

Overview

EverGraze achieves impact within farming systems complexity

Wagga Wagga Proof Site. Flexible livestock and pasture systems made the best of good years and minimised losses in dry years.

After actively collaborating with more than 250 research scientists, extension professionals and lead farmers, and delivering more than 630 events engaging about 7800 farmers across southern Australia, *EverGraze* can justifiably lay claim to achieving its goals... but it's done far more than that.

Key points

- The *EverGraze* project has delivered regionally-relevant, evidenced-based options which farmers across southern Australia can readily adopt into their complex farming systems.
- The *EverGraze* website allows users to quickly address specific issues and challenges with confidence.
- Feedback from farmers, researchers and advisors indicates that *EverGraze* has been a success; building trust in the science behind the key messages through a systems-focussed, evidence-based approach.

EverGraze has left a lasting legacy, not only on livestock systems across the country, but also on future approaches for research, development and extension programs on a national scale.

National *EverGraze* Project Leader Kate Sargeant believes the *EverGraze* team has nailed the complexity that exists in livestock production systems and, with a solid understanding of the factors that impact on adoption on-farm, is delivering evidence-based outcomes in an accessible format, which is impacting positively on farming businesses nationwide.

"We have developed a way to present complex information and deliver the tools farmers need to build more productive, profitable, resilient and sustainable livestock production systems," she said.

"The result is we have already affected practice change with a return on investment of 9:1 — and our impact is far from being over!"

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

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Creightons Creek *EverGraze* Supporting Site, north-east Victoria, found that it was more cost-effective to rejuvenate a degraded phalaris pasture with fertiliser, weed control and grazing management than establishing new pasture.

Meeting the challenge

As anyone in the extension game will tell you, achieving practice change on-farm is challenging.

“Every farm has unique physical attributes including soils, landscape and environment and every farmer has a personal management approach highlighted by specific goals, lifestyle choices, enterprise setup and existing practices,” Kate explained.

“We know that when they make investment decisions, farmers consider the cost and potential impact of each option in terms of profit, risk, environment and lifestyle implications. They compare these with other competing options or current methods that fit into their existing management philosophy.

“Overlaying this, farmers consider whether innovations are relevant to their region.”

“Traditional agricultural research often focuses on individual components of the system, such as pasture species, agronomy, grazing techniques or genetics. Resulting information often doesn’t consider the practicality or potential cost, profit, risk and/or environmental impact on farm businesses of integrating the new technology.

“The *EverGraze* approach is different — it recognises that farmers need clear, consistent, evidence-based messages that are relevant regionally and applicable on-farm. They also require ongoing support to provide skills and confidence to make the change,” she said.

As such, *EverGraze* used a collaborative approach to develop common understanding between farmers, advisers and scientists.

“The result is research based on regionally-relevant evidence of profit, risk, environment, lifestyle and farm management impact of practices,” Kate said.

Driving principles

With an understanding of the complexities of farming systems and research approaches, throughout the project, the *EverGraze* team maintained a focus on three key principles (see Figure 1):

- The right perennial plant put in the right place for the right purpose with the right management, improves profitability and natural resource management simultaneously.
- Strategic investment in perennials needs to be combined with high-performance livestock and optimum tactical management to achieve desired outcomes.
- The right combination of perennial species across the farm and their management creates flexibility and options to reduce seasonal risk and create market options.



Mooneys Gap *EverGraze* Supporting Site, south west Victoria, tested the value of lucerne and phalaris pastures for a prime lamb enterprise.



Northwood *EverGraze* Supporting site group investigated alternative pastures options to tackle challenging climate and difficult soil types.

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Figure 1. The *EverGraze* approach

*Right Plant, Right Place,
Right Purpose,
Right Management*



Regional advisory groups and demonstration sites driving direction and application of research and testing in local environments.



Development of new species and farm practices.



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Investments in water, wire and perennial pastures improved grazing management at the Tallangatta Valley *EverGraze* Supporting Site, Northeast Victoria.

EverGraze's six research (Proof) sites tested new farming systems on a large scale and ensured a wide range of national issues and grazing districts were considered and investigated.

Farm and catchment-scale modelling was used to apply the *EverGraze* principles to local environments and a network of more than 60 on-farm demonstrations and 60 farmer case studies helped adapt research findings from the Proof Sites to local environments and quantify the potential benefits in a regional context.

Regional advisory groups for each site, comprising lead farmers, consultants, extension staff and scientists also played an important role in advising on the tactical decisions on the Proof Sites throughout the project, and challenging the researchers to interpret the results in a way that was reflective of their experience, and would support on-farm adoption.

Simultaneous to Proof Site research, *EverGraze* developed a range of innovations, including new species and cultivars, novel uses of existing species and new management approaches, to provide farmers with more options to enhance their farming systems across a broader range of environments.

Proof Site models were then used to determine the potential applications of these innovations and to test the systems under a range of season, market and management conditions.

"This modelling phase has allowed us to better explain the results from the Proof Sites and develop the regional packages now available online," Kate said.

A hierarchy of products

As the project draws to a close, the diverse package of available resources borne out of *EverGraze* is substantial (see Figure 2).

"The project has so far published 28 journal papers, 83 conference papers, and 17 modelling reports," Kate said.

"These have been combined with inputs from regional advisory groups, case studies and demonstration sites to develop 30 'key message' web-pages from our Proof Sites that are evidence-based, systems focussed and relevant to farmers."

The key messages, together with information developed from research outside *EverGraze*, underpin all of the recommendations farmers can now freely access on the *EverGraze* website (see Figure 2).

"The fundamental principles that underpin on-farm gains across pasture improvement, livestock systems and grazing management are represented in the *EverGraze Exchanges* available on the website," Kate explained.

"The *Exchanges* provide clear messages, key principles, options and processes to address issues individual farmers may identify by working through the process outlined in the *EverGraze Exchange – Making strategic decisions*.

"The *Exchanges* provide the 'guidelines' for managing a grazing system and will be built on or refined with new research over time.

Regional packages draw on principles and key messages to present regionally-relevant options to address broader industry issues in a whole-farm-systems context.

Examples of issues *EverGraze* has addressed include:

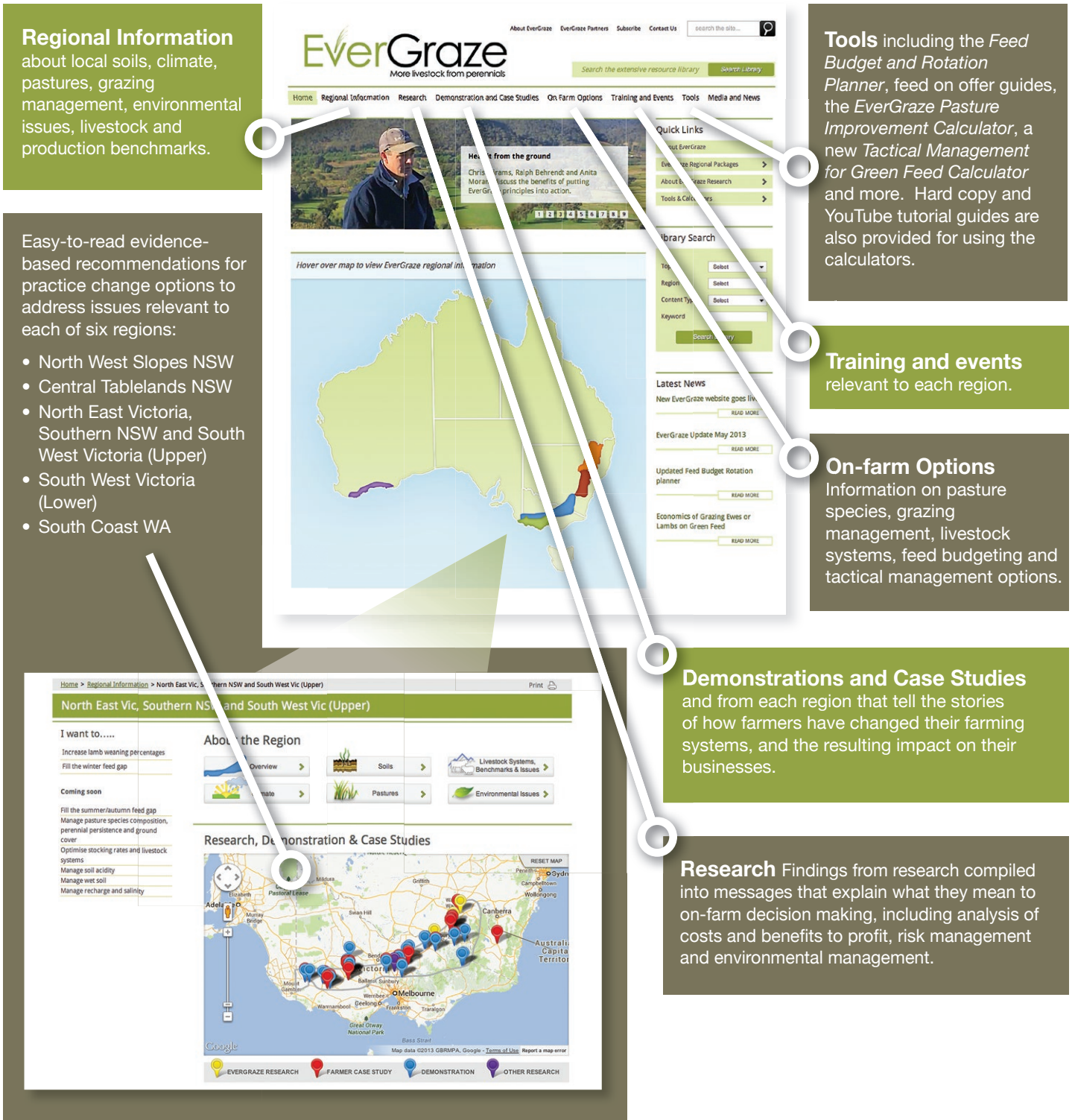
- Managing recharge and salinity
- Increasing flock marking percentages (strategies for improving conception and survival)
- Filling the summer and winter feed gaps
- Managing variable seasons
- Managing wet soils
- Managing ground cover, composition and persistence of native and introduced perennials
- Getting sub-clover back into the system.

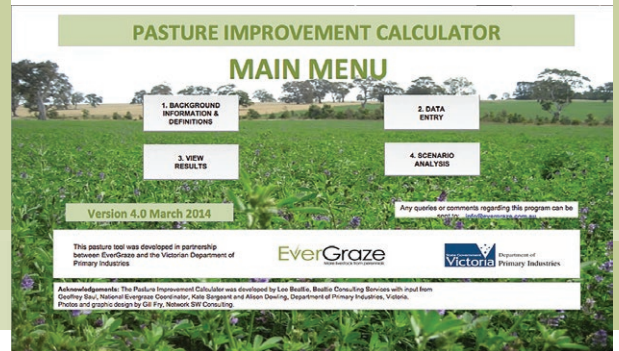
"*EverGraze* fact sheets are referred to from the packages and are combined with those developed from other projects to present the 'how to' details for implementing specific management practices on farm," Kate said.

"The unique design of the *EverGraze* project and the new website allows for all our products to link together and be built on through time, maintaining an evidence-based and systems focus, which instills credibility, relevance and associated confidence in decision-making," Kate said.

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Figure 2. A hierarchy of products





EverGraze produced a range of tools and calculators to assist producers to make informed decisions for their enterprise.

Widespread support

Understandably the *EverGraze* team is thrilled with the achievement of the project to date, but a rigorous process of evaluation indicates that researchers, advisors and farmers alike are just as excited about the process and the results.

Feedback from *EverGraze* participants along the supply chain has been both instructive and supportive for the project.

From the farmers

“This is the first time we’ve managed to match the pasture system to the animal system and not the other way around. Gives you greater flexibility — can increase your stocking rate to utilise more feed”

“People are too busy doing and they don’t step back and look at how they can do things differently if they change the system. *EverGraze* makes you step back and look at your system.”

“The big thing about *EverGraze* to me — it married the researchers with the advisers with the farmers – the researchers could talk the language of the farmers and vice versa”

“The (Whole Farm Grazing Strategies) course brought all the bits of a complex farm system together and we could see how they interacted and the impact of change on the whole farm not just one component”

“... the *EverGraze* Exchange on strategic decisions all about the process for change management, (it’s so important) because farming is so complex and there’s so much info coming that there is a close-down of the brain.”

There is so much noise that if there isn’t a plan and process, people just get overwhelmed and do nothing. The process provides the plan”

From the researchers

“As a scientist I tend to report into boxes but I now understand the importance of putting it together to tell the whole farm system story.”

“I would say that the stand-out outcome has been the resolution of the key messages process. We have a much better outcome with a wider spectrum of involvement than if any of us had tried to do this in isolation. The outcome is substantially better than if done in isolation.”

“A producer perceives the outcomes differently from the researcher and they can feed off each other to get a higher level of understanding. The person in the middle — the extension person plays an important role too”.

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Hamilton Proof Site — Putting *EverGraze* principles into practice increased profit by more than 50% and significantly reduced groundwater recharge.

From the service providers

“It’s been a highlight to approach a farming system on the ground — it’s one thing to do something in a glasshouse or a lab. ...to try to integrate all the elements and make meaningful messages for farmers is rare and very valuable. It’s not easy but it’s a highlight to approach key messages and get meaningful outcomes — that’s been a highlight.”

“The concepts and messages developed (from *EverGraze*) couldn’t emerge from component research. Farmers want the integration of all the different aspects of farming because farming is very complex and there is a need to fine tune the system because the cost of production is continuing to rise”

“... it has consolidated all the ‘bits’ of a grazing enterprise in my mind, providing me with clarity around common changes, the financial and social impacts and implications to the rest of the farm.

This has given me confidence to ask the question ‘why’ and ‘have you considered’ and ‘do you know your current level of production from...’. I have good benchmarks when it comes to stocking rate, growing season, soil fertility, lambing and calving time and some of the financial implications for some key changes that are often made etc. The most valuable way to consolidate this was by developing scenarios and testing them with farmers... They have been like a QA process for some of this info”.

And to sum it all up...

“*EverGraze* is providing the confidence to make changes on farm”

(Farmer, Hamilton, Victoria) ■

For further information

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Erica Ayres and Phil Cleghorn’s *EverGraze* Supporting Site near Esperance, used kikuyu to provide out season feed and stabilise paddocks.