key elements which contribute to the level of success of each site and the program itself, including its contribution to the wider EverGraze program:

- A host producer – while many reported positive outcomes from their interaction with the project, including developing their knowledge and skills and helping them make on-farm decisions; some needed greater support to maximise their ability to capitalise on the on-farm trial knowledge
- Engagement with Livestock Industry Advisors – who provide part of the legacy and help to expand the impact of Supporting Sites beyond those producers who directly engaged in activities. This engagement appeared significant with an estimated 224 unique Advisors involved during 2011/12
- Researcher interaction – many host producers reported value in interacting directly with researchers as did many Livestock Industry Advisors. This appeared to create leverage – with the hosts passing on knowledge to other producers, and with the Advisors supporting the legacy elements of the project by passing on knowledge to their extended client base
- Producers attending the sites – who rated the events highly (average of 4/5) in terms of their value in developing their knowledge and skills and helping make on-farm decisions, particularly in increased confidence in managing key pasture species; increased levels of soil testing and increased levels of awareness about the value of soil testing; moderate to strong gains on activity feedback sheets in the 5 key knowledge areas of feed-base; livestock systems; fertiliser use and soil management; tactical management; and grazing strategies
- Site coordinators – who reported learning and capacity gains in farmers from pasture management / farming systems to increases in their confidence and well-being and reported increased capacity in their facilitation and engagement skills, increased personal technical knowledge, and greater use of EverGraze products and increased networks
- Training and other events – which are varied across the Supporting Sites, as reported in the Impact Report
- The development of key EverGraze "products" – that were specifically reported as being most useful to Supporting Site coordinators.

### *Observations*

*From this project, the knowledge and understanding appears to exist to refine and maximise interactions with host producers, awareness about the capacity to leverage engagement with Livestock Industry Advisors to expand the reach of the Supporting Sites project, maximise the value of researcher interactions, maximise value to producer site attendees, support Site Coordinators, develop and manage training and create suitable professional development products. This knowledge has in effect contributed to, by default – and now overtly through this report – the development of some 'golden rules' regarding how to address key issues when running a project like the Phase 2 Supporting Sites project.*

### *Development of 'golden rules' / key learnings into a formal 'legacy'*

Through the Supporting Sites program, the key project personnel were able to report specific learnings which can be translated into their own work programs and those of others such as Coordinators [who might be employed in more isolated settings and as a result of the program have achieved higher professional development levels than otherwise might have been expected]. The project also contributed to 'corporate knowledge' and legacy impacts on both the FFICRC and its partners / participants [that provide the key personnel who have been involved in this program].

A number of training and operational 'golden rules' have been and can still be developed. They will in turn support the continuing Supporting Sites, future 'Supporting Sites like-projects' and future larger practical demonstration focused projects. Effectively this creates a 'future large scale demonstration project framework' that can be used to rapidly create and roll-out systematically a similar initiative.

The EverGraze team provided a range of learnings about the Supporting Site approach based on their experiences. Examples included: the need for regular group meetings; the importance of structured training associated with sites; the need to clearly define researchable questions for the site; the value of having hosts who were farming leaders; and the need for coordinators to have strong facilitation skills as well as technical skills.

Lessons from the Supporting Sites project is expected to be incorporated into the design of future FFICRC and partner work. The initiative also creates opportunities to capitalise on momentum and relationships developed between DPI Vic, CHAF, CfoC and other organisations involved in the project.

#### *Observations*

*The learnings, 'golden rules' and corporate knowledge [if appropriately retained] provide the opportunity to readily replicate the Supporting Sites concept into a new iteration should that be required in future.*

Similarly details of Caring for Our Country Supporting Sites, their groups and outcomes/lessons from demonstrations will be accessible from regional packages on a new EverGraze website by the end of 2012 – including 12x case studies from the best sites with full economics from some and personal stories of changes undertaken in others.

These packages are expected to include links to science and implementation of R&D outcomes on-farm. They are expected to include materials on training activities – based on real life examples developed during the Supporting Sites project.

#### *Observations*

*These key learnings will all contribute to the creation of legacy materials such as training, professional development and case study materials that can exist well into the future.*

Consideration has been given to how to continue the initiative. DPI Vic is currently developing a framework to support a coordinated network of key personnel with a package of funding. The value of this initiative is to connect the coordinators and their groups to science, experts and training, as well as providing opportunities across sites for collaboration into the future.

#### *Observations*

*The continuation of the initiative ideally requires a 'champion' and it appears that DPI Vic is prepared to take on that championing role.*

