

Keeping you up-to-date with progress and developments in EverGraze

Welcome to the first e-newsletter issued to subscribers from our new EverGraze website. Issued quarterly, EverGraze Update welcomes your feedback, contributions and comments.

You are receiving this hard copy via post as we do not have an email for you. If you register your details online at www.evergraze.com.au we will mail updates and information about field days and workshops to you, and you will receive information much sooner.

EverGraze is developing new grazing systems to increase profits and improve catchment health. With more perennials and better livestock, EverGraze aims to increase profitability of livestock enterprises by up to 50% while simultaneously improving natural resource outcomes of improved water management, perenniality, biodiversity and soil health.

There are experimental sites in Western Australia, Victoria and New South Wales, with a network of Supporting Sites evaluating new ideas on farms.

EverGraze is a Future Farm Industries CRC, MLA and AWI research and delivery partnership.



In this issue

New EverGraze website launched

www.evergraze.com.au is the place to find out all about EverGraze Proof sites, Supporting Sites, field days and fact sheets. It is updated monthly and will build into the site for the latest information on new innovative grazing systems. Bookmark the site today or subscribe on the website to receive this newsletter online.

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Supporting Sites

First Namoi site established

The Namoi CMA has five approved EverGraze Supporting Sites spread throughout the eastern part of the catchment. The first Site approved is at Tambar Springs about 70km SW of Gunnedah. This site has been set up to investigate the effects of grazing management, annual pasture legumes and fertiliser on native pastures.

The property, owned by Mac and Robyn Howarth, comprises cropping on the flat country and grazing on the slopes and hills. The Howarths are looking to improve the quality and quantity of their native pastures to maximise production in their self-replacing merino and crossbred sheep enterprises.

"We would like to see the number and quality of the desirable native perennial species increase with the goal of being more profitable, while at the same time, increasing groundcover for benefits like reduced soil erosion, and better water use efficiency." said Mac.

More information from Simon Turpin, Catchment Officer - Soils, Namoi CMA Gunnedah, T (02) 67 429 212 E: Simon.Turpin@cma.nsw.gov.au



Riverina Highland Landcare Group

A group of landholders from the Riverina Highlands Landcare Group together with the Murrumbidgee CMA are aiming to better understand how perennial pastures grow in their local area.

The objective is to develop pasture growth curves for perennial pastures growing in the area, towards better matching animal production to pasture growth. The project will examine factors affecting pasture growth including local rainfall variation, species composition of different pastures and the impact of aspect.

At each property, landholders have chosen either an introduced or native perennial pasture paddock containing six metre square stock exclusion cages. Each month the landholder cuts and weighs pasture from the cage and a sample is sent to a laboratory where pasture quality is measured.

The Riverina Highlands project has been active for nine months and may continue for another twelve, depending on funding. Data collected will be used to inform local land managers of perennial pasture growth rates under different conditions. At the end of the project the data will be made available to improve fodder budgeting, and may help feed risk management during times of low pasture growth.

Contact Murrumbidgee CMA Project Officer Janelle Jenkins (02) 69402944 Janelle.Jenkins@cma.nsw.gov.au

South Australian Supporting Sites making a start

Pasture Evaluation on Kangaroo Island

There is strong interest on Kangaroo Island in the potential role of summer active perennials, for both production and land management purposes. A site at Trevor and Lyn Bolto, and son Colin's property with established pastures of Kikuyu and Rhodes Grass will be monitored and compared to the district average pasture (mostly annual grasses and sub clover).

The site is in the Hundred of MacGillivray, a region with salinity issues and lighter soils where summer active perennials could have an important role to play.

Fleurieu Peninsula Supporting Site

A site has been selected on a beef property owned by Austin Johnson at Back Valley, just west of Victor Harbor. Kikuyu has been grown in the Back Valley area for over 70 years, but has always been considered a weed by some, and a valuable pasture plant by others.

The nutritive value of this site will be monitored and compared to the district average pasture on similar deep sandy soil with 625mm rainfall - consisting of annual grasses and sub clover. Additionally, management guidelines will be established to enable the best possible meat production to be gained from kikuyu based pastures.

Information will be extended through the Fleurieu Beef group, and the Adelaide and Mt Lofty Ranges NRM Board

Contact for SA Supporting Sites: Tim Prance Senior Consultant, Pastures and Grazing Systems, Rural Solutions SA
T: (08) 8552 8058 E: prance.tim@saugov.sa.gov.au

Soil test results in for NE Victoria

Soil test results from the eight Supporting Sites in North East Victoria are in. Lime and super will now be applied to four sites including Tallangatta Valley, Cudgewa, Cobungra and Taminick where pastures are to be renovated with a mix of perennial species including phalaris, winter and summer active fescues, lucerne and chicory in various combinations, yet to be finalised. Liming and supering of sites is expected to be completed by March.

The other four Supporting Sites in the Murrumbidgee, Killawarra, Indigo, and Benambra regions will focus on improving current native and introduced pastures through grazing management alone. Subdivisional fencing on a number of sites are going up, so upper slopes can be grazed differently to lower slopes, in particular allowing grazing rest and stock rotation though the paddocks.

Draft management plans have been drawn up for each of the eight sites, which will be finalised once pasture mixes and site mapping is confirmed and completed.

More information from Jim Moll, Sinclair Knight Merz, T: (03) 57215291 , E: jmoll@skm.com.au

WA Supporting Sites established in Warren River catchment

Four properties have been chosen to host EverGraze supporting sites in the 4000km² Warren River catchment in WA. The Warren is the third largest river in the south-west and is a priority salinity recovery catchment, with a target of potable water by 2030.

Clearing bans came into effect in this catchment in the late 1970s, and along with a large increase in blue gums in recent years; salinity has begun to level-off. WA Department of Water modelling suggests that a further 15,000ha of perennial pastures in the upper catchment could further reduce salinity in the lower catchment to near-potable levels.

A ground works project to ramp-up perennial farming know-how in the catchment is underway. The Warren Perennials Project is establishing over 2000ha of perennial farming systems on 36 farms in 2007 and 2008. Four of these sites will host further pasture monitoring as Evergraze supporting sites. These are:

- Gorter family, "Tamasha" 600mm rainfall, crossbred lambs, some cropping. Inter-row chicory and lucerne (35ha)

established September 2006

- Mottram family, "Rockbridge" 900mm rainfall, beef cattle on summer-active tall fescue (15ha) sown autumn 2007
- Dorrell family "Clover Lea" 800mm rainfall, beef cattle on kikuyu (12ha), sown September 2007
- Simpson family "Koja" 550mm rainfall mixed farm, wool, lambs, some cattle, cropping. Kikuyu (35ha) established in September 2007

Evergreen Farming WA (a producer driven group) has been contracted to carry out the pasture monitoring work at the Evergraze supporting sites.

Support will be provided by Greg O'Reilly, WA Dept. of Water E: greg.oreilly@water.wa.gov.au or T: 08 9771 1878.

Proof Site News

Northern NSW Proof Site progressing on farm assessments

EverGraze research in the Namoi and Border Rivers-Gwydir CMA regions of northern NSW began in winter 2007 with the on-farm assessment and monitoring of sheep condition (fat score) and pasture availability for individual mobs of wethers, ewes and lambs on 18 commercial properties.

Together with the farm monitoring program, surveys have also been distributed to producers in the region to determine current practices, stocking rates, grazing methods, pastures sown, fertiliser use, animal production levels and attitudes in the grazing industries.

Nick Schultz, a post graduate student at the University of New England has started to examine the relationship between production, profit and biodiversity to see if trade-offs on one part of the farm can be compensated for by gains on another part of the farm. A major outcome will be a biodiversity tool that producers can simply use to monitor and assess biodiversity on their farm.

Field studies have also started to assess the role of lucerne as a pasture mix when sown with perennial temperate or tropical grasses, chicory or subterranean clover. As part of the EverGraze project, modifications to the SGS Pasture Model that have already been implemented include a beef cattle module and the use of 100-year daily climate data files to assess the impacts of climate variability on different stocking rates and grazing methods.

For further details: Greg Lodge, DPI NSW - Tamworth, T: (02) 6763 1176, E: greg.lodge@dpi.nsw.gov.au

Orange Proof Site Panuara experiment launch

The Orange Proof site has recently commenced the Panuara experiment, an event which will be marked with an official opening on the 13th of February. The opening is an opportunity for members of the public to visit the site and learn more about the research objectives.

The experiment will investigate how grazing system (Low intensity: set stocked; Medium intensity: a four paddock rotational grazing system, and High Intensity; a 20 paddock rotational grazing system), soil fertility and position in the landscape influence productivity of pastures and animals to improve both farm profitability and natural resource outcomes.

For further details contact Warwick Badgery: (02) 6391 3814 or E: warwick.badgery@dpi.nsw.gov.au

Latest Results

Albany - lamb performance on a range of summer-active perennials

Lambs were weaned on the 10 October 2007 and rotated through a series of mostly summer-active pastures consisting mostly of chicory, lucerne, kikuyu and setaria/panic.

By late November the chicory, lucerne pastures had been consumed and regrowth was slow due to lack of soil moisture. As a consequence the lambs were fed lupins on the kikuyu until sufficient feed had accumulated on the chicory paddocks following good rains in December.

Unfortunately much of the lucerne growth was removed by wingless grasshoppers.

For the period from October until January lambs gained on average 96g/head/day. Given that the annual pastures had senesced by October the growth of lambs on chicory and lucerne in late October and early November was impressive.

Kikuyu played a critical role in reducing the amount of supplement required and provided a safe pasture on which to feed the lambs. Total rainfall for October, November and December was 71mm, 5mm and 33mm respectively.

In the absence of perennial pastures it's likely that the lambs would have been fed more supplement and been lighter. In January so far the site has only received 6mm so unless there is a substantial rainfall event soon the lambs will be quit in February.

Date	Days since weaning	Average liveweight (kg)	Weight Gain (g/day)	Pasture Grazed
0/10/07	0	29.3		Weaning
4/10/07	14	32.3	210	Lucerne, kikuyu, tall fescue and annual pasture
7/11/07	28	35.5	231	Chicory
1/11/07	42	36.1	42	Chicory, lucerne and annual pasture
8/11/07	49	37.7	229	Kikuyu, setaria/panic plus lupins @ 120g/hd/day
0/12/07	61	39.1	117	Kikuyu plus lupins @ 330g/hd/day
4/12/07	75	37.1	-133	Kikuyu plus lupins @ 330g/hd/day
4/01/08	96	38.5	65	Chicory

More information from Paul Sanford, DAFWA Albany, PSanford@agric.wa.gov.au

Albury Wodonga – Lambs sold off Chiltern experiment

The first lambs were born at the Chiltern experiment in September 2007. The first cross lambs were from high performance maiden Merino ewes, joined to Border Leicester rams.

Using a breeding flock in the experiment means researchers can capture economic benefits and better gauge the potential productivity of a system.

The ewes were shorn in August with average fleece weight of 5.1 kg (range of 3.7 to 7.0 kg), with an average fibre diameter of 18 micron (range of 15.6 to 20 micron). The average birth weight of the lambs was 5.8 kg (range of 3.7 - 7.1 kg).

In December 2007, 113 lambs (59 wethers and 54 ewes) were sold at Corowa. The ewe lambs made \$50.00/head and wether lambs \$30.60/head. The average lamb weaning weight was 21.4 kg (range of 11.0 to 36.0 kg).

Although these results cannot be assigned to treatments, as ewes were only allocated to plots just prior to lambing, it does show the value of elite genetics and native pastures.

More information from Meredith Mitchell, DPI Victoria, Rutherglen: meredith.mitchell@dpi.vic.gov.au



Photos taken at the opening of the Chiltern Site late in 2007



Wagga Wagga - summer rainfall makes a difference

2007 was again much drier than average, with 476mm recorded at the Wagga site, 100mm less than the average at Wagga airport, and 150mm less than what we estimate to be long-term average rainfall for the site.

Rainfall in June, August, September and October was well below average, consequently spring growth was much lower than average, with all pastures having an estimated total herbage mass of approximately 2T/ha in early November, and green

FOO being less than 0.4T/ha in all pastures except lucerne at this time. At that stage we anticipated feeding sheep in the higher stocking rate treatments by the end of the year.

However, 160mm fell during November and December (70mm above average), so lucerne growth was exceptional, and combined with 50mm to date in January it should ensure sheep in all treatments will not require supplementation within the next month.

Lucerne green FOO will be well in excess of 1T/ha for the February joined treatments. We were also able to finish lambs from the lower stocking rate systems, selling the July-born crossbreds (Split joining system) in early January at an average liveweight of 55kg, and the July-born merinos (self-replacing merino system) at an average of 42kg.

At the January weighing, average ewe condition score exceeded 3.0 in all treatments, so ewes are in excellent condition for joining.

Does grazing Chicory and lucerne boost ovulation rates?

The ovulation rate study is underway again, with ewes averaging condition score 3 when they were allocated to plots. Green FOO on the chicory and lucerne plots was much greater than in previous years, so shortly we will be able to answer the question of whether providing more green feed just prior to oestrus results in a greater ovulatory response.

More information: Dr Michael Friend, Charles Sturt University, Wagga Wagga, E: mfriend@csu.edu.au or T: (02) 6933 2285

Calendar and Events

New EVERGRAZE website up and running

Our new website is up and running, go to www.evergraze.com.au for information on all our Proof Sites. You can also check out the details for individual Supporting Sites.

Cavendish Victoria – Lucerne and Chicory Field Day 28 March

A range of speakers on lucerne and chicory at Don Price's property near Cavendish. Speakers include local producer Don Price, DPI EverGraze Agronomist Steve Clark will discuss performance, DPI's Dion Borg will cover techniques for establishment, and animal management will be covered by David Watson.

More information and RSVP for catering purposes to Anita Morant, Department of Primary Industries Hamilton. T: (03) 5573 0732, E: Anita.Morant@dpi.vic.gov.au

Kikuyu focus of Kangaroo Island farm walks

Paul Sandford (Site Leader at EverGraze's Western Australia Proof Site) and Morgan Sounness (Producer member of the WA Regional Advisory Group) who will share their experience with kikuyu with South Australian producers in March.

In the lower SE, Tim Prance is organising events on Monday 17 March and Tuesday 18 March, with three farm walks on Kangaroo Island on 19 March.

The Kangaroos Island farm walks are scheduled for:

- 11.00 am Trevor and Lyn Bolto and son Colin - Evergraze site
- 1.45 pm Dean and Janette Modra - large scale plantings of kikuyu over many years
- 3.30 pm Tom Willson trial plantings Rhodes grass and Kikuyu, sown late 2007
- 7.30 pm Public meeting at the Kingscote Bowling Club

Contact for the lower SE events is Tim Prance: E: prance.tim@saugov.sa.gov.au or T: (08) 8552 8058

Contact for KI farm walks is Lyn Dohle: E: Dohle.Lyn@saugov.sa.gov.au or T (08) 8553 4949 BH or (08) 8553 2487 AH

New publications

EverGraze brochures are available for the Namoi and Border Rivers Gwyder NSW (Tamworth) Proof Site and the Central Slopes NSW (Orange) Proof Site. The brochures will be available on the EverGraze website www.evergraze.com.au/information

Check out two other new publications available via the MLA web site at www.mla.com.au/lambfinishing associated with lamb finishing: *Best Practice for Production Feeding of Lambs: A Review of the Literature*. Or the recent booklet that is a summary of the Literature Review – *A Producer's Guide to Production Feeding for Lamb Growth*.